

This meeting will accommodate virtual and in-person attendance. Those desiring to participate virtually are encouraged to join the meeting via Zoom using the information provided. The meeting will be broadcast via Zoom, City View Channel 192, on the City's website, and on the City's YouTube Channel.



Agenda
Hearing Examiner Meeting
Thursday, September 15, 2022
Richland City Hall ~ Council Chamber
625 Swift Boulevard
[Zoom](#) ~ Public Telephone Access: (206) 337-9723 or (253) 215-8782
Meeting ID No. 872 2126 7401

Hearing Examiner: Gary McLean

Staff Liaison: Planning Manager Stevens

Public Hearing - 6:00 p.m.

Public Hearing Explanation:

New Business - Public Hearing:

- I. S2022-102 Halara Hills Preliminary Plat

Adjournment

The next Hearing Examiner Meeting will be scheduled as needed.

This meeting is broadcast live on CityView Channel 192 and online at ci.richland.wa.us

Richland City Hall is ADA accessible. Any individual who has difficulty attending the meeting in-person may request to provide comments remotely. (Ch. 42.30 RCW) Requests for sign interpreters, audio equipment, and/or other special services must be received 48 hours prior to the meeting by calling the City Clerk's Office at 509-942-7389.



HEARING EXAMINER AGENDA ITEM COVERSHEET

Meeting Date: 9/15/2022

Agenda Category: New Business - Public Hearing

Prepared By: Mike Stevens, Planning Manager

Subject:

S2022-102 Halara Hills Preliminary Plat

Department:

Development Services

Recommended Motion:

Approval subject to conditions.

Summary:

Pahlisch Homes LLC has filed a preliminary plat application to divide 59.29 +/- acres into eighty-two (82) residential lots together with eight (8) tracts (open-space and stormwater runoff control). The neighborhood is to be known as the plat of Halara Hills. Access will be provided with the extension of Strawberry Lane into the site that will tee into a loop road formed by new roads: Lamont Street and Redtail Loop.

Attachments:

1. Halera Hills Vicinity Map
2. S2022-102 Complete Halara Hills Staff Report

Vicinity Map

Item: Halara Hills
Applicant: Pahlisch Homes
File #: S2022-102



0 250 500 Feet



Legend

-  City Limits
-  Site Area

**CITY OF RICHLAND DEVELOPMENT SERVICES DIVISION
STAFF REPORT TO THE HEARING EXAMINER**

GENERAL INFORMATION:

PROPOSAL NAME: Halara Hills - Preliminary Plat

LOCATION: Immediately west of the westerly terminus of Strawberry Lane
and south of Highway I-182

APPLICANT: Pahlisch Homes

FILE NO.: S2022-102

DESCRIPTION: Request to divide 59.29 +/- acres into 82 single family
residential lots and eight (8) tracts.

PROJECT TYPE: Type III Preliminary Plat

HEARING DATE: September 15, 2022

REPORT BY: Mike Stevens, Planning Manager

RECOMMENDED
ACTION: Approval subject to completion of proposed conditions

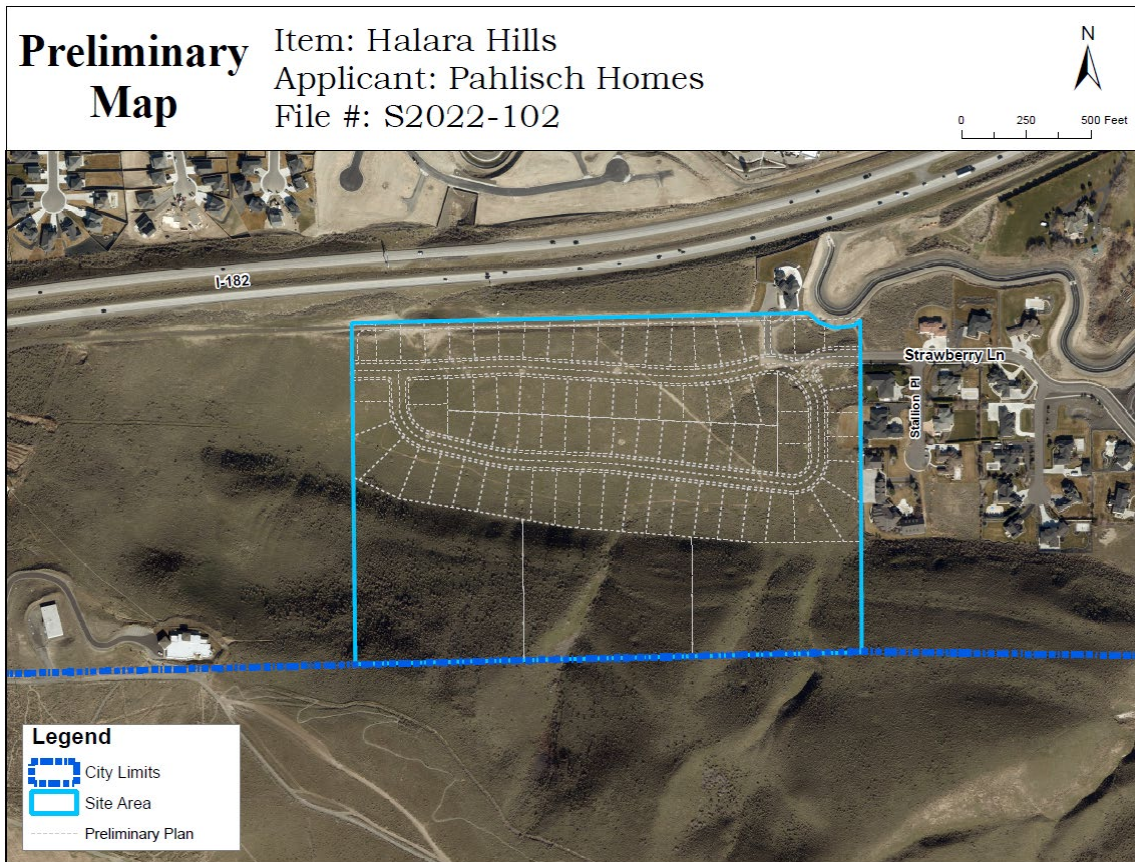


Figure 1 - Vicinity Map

DESCRIPTION OF PROPOSAL

Pahlisch Homes LLC has filed a preliminary plat application (Exhibit 1) to divide 59.29 +/- acres into eighty-two (82) residential lots together with eight (8) tracts (open-space and stormwater runoff control). The neighborhood is to be known as the plat of *Halara Hills* (see Exhibit 2). Access will be provided with the extension of Strawberry Lane into the site that will tee into a loop road formed by new roads: Lamont Street and Redtail Loop. Although the plat forms a loop now, the design offers opportunities for a westerly extension.

The Halara Hills preliminary plat site is comprised of three narrow rectangular parcels, approximately 20-acres each, which form a larger rectangle. Site boundary mapping above shows an irregularity in the uppermost right-hand corner when in fact the ownership boundary forms a 90-degree corner within the irrigation canal. Of the 60 acres, lands therein can be broadly divided into either hillside or foothills.

Because the southerly portion of site rises so abruptly, development is being consolidated in the northerly portion of the site where land is comprised of a series of more moderately sloping, rolling hills. These hills are the result of Badger Mountain hillside watershed drainage patterns. The primary natural drainage channel cuts

through the site from mid-point on the south line, to the northeast corner, directly toward the irrigation canal.

Proposed lot sizes range from 11,199 square feet to 25,028 square feet; with an average lot size of 15,962 square feet. The overall parent site is comprised of three parcels totaling 59.29 +/- acres in area [hereinafter sometimes referred to as 60-acres].

Land east of Halara Hills is developed with a single-family neighborhood comprised of a few subdivisions including Country Estates, Country Heights and a handful of short plats. This immediately adjacent residential neighborhood of Country Estates is zoned Suburban Agriculture (SAG), a zone which imposes a 1-acre minimum lot size. Running through a portion of Country Estates, Strawberry Lane currently terminates at the easterly boundary of the Halara Hills site and is planned to be the sole point of access to and from the proposed plat. Halara Hills would be a continuation of the immediately adjacent single-family residential development patterns to the east, although Halara Hills offers smaller lots. A notable difference between the two neighborhoods would be Halara Hills having roadways developed to City road standards, whereas many roads to the east lack curbs, gutters and sidewalks. In that way, Halara Hills will more closely mirror the White Bluffs neighborhood directly north of Halara Hills on the opposite side of highway I-182. Strawberry Lane however, is developed with sidewalks.

GENERAL INFORMATION

SURVEYOR: STRATTON SURVEYING & MAPPING
ANNEXATION DATE: JUNE 20, 2006
COMPREHENSIVE PLAN: LOW-DENSITY RESIDENTIAL (0 TO 5 DWELLING
UNITS PER ACRE)
CURRENT ZONING: R-1-12 (SINGLE-FAMILY RESIDENTIAL)

PROJECT DATA

GROSS PLAT AREA: 59.29-acres
NET PLANNING AREA: 30.26-acres
NUMBER OF LOTS: 82
NUMBER OF TRACTS: 8
LAND FOR STREETS: 5.31-acres
AREA OF TRACTS: 23.72-acres
GROSS DENSITY: 1.42 units/acre
NET DENSITY: 2.78 units/acre

GENERAL BACKGROUND/SITE HISTORY

Annexed into Richland in 2006 (Ord. 19-06), the 60-acre project site is undeveloped land vegetated with grassland/sagebrush steppe. A dirt road extends west from the Strawberry Lane dead-end and continues parallel to the full length of the north property line. This dirt road contains an 18-inch municipal sewer line with several manholes. A Badger Mountain Irrigation District irrigation water line parallels the sewer line. The site contains no other apparent evidence of prior development. The

sewer line is secured by utility easements, recorded between 2011 and 2013, benefitting NorAm Investments LLC (Exhibit 3 title report). Said sewer line was necessary in order to service development of the Badger Mountain South Master Planned Community.

This general area is one of the driest climates within the Columbia Plateau with annual precipitation averaging between 7 to 10 inches. The present-day landscape is characterized by sagebrush steppe grasslands in addition to irrigated agriculture lands and to a much smaller extent, developed urban lands. The absence of shrub cover and dominance of non-native grasses often points to fire or historic agriculture disturbance. It is worth noting that approximately 250 acres on the south side of Badger Mountain caught fire in 2010. City Planning staff observed evidence of past brush fire(s) in the form of burned stumps and burned bunchgrass tufts. The WDFW priority habitat and species database has the site mapped as potentially containing priority shrub-steppe habitat as well as potential habitat for Townsend's ground squirrels. The Fish and Wildlife Habitat Conservation Area report for the site is included as Exhibit 5. The property shares its northern property boundary with the Badger Mountain Centennial Preserve which is regulated as Fish and Wildlife Habitat Conservation Area (FWHCA) by the City of Richland.

Ladera Preliminary Plat - 2020

The subject site was subject to a previous application that was commonly referred to as the Preliminary Plat of Ladera and was ultimately denied by the Hearings Examiner (File No. S2020-103). The Preliminary Plat of Ladera consisted of 101 lots and 3 open-space tracts. Issues identified by the Hearings Examiner which were identified as the basis for the previous denial are summarized as follows:

1. The Hearings Examiner concluded that the previous application incorrectly applied and did not satisfy the density transfer standards in RMC 22.10.400.
2. Secondary emergency vehicle access (SEVA).
3. The Hearings Examiner determined that the previous plan conflicted with the public interest by leaving substantial acreage of non-buildable steep slopes under private ownership creating the potential for many individual code-enforcement problems for City staff.
4. The Hearings Examiner found conflicts in the Critical Areas Report relative to other evidence and testimony in the record, specifically from Michael Ritter, the Washington Department of Fish and Wildlife (WDFW) habitat biologist covering this region of Washington State.

PHYSICAL FEATURES

The project area is currently undeveloped rangeland with access gained using a gravel road that runs along the northern boundary of the properties. The topography of the site ranges from gently rolling to very steep. The southern portions of all three tax lots include the lower portions of Badger Mountain with slopes that approach a grade of approximately 1:1. There exist a series of undeveloped dirt roads and jeep trails crisscrossing the properties.

The vegetation community throughout the majority of the flatter (northern) portions of the site lacks woody vegetation and is generally dominated by cheatgrass, bluebunch wheatgrass, diffuse knapweed, tall hedge mustard, Russian thistle, and common yarrow. The steeper southern portions of the site are dominated by big sagebrush, low sagebrush with scattered tufts of native bluebunch wheatgrass, rabbitbrush and balsamroot.

SITE DESCRIPTION & ADJACENT LAND USES

The parent site is comprised of three (3) 20-acre parcels on and below the north slope of Badger Mountain. These three rectangular parcels are nearly equal in size and shape. Combined the three parent parcels form a single rectangle measuring approximately 1,322' x 3,291' which is almost exactly 60 acres. A portion of the Kennewick Irrigation District open-air irrigation canal marginally intersects the northeast corner of the easterly parcel (see Lot 1).

The site is separated from Highway I-182 right-of-way by a long, thin, triangular parcel averaging about 110-feet-wide as it varies in width. Said triangular parcel is privately-owned and does present some residential development potential.

The approximately 60-acre project site is located at the western terminus of Strawberry Lane and is roughly bound by Badger Mountain to the south and I-182 to the north. The project area comprises three separate tax lots (12098400000400, 12098400000300, and 12098400000200). One noteworthy detail is that the southern boundary of the development site is shared with the Badger Mountain Centennial Preserve, a City of Richland designated Fish and Wildlife Habitat Conservation Area (FWHCA). The surrounding land uses include low-density residential areas to the east (Country Ridge residential area), undeveloped rangeland designated as a natural area and a high-traffic freeway.

Land further to the west is partially developed with a hand-full of larger residences on large parcels all belonging to the Sterling family of the local Sterling's Restaurant franchise. The Sterling properties have been divided via short platting and are arranged in an irregular fashion. Amongst their parcels lies a municipal water reservoir facility.

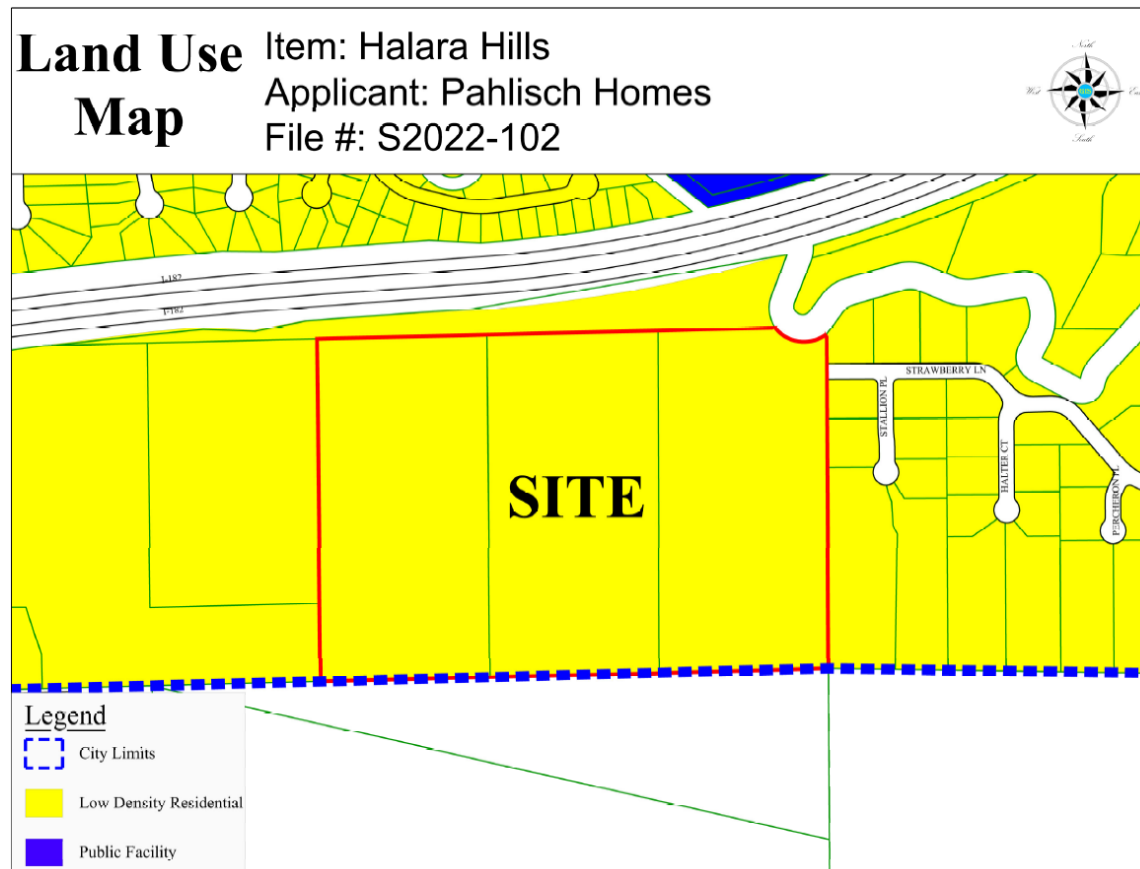


Figure 2 – Comprehensive Plan Map

COMPREHENSIVE PLAN

Richland's Comprehensive Plan designates the plat site for low-density residential development, allowing for residential densities ranging between 0 – 5 dwelling units per acre, equating to an average allowable residential gross density of 3.5 units per acre. The plat of Halara Hills proposes a net residential density of 2.78 dwelling units/acre, which falls within the regulatory limits.

It should be noted that numerous public comments characterize the proposed residential development as "high-density". This is factually incorrect as the R-1-12 zoning district is a low-density zoning district as are the R-1-10 zoning district and the Suburban Agriculture zoning district. While the smaller lot sizes and increased density of the R-1-12 zoning district (Halara Hills) does differ from the nearby Country Ridge neighborhood (Suburban Agriculture), it still is considered a low-density development pursuant to the City's Comprehensive Plan.

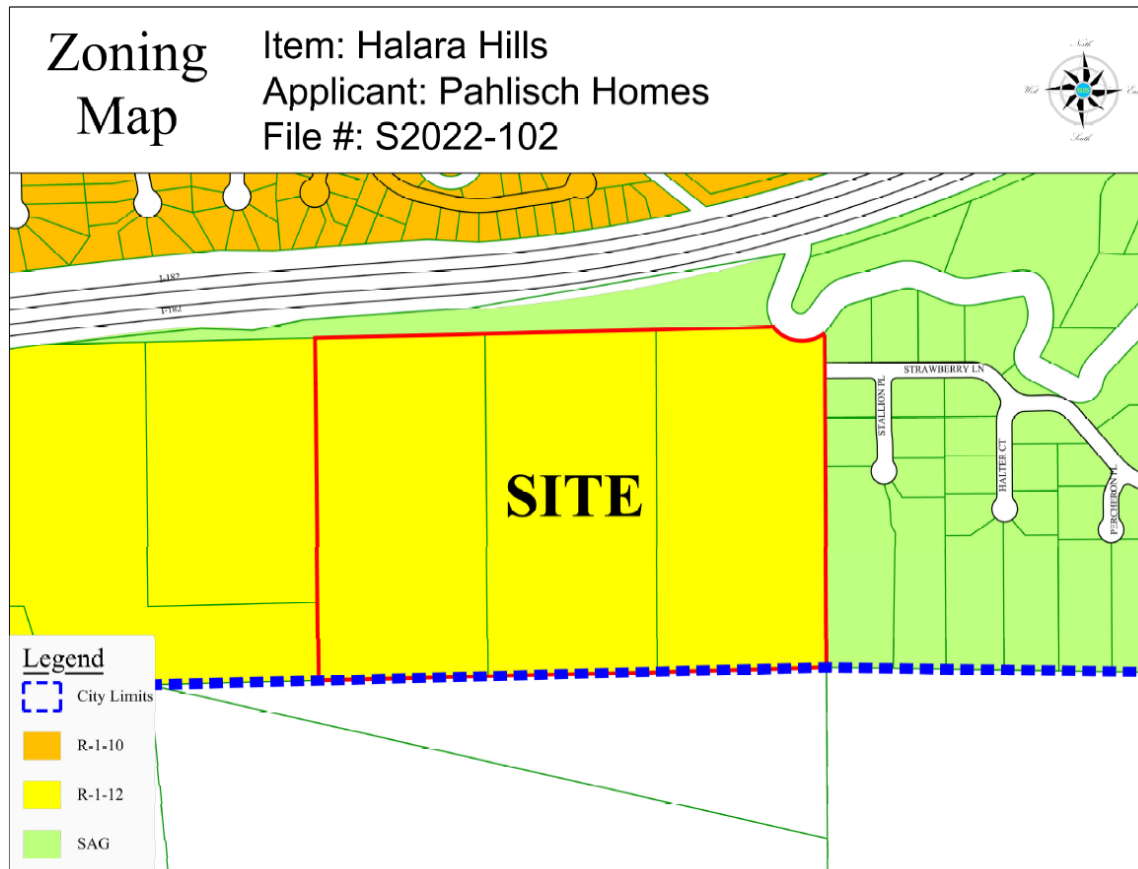


Figure 3 – Zoning Map

ZONING

This preliminary plat site is zoned R-1-12 (Single-Family Residential) allowing for each lot to be developed with one single-family home and accessory structures cumulatively covering up to forty percent (40%) of the respective parcel. The R-1-12 zone is one of Richland's low-density residential zones.

The R-1-12 zone imposes a 10,000 square foot minimum lot size (4.35 units/acre) with a requirement for a 12,000 square foot minimum average lot size (2.88 units/acre). The latter parameter includes the following code instruction:

"Minimum average lot area per subdivision, exclusive of the area of streets and lots designated for nonresidential uses. In calculating average lot size, at least 35 percent of all lots shall be larger than the average lot size requirement." [23.18.040*2]

The underlined language above regulates the net minimum average lot size, which is an expression limiting the minimum lot size subdivision-wide. The citation goes on to regulate the percentage of lots which must be equal to or greater than 12,000 square feet in area.

The plat of Halara Hills proposes a 15,962 ft² net average lot size or 2.78 units/acre. Since the proposed net density is above the 12,000 ft² minimum average lots size requirement Halara Hills satisfies the net minimum average lot size zoning regulation. Further, five (5) of the 82 proposed lots are equal to or greater than 12,000 square feet equaling 93.9% of the total lot count. Halara Hills satisfies the requirement for at least 35% of the lots to be equal to or above 12,000 square feet in area.

Land Uses and Dimensional Standards

The following **R-1-12** standards apply to the proposed plat:

Uses Permitted:	Single family homes and accessory structures
Minimum lot size:	10,000 square feet
Minimum net average lot size:	12,000 square feet
Front yard setback:	20 feet minimum
Side yard setback:	10 feet minimum
Rear yard setback:	25 feet minimum
Maximum building height:	30 feet (mid-roof-point)

PUBLIC NOTICE

Application Date:	June 1, 2022
Notice of Hearing Mailed:	August 18, 2022
Notice of Hearing Posted:	August 19, 2022
Notice of Hearing Published:	August 21, 2022
Public Hearing:	September 15, 2022

A combined notice of application and optional SEPA determination of non-significance was provided by mailing notices to property owners within 300 feet. Public hearing notices were distributed through posting of the property, mailing of notice to property owners within 300 feet of the site and publication in the *Tri-City Herald* newspaper. Copies of the notices and affidavits are included in Exhibit 7.

EXISTING UTILITIES

Electrical power, potable water, natural gas and sanitary sewer utilities are all located in Strawberry Lane. These utilities extend into and through the northeast corner of the Halara Hills site, as they serve the existing single-family homes to the north (3900 Strawberry Lane). All utilities are sufficiently sized to serve the proposed residential subdivision. More detail about each utility service is provided below.

Sewer

An 18-inch sanitary gravity sewer main is in-place adjacent to the north line of all three parcels. Within the easterly most parcel, the sewer line jogs to the south to align with Strawberry Lane. This sewer line extends west to where it connects to the force main line in Dallas Road which was installed to serve Badger Mountain South. Said sewer main will be used to service all buildable lots within the proposed subdivision.

Water

Potable

There is a 12-inch municipal potable water main within Strawberry Lane. The water main extends roughly 340-feet into the northeast corner of the Halara Hills site before bending 90-degrees and heading north to serve 3900 Strawberry Lane. Municipal water facilities will need to be extended into the Halara Hills site to provide service.

Irrigation

An 8-inch irrigation water line is located at the east property line where the site adjoins the Strawberry Lane right-of-way terminus. Irrigation water facilities will need to be extended into the Halara Hills site to provide service. Comments received from Badger Mountain Irrigation District (BMID) confirm their capacity to serve Halara Hills from their 8-inch underground irrigation main lying under the existing gravel road. At the same time, the Kennewick Irrigation District (KID) open-air irrigation canal physically crosses into Lot 1 of Halara Hills. Because of this service redundancy it is undetermined which irrigation district will provide irrigation water to lots in Halara Hills. Sufficed to say, there are plenty of options for providing irrigation water to all of the proposed lots.

Electrical Power

Municipal electrical power lines are located within Strawberry Lane. The underground power lines extend roughly 340-feet into the northeast corner of the Halara Hills site before bending 90-degrees and heading north to serve 3900 Strawberry Lane. City of Richland Chief Electrical Engineer, Kelly Hill, advised of the future need to relocate these underground powerlines to align with public utility easement(s) along the new Strawberry Lane design. This requirement is intended to eliminate utility easements encumbering private residential lots which are burdensome to both future homeowners and the City utility provider alike. The municipal power distribution network will be extended into the Halara Hills site to provide service. Sufficient capacity exists within the City power distribution system to service the proposed plat.

ACCESS/TRANSPORTATION

Streets

The east plat boundary of Halara Hills borders a single public right-of-way; Strawberry Lane, classified as a local roadway. Strawberry Lane is proposed to serve as the exclusive access in and out of Halara Hills. This means all new traffic volumes will be funneled through the adjacent neighborhood commonly herein referred to as "*Country Ridge*" collectively. By way of vehicle travel, Strawberry Lane connects to Country Ridge Drive which leads to the non-signalized intersection of Keene Road; a major arterial roadway outside of neighborhoods.

Provisions of the subdivision code (Title 24 RMC) require roads belonging to new subdivisions to connect to adjacent roadways. Specifically, RMC 24.10.020 reads as follows:

“The layout of streets shall provide for the continuation of principal streets existing in adjoining subdivisions or of their proper projection when adjoining property is not subdivided. The layout shall also provide for future projection of streets into areas which presently are not subdivided.”

A traffic impact analysis (TIA) for the project was prepared by Joe Bessman, PE with Transight Consulting, LLC (Exhibit 6). The study assumes 82 new single-family homes will be developed in Halara Hills. The study anticipates 62 am peak and 82 pm peak trips may be generated by Halara Hills residents. Nearly all of the trips will be contained on Strawberry Lane and Country Ridge Drive in and out of the adjacent neighborhood. The study anticipates 841 average daily (weekday) trips. To offset the impacts created by the increased traffic volumes, the TIA suggests several mitigation measures including: installing a traffic signal at the intersection of Keene Road and Country Ridge Drive as well as adding sidewalks on Country Ridge Drive between Keene Rd and Foxtrot Lane.

Sidewalks

The preliminary plat review process is charged with ensuring that school children living in the new neighborhood will have a safe walking route to and from schools and bus stops. Roadways within Halara Hills will be developed with City standard sidewalks but many roads in the adjacent Country Ridge neighborhood lack sidewalks. Much of Strawberry Lane contains sidewalks and so does a short segment of Country Ridge Drive near the intersection with Strawberry Lane. Beyond that, most of Country Ridge Drive lacks sidewalks. This substandard road section will serve to isolate pedestrians or force them to walk along the gravel right-of-way shoulder or within the traveling portion of the roadway as stated in comments submitted by Country Ridge residents. Concerned Country Ridge residents have expressed their safety concerns over the existing condition and how the increased traffic volumes may exacerbate the danger to pedestrians.

Plats comprising the existing Country Ridge neighborhood contain a series of tracts and easements labeled as KID access & emergency vehicle access, drainage & irrigation easement, etc. In particular, the final plat of Country Home Estates (Exhibit 13), Tract B presents opportunities for off-street pedestrian travel and possibly for use as a SEVA as well. If available, these tracts could be improved with a soft or hard walking surface allowing Halara Hills and Country Ridge residents to move about the community outside of roadways. This potential solution carries some improvement expense and private coordination between Halara Hills and “Country Ridge” to accomplish, but it presents an opportunity to improve the pedestrian safety concerns expressed by existing residents. That is to say, improving open tracts and easements in Country Ridge with off-street pedestrian amenities may ameliorate the safety hazard created by sub-standard roadways lacking sidewalks, for both Halara Hills and Country Ridge residents.

Planning staff recommends the Hearing Examiner consider tasking Halara Hills with creating a safe pedestrian walking route to Keene Road. In doing so, it is worth

noting that the Keene Road bridge over highway I-182 includes sidewalk which allows pedestrian travel north/west on Keene Rd. The nearest school is White Bluffs Elementary School, located directly north of Halara Hills on the north side of Highway I-182.

Figure 4 (below) illustrates the main thoroughfare to access Halara Hills from Keene Road shown as a bold green line. The route is referenced several times above and is the route of primary concern mentioned repeatedly in public comment letters.

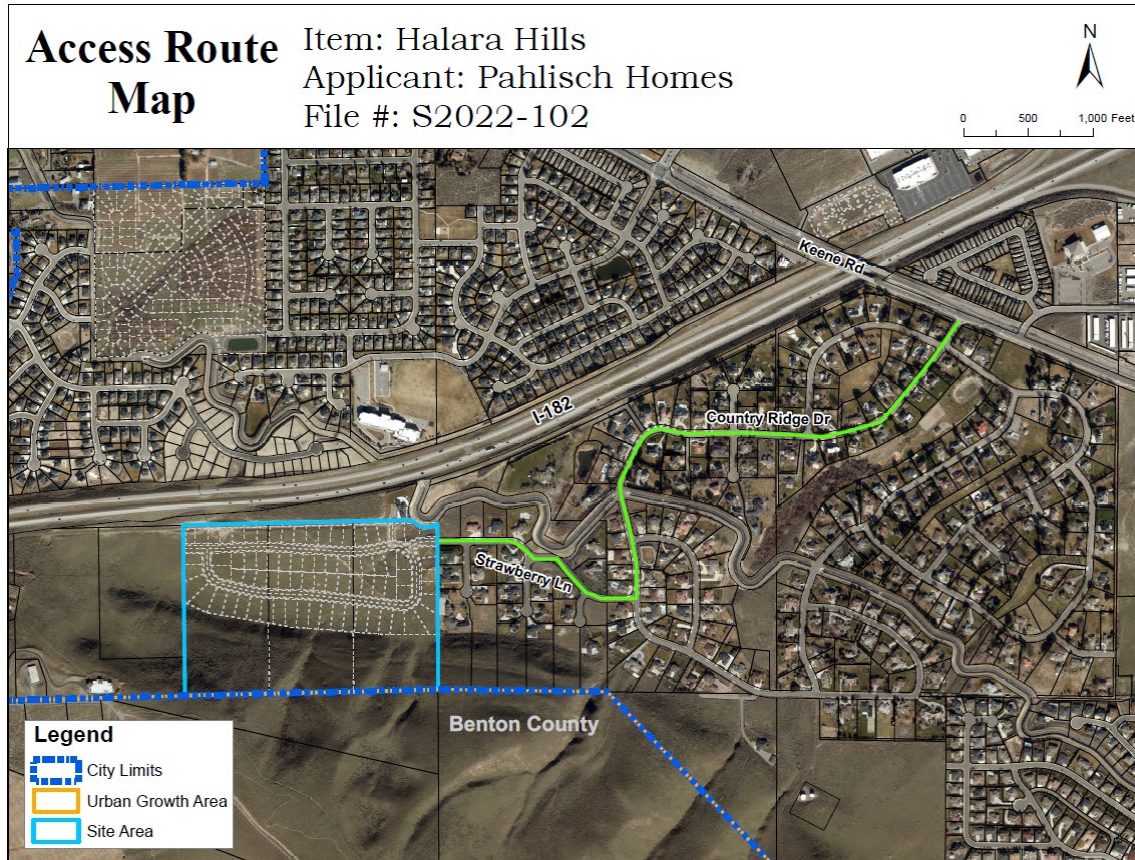


Figure 4 – Access Route Map

FIRE SAFETY

Portions of the plat are adjacent to undeveloped properties over 5-acres in size and so are subject to the City's wildland fire protection requirements. The City has wildland fire protection requirements that apply to homes built on or adjacent to steep slopes. Recommended conditions of approval #'s 51-55, require compliance with these wildland fire protection requirements in addition to other specific requirements related to installation of fire hydrants and residential fire sprinkler systems. With respect to the urban-wildland interface, one physical feature mitigating wildland fire danger is the fact that homes will be below the steep hillside. As fire runs uphill much more rapidly than downhill, the homes will be less vulnerable to the drying/pre-heating physics of fire behavior as compared to hillside or hilltop developments.

The Richland Fire Department has charged Halara Hills with providing a secondary emergency vehicle access (SEVA) route. This requirement is iterated as approval condition # 62. SEVAs are typically private easements, which may be gated, and are not typically available for general use by the public, which shall meet specific improvement standards. As of yet, the applicants for Halara Hills have not successfully establish an acceptable SEVA route across privately-owned land and as a result, the Fire Marshall has indicated that:

“The Fire Marshal’s Office does not recommend approval of the preliminary plat for Halara.”

The Fire Marshal also stated:

“The new Halara Preliminary Plat submitted for review does not address the SEVA. We feel that by moving forward without answers to the SEVA requirement will put the City in a position to be pressured into approving a less than desirable approach later into the project..... For these reasons we feel it is best to resolve the SEVA issue before approval of the preliminary plat.”

To ensure the SEVA requirement is properly conveyed to the applicant and any subsequent developers, staff developed condition # 54 contained in the set of plat approval conditions included at the end of this report should the Hearing Examiner not be in agreement with the City’s Fire Marshal and require the applicants to address the SEVA issue prior to preliminary plat approval.

SCHOOLS

The plat falls within the boundaries of the Richland School District. The proposed plat was routed to the district for review and commenting as part of the standard referral process. Though no comments from the district were received by the City, prior staff reports for nearby plat sites noted that the site is located within the White Bluff’s district. School children living in Halara Hills will be isolated in terms of walkability to and from schools due to the lack of sidewalks on existing roads running through the Country Ridge community.

PARKS

Halara Hills is proposing the creation of a new pocket park within its boundaries (Tract H – 0.68 acres). It should be noted that Halara Hills is also reserving approximately 23.38-acres as natural open-space which will contribute to the preservation of the Badger Mountain Centennial Preserve which is a Benton County park. Although a bulk of the preserve falls within the jurisdiction of Benton County, it serves as a local recreational area to City residents. The primary public park available to residents of Halara Hills will be the 41.5-acre Badger Mountain Park located on Keene Road, approximately 3-miles to the southeast. Badger Mountain Park contains multiple facilities able to accommodate the recreational needs of south Richland residents at large.

Badger Mountain itself contains several hiking trails offering regional recreational opportunities. One of the parking lots serving Badger Mountain is located 3.4-miles from Halara Hills by way of vehicle travel. A small playground park is co-located with the parking lot. Together they comprise Trailhead Park, a City public park.

The City's Parks and Public Facilities Department indicated to staff that the City has a 5-acre size threshold for new public parks. As a result, the proposed pocket-park will be fine as a private park, but they will not receive park impact fee credit and new homes within the development will be required to pay standard park impact fees concurrent with building permit issuance or upon certificate of occupancy issuance.

CRITICAL AREAS

Pahlisch Homes contracted with AKS Engineering & Forestry, LLC (AKS) to develop a Critical Areas Assessment and Fish and Wildlife Habitat Conservation Area Plan (FWHCA) (Exhibit 4) for the site. According to AKS and confirmed by the City of Richland, the site is affected by two (2) critical areas; 1) Fish and Wildlife Habitat Conservation Area(s), and 2) Geologically Hazardous Areas.

The Critical Areas Report prepared by AKS describes the subject property as being designated by Washington Department of Fish and Wildlife (WDFW) as Priority Habitat (shrub-steppe habitat) as well as being located adjacent to a FWHCA designated by the City of Richland (Badger Mountain Preserve). The applicants are proposing to mitigate for the impacts to the shrub-steppe habitat in the northern portion of the site via the set-aside/conservation of approximately 23 acres on the steeper southern slope as well as providing voluntary restoration via seeding in selected areas of the steep slopes. WDFW supports these actions as mitigation for the permanent loss of shrub-steppe habitat that will result from the development of the Halara Hills project.

Additionally, Pahlisch Homes contracted with PBS Engineering to develop a geotechnical/geologic hazard report (Exhibit 5) satisfying the geologic hazard reporting requirements of RMC 22.10.280 (see pgs. 5 & 6, Exhibit 4). The report confirms that cutting into steep slopes; thereby removing vegetation, is likely to accelerate soil erosion. Reservation of the steep slopes as non-buildable tracts, as recommended by the FWHCA report, will dually serve to prevent soil disturbing activities within the geologically hazardous portion of the site.

In order to prevent impacts to the Geologically Hazardous Area(s), the applicant has arranged their lot configuration to not include steep portions of the site within the boundaries of any of the proposed lots. As can be depicted by review of the topography provided on the proposed plat map, the rear/southern property lines of proposed lots 22 – 41 will end when the slope begins to rise significantly. This boundary will prevent development actions from taking place that could result in severe erosion and/or unstable slope impacts from occurring. As proposed by the FWHCA mitigation plan, the land upslope (south) of these lots (Tracts A – C) will benefit from conservation and will likely be dedicated to the Badger Mountain Centennial Preserve.

SEPA

A State Environmental Policy Act (SEPA) required checklist (Exhibit 8) addressing potential impacts of the proposed subdivision, was included in the preliminary plat application materials. On September 8, 2022 staff issued a Determination of Non-Significance (DNS) (Exhibit 8) after using the optional DNS process available under the provisions of WAC 197-11-355. City staff received numerous public and agency comments during the advertised SEPA and Notice of Application comment period; those comments are included as Exhibits 9 & 10.

AGENCY COMMENTS

A number of public agencies and City departments were given an opportunity to comment on the proposal. All comments received from other agencies in response to project advertisement are provided herein as Exhibit 9. Comments from Richland Energy Services and from the city Public Works/Engineering Department are entered directly into the set of recommended approval conditions listed at the end of this report.

While no new comments were received from the Badger Mountain Irrigation District (BMID), comments received during the previous Ladera public comment period confirmed their capacity to serve Ladera (now known as Halara Hills) from their 8-inch underground irrigation main lying under the existing gravel road. At the same time, the Kennewick Irrigation District (KID) open-air irrigation canal physically crosses into Lot 1 of Halara Hills. Because of this service redundancy it is undetermined which irrigation district will provide irrigation water to lots in Halara Hills. Sufficed to say, there are plenty of options for providing irrigation water to Halara Hills.

PUBLIC COMMENTS

At the time this report was prepared, the City received comments primarily from residents of the adjoining Country Ridge neighborhood. A common theme of the comments is concern over traffic volumes and speeds through their neighborhood. Another common sentiment expressed by the neighbors relates to the perceived inconsistency between Country Ridge and Halara Hills in terms of lot size and anticipated development style. All of the written comments submitted by the public as of 5:00 PM, Wednesday, September 7, 2022 are provided as Exhibit 10.

ANALYSIS

Preliminary plat review criteria (RMC 24.12.053) are reprinted in *italics* below. Staff responses to the standard criteria are entered below, denoted by the symbol [•].

A. The preliminary plat conforms to the requirements of this title (RMC Title 24);

- The City's subdivision regulations set forth specific requirements for the filing of an application, how notice of the application is to be provided and requires that the Hearing Examiner conduct a public hearing and make a final permit decision on behalf of the city. These steps have been followed to date.

B. *Appropriate provisions are made for the public health, safety and general welfare and for such open spaces, drainage ways, streets or roads, alleys, other public ways, transit stops, potable water supplies, sanitary wastes, parks and recreation, playgrounds, schools and school grounds and all other relevant facts, including sidewalks and other planning features that assure safe walking conditions for students who only walk to and from school;*

- The 41.5-acre Badger Mountain Park is located approximately 3-miles southeast of the proposed plat site by way of vehicle travel. Badger Mountain Park contains outdoor sports fields and courts able to serve recreational needs of the broader surrounding vicinity. The application materials indicate that a 0.68-acre piece of land (Tract H) will be improved as a pocket park; however, it will not be able to be owned by the City and will need to be owned and operated by the future homeowner's association.
- The Keene Road linear park trail lies approximately 1.5-miles east of the site along Keene Road. The Keene Road trail serves to connect pedestrian travel to nearby commercial centers, neighborhoods and other parks.
- The site is not located directly on an existing bus route. The Ben Franklin Transit Authority provides bus service (route #123) along Keene Road approximately 1.5 miles to the east.
- The plat would be served by the City domestic water main currently extended in Strawberry Lane to the easterly project site boundary. This water line has the capacity to provide service to the proposed project.
- A municipal sewer main extends through the site along the north property line. This City of Richland sanitary sewer system facility contains sufficient capacity to serve the proposed 101 home sites. Sanitary service will be extended within the network of new roadways belonging to Halara Hills.
- The plat would be served by Richland Energy Services electrical power by way of service line extension from the end of Strawberry Lane.
- In accordance with City development standards, storm water drainage would have to be retained and managed on-site.
- Richland School District was given the opportunity to comment. No comments from the District were received by the City.
- Although Halara Hills will provide public sidewalks internally, Planning staff notes a lack of contiguous sidewalk in Country Ridge available for children to walk to school or the nearest bus-stop.

C. *The public use and interest will be served by the platting of such subdivision and dedication;*

- The proposed project is consistent with the Comprehensive Plan in terms of residential density. The project is consistent with the City's R-1-12 zoning regulations. Additional housing units will contribute to meeting the housing demand experienced in the Tri-Cities thereby serving public interest and demand. Extending Strawberry Lane as a loop (via proposed Lamont Street and Redtail Loop) will complete the roadway which currently terminates abruptly in a dead-end with no standard turn-around.

D. The application is consistent with the requirements of RMC 19.60.095, which states:

No development application for a Type II or Type III permit shall be approved by the city of Richland unless the decision to approve the permit application is supported by the following findings and conclusions:

- 1) The development application is consistent with the adopted Comprehensive Plan and meets the requirements and intent of the Richland Municipal Code.*
 - The proposal is generally consistent with the intent of the Comprehensive Plan and meets requirements of the Municipal Code as outlined above.
 - 2) Impacts of the development have been appropriately identified and mitigated under Chapter 22.09 RMC.*
 - Chapter 22.09 is the City's adoption of the State Environmental Policy Act provisions. The applicant filed an environmental checklist (Exhibit 8) for which the City issued a Determination of Non-Significance (Exhibit 8). Review and analysis of the proposed development reveals the need to retain steep slopes in non-buildable tracts. This measure will serve two primary purposes; to reduce the likelihood of landslides and to preserve some of the natural habitat on-site. The project is further regulated by way of approval conditions to ensure urban development standards are applied.
 - 3) The development application is beneficial to the public health, safety and welfare and is in the public interest.*
 - The project is consistent with the City's Comprehensive Plan and development regulations and it therefore would be considered beneficial to public health, safety and welfare and would be in the public interest. As mentioned above, staff is recommending several requirements in the form of conditions, aimed at ensuring the development does not generate any significant impacts which would be detrimental to the peaceful enjoyment of existing land uses in the surrounding vicinity.
- E. The development does not lower the level of service of transportation facilities below the level of service D, as identified in the Comprehensive Plan; provided, that if a development application is projected to decrease the level of service lower than level of service D, the development may still be approved if improvements or strategies to raise the level of service above the minimum level of service are made concurrent with development. For the purposes of this section, "concurrent with development" means that required improvements or strategies are in place at the time of occupancy of the project, or a financial commitment is in place to complete the required improvements within six years of approval of the development.*
- The project would add 82 new residential lots to be accessed from newly constructed and existing roadways leading into the subdivision. The project is within the traffic impact fee area, which would typically exempt the project from providing a traffic study to prove level of service or to identify mitigation. In this case the City required a traffic study because of concerns over traffic volume

limitations on Country Ridge Drive. Either way, the fee becomes the mitigation; thereby fulfilling concurrency requirements. Furthermore, the traffic study submitted by the applicant indicates that the installation of a traffic signal at the intersection of Keene Road and Country Ridge Drive along with the improvement of Country Ridge Drive between Keene Road and Foxtrot Lane to a three-lane section with separate northbound right- and left- turn lanes and the extension of sidewalks will mitigate the constraint and will offer Country Ridge residents safer travel in and out of the development as compared to the current condition.

- F. *Any conditions attached to a project approval are as a direct result of the impacts of the development proposal and are reasonably needed to mitigate the impacts of the development proposal.*
- The conditions of approval recommended for this project are a direct result of imposing City development standards as contained in City code and are directly related to the development proposal.

CRITERIA FOR PRELIMINARY PLAT APPROVAL

Section 24.12.053 of the RMC sets forth the criteria that must be met before a preliminary plat application can be approved; it states:

The hearing examiner shall not recommend approval of any preliminary plat application, unless the approval is accompanied by written findings that:

- A. The preliminary plat conforms to the requirements of this title;*
- B. Appropriate provisions are made for the public health, safety and general welfare and for such open spaces, drainage ways, streets or roads, alleys, other public ways, transit stops, potable water supplies, sanitary wastes, parks and recreation, playgrounds, schools and school grounds and all other relevant facts, including sidewalks and other planning features that assure safe walking conditions for students who only walk to and from school;*
- C. The public use and interest will be served by the platting of such subdivision and dedication; and*
- D. The application is consistent with the requirements of RMC 19.60.095*

Letter (D) immediately above references RMC 19.60.095. For the reader's ease 19.60.095 is provided here:

19.60.095 REQUIRED FINDINGS

No development application for a Type II or Type III permit shall be approved by the city of Richland unless the decision to approve the permit application is supported by the following findings and conclusions:

- A. The development application is consistent with the adopted comprehensive plan and meets the requirements and intent of the Richland Municipal Code.*
- B. Impacts of the development have been appropriately identified and mitigated under Chapter 22.09 RMC.*
- C. The development application is beneficial to the public health, safety and welfare and is in the public interest.*

- D. The development does not lower the level of service of transportation facilities below the level of service D, as identified in the comprehensive plan; provided, that if a development application is projected to decrease the level of service lower than level of service D, the development may still be approved if improvements or strategies to raise the level of service above the minimum level of service are made concurrent with development. For the purposes of this section, "concurrent with development" means that required improvements or strategies are in place at the time of occupancy of the project, or a financial commitment is in place to complete the required improvements within six years of approval of the development.*
- E. Any conditions attached to a project approval are as a direct result of the impacts of the development proposal and are reasonably needed to mitigate the impacts of the development proposal.*

RMC Section 24.12.050 designates the Hearing Examiner as the hearing body responsible for conducting the review of preliminary plat applications.

FINDINGS AND CONCLUSIONS

Staff has completed its review of the preliminary plat application for Halara Hills (S2022-102) and recommends approval of the request subject to conformance with conditions of approval listed further below and which are based on the following findings:

Findings of Fact:

1. The Halara Hills preliminary plat site is approximately 60-acres in land area.
2. The Richland Comprehensive Plan designates the project site as suitable for low-density residential development with an allowable density range of 0 to 5 units per acre.
3. R-1-12 (Single-Family Residential) zoning is applied to the site. Maximum allowable residential density of the R-1-12 zone is 3.63-units/acre (12,000ft² minimum average lot size).
4. The Halara Hills preliminary plat consists of 82 residential lots averaging 15,692 square feet, representing a net residential average density of 2.78 units per acre.
5. Preliminary plats are classified as Type III permits (RMC 19.20.010.C).
6. Strawberry Lane and Country Ridge Drive are classified as local streets in the City's Comprehensive Plan.
7. The Halara Hills preliminary plat lies within the boundary of the South Richland Collector Street Financing Plan (RMC 12.03). This plat shall therefore be subject to the fees administered by the finance plan for any phase submitted for approval. Since this property is included within the Financing Plan, it is exempt from the SEPA-related traffic study requirement (TIA).
8. Section 24.12.053 of the RMC sets forth standards for review of preliminary plats that require the Hearing Examiner to consider whether appropriate provisions are made for the public health, safety and general welfare and for such open spaces, drainage ways, streets or roads, alleys other public ways, transit stops, potable water supplies, sanitary wastes, parks and recreation,

playgrounds, schools and school grounds and all other relevant facts, including sidewalks and other planning features that assure safe walking conditions for students who only walk to and from school.

9. The proposed preliminary plat provides for the extension of new streets meeting public road construction standards, includes provisions for the extension of public domestic water, sewer, irrigation water and electrical power lines.
10. Much of Country Ridge Drive does not conform to the City's public roadway construction standards.
11. Appropriate development conditions will be applied to ensure improvements proposed to serve the preliminary plat are consistent with the City's development standards.
12. Impacts on City parks generated by the new subdivision will be mitigated by way of impact fees collected at the time of building permit issuance or issuance of final certificate of occupancy.
13. City standards call for the construction of a Secondary Emergency Access Road (SEVA) to serve any development contain 16 or more homes served by a single access road.
14. The City has wildland fire protection requirements for homes built on or adjacent to steep slopes which may increase fire risks to lots within the proposed plat. Some lots in Halara Hills trigger the need for wildland fire protection requirements. The proposed conditions of approval address the affected lots.
15. The Richland School District was invited to comment and expressed no concerns with the plat.
16. City staff and other utility providers reviewed the project and have recommended specific conditions of approval as set forth in this report.
17. The applicant filed an environmental checklist (EA2022-115) as required under the State Environmental Policy Act.
18. After review of the checklist, application materials and comments received, staff issued a Determination of Non-Significance on September 8, 2022 using the optional DNS process.
19. Richland's Critical Areas ordinance identifies the site as being located within a potentially hazardous area due to the presence of steep slopes/geologic hazards.
20. The site borders the Badger Mountain Centennial Preserve to the south, which is classified by Richland's critical areas regulations, as a habitat conservation area.
21. The Washington (State) Department of Fish & Wildlife classifies the plat site as a Priority Habitat Area due to the presence of shrub-steppe plant and animal associations.
22. The applicant submitted a geotechnical/geological hazards report to comply with the City's Critical Areas Ordinance (RMC 22.10.280)
23. RMC 19.60.095(D) requires that development not lower the level of service standard for transportation facilities below a level of service D.
24. The proposed project would add 82 single family lots having direct access onto roadways proposed in the plat.

Conclusions of Law:

1. The site lies within a critical area due to potential geologic hazards due to the presence of steep slopes on-site. Preliminary plat application materials included a geotechnical report addressing geologic hazards and qualifying portions of the site as stable and suitable for residential construction. The report identifies steep slopes of Badger Mountain as being a high-risk geologic hazard.
2. The site lies within a critical area due to potential presence of priority shrub-steppe habitat on-site. Preliminary plat application materials included a critical areas report assessing the condition of the existing natural landscape thereby meeting the reporting requirement listed under RMC 22.10.200.
3. Proposed measures to mitigate impacts on critical areas, generally, will be made by designating Tracts A, B & C as unbuildable open-space and transferring ownership to the Badger Mountain Centennial Preserve.
4. The proposed preliminary plat conforms to the density and type of land use envisioned in the land use and transportation elements of the adopted Comprehensive Plan.
5. The plat proposes the creation of city standard roadways serving all new lots.
6. Pursuant to RMC Chapters 22.09 and 22.10, the procedures required under the State Environmental Policy Act have been completed.
7. As conditioned, the proposed preliminary plat makes appropriate provisions for the public health, safety and general welfare and for such open spaces, drainage ways, streets or roads, alleys, other public ways, transit stops, potable water supplies, sanitary wastes, parks and recreation, playgrounds, schools and school grounds and all other relevant facts, including sidewalks and other planning features that assure safe walking conditions for students who only walk to and from school.
8. Based on the above findings and conclusions, approval of the proposed preliminary plat of Halara Hills, subject to the recommended conditions listed in this report, is warranted because the project conforms to the City's adopted comprehensive plan and zoning regulations; has followed the required State Environmental Policy Act procedures; and is consistent with the requirements of the City's subdivision regulations.

Overall Conclusion:

Based on the above findings and conclusions, approval of the proposed preliminary plat of Halara Hills, subject to the recommended conditions listed herein, is warranted because the project conforms to the City's adopted Comprehensive Plan and zoning regulations; has followed the required State

Environmental Policy Act procedures; and is consistent with the requirements of the City's subdivision regulations.

RECOMMENDED CONDITIONS OF APPROVAL

PUBLIC WORKS

PRE-PLAT SPECIFIC CONDITIONS:

1. The preliminary plat is not showing any phase lines. Phasing is not required but if the project is to be phased during construction the phasing lines need to be shown on the pre-plat map.
2. The street names as provided on the preliminary plat map are not approved or vested at this time. Approval of proposed street names occurs during the construction phase of the project.

GENERAL CONDITIONS:

3. All final, approved plans for public improvements shall be submitted prior to pre-con on a 24" x 36" hardcopy format and also electronically in .dwg format compatible with the City's standard CAD software. Addendums are not allowed, all information shall be supplied in full size (and electronic) format. Electronic copies of the construction plans are required prior to the pre-con meeting along with the multiple sets of paper drawings. When construction of the public infrastructure has been substantially completed, the applicant shall provide paper and electronic record drawings in accordance with the City's "Record Drawing Requirements". The electronic record drawings shall be submitted in an AutoCAD format compatible with the City's standard CAD software. The final record drawings shall be submitted and approved by the City before the final punchlist inspection will be performed. All final punchlist items shall be completed or financially guaranteed prior to recording of the final plat.
4. A copy of the construction drawings shall be submitted for review to the appropriate jurisdictions by the developer and his engineer. All required comments / conditions from all appropriate reviewing jurisdictions (e.g.: Benton County, any appropriate irrigation districts, other utilities, etc.) shall be incorporated into one comprehensive set of drawings and resubmitted (if necessary) for final permit review and issuance. Any and all necessary permits that may be required by jurisdictional entities outside of the City of Richland shall be the responsibility of the developer to obtain.
5. Any work within the public right-of-way or easements or involving public infrastructure will require the applicant to obtain a right-of-way construction permit prior to beginning work, per RMC Chapter 12.08. The applicant shall pay a plan review fee based on a cost-per-sheet of engineering infrastructure plans. This public infrastructure plan review fee shall apply each time a project is submitted for review. This fee will be different for commercial projects versus subdivision projects. Please visit the Public Works Private

Development page on the City's webpage to find the current per-sheet fee. A permit fee in the amount equal to 3% of the construction costs of the work within the right-of-way or easement will be collected at the time the construction permit is issued. A stamped, itemized Engineers estimate (Opinion of probable cost) and a copy of the material submittals shall be submitted along with the approved plan submittal.

6. Public utility infrastructure located on private property will require recording of a City standard form easement prior to acceptance of the infrastructure and release of the final plat. The City requires preparation of the easement legal description by the developer two weeks prior to the scheduled date of plat acceptance. Once received, the City will prepare the easement document and provide it to the developer. The developer shall record the easement at the Benton County Assessor and return a recorded original document to the City prior to application for final plat acceptance.
7. A pre-construction conference will be required prior to the start of any work within the public right-of-way or easement. Contact the Public Works Engineering Division at 942-7500 to schedule a pre-construction conference.
8. All plan sheets involving construction of public infrastructure shall have the stamp of a current Washington State licensed professional engineer.
9. Any and all necessary permits that may be required by jurisdictional entities outside of the City of Richland shall be the responsibility of the developer to obtain.
10. A copy of the preliminary plat shall be supplied to the Post Office and all locations of future mailbox clusters approved prior to final platting.

DESIGN STANDARDS:

11. Public improvement design shall follow the following general format:
 - A. All materials and workmanship shall be in conformance with the latest revision of the City of Richland Standard Specifications and Details, Public Infrastructure Design Guidelines and the current edition of the State of Washington Standard Specifications for Road, Bridge, and Municipal Construction. Please confirm that you have the latest set of standard specs and details by visiting the City's web page.
 - B. Fire hydrant location shall be reviewed and approved by the City Fire Marshal.
 - C. All utilities shall be extended to the adjacent property (properties) at the time of construction.
 - D. The minimum centerline finish grade shall be no less than 0.30% and the maximum centerline finish grade shall be no more than 10.0% for local streets. 12% can be allowed for local streets for short distances.
 - E. The minimum centerline radius for local streets shall be 100-feet.

- F. Final design of the public improvements shall be approved at the time of the City's issuance of a Right-of-way Construction Permit for the proposed construction.
 - G. All public improvements shall comply with the State of Washington and City of Richland requirements, standards and codes.
 - H. The contractor shall be responsible for any and all public infrastructure construction deficiencies for a period of one year from the date of the letter of acceptance by the City of Richland.
12. If the project will be built in phases the applicant shall submit a master plan for the sanitary sewer, domestic water, storm drainage, electrical, street lighting and irrigation system for the entire project prior to submitting plans for the first phase to assure constructability of the entire project. This includes the location and size of any storm retention ponds that may be required to handle runoff.
13. If the City Fire Marshal requires a secondary emergency vehicle access, it shall be included in the construction plan set and be designed to the following standards:
- A. 2-inches compacted gravel, minimum (temp. SEVAs only).
 - B. 2% cross-slope, maximum.
 - C. 5% slope, maximum. Any access road steeper than 5% shall be paved or be approved by the Fire Marshal.
 - D. Be 20-feet in width.
 - E. Have radii that are accommodating with those needed for City Fire apparatus.

Secondary emergency vehicles accesses (SEVA's) shall be 20-feet wide, as noted. Longer secondary accesses can be built to 12-feet wide with the approval of the City of Richland Fire Marshal, however turn-outs are required at a spacing acceptable to the Fire Dept. Temporary SEVA's shall be constructed with 2-inches of compacted gravel, at a minimum. Permanent SEVA's shall be paved with 2-inches of asphalt over 4-inches of gravel, at a minimum.

SURVEY MONUMENT DESTRUCTION:

All permanent survey monuments existing on the project site shall be protected. If any monuments are destroyed by the proposed construction the applicant shall retain a professional land surveyor to replace the monuments and file a copy of the record survey with the City.

- A. No survey monument shall be removed or destroyed (*the physical disturbance or covering of a monument such that the survey point is no longer visible or readily accessible*) before a permit is obtained from the Department of Natural Resources (DNR). (WAC 332-120-030(2) and RCW 58.09.130).

- B. Any person, corporation, association, department, or subdivision of the state, county or municipality responsible for an activity that may cause a survey monument to be removed or destroyed shall be responsible for ensuring that the original survey point is perpetuated. (WAC 332-120-030(2)).
- C. Survey monuments are those monuments marking local control points, geodetic control points, and land boundary survey corners. (WAC 332-120-030(3)).

When a monument must be removed during an activity that might disturb or destroy it, a licensed Engineer or Land Surveyor must complete, sign, seal and the file a permit with the DNR. It shall be the responsibility of the designing Engineer to identify the affected monuments on the project plans and include a construction note directing them to the DNR permit.

Traffic & Streets:

- 14. The “Halara Hills” preliminary plat is subject to RMC 12.03, the City’s traffic impact fee program.
- 15. The developer shall install both a traffic signal at the intersection of Keene Road and Country Ridge Drive, and also new sidewalk along both sides of Country Ridge Drive between Keene Road and Foxtrot Lane as recommended by the traffic impact analysis dated May 30, 2022. The latter improvement shall include curbs, gutters, sidewalks, storm drainage and street light improvements meeting City standards, a re-stripe of the roadway section to provide two outbound lanes, and pedestrian connectivity to the trail on the north side of Keene Road. The scope of the required intersection improvements will also include a 100-foot long right-turn taper on Keene Road for eastbound traffic. The traffic signal shall include fiber optic connectivity to the City’s fiber optic network. The described improvements shall be developed as a single project and shall be designed and installed no later than the phase that constructs the 50th lot.
- 16. Both “Redtail Loop” and “Lamont Street” have straight road segments that are approximately 1,500-feet long. This is likely to induce travel speeds that exceed the speed thresholds of Resolution No. 28-11, which is 35 miles per hour. Each street should be mitigated with two speed humps each to help control speeds to levels under the threshold of Resolution 28-11.
- 17. Sidewalks shall be installed along all public right-of-way frontages that building lots do not front on during construction of those phases (e.g., storm drainage ponds, parks, HOA tracts, etc.).

18. The developer and his engineer shall demonstrate on the construction plans that all future driveway entrances, sidewalks and pedestrian ramps will meet City and ADA requirements.
19. All pedestrian ramps, driveway entrances and sidewalks shall be designed to current City standard details and A.D.A. standards. Adequate right-of-way shall be provided at corners to allow for at least 1-foot of ROW behind the ped. ramp landing. Crosswalks between pedestrian ramps shall be designed to City standards. Crosswalks at stop-controlled intersections shall have cross-slopes less than 2%. Crosswalks crossing thru-streets shall have cross-slopes less than 5%. The road profiles shall be designed to accommodate this.
20. The vision-clearance triangle needs to be shown on all corner lots on both the construction plans and the final plat document, in accordance with RMC Chapter 12.11.020. If the intersection is in a curve, it will have to be evaluated per AASHTO guidelines. This information may need to be designed by the engineer of record and supplied to the surveyor of record for inclusion into the final plat document.
21. Per current city standards, any roads narrower than 34-feet shall have parking restricted on one side, and any roads 27-feet or narrower shall have parking restricted on both sides. Street signs indicating restricted parking shall be installed prior to final platting at the developer's expense. The restricted parking areas shall be indicated on the construction plans and the final plat. All signage will be installed by the developer prior to final platting.

Domestic Water:

22. The proposed preliminary plat is located within the "Tapteal 3" water pressure zone. The closest Tapteal 3 watermain is located in Strawberry Lane. It shall be the responsibility of the developer to extend a watermain to and through this property to serve domestic water at the time of plat construction. This water main shall be sized to adequately supply domestic water and fire flows to the proposed development and for future development to the west.
23. This development is located at the far west end of the Tapteal 3 pressure zone. The City desires that a secondary source of supply be established from Dallas Road for system reliability and resiliency. The developer shall cooperate with the City in efforts to complete this connection.
24. In accordance with municipal code, domestic water mains shall be extended to the adjoining properties adjacent to the preliminary plat.
25. The developer will be required to demonstrate that all phases are capable of delivering adequate fire flows prior to construction plans being accepted for

review. This may require looping of the watermain from off-site locations or oversizing of the main where needed.

26. There is an existing watermain on this property that may need to be rerouted so it will be within the proposed roadway alignment.
27. The fire hydrant layout shall be approved by the City Fire Marshal.
28. In accordance with Richland Municipal Code Chapter 18.16.080, an irrigation source and distribution system, entirely separate from the City's domestic water system, shall be provided for this development. *Construction plans will not be accepted for review until adequate and viable proof of an irrigation source is made available by the developer.* The designing Engineer shall submit plans for the proposed irrigation system to the Irrigation District with jurisdiction over the property at the same time that they are submitted to the City for construction review. Plans shall be reviewed and accepted by said irrigation district prior to issuance of a Right-of-Way permit by the City. Easements shall be provided on the final plat for this system where needed.

Sanitary Sewer:

29. A 10-foot wide exclusive sanitary sewer easement shall be provided for any sewer main that is outside of the public Right-of-Way. Wider easements are required for mains that are buried deeper than 10-feet. If any manholes are located outside of the public Right-of-Way, maintenance truck access to said structure may be required.

Storm Water:

30. All construction projects that don't meet the exemption requirements outlined in Richland Municipal Code Section 16.06 shall comply with the requirements of the Washington State Department of Ecology issued Eastern Washington NPDES Phase II Municipal Stormwater Permit. The Developer shall be responsible for compliance with the permit conditions. All construction activities subject to this title shall be required to comply with the standards and requirements set forth in the Stormwater Management Manual for Eastern Washington (SWMMEW) and prepare a Stormwater Site Plan. In addition, a Stormwater Pollution Prevention Plan (SWPPP) or submission of a completed erosivity waiver certification is required at the time of plan submittal. The City has adopted revised standards affecting the construction of new stormwater facilities in order to comply with conditions of its NPDES General Stormwater Permit program. This project, and each phase thereof, shall comply with the requirements of the City's stormwater program in place at the time each phase is engineered. The project will require detailed erosion control plans.

31. All public storm drainage systems shall have their flow rate and storage capacity designed by a professional engineer following the core elements defined in the latest editions of the Stormwater Management Manual for Eastern Washington, the current Richland municipal codes, the Phase II Municipal Stormwater Permit, and the City's "Public Infrastructure Construction Plan Requirements and Design Guidelines". The storm water calculations shall be stamped by a professional engineer and shall include a profile of the storm system showing the hydraulic grade line. The calculations should include an accurate delineation of the contributing drainage area to accurately size the stormwater facilities. Passing the storm water downhill to an existing storm system will require an analysis of the downstream storm system to determine its capability of accepting the storm water without being overwhelmed. The applicant's design shall provide runoff protection to downstream property owners.
32. If any existing storm drainage or ground water seepage drains onto the proposed site, said storm drainage shall be considered an existing condition, and it shall be the responsibility of the property developer to design a system to contain or treat and release the off-site storm drainage.
33. If there are any natural drainage ways across the proposed pre-plat, the engineered construction plans shall address it in accordance with Richland Municipal code 24.16.170 ("Easements-watercourses").
34. Natural runoff channels ("gulleys") located uphill from this preliminary plat need to be taken into consideration when designing the storm drainage system for this plat. Storm water running off the hill should be intercepted and put into the on-site storm drainage system and/or conveyed through the project to a pre-existing drainage channel. The storm drainage system for this development, both its conveyance and retention / infiltration components, shall be designed to effectively manage runoff from upstream properties that can be anticipated to convey stormwater onto this property because of a pre-development runoff condition. Additionally, as this property is upslope of developed properties the stormwater system shall include provisions for possible discharge of runoff onto downslope properties from storms in excess of the design storm as described above. Those provisions may be required to include off-site downslope conveyance facilities and/or flowage easements allowing for the conveyance of stormwater to and across downslope properties.
35. The amount of post-development storm runoff from the proposed site shall be in compliance with RMC Chapter 16.06.
36. Any proposed storm drainage retention facilities constructed as part of the proposed preliminary plat shall not adversely affect neighboring properties.

37. Prior to or concurrent with the submittal of the first phase the developer shall provide a Geotechnical report including the percolation rate of the soils in the area of any storm retention ponds. If the project constructs a storm retention pond then the engineer will need to demonstrate that the pond will drain itself within 72 hours after the end of a storm event, and not have standing water in it longer than that. Engineering solutions are available for retention ponds that do not percolate within 72 hours.
38. The parcel occupied by the stormwater basin shall be identified as a separate parcel or tract on the final plat and shall be dedicated to the City stormwater utility. The design of the basin shall include access features meeting the city's needs for maintenance.
39. The developer shall consider the long-term appearance of the storm basin, particularly if it will occupy a prominent location in the development. The City's typical storm pond maintenance practices consist of semi-annual vegetation trimming and silt and debris removal. If the pond location is deemed by City staff as being in a prominent location the developer shall design and install fencing and/or landscaping to mitigate the pond's visible character for the surrounding properties. If the City requires this type of treatment to the pond site the developer may propose landscaping treatments consistent with the development and establish maintenance responsibilities to remain with the development. These maintenance responsibilities shall be noted on the final plat. Basins designed as detention and evaporative basins need to include plantings that will tolerate or thrive in standing water. Planting designs for areas not routinely exposed to water shall include plants that will thrive without irrigation unless the developer intends to maintain an irrigated pond site. At a minimum the landscaping plan should be consistent with the City's intended maintenance standard as described above.
40. The developer shall be responsible for landscaping the storm pond and for its maintenance and the plantings through the one-year infrastructure warranty period. At 11 months after the final acceptance date the developer shall clean the storm system and basin of all accumulated oil, sediment, and debris. After this maintenance is completed and inspected the City will begin routine maintenance of the system and basin. The developer shall replace any plantings that have failed to survive the warranty period. The developer shall also perform trimmings required to control weeds in excess of 18-inches in height for the 12-months following the date of final plat acceptance.

Final Platting Requirements:

41. When the construction is substantially complete a paper set of "record drawings" shall be prepared by a licensed surveyor and include all changes and deviations. Please reference the Public Works document "RECORD DRAWING REQUIREMENTS & PROCEDURES" for a complete description

- of the record drawing process. All final punchlist items shall be completed or financially guaranteed prior to recording of the final plat.
42. Public utility infrastructure located on private property will require recording of a City standard form easement prior to acceptance of the infrastructure and release of a certificate of occupancy. The City requires preparation of the easement legal description by the developer two weeks prior to the scheduled date of final acceptance. Off-site ("third party") easements or right-of-ways for City infrastructure are the responsibility of the developer to obtain. Once received, the City will prepare the easement document and provide it to the developer. The developer shall record the easement at the Benton County Assessor and return a recorded original document to the City prior to application for final occupancy.
 43. Any off-site easements or permits necessary for this project shall be obtained and secured by the applicant and supplied to the City at the time of plat construction and prior to final plat acceptance by the City.
 44. Ten-foot wide public utility easements will be required on the final plat along both sides of all Right-of-Ways within the proposed plat.
 45. The vision-clearance triangle needs to be shown on all corner lots on the final plat document, in accordance with RMC Chapter 12.11.020. If the intersection is in a curve, it will have to be evaluated per AASHTO guidelines. This information may need to be designed by the engineer of record and supplied to the surveyor of record for inclusion into the final plat document.
 46. Street signs indicating restricted parking shall be installed prior to final platting at the developers expense. The restricted parking areas shall be indicated on the final plats.
 47. All landscaped areas within the plat that are in the public Right of Way shall be the responsibility of the homeowners to maintain.
 48. A one-foot "No access easement" will be required along the north side of the "Lamont" Street right of way. Lamont is proposed to be a single-frontage street and access is only allowed on one side.
 49. The intended use and ownership of all tracts within the plat shall be noted on the final plat.
 50. Property with an unpaid L.I.D. assessment towards it must be paid in full or segregated per Richland Municipal Code 3.12.095.

FIRE DEPARTMENT

51. Wild-land areas are areas which are undeveloped, uncultivated or unfit for cultivation, or considered by the city of Richland to be wasteland or desert, or

which are any combination of these descriptions and which are deemed by the city of Richland as a hazard for wild fire purposes. The following requirements apply to buildings and structures constructed on, in, or near wild-land areas:

- a) All structures within 30 feet of a property line adjoining a wild-land area shall have noncombustible siding, soffit, and skirting on the side adjacent to the wild-land area when the wild-land area is in excess of five contiguous acres. This requirement shall not apply to interior lots of platted parcels of land and development phases whose streets are accessible and whose water system is operational.
 - b) Decks and porches 36 inches or less in height shall have skirting if within 30 feet of adjacent wild-land areas when the wild-land area is in excess of five contiguous acres. Skirting shall be sufficiently constructed so as not to allow the accumulation of combustible material under the deck or porch. The area under the deck or porch shall not be used for storage.
52. Subsequent final plat(s) shall contain a note advising future buyers of lots 22-41, as numbered on the preliminary plat, of the following construction-related requirements:
- a) *All structures within 30 feet of a property line adjoining a wild-land area shall have noncombustible siding, soffit, and skirting on the side adjacent to the wild-land area.*
 - b) *Decks and porches 36 inches or less in height shall have skirting if within 30 feet of adjacent wild-land areas.*
 - c) *Skirting shall be sufficiently constructed so as not to allow the accumulation of combustible material under the deck or porch. The area under the deck or porch shall not be used for storage.*
53. As determined by the Fire Marshal, noncombustible siding or soffit material shall be required on the downhill side(s) of a structure that is within 30 feet of a grade that is 15 percent or greater in steepness. The grade shall be determined by the predominate slope on the downhill side measured from the structure or building and extending a maximum of 300 feet.
54. Evidence that an easement securing a secondary emergency vehicle access (SEVA) route shall be provided to the City prior to or concurrent with the first set of construction drawings. Any proposed SEVA route shall be approved by the Richland Fire Marshal.
55. The SEVA shall be improved to the satisfaction of the Richland Fire Marshal.

PLANNING DEPARTMENT

56. Minimum lot width for all lots shall be no less than 90 feet.
57. As mitigation for permanent impacts to and loss of shrub-steppe habitat, Tracts "A", "B", & "C" as labeled on the preliminary plat shall be permanently reserved as natural open space by way of deed restriction, the language of which shall be approved by the Planning Manager prior to recording.
58. Prior to initiating any earthwork on the site, an archaeological survey shall be performed and provided to the Yakama Indian Nation, Confederated Tribes of the Umatilla Indian Reservation, Department of Archaeology and Historic Preservation (DAHP) and the Richland Planning Department.
59. A six (6) foot tall masonry wall shall be constructed along the eastern property boundary and along the southern property boundary (proposed lots 22 – 41), with the exception of Tract "D".

EXHIBIT LIST

1. Application Materials
2. Preliminary Plat Map
3. Title Report
4. Critical Areas Analysis and FWHCA Report
5. Geotechnical Report
6. Traffic Impact Analysis
7. Public Notice & Affidavits
8. Environmental Checklist and SEPA DNS
9. Agency Comments
10. Public Comments



Exhibit I

Application Materials



City of Richland Development Services

625 Swift Blvd. MS-35
Richland, WA 99352
☎ 509-942-7794
📠 509-942-7764

Preliminary Plat Application

Note: A Pre-Application meeting is required prior to submittal of an application.

PROPERTY OWNER INFORMATION

☐ Contact Person

Owner: Steve Tatro, Trustee, Sundance Capital 401K Plan, et al.

Address: 148 Country Way, Walla Walla, WA 99362

Phone:

Email:

APPLICANT/~~CONTRACTOR~~ INFORMATION (if different) **CONSULTANT**

☒ Contact Person

Company: Pahlisch Homes / AKS Engineering & Forestry

UBI#: N/A

Contact: Jerry Jones / Michael Andreotti

Address: 210 SW Wilson Avenue, Bend, OR 97701 / 9600 NE 126th Avenue, Suite 2520, Vancouver, WA 98682

Phone: (541) 385-6762 / (360) 882-0419

Email: jerryj@pahlisch.com / andreottim@aks-eng.com

SURVEYOR INFORMATION

Contact: Derek Ingalsbe

Address: 313 North Morain Street, Kennewick, WA 99336

Phone: (509) 735-7364

Email: derek@strattonsurvey.com

ENGINEER INFORMATION

Contact: Knutzen Engineering (Nathan Machiela)

Address: 5401 Ridgeline Drive, Suite 160, Kennewick, WA 99338

Phone: (509) 222-0959

Email: nathan@knutzenengineering.com

PROJECT DESCRIPTION

The Applicant plans to subdivide three parcels, totaling approximately 59.29 acres, into 82 lots. The project will include protection of steep slopes and priority habitat, site grading, construction of public roadways, and utility improvements including water, sewer, irrigation, franchise dry utilities, and stormwater management system.

PROPERTY INFORMATION

Parcel #: 120984000004000, 120984000003000, & 120984000002000 Zoning: Single Family Residential (R-1-12)

Legal Description: The southeast southeast and the east one half southwest southwest section 20 T9N R28E

Proposed Subdivision Name: Halara Hills

Gross Plat Acreage: 59.29

Number of Lots: 82

Smallest Lot Size: 11,999 SF

Net Lot Area Acreage: 30.26

Avg. Lot Size: 15,962 SF

Largest Lot Size: 25,028 SF

Domestic Water Supply: ☒ City ☐ Private Well

Sewage Disposal: ☒ City ☐ Septic

Irrigation Source: ☐ City ☐ Private Well ☐ Columbia Irrig. District ☐ Kennewick Irrig. District ☒ Other **BMID**

SEPA Checklist submitted? ☒ Yes ☐ No

Title Report (Subdivision Guarantee) submitted? ☒ Yes ☐ No

APPLICATION MUST INCLUDE

1. Completed application and filing fee
2. 2 – Full-size copies of proposed survey
3. 1 – 11" x 17" copy of proposed survey
4. 1 – PDF file of proposed survey
5. Title Report showing ownership, easements, restrictions and accurate legal description of the property involved
6. SEPA Checklist
7. Other information as determined by the Administrator

I authorize employees and officials of the City of Richland the right to enter and remain on the property in question to determine whether a permit should be issued and whether special conditions should be placed on any issued permit. I have the legal authority to grant such access to the property in question.

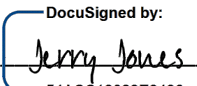
I also acknowledge that if a permit is issued for land development activities, no terms of the permit can be violated without further approval by the permitting entity. I understand that the granting of a permit does not authorize anyone to violate in any way any federal, state, or local law/regulation pertaining to development activities associated with a permit.

I hereby certify under penalty of perjury under the laws of the State of Washington that the following is true and correct:

1. I have read and examined this permit application and have documented all applicable requirements on the site plan.
2. The information provided in this application contains no misstatement of fact.
3. I am the owner(s), the authorized agent(s) of the owner(s) of the above referenced property, or I am currently a licensed contractor or specialty contractor under Chapter 18.27 RCW or I am exempt from the requirements of Chapter 18.27 RCW.
4. I understand this permit is subject to all other local, state, and federal regulations.

Note: This application will not be processed unless the above certification is endorsed by an authorized agent of the owner(s) of the property in question and/or the owner(s) themselves. If the City of Richland has reason to believe that erroneous information has been supplied by an authorized agent of the owner(s) of the property in question and/or by the owner(s) themselves, processing of the application may be suspended.

Applicant Printed Name: Jerry Jones

Applicant Signature:  Date 5/31/2022

3. Narrative



Halara Hills Type III Preliminary Plat

Date: May 2022

Submitted to: City of Richland Development Services
Department
625 Swift Boulevard, MS-02
Richland, WA 99352

Applicant: Pahlisch Homes, Inc.
210 SW Wilson Avenue, Suite 100
Bend, OR 97702

AKS Job Number: 8971

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Halara Hills

Type III Preliminary Plat

Submitted to:	City of Richland Development Services Department 625 Swift Boulevard, MS-02 Richland, WA 99352
Applicant:	Pahlisch Homes, Inc. 210 SW Wilson Avenue, Suite 100 Bend, OR 97702
Property Owners:	Steve Tatro, Trustee, Sundance Capital 401K Plan, et al. 148 Country Way Walla Walla, WA 99362
Applicant's Consultant:	AKS Engineering & Forestry, LLC 9600 NE 126 th Avenue, Suite 2520 Vancouver, WA 98682 Contact(s): Michael Andreotti, RLA Email: andreottim@aks-eng.com Phone: (360) 882-0419
Site Location:	4002, 4204, & 4406 210 Private Road Richland, WA 99352
Benton County Parcels:	120984000004000, 120984000003000, & 120984000002000
Site Size:	±59.29 acres
Comprehensive Plan Land Use Designation	Low Density Residential (0-5 Dwellings/Acre)
Land Use Districts:	Single Family Residential (R-1-12)



I. Executive Summary

AKS Engineering & Forestry, LLC is pleased to submit this application to the City of Richland (City) on behalf of Pahlisch Homes, Inc. (Applicant) to subdivide ±59.29 acres of residentially designated land into 82 lots (Halara Hills) for the future construction of 82 detached single-family homes. However, a community is more than the homes that are built in it. Halara Hills is thoughtfully designed, ensuring stewardship of the surroundings, an embrace of the natural landscape, and the intent to integrate and preserve the natural environment through landscaping, open space, and amenities like the trails and neighborhood park.

The essential components of the Halara Hills Subdivision include:

- ±82 lots meeting the dimensional and density standards for detached single-family homes in the Single-Family Residential (R-1-12) zone.
- ±24.5 acres of permanent open space, more than ±41 percent of the property, for active and passive recreation, pedestrian connections, critical areas protection and mitigation, wildfire mitigation, and stormwater retention.
- Dedication and full-street improvements for two new internal streets—Lamont Street and Redtail Loop—providing an additional connection to Strawberry Lane and a connection westward through the site.
- Planned transportation improvements, internal circulation system, and street cross sections that will support the residential uses within the R-1-12 zone.
- Extension of all necessary utilities—including sanitary sewer, storm sewer, water service, irrigation service, and dry utilities—to serve residential development to and through the subject property.

The written narrative includes findings of fact demonstrating that the application complies with all applicable approval criteria. These findings are supported by substantial evidence, including Preliminary Plat, Geotechnical Engineering Report, Transportation Impact Analysis, Critical Areas Assessment and Fish and Wildlife Habitat Conservation Plan, amended State Environmental Policy Act (SEPA) checklist, and other written documentation. This information, which is included in this application package, provides the basis for the City and the Hearings Examiner to approve the application.

II. Site Description/Setting

The subject site consists of three parcels and is ±59.29 acres in size. The site is addressed as 4002, 4204, and 4406 210 Private Road, Richland, WA 99352, and is located in Richland, Washington. The included properties are identified as Benton County Parcel Numbers 120984000004000, 120984000003000, and 120984000002000 of the Southeast Quarter of Section 20, Township 9 North, Range 28 East, Willamette Meridian. The site is zoned Single-Family Residential (R-1-12) with no zoning overlays. The properties to the west are similarly zoned R-1-12 and in use as single-family residential and vacant. The properties to the north and east are zoned Suburban Agriculture (SAG) and in use as single-family residential. The properties to the south are zoned Park District in Benton County jurisdiction and are in use as the Badger Mountain Centennial Preserve.

The site has no street frontage, with access to the site gained from the Strawberry Lane street stub at the northeast corner of the site. Strawberry Lane is classified as local roadway and is constructed with a 60-

foot-wide right-of-way that includes a ± 32 -foot pavement width, ± 8 -foot-wide stormwater ditches on each side of the road, and 5-foot-wide attached sidewalk on the south side of the road. A 5-foot-wide attached sidewalk on the north side of the road begins ± 180 feet east of the site, at the eastern boundary of Parcel 121983040000021.

The site consists of rolling hills with steep slopes along the southern portion the site. The site slopes from south over a horizontal distance of ± 400 to 700 feet north into the site. The northern portion of the site has gentler sloping conditions in all directions, with the general low point in the northeast corner. Portions of the slope along the southern boundary have grades greater than 40 percent, which are identified in Richland Municipal Code (RMC) Section 22.10.240 as potential geological hazards.

The existing vegetation consists of largely of non-native pasture grasses and weeds with sparse shrub coverage across the northern portion of the site, with denser shrub cover with native grasses and perennials on the southern portion of the site. The Washington Department of Fish and Wildlife (WDFW) Priority Habitat and Species (PHS) on the Web map identifies the potential presence of shrub-steppe habitat and the Townsend's ground squirrel on site. These critical areas will be discussed in greater detail later in this narrative and in the Critical Areas Assessment and Fish and Wildlife Habitat Conservation Area Plan included with this application.

III. Project Background

The subject site was part of a previous application that was reviewed and recommended for approval by City staff but ultimately denied by the Hearings Examiner (File No. S2020-103). Issued identified by the Hearings Examiner, including those necessitating the denial, have been addressed, and the current application provides substantial evidence that the applicable decision criteria are met. Below is a summary of the issues the Hearing Examiner identified as the basis for the previous denial and how the current application meets those requirements.

- The Hearings Examiner concluded that the previous application incorrectly applied and did not satisfy the density transfer standards in RMC 22.10.400. The current application presents a subdivision meeting the applicable requirements of the underlying R-1-12 zoning district and does not rely on a density transfer. The applicable R-1-12 standards are addressed in the responses to Chapter 23.18, below.
- While the Hearings Examiner raised questions about the secondary emergency vehicles access (SEVA), he correctly noted that “the final location of any SEVA route can be addressed after preliminary plat approval and imposed as a requirement that must be satisfied before final plat approval.” The Applicant and the Fire Marshal have discussed the SEVA requirements, and it appears multiple options may be available. The ultimate solution will depend on timing as well as additional more technical engineering work, which is not uncommon or disallowed. Applicable law only requires that appropriate provisions be made for infrastructure and utilities needed to serve the project, not that every detail be settled prior to approval of the Preliminary Plat. The SEVA and other fire safety measures are addressed in the responses to applicable section of RMC Title 20.

-
- The Hearings Examiner determined that the previous plan conflicted with the public interest by leaving substantial acreage of non-buildable steep slopes under individual private ownership, creating the potential for many individual code-enforcement problems for City staff if private property owners developed portions of the steep slopes. The current plan removes the critical steep slopes from the rear yards of lots and protects them as permanent open space in three large tracts. The applicable standards for Geologically Hazardous Areas are addressed in the responses to Chapter 22.10, below.
 - The Hearings Examiner found conflicts in the Critical Areas Report relative to other evidence and testimony in the record, specifically from Michael Ritter, the Washington Department of Fish and Wildlife (WDFW) habitat biologist who visited the site and commented on the application. Consequently, the Applicant hired a new consultant, AKS Engineering & Forestry, to prepare a new Critical Areas Assessment and Fish and Wildlife Habitat Conservation Area Plan, included under Tab 6 in the application package. The new report identifies all habitat areas on the site and confirms that adequate on-site mitigation ensures no net loss of priority habitat functions. The new report was sent to Michael Ritter with WDFW for review. As stated in an email from Mr. Ritter, dated March 4, 2022 (included under Tab 7 in the application package),

“The Critical Areas Report describes the habitat within the project site as shrubsteppe and that mitigation will be in the form of conservation of the 23 acres on the steeper southern slope. WDFW supports this action as mitigation for the permanent loss of shrubsteppe habitat that will result from the development of the Halara Hills project. Also, we appreciate that the project is willing [sic] to consider additional voluntary restoration via seeding in selected areas of the steep slopes”.

In addition, the detailed analysis provided in the Critical Areas Assessment and Fish and Wildlife Habitat Conservation Area Plan, the applicable standards for Fish and Wildlife Habitat Conservation Areas are addressed in the responses to Chapter 22.10, below.

In addition to the significant modifications to the original application discussed above, the Applicant met with representatives from the Country Ridge Homeowners Association (HOA) to discuss the modified plan and answer questions about the project. Based on comments provided by the HOA representatives, the Applicant modified the layout to include a small pocket park in the northeast corner of the site (Tract H), a 15-foot wide buffer easement with trail along the site’s eastern property line, and trails through Tracts A, B, and C to connecting both Halara Hills and existing neighborhood to the Badger Mountain Centennial Preserve.

IV. Applicable Review Criteria

CITY OF RICHLAND COMPREHENSIVE PLAN 2017 (UPDATED 10/1/19)

As stated at the beginning of the Richland Comprehensive Plan, “Cities and other government jurisdictions adopt comprehensive plans to serve as guides for future activities. A comprehensive plan does not carry the weight of law. Rather, it is a policy statement that points the way to a future in which the City of Richland thrives and maintains all the qualities its citizens value.” Many of the goals and policies in the comprehensive plan are aspirational or designed to inform City policymaking and legislative amendments

to plans and code, rather than to serve as decision criteria for individual development applications. However, this project helps the City meet the goals and policies of the comprehensive plan as shown below in the responses to specific policies, but also by meeting the standards of the Richland Municipal Code.

The subject site is designated Low Density Residential (0-5 Dwellings/Acre) in the Richland Comprehensive Plan (RCP). The City has implemented this designation by zoning the three parcels of the subject site R-1-12. The proposed project is implementing the RCP designation by subdividing the 59.29-acre site into 82 lots for a gross density of 1.38 units per acre. After protection of shrub-steppe habitat, the site will have a net size of 30.26 acres for a net density of 2.71 units per acre. How the proposed community meets specific applicable requirements of the RCP are discussed below.

Economic Development Element

...

ED Goal 7

Recognize parks, natural areas, and a built environment with quality design for the value they offer as major attractions.

Policy 1:

Preserve open space areas and associated functions and values.

Response: Badger Mountain Centennial Preserve is located along the southern boundary of the subject site. The Preliminary Plat (Tab 4) shows three large open space tracts totaling ±23.38 acres designed to protect habitat on the north slope of Badger Mountain. The Applicant also intends to dedicate these tracts to the Badger Mountain Centennial Preserve, protecting the open space in perpetuity. Based in part on comments received from representatives of the adjacent HOA, the plan includes a trail system linking both the existing neighborhoods and Halara Hills to the Badger Mountain Centennial Preserve.

Policy 2:

Work with public and private groups to support these areas.

Response: The Applicant intends to dedicate three proposed open space tracts, totaling ±23.38 acres, to the Badger Mountain Centennial Preserve, as well as provide funding for the construction of new pedestrian trails to connect the proposed development to the existing pedestrian trails within the Badger Mountain Centennial Preserve. In an email dated April 20, 2022 (Tab 7), Michael Ritter with the Washington Department of Fish and Wildlife (WDFW) confirmed WDFW will allow for trails in open space tracts and recommends working with the Badger Mountain Preserve for trail construction. See the Preliminary Plat included under Tab 4 of this application package for more information.

Policy 3:

Provide opportunities for active and passive recreation in parks and open spaces.

Response: Multiple pathways and open spaces are proposed with the new community. An open space tract connecting Lamont Street and Redtail Loop will provide and pedestrian connection and shorten the block length for pedestrians and cyclists, providing a more walkable community. An open space tract from Redtail Loop to the proposed Tract B will

provide a connection to a future trail system to be constructed in Tracts A through C. An easement in the rear yards of lots 41 through 47 will provide a connection from Strawberry Lane to proposed Tract C, which will also provide a connection to the future trail system in Tracts A through C. The future trail system will provide a connection from the neighborhood to the extensive existing trail network within the Badger Mountain Centennial Preserve. The applicant proposes to fund the future trail system and for construction to be completed by the Friends of Badger Mountain.

A small neighborhood park is also proposed in Tract H, which is 0.68 acres in size, in the northeast corner of the site. The proposed park will integrate with the proposed stormwater facility in this tract.

A total of ±1.17 acres of open space will be provided within the development. See the Preliminary Plat included under Tab 4 of this application package for more information.

Policy 4:

Promote quality design for public projects as well as private developments.

Response: The proposed community is designed to promote connection to open spaces and provide for different recreation opportunities for the future residents. The design also protects a significant amount of habitat and steep slopes that currently existing on site.

Land Use Element

...

LU Goal 1

Plan for growth within the urban growth area and promote compatible land use.

...

Policy 2

Facilitate planned growth and infill developments within the City.

Response: The subject site was zoned R-1-12 by the City, showing intention for the land to be developed at the density proposed with this application. The proposed 82-lot subdivision meets all applicable requirements of the R-1-12 zoning district, as well as all other applicable requirements of the RMC. By meeting the requirements of the RMC, the subject site is developed following the pattern of growth intended by the City.

LU Goal 2

Establish land uses that are sustainable and create a livable and vibrant community

...

Response: A sustainable land use utilizes existing infrastructure, protects critical areas to the greatest extent practicable and mitigates for any impacts, and in the case of residential development, provides housing that is appropriate for the infrastructure and helps meet the housing needs for the City. As discussed in response to specific policies below, that proposed project will provided for sustainability while creating adding to the livable and vibrant community.

Policy 1

Maintain a variety of land use designations to accommodate appropriate residential, commercial, industrial, healthcare, educational, recreational, and open space uses that will take advantage of the existing infrastructure network.

Response: The subject site was zoned R-1-12 by the City, showing intention for the land to be developed at the density proposed with this application. To help maintain the intended variety of land use designations and provide for a variety of housing options within the City, the zoning of the subject site is different than the neighboring residential parcels to the north and east. The proposed development will also extend the existing Strawberry Lane and public utilities through the site to the west boundary to serve this project, as well as future development.

The Applicant is also proposing three large open space tracts to protect habitat on the north side of Badger Mountain. The Applicant also intends to dedicate these tracts to the Badger Mountain Centennial Preserve, protecting the open space in perpetuity. The Applicant will also provide funding for the construction of new pedestrian trails to connect the proposed development to the existing pedestrian trails within the Badger Mountain Centennial Preserve.

A small neighborhood park is also proposed in Tract H in the northeast corner of the site. The proposed park will integrate with the proposed stormwater facility in this tract.

See the Preliminary Plat included under Tab 4 of this application package for more information.

Policy 2

Ensure that adequate public services are provided in a reasonable time frame for new developments.

Response: The proposed project will provide public sanitary sewer, water, irrigation, and electricity, as well as other dry utilities for each lot within the development. There is an existing sanitary sewer main that extends into the site from Strawberry Lane and runs along the northern boundary of the site. New sanitary mains will be extended into the development from this main to provide service to the proposed lots. Water exists in Strawberry Lane and will be extended into and looped through the site and extended to the western site boundary at the proposed Lamont Street stub. Water service will be provided to each lot from the proposed water mains. An irrigation main exists adjacent to the sanitary main along the northern site boundary. New irrigation mains will be extended into the development from the existing main to provide irrigation service to each lot. Electricity will be extended to the site from Strawberry Lane and run within the public utility easement (PUE) at the front of each lot to provide service to all lots in the development. Other available dry utilities will be extended to the site and run within the PUE.

Policy 3

Ensure that the intent of the land use and districts are maintained.

Response: The subject site was zoned R-1-12 by the City, showing intention for the land to be developed with residential housing at the density proposed with this application. As stated in RMC 23.18.010.A, the R-1-12 zoning district requires “the lowest density of population within the city, providing protection against hazards, objectionable influences, building congestion and lack of light, air and privacy. Certain essential and compatible public service facilities and institutions are permitted in this district. This zoning classification is intended to be applied to some portions of the city that are designated low-density residential (zero to five dwellings per acre) under the city of Richland comprehensive plan.” The proposed 82-lot subdivision over 59.29 acres provides a gross density of 1.38 units per acre. After protection of shrub-steppe habitat, the proposed project will have a net size of 30.26 acres for a net density of 2.71 units per acre. The proposed community meets all applicable requirements of the R-1-12 zoning district, as well as all other applicable requirements of RMC. The proposed project will follow the City’s Type III application process, allowing for review of the project by the City, the public, and the Hearings Examiner to ensure that intent of the land use is maintained.

LU Goal 3

Maintain a broad range of residential land use designations to accommodate a variety of lifestyles and housing opportunities.

Policy 1

Distribute residential uses and densities throughout the urban growth area consistent with the City’s vision.

...

Response: The subject site was zoned R-1-12 by the City, showing intention for the land to be developed with the housing type and density proposed with this application. To help maintain the intended range and distribution of residential land use designations and provide for a variety of housing options within the City, the zoning of the subject site is different than the neighboring residential parcels to the north and east. The proposed project meets all applicable requirements of the R-1-12 zoning district, as well as all other applicable requirements of RMC. The proposed project will help meet the goal of distributing residential densities throughout the Urban Growth Area (UGA).

LU Goal 5

Ensure connectivity that enhances community access and promotes physical, social, and overall well-being so residents can live healthier and more active lives.

...

Policy 2

Promote pedestrian and bicycle circulation throughout the community by connecting with the infrastructure and the City’s network of parks and trail system.

...

Response:

The proposed roads within the development, as well as roads within neighborhoods to the east, are designed as local streets meeting the requires of standard detail ST-13. Based on the requirements for the local street, they are designed to allow bicyclists to share the roadway with vehicles. The project will provide 5-foot sidewalks on both sides of all roads within the development. The proposed sidewalks will connect to the existing sidewalk along the south side of Strawberry Lane at the eastern boundary of the site, with anticipation that connection will be made to the existing sidewalk on the north side when a home is constructed on Parcel 121983040000021. In addition to the sidewalks, multiple pathways are proposed. An open space tract connecting Lamont Street and Redtail Loop will provide and pedestrian connection and shorten the block length for pedestrians and cyclists, providing a more walkable community. An open space tract from Redtail Loop to the proposed Tract B will provide a connection to a future trail system to be constructed in Tracts A through C. An easement in the rear yards of lots 41 through 47 will provide a connection from Strawberry Lane to proposed Tract C, which will also provide a connection to the future trail system in Tracts A through C. See the Preliminary Plat included under Tab 4 of this application package for more information.

The future trail system will provide a connection from the neighborhood to the extensive existing trail network within the Badger Mountain Centennial Preserve. The applicant proposes to fund the future trail system and for construction to be completed by the Friends of Badger Mountain. This proposal will allow for a construction of trail that meets the communities needs while continuing to protect the environment.

LU Goal 8

Address unique land use situations in the urban area with policies specific to those situations that ensure compatibility between land uses without infringing on private property rights.

...

Policy 4

Identify and encourage the preservation of lands, sites, and structures that have historical or archaeological significance.

...

Response:

The subject site does not contain lands, sites, or structures that have historical or archaeological significance. However, the site abuts the Badger Mountain Centennial Preserve to the south, which is an important site to the citizens of Richland. The Applicant proposes to protect the Badger Mountain Centennial Preserve by providing three large open space tracts (Tracts A through C) containing the portion of the property located on the north edge of Badger Mountain and dedicating the tracts to the Badger Mountain Centennial Preserve to ensure the open space and habitat continues to be maintained and protected.

Natural Environment

NE Goal 1

Promote the protection, conservation, and restoration of natural areas, shorelines, and critical areas as unique assets to the community, and provide public access for enjoyment of such facilities based on the ability of the resource to support the use.

Policy 1

Use the critical areas ordinance, SMP, the state environmental policy act (SEPA), and other ordinances, as applicable, to designate and protect the critical areas and natural environment.

...

Response: The subject site abuts the Badger Mountain Centennial Preserve to the south and has the potential for shrub-steppe habitat and the Townsend's ground squirrel to be present on site. AKS natural resource biologists reviewed the site and provided a Critical Areas Assessment and Fish and Wildlife Habitat Conservation Area Plan (included with this application) meeting the requirements of the RMC Section 22.10.200. AKS determined that shrub-steppe habitat exists on site and that the Townsend's ground squirrel is not present on site. Shrub-steppe habitat in the southern portion of the site will be protected within Tracts A through C, and mitigation for shrub-steppe habitat impacts in the northeast corner of the site will be provided in these tracts.

There are steep slopes located along the southern portion of the site that are identified as potential geological hazards per RMC Section 22.10.240. PBS Engineering and Environmental Inc. (PBS) completed a Geotechnical Engineering Report, in which the steep slopes on site were evaluated. All slopes greater than 40 percent are located in the proposed open space tracts along the southern portion of the site to protect these steep slopes.

In addition to providing Tracts A through C to protect the habitat and steep slope areas, the tracts will be dedicated to the Badger Mountain Centennial Preserve to ensure the open space and habitat continues to be maintained and protected.

A SEPA checklist was completed and given a determination of non-significance (DNS) with the previous application. The SEPA checklist will be amended and included with this new application to provide updated information showing that this application both reduces impacts of the development and improves the mitigation of impacts that do occur.

Policy 4

Encourage the public and/or private acquisition of the prominent ridges in the south Richland area to preserve views, protect shrubsteppe habitat, and to provide public access. Consider the preservation of the ridges and hillside areas through various standards.

Response: The subject site is in south Richland and abuts the Badger Mountain Centennial Preserve to the south. The application proposes three large open space tracts along the southern portion of the development to protect shrub-steppe habitat and provide mitigation of impacts that do occur from the development. The Applicant also intends to dedicate these

tracts to the Badger Mountain Centennial Preserve, protecting the open space and shrub-steppe habitat in perpetuity.

Policy 5

Develop an integrated pedestrian trail system to provide access through the City's important natural features, such as prominent ridges and rivershore areas and provide necessary trail linkages between these natural features.

...

Response: The proposed development will provide sidewalks on both sides of all roads within the development. The proposed sidewalks will connect to the existing sidewalk along the south side of Strawberry Lane at the eastern boundary of the site, with anticipation that connection will be made to the existing sidewalk on the north side when a home is constructed on Parcel 121983040000021. In addition to the sidewalks, multiple pathways are proposed. An open space tract connecting Lamont Street and Redtail Loop will provide and pedestrian connection and shorten the block length for pedestrians and cyclists, providing a more walkable community. An open space tract from Redtail Loop to the proposed Tract B will provide a connection to a future trail system to be constructed in Tracts A through C. An easement in the rear yards of lots 41 through 47 will provide a connection from Strawberry Lane to proposed Tract C, which will also provide a connection to the future trail system in Tracts A through C. See the Preliminary Plat included under Tab 4 of this application package for more information.

The future trails system will provide a connection from the neighborhood to the extensive existing trail network with the Badger Mountain Centennial Preserve. The applicant proposes to fund the future trail system with construction to be completed by the Friends of Badger Mountain. The Applicant also proposes to dedicate Tract A through C to the Badger Mountain Centennial Preserve. This proposal will allow for a construction of trail that meets the communities needs while continuing to protect the habitat associated with Badger Mountain.

Urban Design

...

UD Goal 3

Development through appropriate design, should protect natural features such as rivers, shorelines, ridgelines, steep slopes, and archaeological and historical resources.

Policy 1

Development should be sensitive to existing topography and landscape, and should minimize environmental impacts.

Response: The subject site contains steep slopes along the southern portion of the site and abuts the Badger Mountain Centennial Preserve to the south. There are no rivers, shorelines, or archaeological or historical resources identified on site. The site also contains shrub-steppe habitat. No development is proposed on any ridgelines or steep slopes and all steep slopes are located in the proposed open space tracts along the southern portion of the site to protect these steep slopes. Mitigation of impacts to the shrub-steppe habitat will be provided in the open space tracts. The Applicant intends to dedicate these tracts

to the Badger Mountain Centennial Preserve, protecting the open space, steep slopes, and shrub-steppe habitat in perpetuity.

Policy 2

Hillside development should, as much as practical, blend with the natural shape and texture of the land.

Response: The subject site contains steep slopes along the southern portion of the site. No development is proposed on steep slopes and all steep slopes are located in the proposed open space tracts along the southern portion of the site to protect these steep slopes. Proposed grading for the development, following recommendations of the Geotechnical Engineer, will be completed to provide suitable home sites, while blending the development with the natural shape and texture of the land.

Housing Element

HE Goal 1

Provide a range of housing densities, sizes, and types for all income and age groups of the Richland community.

...

Policy 6

Plan for an adequate supply of land in appropriate land use designations and zoning categories to accommodate projected household growth, while accommodating other commercial, industrial, and open space needs of the City.

...

Response: The subject site was zoned R-1-12 by the City, showing intention for the land to be developed at the density proposed with this application. The proposed application is for an 82-lot subdivision of the subject site meeting all applicable requirements of the R-1-12 zoning district, as well as all other applicable requirements of RMC. The proposed project will help meet the goal of providing an adequate supply housing in appropriate zoning categories to accommodate household growth. Additionally, a small neighborhood park is also proposed in Tract H in the northeast corner of the site. The proposed park will integrate with the proposed stormwater facility in this tract.

HE Goal 5

Ensure compatibility of new residential developments with established neighborhoods and the community.

Response: As described in the RCP, compatibility is based on the intensity of land uses, with industrial being the most intense use due to the impacts of its operations and natural areas being the least intense use as there is no development. The proposed low density residential community is located with other low density residential to the east and west and natural area to the south. The application proposes to provide three large open space tracts to provide a transition from the low-density residential use to the existing lower intensity natural area to the south. An open space easement is also proposed along the east boundary to provide additional buffering between existing homes and the proposed community.

Policy 1

Maintain quality design and landscaping in the new developments.

Response: The subject site was zoned R-1-12 by the City, showing intention for the land to be developed at the density proposed with this application. The zoning of the subject site is different than the neighboring residential parcels to the north and east to help maintain the intended variety of land use designations and provide for a variety of housing options within the City. The proposed application is for an 82-lot subdivision of the subject site that meets all applicable requirements of the R-1-12 zoning district, as well as all other applicable requirements of RMC.

The proposed project will provide sidewalks on both sides of all roads within the development. The proposed sidewalks will connect to the existing sidewalk along the south side of Strawberry Lane at the eastern boundary of the site, with anticipation that connection will be made to the existing sidewalk on the north side when a home is constructed on Parcel 121983040000021. In addition to the sidewalks, multiple pathways are proposed. An open space tract connecting Lamont Street and Redtail Loop will provide and pedestrian connection and shorten the block length for pedestrians and cyclists, providing a more walkable community. An open space tract from Redtail Loop to the proposed Tract B will provide a connection to a future trail system to be constructed in Tracts A through C. An easement in the rear yards of lots 41 through 47 will provide a connection from Strawberry Lane to proposed Tract C, which will also provide a connection to the future trail system in Tracts A through C. The future trails system in Tracts A through C is proposed to be funded by the Applicant and constructed by the Friends of Badger Mountain. This proposal will allow for a construction of trail that meets the communities needs while continuing to protect the environment. The Applicant intends to donate Tracts A through C to the Badger Mountain Centennial Preserve, protecting the open space in perpetuity.

Additionally, a small neighborhood park is also proposed in Tract H in the northeast corner of the site. The proposed park will integrate with the proposed stormwater facility in this tract.

RICHLAND MUNICIPAL CODE

Title 12 STREETS AND SIDEWALKS

...

Chapter 12.03 Road Impact Fees

...

12.03.170 Relationship to SEPA.

All development shall be subject to environmental review pursuant to SEPA and other applicable city ordinances and regulations.

Payment of the impact fee shall constitute satisfactory mitigation of those traffic impacts related to the specific improvements identified on the project list.

Further mitigation in addition to the impact fee shall be required for identified adverse impacts appropriate for mitigation pursuant to SEPA that are not mitigated by an impact fee.

Nothing in this chapter shall be construed to limit the city's authority to deny development permits when a proposal would result in significant adverse traffic impacts identified in an environmental impact statement and reasonable mitigation measures are insufficient to mitigate the identified impact.

Response: The SEPA checklist provided with the original application for the site received a DNS, showing the impacts to the transportation system would be appropriately mitigated through installation of a traffic signal at the intersection of Country Ridge Drive and Keene Road, east of the development. This new application has reduced the number of proposed lots to 82, thus reducing the impacts from the development to the transportation system. A new traffic study completed by Transight Consulting, LLC is included with this application, which shows that a traffic signal continues to be warranted with the proposed development. An amended SEPA checklist is included with this application to include the modified impacts of the proposed project. All required impact fees will be paid. This standard is met.

12.03.180 Relationship to concurrency.

Development proposals that are submitted in general conformance with the assumptions made for land uses and scale/density will be deemed to meet the concurrency requirements of the Growth Management Act by paying the appropriate transportation impact fee. A development proposal not meeting such may require additional review and studies to determine concurrency.

...

Response: The proposed application has reduced the number of proposed lots to 82, thus reducing the impacts from the development to the transportation system compared to the previous application. A new traffic study completed by Transight Consulting, LLC is included with this application, which shows that a traffic signal continues to be warranted at the intersection of Country Ridge Drive and Keene Road with the proposed development. The Applicant will work with the City during final design to provide an adequate signal. All required impact fees will be paid. This standard is met.

Chapter 12.06 Complete Streets Policy

12.06.010 Purpose.

The city of Richland shall, to the maximum extent practical, scope, plan, design, construct, operate and maintain appropriate facilities for the safe accommodation of pedestrians, bicyclists, transit users, motorists, emergency responders, freight and users of all ages and abilities in all new construction, retrofit or reconstruction projects. Cost-effective opportunities to include complete streets practices shall be identified and implemented by the city as part of the standard operations and maintenance of city streets.

12.06.020 Exceptions.

Facilities for pedestrians, bicyclists, transit users, and people of all abilities are not required to be provided when, in the judgment of the public works director, any of the following apply:

-
- A. A documented absence of current or future need exists;
 - B. Nonmotorized uses are prohibited by law;
 - C. Routine maintenance of the transportation network is performed that does not change the roadway geometry or operations, such as mowing, sweeping and spot repair;
 - D. The cost would be disproportionate to the current need or probable future uses.

12.06.030 Complete streets infrastructure.

The city shall incorporate complete streets infrastructure into existing public streets, as feasible and recommended by professional engineer design professionals, to create a comprehensive, integrated, connected transportation network that balances access, mobility, health and safety needs of pedestrians, bicyclists, transit users, motorists, emergency responders, freight and users of all ages and abilities.

“Complete streets infrastructure” means design features that contribute to a safe, convenient, or comfortable travel experience for users, including but not limited to features such as: sidewalks; shared-use paths; bicycle lanes; automobile lanes of appropriate width; paved shoulders; street trees and landscaping; planting strips; curbs; accessible curb ramps; bulb-outs; crosswalks; refuge islands; pedestrian and traffic signals; signage; street furniture; bicycle parking facilities; public transportation stops and facilities in coordination with Ben Franklin Transit; traffic calming devices; and raised medians.

Response: The standards for complete streets contained in Chapter 12.06 provide direction and requirements for the City as it scopes, plans, designs, constructs, operates, and maintains in all new construction or reconstruction projects. Chapter 12.06 does not direct the City to review private development applications against these standards, so they do not serve as criteria for this application. Nonetheless, the project will provide new local streets on-site that generally comply with the standards for complete streets by incorporating sidewalks, vehicle travel lanes, landscaping, and other design features that meet the applicable standards in Chapters 24.16 and 24.20. Any off-site improvements for complete streets are the responsibility of the City to construct, as noted in RMC 12.06.010.

The Applicant will extend Strawberry Lane into the site from the east and connect to the proposed internal roads of the development, Lamont Street and Redtail Loop. The proposed roads within the development, as well as roads within neighborhoods to the east, are designed as local streets. The City of Richland does not require dedicated bicycle facilities on local streets, presumably because they have low enough traffic volumes and speeds to allow bicyclists to safely share the roadway with vehicles. All streets within the development will be constructed with a 54-foot-wide right-of-way, 34 feet of pavement, and 5-foot-wide attached sidewalks on both sides of the road. In addition to the sidewalks, the Preliminary Plat shows multiple trails connecting to and through Halara Hills and providing the opportunity to link the existing neighborhood, Halara Hills, and the Badger Mountain Centennial Preserve. An open space tract connecting Lamont Street and Redtail Loop will provide a pedestrian connection and shorten the block length for pedestrians and cyclists, providing a more walkable community. An open space tract from

Redtail Loop to the proposed Tract B will provide a connection to a future trail system to be constructed in Tracts A through C. An easement in the rear yards of lots 41 through 47 will provide a connection from Strawberry Lane to proposed Tract C, which will also provide a connection to the future trail system in Tracts A through C. The future trails system in Tracts A through C is proposed to be funded by the Applicant and constructed by the Friends of Badger Mountain. This proposal will allow for a construction of trail that meets the communities needs while continuing to protect the environment. This standard is met.

Chapter 12.10 Installation of Street Improvements

12.10.010 Street improvements for new construction

...

Response: The proposed development will include construction of roadway improvements including 34 feet of pavement and curbs prior to platting the subdivision. The proposed sidewalks and planter strips will be constructed with the associated lot at the time of home construction. This standard will be met.

12.10.030 Standards of construction

...

Response: All public improvements are designed and will be constructed to City of Richland standards as required by this section. The standard will be met.

12.10.035 Sidewalks for new or improved streets

Whenever any street is constructed or improved in any area of the city zoned residential or commercial, whether such construction be by local improvement or otherwise, as a part of such construction or improvement there shall be included therein, on both sides of any such street that may abut on previously developed property, sidewalks, curbs, and gutters constructed in conformity with requirements of this chapter.

Response: The proposed project will construct 5-foot-wide attached sidewalks on both sides of all roads within the development. In addition to the sidewalks, an open space tract connecting Lamont Street and Redtail Loop will provide and pedestrian connection and shorten the block length for pedestrians and cyclists, providing a more walkable community. The pedestrian connection will be constructed with the other public improvements, and all sidewalks will be constructed with the associated lot at the time of home construction. See the Preliminary Plat included in this application package for more information. This standard is met.

12.10.040 Permits

Before constructing street improvements, a permit shall be obtained in the same manner as is provided in Chapter 12.08 RMC.

Response: All appropriate permits will be obtained as required prior to any construction. This standard will be met.

...

12.11.020 Sight distance required

...

Response: The proposed project will extend Strawberry Lane into the site and construct Lamont Street and Redtail Loop with the development. All three roads are local streets with a speed limit of 25 miles per hour with one thru approach lane from the left. Vision Clearance triangles meeting the requirements of RMC Table 12.11.020 to provide appropriate sight distance are shown on the Preliminary Plat, demonstrating that the proposed development meets sight distance requirements. See the Preliminary Plat included in this application package for more information. This standard is met.

12.11.030 Requirements for the establishment of a vision clearance triangle

...

Response: Vision Clearance triangles meeting the requirements of RMC Table 12.11.020 to provide appropriate sight distance are shown on the Preliminary Plat. The vision clearance area, as defined by this section and shown in RMC Table 12.11.020, will remain clear as required by this section. This standard will be met.

Title 14 ELECTRICITY

...

Response: City of Richland Energy Services will provide electricity service to the development. Electricity will be extended to the site from Strawberry Lane and run within the PUE at the front of each lot to provide service to all lots in the development. All applicable connection fees will be paid for each lot. This standard is met.

Title 16 STORMWATER

...

Response: The proposed development will generate stormwater runoff from the roads, sidewalks, driveways, and homes. This stormwater runoff will be collected on site with catch basins and conveyed to a stormwater pond in Tract H in the northeast corner of the site. Stormwater will be detained and treated in the stormwater pond prior infiltrating on site. There is also existing stormwater runoff that flows to the site from Badger Mountain. This stormwater will be collected at the rear of the lots south of Redtail Loop and routed to the stormwater pond for detention and infiltration. Infiltration will occur as recommended in the geotechnical engineering report. See the Preliminary Plat included in this application package for more information. This standard is met.

Title 17 SEWERS

...

Response: An existing 18-inch sanitary sewer main runs through the site. The main extends from Strawberry Lane ±340 feet west into the site, then turns north extending to the north property line, and then turns west and runs along the northern property line, extending beyond the western site boundary. The proposed application will run 8-inch sanitary

sewer mains in Lamont Street and Redtail Loop to serve the development. Each lot will be provided with a sanitary sewer lateral connection to the proposed mains. The proposed sanitary sewer mains will connect to the existing sanitary sewer manholes that are located in the proposed Strawberry Lane extension and Lamont Street. Both manholes will be located near the proposed intersection of Strawberry Lane and Lamont Street. See the Preliminary Plat included in this application package for more information. This standard is met.

Title 18 WATER

...

Response: An existing 12-inch water main extends ±340 feet west into the site from Strawberry Lane. The proposed application will connect to the existing main and run a 12-inch water main to the western site boundary in Lamont Street and an 8-inch water main will be looped through Redtail Loop. Water service will be extended to each lot from the two proposed water mains. See the Preliminary Plat included in this application package for more information. This standard is met.

Title 19 DEVELOPMENT REGULATION ADMINISTRATION

Chapter 19.20 Types of Project Permit Applications

19.20.010 Procedures for processing development permits

For the purpose of project permit processing, all development permit applications shall be classified as one of the following: Type I, Type II, Type III, or Type IIIA. Legislative decisions are Type IV actions, and are addressed in RMC 19.20.050. Exclusions from the requirements of project permit application processing are contained in RMC 19.20.070.

...

C. Type III permits include the following types of permit applications:

1. Preliminary plats or major revisions thereof;
2. Plat alterations or vacations.

...

Response: The proposed application is for a preliminary plat. Therefore, the application is subject to a Type III review. The application package contains the materials necessary for the City to review and approve this submittal, including this narrative, Preliminary Plat, Stormwater Technical Information Report (TIR), Geotechnical Engineering Report, Traffic Study, Critical Areas Assessment, and amended State Environmental Policy Act (SEPA) checklist. This standard is met.

Chapter 19.30 Type I – III Project Permit Applications

19.30.010 Pre-application conferences

...

Response: A pre-application was submitted to the City on January 7, 2022. The pre-application conference was held on January 18, 2022. This standard is met.

19.30.020 Development permit application

Applications for project permits shall be submitted upon forms provided by the director. An application shall consist of all materials required by the applicable development regulations, and shall include the following general information:

...

Response: All necessary application forms and materials are included with this application package. This standard is met.

Chapter 19.60 Open Record Public Hearings

19.60.095 Required findings

No development application for a Type II or Type III permit shall be approved by the city of Richland unless the decision to approve the permit application is supported by the following findings and conclusions:

A. The development application is consistent with the adopted comprehensive plan and meets the requirements and intent of the Richland Municipal Code.

Response: The proposed application is for a new 82-lot single-family residential community. The Applicant will provide for mitigation and preservation of habitat area on site and connecting to the Badger Mountain Centennial Preserve; provide trail connections from the community to future trails in open space tract that will eventually connect to the extensive trail system in the Badger Mountain Centennial Preserve; and provide a small pocket park for the community. The lots proposed with the subdivision meet all standards of the R-1-12 zoning district. More detailed discussions of how the proposed community is consistent with the applicable comprehensive goals and policies and meets applicable sections of the RMC are provided throughout this narrative. This standard is met.

B. Impacts of the development have been appropriately identified and mitigated under Chapter 22.09 RMC.

Response: A SEPA checklist was completed and given DNS with the previous application. The SEPA checklist has been amended and included with this new application to provide updated information showing that this application both reduces impacts from the development and improves the mitigation of impacts that do occur. This standard is met.

C. The development application is beneficial to the public health, safety and welfare and is in the public interest.

Response: The proposed application will provide a community that will help the City meet housing needs identified in the comprehensive plan. The proposed community will provide open space and trails that connect to the larger Badger Mountain Centennial Preserve and trail system, providing access to recreation and outdoor spaces. WDFW priority habitat and steep slope critical areas will be protected in opens space tracts that will be dedicated to the Badger Mountain Centennial Preserve. Through these highlighted measures, and the other measures discussed throughout this narrative, the application is beneficial to the public health, safety, and welfare, and is in the public interest. This standard is met.

-
- D. The development does not lower the level of service of transportation facilities below the level of service D, as identified in the comprehensive plan; provided, that if a development application is projected to decrease the level of service lower than level of service D, the development may still be approved if improvements or strategies to raise the level of service above the minimum level of service are made concurrent with development. For the purposes of this section, “concurrent with development” means that required improvements or strategies are in place at the time of occupancy of the project, or a financial commitment is in place to complete the required improvements within six years of approval of the development.

Response: According to the TIA provided by Transight Consulting, the intersection of Country Ridge Drive and Keene Road will operate below level of service D after the proposed development if mitigation measures are not implemented. According to the TIA, providing a signal at the intersection will keep it operating above level of service D. The applicant will construct this improvement concurrent with the proposed development. This standard is met.

- E. Any conditions attached to a project approval are as a direct result of the impacts of the development proposal and are reasonably needed to mitigate the impacts of the development proposal.

Response: The Applicant is requesting a condition on the project requiring that a final SEVA road location be determined meeting Fire and Public Works standards prior to construction approval. This will allow adequate time for the Applicant and Fire Marshal to come to an agreement on an adequate SEVA route as discussed below in response to RMC Title 20. The City will also place other conditions on the project through the staff report that will ensure that the project reasonably mitigates impacts. This standard is and will be met.

Response: The application package contains the materials necessary for the City to review and approve this submittal, including this narrative, Preliminary Plat, Stormwater Technical Information Report (TIR), Geotechnical Engineering Report, Traffic Study, Critical Areas Assessment and amended State Environmental Policy Act (SEPA) checklist. This standard is met.

Title 20 LIFE SAFETY

Chapter 20.02 FIRE PREVENTION CODE

20.02.010 Adoption of the International Fire Code – Purpose and policy declared.

Response: After completion of the development, there will be a single full access point at Strawberry Lane. Lamont Street will be stubbed to the western property boundary for future extension and will eventually be a second full access point; however, with the development timeline to the west unknown, a SEVA is required. The Applicant is in discussion with the Fire Marshal to determine the best option for a SEVA. This final location secondary access will not be determined prior to issuance of the staff report or the land use hearing. Therefore, the Applicant is requesting a condition stating:

“The Applicant shall submit the final SEVA road location, showing that it meets Fire and Public Works standards for such roads, prior to final construction approval.”

This condition will give the Fire Marshal and the Applicant adequate time to determine the best SEVA location and give the City the opportunity to review the SEVA to ensure that it meets City requirements. This standard will be met.

Fire hydrants required for the development will be provided and reviewed during final engineering and all other fire code requirements for residential structures will be reviewed during the building permit review process.

20.02.029 Wildland areas.

Wildland areas are areas which are undeveloped, uncultivated or unfit for cultivation, or are considered by the city of Richland to be wasteland or desert, or which are any combination of these descriptions and definitions and which are deemed by the city of Richland as a hazard for wild fire purposes. The following requirements apply to buildings and structures constructed on, in, or near wild-land areas:

- A. All structures within 30 feet of a property line adjoining a wildland area shall have noncombustible siding, soffit, and skirting on the side adjacent to the wildland area when the wildland area is in excess of five contiguous acres. This requirement shall not apply to interior lots of platted parcels of land and development phases whose streets are accessible and whose water system is operational.
- B. Decks or porches 36 inches or less in height shall have skirting if within 30 feet of adjacent wildland areas when the wildland area is in excess of five contiguous acres. Skirting shall be sufficiently constructed so as not to allow the accumulation of combustible material under the deck or porch. The area under the deck or porch shall not be used for storage.
- C. When determined by the fire marshal, noncombustible siding or soffit material shall be required on the downhill side(s) of a structure or building that is within 30 feet of a grade that is 15 percent or greater in steepness. The grade shall be determined by the predominant slope on the downhill side measured from the structure or building and extending a maximum of 300 feet.

Response: The subject site abuts the Badge Mountain Centennial Preserve and the proposed development will provide three large open spaces tracts along the southern portion of the project for the protection of habitat areas and steep slopes. Badger Mountain and the open space tracts are areas that will remain undeveloped and are unfit for cultivation. Additionally, it has been noted that there is evidence fires having occurred on site and in the vicinity of the site. Therefore, the proposed development will meet the wildland area requirements outlined above. These requirements will be reviewed during the building permit review for each individual lot. This standard will be met.

Title 22 ENVIRONMENT

...

Chapter 22.09 State Environmental Policy Act

...

Response: A SEPA checklist was completed and given DNS with the previous application. The SEPA checklist has been amended and included with this new application to provide updated

information showing that this application both reduces impacts from the development and improves the mitigation of impacts that do occur. This standard is met.

Chapter 22.10 Critical Areas

...

Article IV. Fish and Wildlife Habitat Conservation Areas

The Applicant's natural resources biologist, AKS Engineering and Forestry, prepared a Critical Areas Assessment and Fish and Wildlife Habitat Conservation Area Plan, which was sent to Michael Ritter with WDFW for review. As stated in an email from Mr. Ritter, dated March 4, 2022 (included under Tab 7 in the application package),

"The Critical Areas Report describes the habitat within the project site as shrubsteppe and that mitigation will be in the form of conservation of the 23 acres on the steeper southern slope. WDFW supports this action as mitigation for the permanent loss of shrubsteppe habitat that will result from the development of the Halara Hills project. Also, we appreciate that the project is willing [sic] to consider additional voluntary restoration via seeding in selected areas of the steep slopes".

A general discussion of how this application meets RCM requirements is included in the following response to applicable sections of Article IV of RMC Chapter 22.1. Please refer to the Critical Areas Assessment and Fish and Wildlife Habitat Conservation Area Plan included under Tab 6 in this application package.

22.10.180 Exemption from fish and wildlife habitat conservation area regulations.

Response: According to WDFW's PHS Web map, the subject site contains shrub-steppe habitat. No exempt activities are proposed with this development; therefore, the requirements of this section apply.

22.10.185 Fish and wildlife habitat conservation areas.

Response: According to WDFW's PHS Web map, there are indicators for shrub-steppe habitat and Townsend's ground squirrel on the subject site. AKS natural resource biologist visited the site and completed a Critical Areas Assessment and Fish and Wildlife Habitat Conservation Area Plan that is included in the application package (Tab 6). According to the report, WDFW shrub-steppe habitat is present in the northeastern corner, and eastern and southern portions of the site. The Badger Mountain Centennial Preserve is identified by the City as habitat conservation area and abuts the southern boundary of the subject site.

22.10.200 Requirements for habitat conservation area reports.

Response: The Critical Areas Assessment and Fish and Wildlife Habitat Conservation Area Plan prepared by AKS is included in the application package (Tab 6). The report meets the requirements of this section. This standard is met.

22.10.210 Fish and wildlife habitat conservation area – Performance standards.

Development or any regulated activity occurring within a designated habitat conservation area or within its respective protection buffer, or development or any regulated activity proposed to occur adjacent to, or close enough to, a habitat conservation area so as to likely impact critical area ecosystem functions and values,

shall only be permitted in accordance with the conditions of an approved habitat conservation area report. Such report shall be based on the following standards using the best available science:

A. Consider habitat in site planning and design;

Response: According to the AKS natural resources biologist, the majority of the healthier shrub-steppe habitat in good condition exists along the southern and eastern portions of the site, with less healthy marginal condition shrub-steppe habitat in the northeast corner of the site. The habitat along the southern portion of the site continues to the south off site. The site planning has accounted for the locations of habitat by protecting the good habitat along the southern portion of the site in three open space tracts (Tracts A through C) and proposing development in the marginal habitat and good habitat along the east portion of the site that is disconnected from the other good habitat. Mitigation for all habitat impacts will occur in Tracts A through C, and the Applicant also intends to dedicate these tracts to the Badger Mountain Centennial Preserve, protecting the open space and shrub-steppe habitat in perpetuity. This standard is met.

B. Locate buildings and structures in a manner that preserves and minimizes adverse impacts to important habitat areas, including use of bird-friendly building design and use of dark sky lighting standards;

Response: The proposed development site plan has been revised from the previous application to remove lots from the habitat area in the southern portion of the site, reducing impacts to the shrub-steppe habitat and steep slopes. Additionally, the habitat area will be placed in three open space tracts that the Applicant intends to dedicate to the Badger Mountain Centennial Preserve.

C. Integrate retained habitat into open space and native plantings, consistent with the provisions of all open space and landscaping requirements;

Response: The protected habitat and mitigation areas will be located in Tracts A through C along the southern portion of the site, connecting to the Badger Mountain Centennial Preserve. The Applicant also intends to dedicate these tracts to the Badger Mountain Centennial Preserve, protecting the open space and shrub-steppe habitat in perpetuity. This standard is met.

D. Activity within or close to a habitat conservation area shall not result in the degradation of the functions and values of the habitat;

Response: All subdivision activities will occur outside of the protected habitat areas. The Applicant is proposing to provide funding for trail construction within Tracts A through C, and that the Friends of Badger Mountain would construct the trails. The Friends of Badger Mountain have the experience to construct the trails without degradation of the habitat. This standard is met.

E. Nonindigenous species shall not be introduced into a habitat conservation area;

Response: The Applicant does not propose the use of any nonindigenous species within the habitat conservation area. This standard is met.

-
- F. Contiguous corridors through a project area shall be maintained. Measures necessary to mitigate impacts within a habitat conservation area shall attempt to achieve contiguous functioning habitat corridors in order to minimize the isolating effects of development on habitat;

Response: The protected habitat and mitigation areas will be located in Tracts A through C along the southern portion of the site, connecting to the Badger Mountain Centennial Preserve. See the Preliminary Plat included in this application package for more information. The Applicant also intends to dedicate these tracts to the Badger Mountain Centennial Preserve, protecting the open space and shrub-steppe habitat in perpetuity. This standard is met.

- G. Identify habitat contiguous to other habitat areas, open space or landscape areas to contribute to a continuous system or corridor that provides connections to adjacent habitat areas and allows movement of wildlife;

Response: The protected habitat and mitigation area will be located in Tracts A through C along the southern portion of the site, connecting to the Badger Mountain Centennial Preserve. See the Preliminary Plat included in this application package for more information. The Applicant also intends to dedicate these tracts to the Badger Mountain Centennial Preserve, protecting the open space and shrub-steppe habitat in perpetuity. This standard is met.

- H. Use native species in any landscaping of disturbed or undeveloped areas and in any enhancement of habitat areas;

Response: The Applicant is proposing voluntary habitat enhancement planting in parts of the mitigation area in Tracts A through C. The planting will occur through broadcasting of native plant seed in targeted areas. This standard is met.

- I. Emphasize heterogeneity and structural diversity of vegetation in landscaping and food producing plants beneficial to wildlife;

Response: The Applicant is proposing voluntary habitat enhancement planting in parts of the mitigation area in Tracts A through C. The planting will occur through broadcasting of native plant seed in targeted areas.

- J. Width of riparian corridors shall be in accordance with buffer widths suggested by BAS, including WDFW publication Riparian Ecosystems, Volume 2: Management Recommendations, May 2018, or as revised. Riparian corridors shall also meet the minimum requirements as established in RMC Title 26 and wetland buffer requirements as established in RMC 22.10.110;

Response: The proposed open space along the southern boundary has a minimum depth of ±430 feet and will connect to the Badger Mountain Centennial Preserve to the south. See the Preliminary Plat included in this application package for more information. This standard is met.

- K. Activities within a habitat conservation area shall be conditioned as identified in the habitat conservation area report to avoid, minimize, or mitigate potential adverse impacts. Conditions shall include protective buffers based on the State of Washington Department of

Fish and Wildlife management recommendations for Washington's priority species modified for local conditions and the recommendations of the Department of Fish and Wildlife biologists and may include, but are not limited to, the following measures:

1. Establishment of undisturbed habitat areas;

Response: The protected habitat and mitigation areas will be located in Tracts A through C along the southern portion of the site, connecting to the Badger Mountain Centennial Preserve. See the Preliminary Plat included in this application package for more information. The Applicant also intends to dedicate these tracts to the Badger Mountain Centennial Preserve, protecting the open space and shrub-steppe habitat in perpetuity. This standard is met.

2. Staking of undisturbed habitat areas prior to any construction, including clearing, grading and filling taking place on site;

Response: All protected habitat areas will be staked prior to the start of any construction. This standard will be met.

3. Fencing of undisturbed habitat areas in a manner consistent with the provisions of RMC 22.10.115(H);

Response: Permanent fencing will be placed along the northern boundary of Tracts A through C to prevent disturbance of the habitat area from private lots. See the Critical Areas Assessment and Fish and Wildlife Conservation Area Plan for more information. This standard is met.

4. Temporary erosion and sedimentation controls, pursuant to an approved plan, shall be implemented during construction;

Response: Erosion control plans will be approved by the City and implemented on site prior to development. This standard will be met.

5. Preservation of critically important vegetation;

Response: All vegetation within the protected habitat area will be maintained. This standard is met.

6. Supplemental planting of native tree or shrub cover;

Response: The Applicant is proposing voluntary habitat enhancement planting in parts of the mitigation area in Tracts A through C. The planting will occur through broadcasting of native plant seed in targeted areas.

7. Removal and/or control of any noxious or undesirable species of plants and animals;

Response: Currently the Applicant is not proposing the removal of any noxious or undesirable species of plants or animals.

8. Preservation of significant trees and/or snags, preferably in groups, consistent with achieving the objectives of these standards;

Response: No significant trees or snags exist on site. This standard does not apply.

-
9. Replanting of disturbed areas and/or areas where noxious weed species were removed with native vegetation types, including ongoing plans for weed control and irrigation as appropriate;

Response: Protected habitat area will not be disturbed. All disturbed areas will be converted to residential lots and open space. Therefore, this section does not apply.

10. Limitation of access to an identified habitat area, including fencing to deter unauthorized access;

Response: Permanent fencing will be placed along the northern boundary of Tracts A through C to prevent disturbance of the habitat area from private lots. See the Critical Areas Assessment and Fish and Wildlife Conservation Area Plan (Tab 6) for more information. An open space tract from Redtail Loop to the proposed Tract B will provide a connection to a future trail system to be constructed in Tracts A through C. An easement in the rear yards of lots 41 through 47 will provide a connection from Strawberry Lane to proposed Tract C, which will also provide a connection to the future trail system in Tracts A through C. See the Preliminary Plat included in this application package for more information. The future trail system in Tracts A through C is proposed to be funded by the Applicant and constructed by the Friends of Badger Mountain. This proposal will allow for a construction of trail that meets the communities needs while continuing to protect the environment. This standard is met.

11. Seasonal restriction on construction activities;

Response: All construction will occur as permitted and allowed by the City. This standard will be met.

12. Implementation of a schedule for periodic review of completed mitigation measures for a specified time period;

Response: The Applicant does not propose a schedule of periodic review as the main form of mitigation is through protection of existing shrub-steppe habitat with the creation of three large open space tracts and a covenant that will protect these tracts. Proposed seeding is a voluntary measure and is therefore not required to be monitored. The Applicant also intends to dedicate these tracts to the Badger Mountain Centennial Preserve, protecting the open space, steep slopes, and shrub-steppe habitat in perpetuity.

13. Posting of a bond or other financial surety to ensure completion and success of proposed mitigation measures. Such bond or other security device shall be required to assure successful establishment of required planting for an appropriate monitoring period. The amount of the bond or other security device shall equal 125 percent of the cost of the mitigation project for a period of five years. The administrator may agree to reduce the bond in phases in proportion to work successfully completed over the period of the bond.

Response: The proposed mitigation is the protection of shrub-steppe habitat in three open spaces tracts that will be created with the plat, not requiring a financial assurance. All proposed seeding is voluntary and therefore a bond or other financial assurance is not required for the seeding work. This section does not apply.

22.10.220 Fish and wildlife habitat conservation area alteration.

A. Adverse impacts to habitat functions and values shall be mitigated to the extent feasible and reasonable. Mitigation actions by an applicant or property owner shall occur in the following preferred sequence:

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

Response: The subject site is ideal to support housing as it is zoned R-1-12 and I located adjacent to an existing subdivision with utilities and public infrastructure connections, an interstate highway, schools, and a public nature preserve. Complete avoidance of the on-site shrub-steppe habitat is not practicable. The site gains access from Strawberry Lane, which will be extended into the development and will bisect and fragment the shrub-steppe habitat in the northeast corner of the site. Additionally, the habitat in the northeast corner of the site is adjacent to an existing residential community, concrete-lined irrigation canal, and interstate highway.

The proposed develop will preserve the shrub-steppe habitat along the southern portion of the site, which abuts the Badger Mountain Centennial Preserve. This will maintain the connection of the on-site habitat with the habitat to the south. This standard is met.

2. Minimizing impacts by limiting the degree or magnitude of the action and its implementation by using appropriate technology and engineering, or by taking affirmative steps to avoid or reduce adverse impacts;

Response: The project layout was designed to minimize encroachment into priority habitat as much as practical. Using recommendations outlined in WDFW's Site-specific Management: How to Avoid and Minimize Impacts of Development to Shrub-steppe (updated September 2020), the following features were analyzed to reduce impacts to shrub-steppe habitat on the site.

Development Densities: The proposed site plan significantly reduced single-family residential lot count from a previous land use submittal for the site from 101 lots to 82 lots. The reduction in lot quantity and project size minimizes the extent of encroachment into priority shrub-steppe habitat.

Siting of Homes and Lots: The site plan was revised to remove lot area from the priority habitat in the southern portion of the site, reducing impacts to shrub-steppe habitat. The habitat in the southern portion of the site will be preserved in three open space tracts, which the Applicant intends to dedicate to the Badger Mountain Centennial Preserve.

Lighting: To minimize wildlife disturbance, the rear of homes along the southern perimeter of the site will implement the dark sky lighting.

Roads and Utilities: The transportation alignment was designed to avoid bisecting large, continuous patches of shrub-steppe.

Domestic Animals: Permanent fencing will be placed along the southern perimeter of residential lots to prevent domestic animals from harassing wildlife within preserved habitat.

Wildfire Prevention: Wildfire is one of the primary disturbances to shrub-steppe ecosystems. The project will remove cheatgrass from the site (an annual grass that creates fuel for fire across large areas), thus reducing the fire fuel area. Defensible space is a key tool included in any effective Wildland Urban Interface program. The concept of defensible space will be implemented through the reduction of fire fuels within the Home Ignition Zone (up to 200 feet from the foundation of a home) as it applies on individual lots. In addition to vegetation management, new homes will meet the current state and local building codes relative to fire safety. Pahlisch Homes uses a variety of construction techniques to reduce the risk of fire loss, including 1/8th-inch metal screening on exterior vents, fiber-cement siding, concrete (or similar) surfaces in most exterior applications. All of these items, in addition to compliance with minimum setback standards, have fire reduction advantages that exceed current building code requirements. This standard is met.

3. Rectifying the impact by repairing, rehabilitating, or restoring the affected environment;

Response: The Applicant is proposing the protection of priority habitat along the southern portion of the site. In addition, the Applicant is proposing voluntary seeding in selected areas with the preserved open space tracts. This will help to ensure suitable priority habitat is maintained. This standard is met.

4. Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action;

Response: The Applicant intends to dedicate the three open spaces tracts that will protect the existing shrub-steppe habitat to the Badger Mountain Centennial Preserve to allow the open space to be protected in perpetuity. A conservation covenant will also be placed over the tract providing additional protections. AKS' natural resources biologist spoke with Michael Ritter from WDFW, along with providing a draft of the proposed mitigation plan for him to review. In an email dated March 4, 2022 (Tab 7 and excerpt below), Mr. Ritter confirmed support for the conservation of ±23 acres on the steeper southern slope as appropriate mitigation for the anticipated loss of shrub-steppe habitat. The Applicant has also volunteered additional restoration through seeding of select areas, which Mr. Ritter noted was appreciate by the WDFW. This standard is met.

“The Critical Areas Report describes the habitat within the project site as shrubsteppe and that mitigation will be in the form of conservation of the 23 acres on the stepper southern slope. WDFW supports this action as mitigation for the permanent loss of shrubsteppe habitat that will result from the development of the Halara Hills project. Also, we appreciate

that the project is willing [sic] to consider additional voluntary restoration via seeding in selected areas of the steep slopes”.

5. **Compensating for the impact by replacing, enhancing, or providing similar substitute resources or environments. Preference shall be given to measures that replace the impacted functions on site or in the immediate vicinity of the impact;**

Response: The site plan includes preservation of over 23 acres of priority shrub-steppe habitat. The on-site preservation mitigation consists of the long-term protection of a large, contiguous open space adjacent to Badger Mountain Centennial Preserve. Preservation of this area will ensure long-term protection of locally significant habitat and no net loss of functions and values. AKS’ natural resources biologist spoke with Michael Ritter from WDFW, along with providing a draft of the proposed mitigation plan for him to review. In an email dated March 4, 2022 (Tab 7 and excerpt below), Mr. Ritter confirmed support for the conservation of ±23 acres on the steeper southern slope as appropriate mitigation for the anticipated loss of shrub-steppe habitat. The Applicant has also volunteered additional restoration through seeding of select areas, which Mr. Ritter noted was appreciated by the WDFW. This standard is met.

“The Critical Areas Report describes the habitat within the project site as shrubsteppe and that mitigation will be in the form of conservation of the 23 acres on the steeper southern slope. WDFW supports this action as mitigation for the permanent loss of shrubsteppe habitat that will result from the development of the Halara Hills project. Also, we appreciate that the project is willing [sic] to consider additional voluntary restoration via seeding in selected areas of the steep slopes”.

6. **Monitoring the impact over time and taking corrective measures to minimize additional impacts.**

Response: The Applicant intends to dedicate the three open spaces tracts that will protect the existing shrub-steppe habitat to the Badger Mountain Centennial Preserve to allow the open space to be protected and monitored in perpetuity. A conservation covenant will also be placed over the tract providing additional protections. This standard is met.

- B. **Where impacts cannot be avoided, the applicant or property owner shall seek to implement other appropriate mitigation actions in compliance with the intent, standards and criteria of this section. In an individual case, these actions may include consideration of alternative site plans and layouts, reductions in the density or scope of the proposal, and/or implementation of the performance standards listed in RMC 22.10.210.**

Response: As previously discussed, the proposed application included a modified site plan from the plan previously submitted which reduced the density of the development and proposes preservation of over 23 acres of priority shrub-steppe habitat. This standard is met.

Article V. Geologically Hazardous Areas

22.10.240 Identification and definition.

Response: A Geotechnical Engineering Report was completed by PBS and is included in the application package. The subject site has slopes greater than 40 percent with a vertical relief or more than 10 feet along the southern portion of the site, constituting a potential landslide hazard. PBS also identified potential erosion hazards on the site.

22.10.250 Applicability to geologically hazardous areas

Response: Grading and construction for the proposed development will occur within 200 feet of the steep slopes; therefore, the standards of this section apply.

22.10.280 Geologic reports and studies.

Response: A Geotechnical Engineering Report was completed by PBS and is included in the application package. The report meets the requirements of RMC 22.10.370(B)(6). According to the report by PBS, cutting into or near the toe of the slope could create potential hazards. The Applicant is proposing to fill along the southern portion of the site at the rear of the proposed lots, and the existing slopes of 40 percent or greater are located in three large open space tracts along the southern portion of the site. These tracts will help to protect the steep slopes. Potential erosion will be minimized using erosion control measures. This standard is met.

Title 23 ZONING REGULATIONS

Chapter 23.18 Residential Zoning Districts

23.18.010 Purpose of residential use districts

Five residential zone classifications permit a variety of housing and population densities without conflict. Protection is provided against hazards, objectionable influences, traffic, building congestion and lack of light, air and privacy. Certain essential and compatible public service installations are permitted in residential use districts.

A. The single-family residential – 12,000 (R-1-12) is a residential zone classification requiring the lowest density of population within the city, providing protection against hazards, objectionable influences, building congestion and lack of light, air and privacy. Certain essential and compatible public service facilities and institutions are permitted in this district. This zoning classification is intended to be applied to some portions of the city that are designated low-density residential (zero to five dwellings per acre) under the city of Richland comprehensive plan.

...

Response: The subject site is located in the R-1-12 zoning district and the Applicant is proposing 82 detached single-family lots on a ±59.29 site, for a gross density of 1.38 units per acre. This standard is met.

23.18.025 Single-family residential design standards

Any one-family attached dwelling, one-family detached dwelling or designated manufactured home shall meet the following minimum requirements:

- A. All dwellings shall be placed on permanent foundations.
- B. At the time of construction, all new single-family dwellings shall be new, not having been previously titled to a retail purchaser and not meeting the definition of a “used mobile home” as defined in RCW 82.45.032(2).

Response: All proposed homes will be placed on permanent foundations and will be new construction. All homes will go through the building permit review process prior to construction. This standard will be met.

23.18.030 Residential use districts permitted land uses

In the following chart, land use classifications are listed on the vertical axis. Zoning districts are listed on the horizontal axis.

...

Land Use	R-1-12	R-1-10	R-2	R-2S	R-3
Residential Uses					
Dwelling, One-Family Detached	P⁴	P⁴	P⁴	P⁴	P⁴

4. RMC 23.18.025

Response: The Applicant is proposing an 82-lot subdivision for the future construction of detached single-family homes in the R-1-12 zoning district. As shown in the section of the chart above from RMC 23.18.030, the proposed use is permitted in the zoning district. This standard is met.

23.18.040 Site requirements for residential use districts

In the following chart, development standards are listed on the vertical axis. Zoning districts are listed on the horizontal axis. If a number appears in the box at the intersection of the column and row, that number represents the dimensional standard that applies to that zoning district.

Standard	R-1-12	R-1-10	R-2	R-2S	R-3
Minimum Lot Area Requirement – One-Family Detached Dwelling	10,000 feet ¹	8,000 feet	6,000 feet	4,000 feet	4,000 feet
Minimum Lot Area Requirement – Two-Family Detached Dwelling	N/A	N/A	10,000 feet	7,000 feet	7,000 feet
Minimum Lot Area Requirement – One-Family Attached Dwellings	N/A	N/A	N/A	3,000 feet	3,000 feet
Maximum Density – Multifamily Dwellings (Units/Square Foot)	N/A	N/A	N/A	N/A	1:3,000
Minimum Lot Width – One-Family Detached Dwelling	90 feet	70 feet	50 feet	42 feet	42 feet
Minimum Lot Width – Two-Family Detached Dwelling	N/A	N/A	70 feet	64 feet	64 feet
Minimum Lot Width – One-Family Attached Dwellings	N/A	N/A	N/A	30 feet	30 feet
Average Lot Size Requirement ²	12,000	10,000	None	None	None
Minimum Front Yard Setback ³	20 feet	20 feet	20 feet	15 feet/18 feet ⁴	20 feet ^{6,10}
Minimum Side Yard Setback	10 feet	10 feet	6 feet	6 feet ⁵	^{6,10}
Minimum Alley/Private Access Easement Setback	6 feet	6 feet	6 feet	6 feet	6 feet
Minimum Rear Yard Setback	25 feet	25 feet	25 feet	20 feet/3 feet ⁷	25 feet ^{6,10}
Maximum Lot Coverage ⁸	40%	40%	40%	50%	33%/45% ^{9,10}
Maximum Building Height – Main Building	30 feet	30 feet	30 feet	30 feet	40 feet ¹⁰
Maximum Building Height – Detached Accessory Buildings ¹¹	16 feet	16 feet	16 feet	16 feet	16 feet

- The minimum lot size in existing residential neighborhoods shall be based on the mean average lot size of existing platted R-1-12 lots within a radius of 500 feet of the property proposed for subdivision. However, in no case shall the minimum lot requirement exceed 12,000 square feet, nor be less than 10,000 square feet.
- Minimum average lot area per subdivision, exclusive of the area of streets and lots designated for nonresidential uses. In calculating average lot size, at least 35 percent of all lots shall be larger than the average lot size requirement.
- Front yard setbacks are required from all street rights-of-way adjoining a lot as shown in the table above, except as follows:
 - In single-family residence districts and in R-2 and R-3 districts where more than 50 percent of the normal or average-size lots in a block fronting on one side of the street are developed with existing buildings, other than accessory buildings, with front yard setbacks less than that required for the district, a new single-family or duplex dwelling shall adopt a minimum front yard setback dimension which is the average of the setbacks of the buildings on the two adjoining lots, existing prior to July 22, 1960, but in no case shall this dimension be less than 15 feet nor need it exceed 30 feet.
 - Residential Districts. In any R district, or any combination therewith, on any corner lot where there is provided a side yard along the interior side lot line at least equal in width to the minimum depth of the rear yard required for the district, the main building may encroach upon the required rear yard up to a line where the remaining rear yard is no less in depth than the minimum width of the side yard required for the district. No accessory buildings may be located in said side yard, except a patio shelter enclosed on no more than two sides by walls or other enclosures and in conformity with the other provisions of this title.
 - The flanking frontage or nonaddress front yard of a corner lot may reduce the front yard setback of said frontage to 15 feet; see diagram below.
- Front yards shall not be less than 15 feet in front of living areas, up to a maximum of 55 percent of the front lot line, and not less than 18 feet in front of all other areas.
- Detached one-family or detached two-family dwellings shall have two side yards with each side yard having a width of not less than six feet. A nonattached side of an attached one-family dwelling shall have a side yard having a width of not less than six feet.
- For multiple-family dwellings and other allowable uses other than one-family attached and one-family and two-family detached dwellings, front yards shall be 20 feet, side yards shall be equal to one foot of side yard for each three feet or portion thereof of building height, and rear yards shall be 25 feet, except as required by RMC 23.18.020(B) when multifamily development is located adjacent to a single-family residential zoning district or development.
- Rear yards shall be not less than 20 feet in back of living areas and three feet in back of garages or carports up to a maximum of 60 percent of the rear lot line for the garage or carport portion of the rear yard.
- Lot coverage includes all buildings, including accessory buildings or structures on any lot in a residential district, exclusive of patios without roof coverings or patios with only open lattice or similar type roof construction.

-
9. Buildings in an R-3 district shall cover not more than 33 percent of the area of the lot except one-family attached dwellings, which may cover up to 45 percent of the area of the lot.
 10. Setbacks, building heights, and lot coverage requirements for one-family attached, one-family detached and two-family detached dwellings in the R-3 zoning district shall be the same as those set forth for development in the R-2S zoning district.
 11. Detached accessory structures built pursuant to the setback provisions of RMC 23.38.020 are limited to one story.

...

Response: The proposed application is for an 82-lot subdivision for the future construction of detached single-family homes in the R-1-12 zoning district. The development is required to have a minimum lot area of 10,000 square feet with an average lot area of 12,000 square feet, and 35 percent of all lots must be greater than 12,000 square feet. The lots are required to have a minimum width of 90 feet between the side lot lines measured at a right angle to the lot depth at its midpoint.

The proposed lots have a minimum lot size of 11,199 square feet with an average lot area of 15,692 square feet. All lots have a minimum width of 90 feet. Seventy-seven of the 82 proposed lots are greater than 12,000 square feet, totaling 94 percent of the lots.

All proposed lots are large enough to meet all setback standards and all future homes will go through the building permit review process to show that they meet the maximum height requirements and maximum lot coverage. This standard is met.

Chapter 23.54 Off-Street Parking and Landscaping

...

23.54.020 Standards and requirements

The minimum required parking spaces for the respective uses shall be as follows:

A.	Residential Uses	Number of Parking Stalls Required
1.	Single-family attached and detached dwellings, manufactured homes, condominiums and duplexes	2 spaces per dwelling unit.

...

Response: The application proposes to subdivide the subject site into 82 lots for the future construction of detached single-family homes. Each home will be required to provide a minimum of two parking spaces. Each future home will have a minimum of a two-car driveway and two-car garage, for a total of four parking spaces. This standard is met.

23.54.090 Location of parking spaces

Required off-street parking spaces shall be located as follows:

- A. For any type of dwelling: on the same lot with the building to be served.

...

Response: The application proposes the required parking spaces will be provided through garage spaces and single-family driveways located on the same lot as the residence. This standard is met.

23.54.110 Improvement of parking spaces

Any parking facility for four or more vehicles shall be improved in accordance with the following requirements:

- A. Off-street parking facilities shall be surfaced with a durable and dust-free surface; shall be graded and drained so as to dispose of surface water to the satisfaction of the city engineer; and shall be maintained in good condition free of weeds, dust, trash, and debris. Nonemployee parking areas shall be paved and all such spaces shall be delineated by striping as shown in attached Plate 3 which is set forth at the end of this section.

...

Response: All driveway and garage space will be constructed with concrete. Driveways will be graded to drain to the street. This standard is met.

Title 24 PLATS AND SUBDIVISION

Chapter 24.12 Procedure

...

24.12.020 Preliminary plat – General requirements

The preliminary plat shall include the following:

- A. The proposed name of the subdivision. Names shall not too closely resemble those of existing subdivisions, nor shall given names or initials be used with surnames in a plat name;
- B. The location of boundary lines in relation to section, quarter-section, and quarter-quarter-section lines and any adjacent corporate boundaries of the city which are part of the legal description of the property;
- C. The names and addresses of the subdivider and the engineer, surveyor, landscape architect, or other person making the plat;
- D. The scale of the plat, which shall not be less than 50 feet to the inch nor more than 100 feet to the inch;
- E. The date of submission and the north point.

Response: The Preliminary Plat included with this application contains the general information required by this section. This standard is met.

24.12.030 Preliminary plat – Specific requirements

The preliminary plat shall specifically include the following:

- A. The location, width, and name, if any, of each existing or platted street, other rights-of-way, parks, playgrounds, and other open spaces, schools and permanent buildings within the proposed subdivision;
- B. The names of adjacent subdivisions and the location and names of all adjacent streets;
- C. The topography at an appropriate contour interval (unless specifically waived by the city planner), the location of all natural watercourses, and other physical features pertinent to the subdivision;

-
- D. The layout, number and approximate dimensions of lots and the number of blocks;
 - E. The indication of any lots on which a use other than residential is proposed by the subdivider;
 - F. The indication of any portion or portions of the plat for which successive or separate final plats are to be filed.

Response: The Preliminary Plat included with this application contain the specific information required by this section. This standard is met.

24.12.053 Preliminary plat – Required findings.

The hearing examiner shall not approve any preliminary plat application, unless the approval is accompanied by written findings that:

- A. The preliminary plat conforms to the requirements of this title;

Response: The applicable requirements of Title 24 are addressed in the responses to this section.

- B. Appropriate provisions are made for the public health, safety and general welfare and for such open spaces, drainage ways, streets or roads, alleys, other public ways, transit stops, potable water supplies, sanitary wastes, parks and recreation, playgrounds, schools and school grounds and all other relevant facts, including sidewalks and other planning features that assure safe walking conditions for students who only walk to and from school;

Response: The project includes ±82 lots meeting the dimensional and density standards for detached single-family homes in the Single-Family Residential (R-1-12) zone. This new community will help the City meet housing need identified in the comprehensive plan. The Preliminary Plat shows ±24.5 acres of permanent open space, more than ±41 percent of the property, provided for active and passive recreation, pedestrian connections, critical areas protection and mitigation, wildfire mitigation, and stormwater retention.

The new community will provide open space and trails that connect to the larger Badger Mountain Centennial Preserve and associated trail system, providing access to recreation and outdoor spaces. WDFW priority habitat and steep slope critical areas will be protected in opens space tracts that will be dedicated to the Badger Mountain Centennial Preserve.

The dedication and full-street improvements for two new internal streets—Lamont Street and Redtail Loop—will provide an additional connection to Strawberry Lane and a connection westward through the site. The planned transportation improvements, internal circulation system, and street cross sections will support the residential uses within the R-1-12 zone, and the extension of all necessary utilities—including sanitary sewer, storm sewer, water service, irrigation service, and dry utilities—to and through the subject property will serve new homes in Halara Hills as well as future development on appropriately zoned land.

- C. The public use and interest will be served by the platting of such subdivision and dedication; and

Response: The proposed application will provide a community that will help the City meet housing needs identified in the comprehensive plan. The proposed community will provide open

space and trails that connect to the larger Badger Mountain Centennial Preserve and trail system, providing access to recreation and outdoor spaces. WDFW priority habitat and steep slope critical areas will be protected in opens space tracts that will be dedicated to the Badger Mountain Centennial Preserve. Through these highlighted measures, and the other measures discussed throughout this narrative, the provides for the public use and interest.

D. The application is consistent with the requirements of RMC 19.60.095.

Response: The applicable requirements are addressed in the responses to RMC 19.60.095, above.

Chapter 24.16 Design Standards

24.16.010 Streets – Conformity with comprehensive plan

The alignment of major streets shall conform as nearly as possible with that shown on the comprehensive plan of the city.

Response: All proposed streets are designated as local streets. No major streets are proposed with this development; therefore, this section does not apply.

24.16.020 Streets – Relation to adjoining street systems

The layout of streets shall provide for the continuation of principal streets existing in adjoining subdivisions or of their proper projection when adjoining property is not subdivided. The layout shall also provide for future projection of streets into areas which presently are not subdivided.

Response: The proposed application will extend Strawberry Lane into the development from the neighboring subdivision in the northeast corner of the site. Proposed Lamont Street will be stubbed to the western property boundary in the northwest corner of the site for future extension to the west. No street circulation is proposed to the north since Interstate 182 is located on the north side of the abutting parcel and circulation to the abutting parcel is provided through an access easement between Lots 1 and 2. No street circulation is provided to the south due to shrub-steppe priority habitat, steep slope critical areas, and the abutting Badger Mountain Centennial Preserve. This standard is met.

24.16.030 Streets – Access to bodies of water

Unless topography or ground conditions prevent, subdivisions bordering on a river or public waterfront reservation shall be provided with at least one street not less than 60 feet wide to the low water mark or the reservation boundary at one-half mile intervals as measured along such body of water.

Response: The proposed subdivision does not border on a river or public body of water. This standard does not apply.

24.16.040 Streets – Minor streets

Minor streets which serve primarily to provide access to abutting property only shall be designed to discourage through traffic.

Response: The proposed street network is designed with ‘T’ intersections and curvilinear streets to discourage through traffic. See the Preliminary Plat included with this application for more information. This standard is met.

24.16.050 Streets – Deadend

Streets designed to have one end permanently closed or in the form of a cul-de-sac shall be no longer than 400 feet and shall be provided at the closed end with a turnaround having a minimum right-of-way radius of not less than 50 feet or with a “Y” or “T” permitting comparable ease of turning.

Response: No permanent deadend streets are proposed with this application. Lamont Street will temporarily deadend at the western property boundary until the properties to the west develop and extend the road. The temporary deadend is ±155 feet long and serves Lots 17 and 18. The driveways for these lots will be less than 150 feet from the intersection and emergency service can be provided without traveling more than 150 feet down the deadend street stub. See the Preliminary Plat included with this application for more information. This standard is met.

24.16.060 Streets – Limited access

Streets which are designated in the comprehensive plan as “limited access” shall be dedicated in such a manner as to qualify them as “limited access facilities” as such are defined in Chapter 47.52 RCW, but nothing shall prohibit the construction, operation and maintenance of the public facilities in the right-of-way of a limited access facility.

Response: No streets within the proposed development are designated as limited access streets. This standard does not apply.

24.16.070 Streets – Alignment

Connecting street centerlines deflecting from each other at any one point more than 10 degrees shall be connected by a horizontal curve. For minor streets, the minimum curve radius shall be 100 feet. For major streets, the minimum curve radius shall meet current AASHTO requirements, unless otherwise approved by the city engineer. A tangent section at least 100 feet long shall be introduced between curves on arterial streets.

Response: All proposed street deflections are connected with a horizontal curve. All proposed streets are designated as local streets and have a minimum curve radius of 100 feet. See the Preliminary Plat included with this application for more information. This standard is met.

24.16.080 Streets – Intersections

Street intersections shall be as nearly at right angles as is practicable. When the most feasible plan entails an intersection angle that deviates more than 15 degrees from a right angle, curves of suitable radius and lengths shall be provided.

Response: All intersections proposed with the development are at or nearly at right angles. See the Preliminary Plat included with this application for more information. This standard is met.

24.16.090 Streets – Jogs at intersections

Street jogs with centerline offsets of less than 125 feet shall be avoided.

Response: No street jogs are proposed with this development. See the Preliminary Plat included with this application for more information. This standard does not apply.

24.16.100 Streets – Grades

Streets shall conform closely to the natural contour of the land, except where a different grade has been established by the city authorities or the agency furnishing municipal services to the community. Grades shall be not less than 0.50 percent on any street and shall meet AASHTO maximum requirements for major streets and a maximum of 10 percent for minor streets, unless otherwise approved by the city engineer. Changes in grades shall be connected by easy vertical curves.

Response: All proposed streets are designated as local streets and designed with a minimum grade of 0.5 percent and a maximum grade not greater than 10 percent. See the Preliminary Plat included with this application for more information, this standard is met.

24.16.110 Streets – Width

Street right-of-way widths shall be as shown in the comprehensive plan of the city, but shall be not less than as follows:

Principal Arterial	100 feet
Minor Arterial	80 feet
Arterial Collector	60 feet
Neighborhood Collector	54 feet
Local Street	54 feet
Local Street – Single Frontage	40 feet
Rural Street	60 feet

A street lying along the boundary of a subdivision may be dedicated one-half the required width if it is practical to require the dedication of the other half when the adjoining property is subdivided; and, whenever there exists a dedicated half-street of an adjoining plat, the other half shall be dedicated on the proposed plat to make the street complete.

Response: All proposed streets are designated as local streets and are proposed with a right-of-way width of 54 feet. No half-width streets are proposed with the development. See the Preliminary Plat included with this application for more information. This standard is met.

24.16.150 Easements – Public utilities

Where alleys are not provided, easements for public utilities shall be provided on each side of all rear lot lines and side lot lines where necessary. Such easements shall not be less than five feet wide on the half-width that is reserved from the rear of each of the adjacent lots. Insofar as possible, the easements shall be continuous and aligned from block to block within the subdivision and with adjoining subdivisions. Easements for existing or future utility lines which do not lie along rear or side lot lines shall be at least 10 feet wide.

Response: There is an existing 20-foot utility easement that runs along the northern property boundary for the existing sanitary sewer main. This easement will be maintained and will run in the rear yards of the lots proposed along the northern portion of the project. This standard is met.

24.16.180 Blocks – Length

In general, blocks shall be as long as is reasonably possible consistent with the topography and the needs for convenient access, circulation, control and safety of street traffic, and type of land use proposed, but ordinarily, block lengths shall not exceed 1,500 feet or be less than 500 feet.

Response: The proposed central block is ±1,566 feet long. The proposed length is necessary to account for existing site grades, meet lot width requirements, and provide appropriate intersection geometry. In addition, due to Interstate 182 and the Badger Mountain Centennial Preserve, no circulation is required to the north or south. A pedestrian connection is proposed mid-block to shorten the block length for pedestrians and ensure that the proposed development has adequate pedestrian circulation. See the Preliminary Plat included with this application for more information.

24.16.190 Blocks – Width

Except for reverse-frontage parcels, the width of blocks shall ordinarily be sufficient to allow for two tiers of lots of depths consistent with the type of land use proposed, that is normally not less than 200 feet for the sum of two lot depths.

Response: The proposed central block width varies but is over 200 feet at its narrowest point, allowing for two tiers of lots. The lots along the project boundary provide a minimum 135-foot lot depth, and either create a second tier of lots with the neighboring lots, abut the proposed open space tracts, or are adjacent to Interstate 182. See the Preliminary Plat included with the application. This standard is met.

24.16.200 Blocks – Super

For large parcels with access provided by a series of cul-de-sac or loop streets entering from the periphery and for large parcels platted into half acre and larger lots, the criteria in RMC 24.16.180 and 24.16.190 shall be disregarded in favor of considerations on an individual basis. Blocks of acreage-type lots, however, shall have block lengths and widths that will lend themselves to later resubdivisions in accordance with the standards prescribed in this title.

Response: No super blocks are proposed with this application. This standard does not apply.

24.16.210 Blocks – Crosswalks

A pedestrian crosswalk right-of-way not less than 10 feet wide shall be provided approximately at the midpoint of any block exceeding 1,000 feet in length or in any block of lesser length where such a crosswalk is deemed essential to provide circulation or access to schools, playgrounds, shopping centers, transportation lines, and other community facilities.

Response: The proposed central block is greater than 1,000 feet in length. Crosswalks will be provided at the proposed pedestrian connection from Lamont Street and Redtail Loop. Crosswalks will not be striped as the crossing is on a local street, however, they will be identified by curb ramps. See the Preliminary Plat included with this application for more information. This standard is met.

24.16.220 Lots – Access

Each lot shall be provided with satisfactory access by means of a public street connecting to an existing public highway or by some other legally sufficient right of access which is permanent and inseparable from the lot served.

Response: All lots within the proposed subdivision have frontage on the proposed public roads and will gain access from these proposed roads. See the Preliminary Plat included with this application for more information. This standard is met.

24.16.230 Lots – Size

Lot widths and lot areas shall conform with the zoning restrictions applicable to the area within which the property may be located, except that corner lots for which side yards are required shall have extra width to permit appropriate setback from and orientation to both streets. Lot depths shall be suitable for the land use proposed.

Response: All proposed lot widths and areas meet the requirements of the R-1-12 zoning district, as previously discussed in this narrative. Corner lots are large enough to account for appropriate setbacks and orientation to both streets. All lot depths are suitable for detached single-family homes. See the Preliminary Plat included with this application for more information. This standard is met.

24.16.240 Lots – Shape

Lots shall be as nearly rectangular as possible with side lot lines approximately at right angles or radial to street lines. Ordinarily, the ratio of width to depth shall be one to not more than two and one-fourth.

Response: As many of the lots as practicable are nearly rectangular with side lot lines as close to right angles or radial to the street lines as possible. The proposed lot width to depth ratio is one to less than two and one-fourth. This standard is met.

24.16.250 Lots – Key

Key lots shall be avoided where practicable.

Response: No key lots are proposed with this development. See the Preliminary Plat included with this application for more information. This standard is met.

24.16.260 Lots – Double frontage

Residential lots which have street frontage along two opposite boundaries shall be avoided except for reverse-frontage lots which are essential to provide separation of residential development from traffic arteries or to overcome specific disadvantages of topography and orientation. For such lots, there shall be an easement in favor of the appropriate governmental entity for a planting screen at least 10 feet wide along the lot lines abutting such a traffic arterial or other disadvantageous use across which there shall be no right of access.

Response: No double frontage lots are proposed with this development. See the Preliminary Plat included with this application for more information. This standard does not apply.

24.16.270 Lots – Unsewered

Lots which need not be connected to an approved sanitary sewer system under the provisions of this title shall be of sufficient size, considering the type of soil, ground conditions involved and location of the lots in relation to public or private water supplies, to allow complete absorption of such septic tank effluent as may reasonably be expected from the uses permitted by applicable zoning restrictions and proposed uses; provided, that all lots are served by the public water system. Approval shall be given by the Benton-Franklin County district health department and the city engineer prior to the filing of an application for final plat approval.

Response: All lots within the proposed development will be provided with public sanitary sewer. This standard does not apply.

Chapter 24.20 Improvement Standards

24.20.010 Roadways

All streets, not including alleys, shall be improved by grading the full right-of-way width and constructing roadways consisting of an asphaltic concrete pavement over suitable base and leveling courses in accordance with the following schedules of widths measured from the inside edge of opposite curbs.

CLASS OF STREET	WIDTH OF STREET
Principal Arterial	70 feet
Minor Arterial	48 feet
Arterial Collector	36 feet
Neighborhood Collector	36 feet
Local Street	34 feet
Local Street – Single Frontage	27 feet
Rural Street	32 feet

Except that streets lying along the boundary of a subdivision, whether dedicated by the plat or already dedicated, but not improved, need be improved by the subdivider only to the center of the street.

Response: All streets within the proposed development are designated as local streets and are designed and will be constructed with a street width of 34 feet. There are no streets lying along the boundary of a subdivision. See the Preliminary Plat included with this application for more information. This standard is met.

24.20.020 Curbs

All streets shall be improved at each edge of the paved roadway with portland cement concrete curbs. Such curbs shall be similar in design and construction to concrete curbs adopted as standard for the city unless special conditions warrant the waiver of this requirement by the commission.

Response: Concrete curbs are proposed to be constructed at each edge of the paved roadways within the development. See the Preliminary Plat included with this application for more information. This standard is met.

24.20.030 Utilities – Storm sewers

Surface drainage from streets and other areas shall be disposed of through an adequate system of gutters and storm sewers.

Response: The proposed development will generate stormwater runoff from the roads, sidewalks, driveways, and homes. This stormwater runoff will be collected on site with catch basins and conveyed to a stormwater pond in the northeast corner of the site. Stormwater will be detained and treated in the stormwater pond prior infiltrating on site. There is also existing stormwater runoff the flow to the site from Badger Mountain. This stormwater will be collected at the rear of the lots south of Redtail Loop and routed to the stormwater pond for detention and infiltration. Infiltration will occur as recommended in the geotechnical engineering report. See the Preliminary Plat included with this application for more information. This standard is met.

24.20.040 Utilities – Sanitary sewers

If a public sanitary sewer is available for connection within 500 feet of the subdivision, the subdivision shall be provided with a complete sanitary sewer system serving each lot designed for human habitation. Design of sewage disposal system shall be in accordance with Chapter 17.70 RMC.

Response: An existing 18-inch sanitary sewer main runs through the site, extending from Strawberry Lane ±340 feet into the site, then running north to the northern property line, and then west through the site along the northern property line. The proposed application will run 8-inch sanitary sewer mains in Lamont Street and Redtail Loop to serve the development. Each lot will be provided with a sanitary sewer lateral connection to the proposed mains. The proposed sewer mains will connect to the existing sanitary sewer manholes that are located in the proposed Strawberry Lane extension and proposed Lamont Street. Both manholes are located near the proposed intersection of Strawberry Lane and Lamont Street. This standard is met.

24.20.050 Utilities – Potable water system

If a public water main is available for connection within 500 feet of the subdivision, the subdivision shall be provided with a potable water distribution system serving each lot designed for human habitation, and unless equal protection can be otherwise supplied, shall be provided with fire hydrants at each street intersection and at approximately 600-foot intervals on each street between intersections. Water distribution systems shall be designed in accordance with Chapter 18.34 RMC.

Response: An existing 12-inch water main extends ±340 feet west into the site from Strawberry Lane. The proposed application will run a 12-inch water main to the western site boundary in Lamont Street and an 8-inch water main will be looped through Redtail Loop. Water service will be extended to each lot from the two proposed water mains. This standard is met.

24.20.060 Street name signs

Street signs corresponding in design to those adopted as standard for the city shall be installed at each intersection for convenient identification of streets.

Response: Street name signs meeting the City standard will be installed at each intersection within the development. This standard will be met.

IV. Conclusion

The Applicant is proposing an 82-lot subdivision for the future construction of detached single-family homes. The proposed subdivision meets the requirements of the City of Richland R-1-12 zoning district and other applicable portions of the Richland Municipal Code.

The submittal requirements have been met and the required findings made for all applicable approval criteria. These findings serve as the basis for the City to approve the application and are supported by substantial evidence in the application materials. Therefore, the Applicant respectfully requests approval of the proposed project (Halara Hills).



Exhibit 2

Preliminary Plat Map



I-82 (HIGHWAY 12)

HALARA HILLS PRELIMINARY PLAT

LOCATED IN A PORTION OF THE S1/2 OF SECTION 20, TOWNSHIP 9 NORTH, RANGE 28 EAST, W.M.,
CITY OF RICHLAND, BENTON COUNTY, WASHINGTON

ZONE: SAG

GIBBON MICHAEL C & LISA
S120980000015009

(E)30.0'
ACCESS ESMT
AF#2013-038541
AF#2015-027926
THIS PORTION TO BE RETAINED
TO THE BENEFIT OF
120982000015009

HAY RONALD A
S121983040000020

HASHMI SYED
S121983040000021

STRAWBERRY LN

STALLION PL

ZONE: SAG

MALHAN PRAKESH & GOLDIE
S121983040000019

HATFIELD CHAD L & AMY
S121983040000018

COUNTRY RIDGE

E 1/2 SW 1/4 SE 1/4
S120984000002000

TRACT "A"
9.30 AC

W 1/2 SE 1/4 SE 1/4
S1209840000030000

TRACT "B"
7.48 AC

E 1/2 SE 1/4 SE 1/4
S1209840000040000

TRACT "C"
6.60 AC

BASIS OF ELEVATION

CITY OF RICHLAND
GPS CONTROL FILE
NAVD 88 DATUM
POINT 1738 ELEV=946.12

LEGAL DESCRIPTION

THE EAST HALF OF THE SOUTHWEST QUARTER OF THE SOUTHEAST QUARTER
AND THE WEST HALF OF THE SOUTHEAST QUARTER OF THE SOUTHEAST
QUARTER AND THE EAST HALF OF THE SOUTHWEST QUARTER OF THE
SOUTHEAST QUARTER OF SECTION 20, TOWNSHIP 9 NORTH, RANGE 28 EAST,
W.M., BENTON COUNTY, WASHINGTON

CONTACT INFO

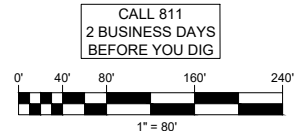
ENGINEER:
KNUTZEN ENGINEERING
ATTN: NATHAN MACHELA
5401 RIDGELINE DRIVE
SUITE 160
KENNEWICK, WA. 99338
PHONE: (509)222-0959

APPLICANT/DEVELOPER:
PAHLISCH HOMES
1020 N. CENTER PARKWAY
SUITE A
KENNEWICK, WA. 99336
PHONE: (509)412-3635

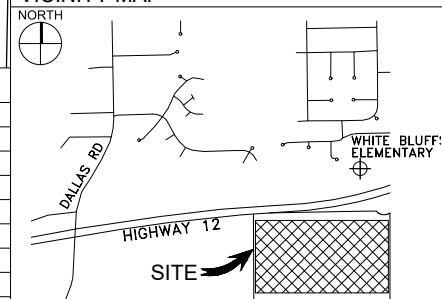
SURVEYOR:
STRATTON SURVEYING
ATTN: AARON DYCK
313 NORTH MORAIN STREET
KENNEWICK, WA. 99336
PHONE: (509)735-7364

LAND USE SUMMARY

GROSS ACREAGE:	59.29 AC
NET LOT ACREAGE:	30.26 AC
NUMBER OF TRACTS	8
AREA OF TRACTS	23.72 AC
TOTAL NUMBER OF LOTS:	82
AVERAGE LOT AREA:	15,692 SF
MAXIMUM LOT AREA:	25,028 SF
MINIMUM LOT AREA:	11,199 SF
PRESENT ZONING:	R-1-12
TYPE OF WATER SERVICE:	CITY WATER
TYPE OF SEWER SERVICE:	CITY SEWER
AREA OF PUBLIC ROADS:	5.31 AC
NET DENSITY	2.78 UNITS/AC
GROSS DENSITY	1.42 UNITS/AC



VICINITY MAP



BADGER MT PRESERVE

PRELIMINARY PLAT

PAHLISCH HOMES
HALARA HILLS
RICHLAND, WASHINGTON

APPROVAL

DESIGN	JAW	04/25/22
CHECKED	NJM	04/25/22
APPROVED	NJM	04/25/22

SCALE: AS NOTED

CADFILE: 20175PP01

JOB No.
20175

REV.
0

DWG. No.

PP01



5401 RIDGELINE DR.
SUITE 160
KENNEWICK, WA 99338
1-509-222-0959
www.knutzenengineering.com

DESIGN	CHKD	APPD
DATE		
REVISIONS		
No.		



Exhibit 3

Title Report

2. Title Report

COMMITMENT FOR TITLE INSURANCE



8203 WEST QUINAULT AVE, SUITE 10
KENNEWICK, WA 99336

Phone: 509-783-0660 Fax: 509-783-6612



8203 WEST QUINAULT AVE, SUITE 10, KENNEWICK, WA 99336
Phone: 509-783-0660 Fax: 509-783-6612

DISTRIBUTION LIST

Our Order No.: CBF11860
Reference No:
Re: STEVE TATRO, TRUSTEE, SUNDANCE CAPITAL 401K PLAN/PAHLISCH HOMES,
INC. OR ITS ASSIGNS
Property Address: 4002, 4204 AND 4406 210 PR
RICHLAND, WA 99352

This Preliminary Commitment has been prepared and distributed to the following parties:

	Lender
Escrow Officer: Kemal Suljic	
Selling Agent	Listing Agent
Additional Selling Agent	Additional Listing Agent
Buyer's Attorney	Seller's Attorney
Mortgage Broker	Additional Lender



TITLE RESOURCES

COMMITMENT FOR TITLE INSURANCE
Issued by
TITLE RESOURCES GUARANTY COMPANY

NOTICE

IMPORTANT—READ CAREFULLY: THIS COMMITMENT IS AN OFFER TO ISSUE ONE OR MORE TITLE INSURANCE POLICIES. ALL CLAIMS OR REMEDIES SOUGHT AGAINST THE COMPANY INVOLVING THE CONTENT OF THIS COMMITMENT OR THE POLICY MUST BE BASED SOLELY IN CONTRACT.

THIS COMMITMENT IS NOT AN ABSTRACT OF TITLE, REPORT OF THE CONDITION OF TITLE, LEGAL OPINION, OPINION OF TITLE, OR OTHER REPRESENTATION OF THE STATUS OF TITLE. THE PROCEDURES USED BY THE COMPANY TO DETERMINE INSURABILITY OF THE TITLE, INCLUDING ANY SEARCH AND EXAMINATION, ARE PROPRIETARY TO THE COMPANY, WERE PERFORMED SOLELY FOR THE BENEFIT OF THE COMPANY, AND CREATE NO EXTRACONTRACTUAL LIABILITY TO ANY PERSON, INCLUDING A PROPOSED INSURED.

THE COMPANY'S OBLIGATION UNDER THIS COMMITMENT IS TO ISSUE A POLICY TO A PROPOSED INSURED IDENTIFIED IN SCHEDULE A IN ACCORDANCE WITH THE TERMS AND PROVISIONS OF THIS COMMITMENT. THE COMPANY HAS NO LIABILITY OR OBLIGATION INVOLVING THE CONTENT OF THIS COMMITMENT TO ANY OTHER PERSON.

COMMITMENT TO ISSUE POLICY

Subject to the Notice; Schedule B, Part I—Requirements; Schedule B, Part II—Exceptions; and the Commitment Conditions, TITLE RESOURCES GUARANTY COMPANY, a Texas corporation (the "Company"), commits to issue the Policy according to the terms and provisions of this Commitment. This Commitment is effective as of the Commitment Date shown in Schedule A for each Policy described in Schedule A, only when the Company has entered in Schedule A both the specified dollar amount as the Proposed Policy Amount and the name of the Proposed Insured.

If all of the Schedule B, Part I—Requirements have not been met within 180 days after the Commitment Date, this Commitment terminates and the Company's liability and obligation end.

An Authorized Signature



Title Resources Guaranty Company

By 
President/CEO

Secretary

This page is only a part of a 2016 ALTA® Commitment for Title Insurance issued by Title Resources Guaranty Company. This Commitment is not valid without the Notice; the Commitment to Issue Policy; the Commitment Conditions; Schedule A; Schedule B, Part I—Requirements; and Schedule B, Part II—Exceptions; and a counter-signature by the Company or its issuing agent that may be in electronic form.

TRGC Form: Comm16 ALTA Commitment Form Adopted 6-17-2006 Revised 08-01-2016 WA Modified

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COMMITMENT CONDITIONS

1. DEFINITIONS

- (a) "Knowledge" or "Known": Actual or imputed knowledge, but not constructive notice imparted by the Public Records.
- (b) "Land": The land described in Schedule A and affixed improvements that by law constitute real property. The term "Land" does not include any property beyond the lines of the area described in Schedule A, nor any right, title, interest, estate, or easement in abutting streets, roads, avenues, alleys, lanes, ways, or waterways, but this does not modify or limit the extent that a right of access to and from the Land is to be insured by the Policy.
- (c) "Mortgage": A mortgage, deed of trust, or other security instrument, including one evidenced by electronic means authorized by law.
- (d) "Policy": Each contract of title insurance, in a form adopted by the American Land Title Association, issued or to be issued by the Company pursuant to this Commitment.
- (e) "Proposed Insured": Each person identified in Schedule A as the Proposed Insured of each Policy to be issued pursuant to this Commitment.
- (f) "Proposed Policy Amount": Each dollar amount specified in Schedule A as the Proposed Policy Amount of each Policy to be issued pursuant to this Commitment.
- (g) "Public Records": Records established under state statutes at the Commitment Date for the purpose of imparting constructive notice of matters relating to real property to purchasers for value and without Knowledge.
- (h) "Title": The estate or interest described in Schedule A.

2. If all of the Schedule B, Part I—Requirements have not been met within the time period specified in the Commitment to Issue Policy, this Commitment terminates and the Company's liability and obligation end.

3. The Company's liability and obligation is limited by and this Commitment is not valid without:

- (a) the Notice;
- (b) the Commitment to Issue Policy;
- (c) the Commitment Conditions;
- (d) Schedule A;
- (e) Schedule B, Part I—Requirements; and
- (f) Schedule B, Part II—Exceptions; and
- (g) a counter-signature by the Company or its issuing agent that may be in electronic form.

4. COMPANY'S RIGHT TO AMEND

The Company may amend this Commitment at any time. If the Company amends this Commitment to add a defect, lien, encumbrance, adverse claim, or other matter recorded in the Public Records prior to the Commitment Date, any liability of the Company is limited by Commitment Condition 5. The Company shall not be liable for any other amendment to this Commitment.

5. LIMITATIONS OF LIABILITY

- (a) The Company's liability under Commitment Condition 4 is limited to the Proposed Insured's actual expense incurred in the interval between the Company's delivery to the Proposed Insured of the Commitment and the delivery of the amended Commitment, resulting from the Proposed Insured's good faith reliance to:
 - (i) comply with the Schedule B, Part I—Requirements;
 - (ii) eliminate, with the Company's written consent, any Schedule B, Part II—Exceptions; or
 - (iii) acquire the Title or create the Mortgage covered by this Commitment.
- (b) The Company shall not be liable under Commitment Condition 5(a) if the Proposed Insured requested the amendment or had Knowledge of the matter and did not notify the Company about it in writing.

This page is only a part of a 2016 ALTA® Commitment for Title Insurance issued by Title Resources Guaranty Company. This Commitment is not valid without the Notice; the Commitment to Issue Policy; the Commitment Conditions; Schedule A; Schedule B, Part I—Requirements; and Schedule B, Part II—Exceptions; and a counter-signature by the Company or its issuing agent that may be in electronic form.

TRGC Form: Comm16 ALTA Commitment Form Adopted 6-17-2006 Revised 08-01-2016 WA Modified

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- (c) The Company will only have liability under Commitment Condition 4 if the Proposed Insured would not have incurred the expense had the Commitment included the added matter when the Commitment was first delivered to the Proposed Insured.
- (d) The Company's liability shall not exceed the lesser of the Proposed Insured's actual expense incurred in good faith and described in Commitment Conditions 5(a)(i) through 5(a)(iii) or the Proposed Policy Amount.
- (e) The Company shall not be liable for the content of the Transaction Identification Data, if any.
- (f) In no event shall the Company be obligated to issue the Policy referred to in this Commitment unless all of the Schedule B, Part I—Requirements have been met to the satisfaction of the Company.
- (g) In any event, the Company's liability is limited by the terms and provisions of the Policy.

6. LIABILITY OF THE COMPANY MUST BE BASED ON THIS COMMITMENT

- (a) Only a Proposed Insured identified in Schedule A, and no other person, may make a claim under this Commitment.
- (b) Any claim must be based in contract and must be restricted solely to the terms and provisions of this Commitment.
- (c) Until the Policy is issued, this Commitment, as last revised, is the exclusive and entire agreement between the parties with respect to the subject matter of this Commitment and supersedes all prior commitment negotiations, representations, and proposals of any kind, whether written or oral, express or implied, relating to the subject matter of this Commitment.
- (d) The deletion or modification of any Schedule B, Part II—Exception does not constitute an agreement or obligation to provide coverage beyond the terms and provisions of this Commitment or the Policy.
- (e) Any amendment or endorsement to this Commitment must be in writing and authenticated by a person authorized by the Company.
- (f) When the Policy is issued, all liability and obligation under this Commitment will end and the Company's only liability will be under the Policy.

7. IF THIS COMMITMENT HAS BEEN ISSUED BY AN ISSUING AGENT

The issuing agent is the Company's agent only for the limited purpose of issuing title insurance commitments and policies. The issuing agent is not the Company's agent for the purpose of providing closing or settlement services.

8. PRO-FORMA POLICY

The Company may provide, at the request of a Proposed Insured, a pro-forma policy illustrating the coverage that the Company may provide. A pro-forma policy neither reflects the status of Title at the time that the pro-forma policy is delivered to a Proposed Insured, nor is it a commitment to insure.

This page is only a part of a 2016 ALTA® Commitment for Title Insurance issued by Title Resources Guaranty Company. This Commitment is not valid without the Notice; the Commitment to Issue Policy; the Commitment Conditions; Schedule A; Schedule B, Part I—Requirements; and Schedule B, Part II—Exceptions; and a counter-signature by the Company or its issuing agent that may be in electronic form.

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CASCADE TITLE COMPANY OF BENTON-FRANKLIN COUNTIES
8203 WEST QUINULT AVE, SUITE 10, KENNEWICK, WA 99336
Phone: 509-783-0660 Fax: 509-783-6612

Agent for
TITLE RESOURCES GUARANTY COMPANY
ALTA COMMITMENT

SCHEDULE A

Title Officer: **Pat Doherty**

Escrow Officer: **Kemal Suljic**

Ref: **STEVE TATRO, TRUSTEE, SUNDANCE CAPITAL
401K PLAN/ PAHLISCH HOMES, INC. OR ITS ASSIGNS**

Order No.: **CBF11860**

Reference No.:

Add'l Ref:

1. EFFECTIVE DATE: **September 03, 2020 at 8:00 AM.**

2. POLICY OR POLICIES TO BE ISSUED:

a. **ALTA 2006 STANDARD OWNER'S POLICY**
Proposed Insured:
PAHLISCH HOMES, INC. OR ITS ASSIGNS

Amount **\$3,000,000.00**

b.
Proposed Insured:

Amount

c.
Proposed Insured:

Amount

PREMIUM INFORMATION:

a. SHORT TERM RATE	\$3,657.00	Tax: \$314.50	Total: \$3,971.50
b.		Tax:	Total:
c.		Tax:	Total:

3. THE ESTATE OR INTEREST IN THE LAND DESCRIBED HEREIN AND WHICH IS COVERED BY THIS COMMITMENT IS:

Fee Simple

4. THE ESTATE OR INTEREST REFERRED TO HEREIN IS AT DATE OF COMMITMENT VESTED IN:

STEVE TATRO, TRUSTEE, SUNDANCE CAPITAL 401K PLAN, RICHARD HENDERSON, TRUSTEE, SSR INVESTMENTS 401K PLAN AND SID LITCHFIELD, TRUSTEE, S&A CONSTRUCTION 401K PLAN

5. THE LAND REFERRED TO IN THIS COMMITMENT IS SITUATED IN THE COUNTY OF BENTON, STATE OF WASHINGTON AND IS MORE FULLY DESCRIBED AS FOLLOWS:

SEE ATTACHED EXHIBIT "A"

SCHEDULE B - SECTION I

REQUIREMENTS:

1. INSTRUMENTS CREATING THE ESTATE OR INTEREST TO BE INSURED MUST BE APPROVED AND FILED OF RECORD.
2. PAYMENT OF CANCELLATION FEE IN ACCORDANCE WITH OUR FILED RATE SCHEDULE, TO BE IMPOSED IF THIS TRANSACTION IS CANCELED FOR ANY REASON.
3. THIS COMMITMENT SHALL NOT OBLIGATE THE COMPANY TO ISSUE ANY ENDORSEMENT. ALL ENDORSEMENTS TO BE ISSUED MUST BE AGREED TO BY THE COMPANY AND APPROPRIATE FOR THE ESTATE INSURED.
4. ANY SKETCH OR MAP ENCLOSED AS AN ATTACHMENT HERewith IS FURNISHED FOR INFORMATION PURPOSES ONLY TO ASSIST IN PROPERTY LOCATION WITH REFERENCE TO STREETS AND OTHER PARCELS. NO REPRESENTATION IS MADE AS TO ACCURACY AND THE COMPANY ASSUMES NO LIABILITY FOR ANY LOSS OCCURRING BY REASON OF RELIANCE THEREON.

END OF SCHEDULE B - SECTION I REQUIREMENTS

SCHEDULE B - SECTION II

SCHEDULE B OF THE POLICY OR POLICIES TO BE ISSUED WILL CONTAIN EXCEPTIONS TO THE FOLLOWING MATTERS UNLESS THE SAME ARE DISPOSED OF TO THE SATISFACTION OF THE COMPANY.

GENERAL EXCEPTIONS:

- A. RIGHTS OR CLAIMS DISCLOSED ONLY BY POSSESSION, OR CLAIMED POSSESSION, OF THE PREMISES.
- B. ENCROACHMENTS, OVERLAPS, BOUNDARY LINE DISPUTES WHICH WOULD BE DISCLOSED BY AN ACCURATE SURVEY OR INSPECTION OF THE PREMISES.
- C. EASEMENTS, PRESCRIPTIVE RIGHTS, RIGHTS-OF-WAY, STREETS, ROADS, ALLEYS OR HIGHWAYS NOT DISCLOSED BY THE PUBLIC RECORDS.
- D. ANY LIEN, OR RIGHT TO A LIEN, FOR CONTRIBUTIONS TO EMPLOYEES BENEFIT FUNDS, OR FOR STATE WORKERS' COMPENSATION, OR FOR SERVICES, LABOR OR MATERIAL HERETOFORE OR HEREAFTER FURNISHED, ALL AS IMPOSED BY LAW AND NOT SHOWN BY THE PUBLIC RECORDS.
- E. UNDERGROUND EASEMENTS, SERVITUDES OR INSTALLATIONS OF WHICH NO NOTICE IS OF RECORD.
- F. GENERAL TAXES NOT NOW PAYABLE; MATTERS RELATING TO SPECIAL ASSESSMENTS AND SPECIAL LEVIES, IF ANY, PRECEDING THE SAME BECOMING A LIEN.
- G. ANY SERVICE, INSTALLATION, CONNECTION, MAINTENANCE, OR CONSTRUCTION CHARGES FOR SEWER, WATER, ELECTRICITY, NATURAL GAS OR OTHER UTILITIES OR GARBAGE COLLECTION AND DISPOSAL.
- H. RESERVATIONS OR EXCEPTIONS IN UNITED STATES PATENTS OR IN ACTS AUTHORIZING THE ISSUANCE THEREOF.
- I. INDIAN TRIBAL CODES OR REGULATIONS, INDIAN TREATY OR ABORIGINAL RIGHTS, INCLUDING EASEMENTS OR EQUITABLE SERVITUDES.
- J. WATER RIGHTS, CLAIMS OR TITLE TO WATER.
- K. DEFECTS, LIENS ENCUMBRANCES, ADVERSE CLAIMS OR OTHER MATTERS, IF ANY, CREATED, FIRST APPEARING IN THE PUBLIC RECORDS OR ATTACHING SUBSEQUENT TO THE EFFECTIVE DATE HEREOF BUT PRIOR TO THE DATE THE PROPOSED INSURED ACQUIRES FOR VALUE OF RECORD THE ESTATE OR INTEREST OR MORTGAGE THEREON COVERED BY THIS COMMITMENT

END OF SCHEDULE B SECTION II GENERAL EXCEPTIONS

SPECIAL EXCEPTIONS:

1. LIEN OF REAL ESTATE EXCISE TAX UPON ANY SALE OF SAID PREMISES, IF UNPAID.

LOCATED IN: CITY OF RICHLAND

EXCISE TAX OF 1.60% IS DUE ON SALES PRICES UP TO \$500,000.00.

EXCISE TAX OF 1.78% IS DUE ON THAT PORTION OF THE SALES PRICE FROM \$500,000.01 TO \$1,500,000.00.

EXCISE TAX OF 3.25% IS DUE ON THAT PORTION OF SALES PRICE FROM \$1,500,000.01 TO \$3,000,000.00.

EXCISE TAX OF 3.5% IS DUE ON THAT PORTION OF THE SALES PRICE OVER \$3,000,000.00.

2. DELINQUENT GENERAL TAXES FOR THE YEARS 2017, 2018, 2019 AND 2020, IN THE RESPECTIVE SUMS OF \$1,427.82, \$3,159.42, \$2,427.42 AND \$4,298.93, PLUS INTEREST AND PENALTIES. TAX ACCOUNT NO. 1-2098-400-0002-000 - PARCEL A.
3. DELINQUENT GENERAL TAXES FOR THE YEARS 2017, 2018, 2019 AND 2020, IN THE RESPECTIVE SUMS OF \$1,613.30, \$3,568.83, \$2,740.02 AND \$4,298.93, PLUS INTEREST AND PENALTIES. TAX ACCOUNT NO. 1-2098-400-0003-000 - PARCEL B.
4. DELINQUENT GENERAL TAXES FOR THE YEARS 2017, 2018, 2019 AND 2020, IN THE RESPECTIVE SUMS OF \$1,736.98, \$3,841.73, \$2,948.45 AND \$4,298.93, PLUS INTEREST AND PENALTIES. TAX ACCOUNT NO. 1-2098-400-0004-000 - PARCEL C.
5. LIABILITY TO FUTURE ASSESSMENT BY KENNEWICK IRRIGATION DISTRICT.
6. SAID PROPERTY IS WITHIN THE KENNEWICK IRRIGATION DISTRICT, HOWEVER WAS NOT ASSESSED THIS YEAR.
7. LIABILITY TO FUTURE ASSESSMENTS OR CHARGES BY THE GOOSE GAP WATER ASSOCIATION.

8. EXCEPTIONS AND RESERVATIONS CONTAINED IN DEED;
FROM: UNITED STATES OF AMERICA
RECORDED: YAKIMA SHEEP COMPANY
RECORDING NO.: 363423 (INCLUDES OTHER PROPERTY)
AS FOLLOWS:

RESERVING ALL OIL AND GAS OVER SAID PREMISES AND OTHER PROPERTY, AND THE RIGHT TO PROSPECT FOR, MINE AND REMOVE THE SAME.

THE PRESENT OWNERSHIP OR ENCUMBRANCES UPON THE ESTATE OR INTEREST REFERRED TO IN THIS EXCEPTION ARE NOT INCLUDED HEREIN AND NO INVESTIGATION HAS BEEN MADE THERETO.

CONTINUED

9. CONDEMNATION OF ACCESS AND INGRESS AND EGRESS TO STATE HIGHWAY AND OF LIGHT, VIEW AND AIR AND THE TERMS AND CONDITIONS THEREOF, INCLUDING EASEMENT TO CONSTRUCT AN ACCESS ROAD.

DECREE IN FAVOR OF: STATE OF WASHINGTON

BENTON COUNTY SUPERIOR

COURT CAUSE NOS.: 82-2-00936-6 AND 82-2-00653-7 (INCLUDES OTHER PROPERTY)

NOTE: SAID DECREE ALSO PROVIDED FOR REASONABLE INGRESS AND EGRESS. (INCLUDES OTHER PROPERTY)

10. EASEMENT AND THE TERMS AND CONDITIONS THEREOF:

PURPOSE: EASEMENT FOR INGRESS AND EGRESS

RECORDED: November 04, 1997

AUDITOR'S FILE NO.: 97-28127

11. OIL AND GAS LEASE, ASSIGNMENT INCLUDING THE TERMS, COVENANTS AND PROVISIONS THEREOF;

LESSOR: SAVANT RESOURCES LLC., A COLORADO LIMITED LIABILITY COMPANY

LESSEE: DELTA PETROLEUM CORPORATION

DATED: AUGUST 15, 2005

RECORDED: JANUARY 17, 2006

RECORDING NO.: 2006-001558 (INCLUDES OTHER PROPERTY)

THE PRESENT OWNERSHIP OR ENCUMBRANCES UPON THE ESTATE OR INTEREST REFERRED TO IN THIS EXCEPTION ARE NOT INCLUDED HEREIN AND NO INVESTIGATION HAS BEEN MADE THERETO.

12. CITY OF RICHLAND ORDINANCE NO. 19-06 AND THE TERMS AND CONDITIONS THEREOF;

RECORDED: JULY 26, 2006

RECORDING NO.: 2006-024209 (INCLUDES OTHER PROPERTY)

PROVIDING: ANNEXATION AND ZONING

13. EASEMENT AND THE TERMS AND CONDITIONS THEREOF:

GRANTEE: NOR AM INVESTMENT, LLC, A WASHINGTON LIMITED LIABILITY COMPANY

PURPOSE: UTILITY

RECORDED: November 17, 2011

AUDITOR'S FILE NO.: 2011-032680 AFFECTS PARCEL B

14. EASEMENT AND THE TERMS AND CONDITIONS THEREOF:

GRANTEE: NOR AM INVESTMENT, LLC, A WASHINGTON LIMITED LIABILITY COMPANY

PURPOSE: TEMPORARY EASEMENT

RECORDED: November 17, 2011

AUDITOR'S FILE NO.: 2011-032681 AFFECTS PARCEL B

15. EASEMENT AND THE TERMS AND CONDITIONS THEREOF:

GRANTEE: CITY OF RICHLAND

PURPOSE: TEMPORARY TURN AROUND & UTILITY

RECORDED: September 09, 2004

AUDITOR'S FILE NO.: 2004-032344 AFFECTS PARCEL C

CONTINUED

16. EASEMENT AND THE TERMS AND CONDITIONS THEREOF:

GRANTEE: NOR AM INVESTMENT, LLC, A WASHINGTON LIMITED LIABILITY COMPANY
PURPOSE: UTILITY
RECORDED: November 17, 2011
AUDITOR'S FILE NO.: 2011-032682 AFFECTS PARCEL C

17. EASEMENT AND THE TERMS AND CONDITIONS THEREOF:

GRANTEE: NOR AM INVESTMENT, LLC, A WASHINGTON LIMITED LIABILITY COMPANY
PURPOSE: TEMPORARY EASEMENT
RECORDED: November 17, 2011
AUDITOR'S FILE NO.: 2011-032683 AFFECTS PARCEL C

18. EASEMENT AND THE TERMS AND CONDITIONS THEREOF:

GRANTEE: NOR AM INVESTMENT, LLC, A WASHINGTON LIMITED LIABILITY COMPANY
PURPOSE: UTILITY
RECORDED: NOVEMBER 17, 2011
AUDITOR'S FILE NO.: 2011-032684 AFFECTS PARCEL A

19. EASEMENT AND THE TERMS AND CONDITIONS THEREOF:

GRANTEE: NOR AM INVESTMENT, LLC, A WASHINGTON LIMITED LIABILITY COMPANY
PURPOSE: TEMPORARY EASEMENT
RECORDED: NOVEMBER 17, 2011
AUDITOR'S FILE NO.: 2011-032685 AFFECTS PARCEL A

20. EASEMENT AND THE TERMS AND CONDITIONS THEREOF:

GRANTEE: NOR AM INVESTMENT, LLC, A WASHINGTON LIMITED LIABILITY COMPANY
PURPOSE: UTILITY
RECORDED: APRIL 10, 2012
AUDITOR'S FILE NO.: 2012-010229 AFFECTS PARCEL A

21. EASEMENT AND THE TERMS AND CONDITIONS THEREOF:

GRANTEE: NOR AM INVESTMENT, LLC, A WASHINGTON LIMITED LIABILITY COMPANY
PURPOSE: TEMPORARY EASEMENT
RECORDED: APRIL 10, 2012
AUDITOR'S FILE NO.: 2012-010230 AFFECTS PARCEL A

22. BILL OF SALE AND THE TERMS AND CONDITIONS THEREOF RECORDED JUNE 19, 2012 UNDER BENTON COUNTY AUDITOR'S FILE NUMBER, 2012-017950.

23. EASEMENT AND THE TERMS AND CONDITIONS THEREOF:

GRANTEE: JAMES J. STERLING
PURPOSE: ACCESS AND UTILITY
RECORDED: SEPTEMBER 17, 2015
AUDITOR'S FILE NO.: 2015-027926 AFFECTS ALL PARCELS

24. EASEMENT AND THE TERMS AND CONDITIONS THEREOF:

GRANTEE: NOR AM INVESTMENT, LLC, A WASHINGTON LIMITED LIABILITY COMPANY
PURPOSE: UTILITY
RECORDED: NOVEMBER 17, 2011
AUDITOR'S FILE NO.: 2011-032666 AFFECTS ALL PARCELS

CONTINUED

25. EASEMENT AND THE TERMS AND CONDITIONS THEREOF:

GRANTEE: NOR AM INVESTMENT, LLC, A WASHINGTON LIMITED LIABILITY COMPANY
PURPOSE: UTILITY
RECORDED: NOVEMBER 17, 2011
AUDITOR'S FILE NO.: 2011-032667 AFFECTS ALL PARCELS

26. EASEMENT AND THE TERMS AND CONDITIONS THEREOF:

GRANTEE: NOR AM INVESTMENT, LLC, A WASHINGTON LIMITED LIABILITY COMPANY
PURPOSE: UTILITY
RECORDED: NOVEMBER 17, 2011
AUDITOR'S FILE NO.: 2011-032668 AFFECTS ALL PARCELS

27. EASEMENT AND THE TERMS AND CONDITIONS THEREOF:

GRANTEE: NOR AM INVESTMENT, LLC, A WASHINGTON LIMITED LIABILITY COMPANY
PURPOSE: TEMPORARY EASEMENT
RECORDED: NOVEMBER 17, 2011
AUDITOR'S FILE NO.: 2011-032669 AFFECTS ALL PARCELS

28. EASEMENT AND THE TERMS AND CONDITIONS THEREOF:

GRANTEE: NOR AM INVESTMENT, LLC, A WASHINGTON LIMITED LIABILITY COMPANY
PURPOSE: UTILITY
RECORDED: NOVEMBER 17, 2011
AUDITOR'S FILE NO.: 2011-032670 AFFECTS ALL PARCELS

29. EASEMENT AND THE TERMS AND CONDITIONS THEREOF:

GRANTEE: NOR AM INVESTMENT, LLC, A WASHINGTON LIMITED LIABILITY COMPANY
PURPOSE: TEMPORARY EASEMENT
RECORDED: NOVEMBER 17, 2011
AUDITOR'S FILE NO.: 2011-032671 AFFECTS ALL PARCELS

30. EASEMENT AND THE TERMS AND CONDITIONS THEREOF:

GRANTEE: NOR AM INVESTMENT, LLC, A WASHINGTON LIMITED LIABILITY COMPANY
PURPOSE: UTILITY
RECORDED: NOVEMBER 17, 2011
AUDITOR'S FILE NO.: 2011-032672 AFFECTS ALL PARCELS

31. EASEMENT AND THE TERMS AND CONDITIONS THEREOF:

GRANTEE: NOR AM INVESTMENT, LLC, A WASHINGTON LIMITED LIABILITY COMPANY
PURPOSE: TEMPORARY EASEMENT
RECORDED: NOVEMBER 17, 2011
AUDITOR'S FILE NO.: 2011-032673 AFFECTS ALL PARCELS

32. EASEMENT AND THE TERMS AND CONDITIONS THEREOF:

GRANTEE: NOR AM INVESTMENT, LLC, A WASHINGTON LIMITED LIABILITY COMPANY
PURPOSE: UTILITY
RECORDED: APRIL 9, 2012
AUDITOR'S FILE NO.: 2012-010113 AFFECTS ALL PARCELS

CONTINUED

33. EASEMENT AND THE TERMS AND CONDITIONS THEREOF:

GRANTEE: NOR AM INVESTMENT, LLC, A WASHINGTON LIMITED LIABILITY
COMPANY
PURPOSE: TEMPORARY EASEMENT
RECORDED: APRIL 9, 2012
AUDITOR'S FILE NO.: 2012-010114 AFFECTS ALL PARCELS

34. EASEMENT AND THE TERMS AND CONDITIONS THEREOF:

GRANTEE: JAMES J. STERLING, HIS HEIRS, SUCCESSORS AND ASSIGNS
PURPOSE: ACCESS AND UTILITY
RECORDED: NOVEMBER 21, 2013
AUDITOR'S FILE NO.: 2013-038541 AFFECTS ALL PARCELS

35. DEED OF TRUST AND THE TERMS AND CONDITIONS THEREOF:

GRANTOR: DOS CABRAS VIEJAS, A WASHINGTON LIMITED LIABILITY
COMPANY
TRUSTEE: CHICAGO TITLE COMPANY OF WASHINGTON BENTON-FRANKLIN
COUNTIES
BENEFICIARY: STEVE TATRO, TRUSTEE, SUNDANCE CAPITAL 401K PLAN,
RICHARD HENDERSON, TRUSTEE, SSR INVESTMENTS 401K PLAN,
SID LITCHFIELD, TRUSTEE, S&A CONSTRUCTIONS 401K PLAN
AMOUNT: \$1,412,606.00
DATED: September 01, 2017
RECORDED: September 13, 2017
AUDITOR'S FILE NO.: 2017-026249 AFFECTS ALL PARCELS

36. BECAUSE OF THE HIGH LIABILITY REQUESTED, THIS PRELIMINARY COMMITMENT FOR TITLE INSURANCE IS ISSUED SUBJECT TO AMENDMENT OR MODIFICATION BY THE REGIONAL COUNSEL FOR TITLE RESOURCES GUARANTY COMPANY. NO FINAL POLICY OF TITLE INSURANCE WILL BE ISSUED UNTIL WRITTEN AUTHORIZATION IS RECEIVED BY TITLE RESOURCES GUARANTY COMPANY. RECEIPT OF APPROVAL AND ANY AMENDMENTS OR MODIFICATIONS OF THIS PRELIMINARY COMMITMENT WILL BE REPORTED BY SUPPLEMENTAL REPORT.

37. TERMS AND CONDITIONS OF THE TRUST UNDER WHICH TITLE IS VESTED.

38. WE REQUEST A SHOWING OF THE TERMS AND CONDITIONS OF THE TRUST UNDER WHICH TITLE IS VESTED, PARTICULARLY THE AUTHORIZATION OF THE TRUSTEE TO EXECUTE THE FORTHCOMING INSTRUMENT ON BEHALF OF THE TRUSTORS OF THE TRUST.

NOTE: APPLIES TO ALL THREE ENTITIES SHOWN AS VESTEE HEREIN.

END OF SCHEDULE B- SECTION II SPECIAL EXCEPTIONS

NOTES:

a. THE ADDRESS OF THE SUBJECT PROPERTY IS:

4406 210 PR
Richland, WA 99352 PARCEL A

4204 210 PR
Richland, WA 99352 PARCEL B

4002 210 PR
Richland, WA 99352 PARCEL C

b. ACCORDING TO THE RECORDS OF BENTON COUNTY ASSESSOR, THE CURRENT VALUE OF SAID PREMISES IS AS FOLLOWS:

TAX ACCOUNT NO.:1-2098-400-0002-000 - PARCEL A
LAND: \$330,000.00
IMPROVEMENTS: \$0.00
TOTAL: \$330,000.00

a. TAX ACCOUNT NO.:1-2098-400-0003-000 - PARCEL B
LAND: \$330,000.00
IMPROVEMENTS: \$0.00
TOTAL: \$330,000.00

c. TAX ACCOUNT NO.:1-2098-400-0004-000 - PARCEL C
LAND: \$330,000.00
IMPROVEMENTS: \$0.00
TOTAL: \$330,000.00

c. THE FOLLOWING ABBREVIATED LEGAL DESCRIPTION IS PROVIDED AS A COURTESY TO ENABLE THE DOCUMENT PREPARER TO CONFORM WITH THE REQUIREMENTS OF RCW 65.04.045, PERTAINING TO STANDARDIZATION OF RECORDED DOCUMENTS.

ABBREVIATED LEGAL DESCRIPTION:

E1/2 SW SE, W1/2 SE SE AND E1/2 SE SE, ALL IN 20-9-28 EWM

d. ACCORDING TO EVIDENCE SUPPLIED TO THIS COMPANY, MATT NELSON, CHIEF EXECUTIVE OFFICER IS AUTHORIZED TO SIGN FOR PAHLISCH HOMES, INC.; ANY AMENDMENTS THERETO SHOULD BE SUBMITTED PRIOR TO CLOSING.

END OF SCHEDULE B- SECTION II NOTES



Authorized Signature

EXHIBIT "A"

PARCEL A: (1-2098-400-0002-000)

**THE EAST HALF OF THE SOUTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 20,
TOWNSHIP 9 NORTH, RANGE 28 EAST, W.M., RECORDS OF BENTON COUNTY, WASHINGTON.**

PARCEL B: (1-2098-400-0003-000)

**THE WEST HALF OF THE SOUTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 20,
TOWNSHIP 9 NORTH, RANGE 28 EAST, W.M., RECORDS OF BENTON COUNTY, WASHINGTON.**

PARCEL C: (1-2098-400-0004-000)

**THE EAST HALF OF THE SOUTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 20,
TOWNSHIP 9 NORTH, RANGE 28 EAST, W.M., RECORDS OF BENTON COUNTY, WASHINGTON.**



Rev. 12-27-19

FACTS			WHAT DOES TITLE RESOURCES GUARANTY COMPANY DO WITH YOUR PERSONAL INFORMATION?
Why?			Financial companies choose how they share your personal information. Federal law gives consumers the right to limit some but not all sharing. Federal law also requires us to tell you how we collect, share, and protect your personal information. Please read this notice carefully to understand what we do.
What?			The types of personal information we collect and share depend on the product or service you have with us. This information can include: • Social Security number and account balances • Payment history and credit card or other debt • Checking account information and wire transfer instructions When you are <i>no longer</i> our customer, we continue to share your information as described in this notice.
How?			All financial companies need to share customers' personal information to run their everyday business. In the section below, we list the reasons financial companies can share their customers' personal information; the reasons TITLE RESOURCES GUARANTY COMPANY chooses to share; and whether you can limit this sharing.
Reasons we can share your personal information		Does TITLE RESOURCES GUARANTY COMPANY share?	Can you limit this sharing?
For our everyday business purposes – such as to process your transactions, maintain your account(s), respond to court orders and legal investigations, or report to credit bureaus		Yes	No
For our marketing purposes- to offer our products and services to you		No	We don't share
For joint marketing with other financial companies		No	We don't share
For our affiliates' everyday business purposes- information about your transactions and experiences		Yes	No
For our affiliates' everyday business purposes- information about your creditworthiness		No	We don't share
For our affiliates to market to you		No	We don't share
For nonaffiliates to market to you		No	We don't share
Questions?		Go to https://www.titleresources.com/privacypolicy	

Who we are	
Who is providing this notice?	TITLE RESOURCES GUARANTY COMPANY
What we do	
How does TITLE RESOURCES GUARANTY COMPANY protect my personal information?	To protect your personal information from unauthorized access and use, we use security measures that comply with federal law. These measures include computer safeguards and secured files and buildings.
How does TITLE RESOURCES GUARANTY COMPANY collect my personal information?	We collect your personal information, for example, when you • Apply for insurance or pay insurance premiums • Provide your mortgage information or show your driver's license • Give us your contact information We also collect your personal information from others, such as credit bureaus, affiliates, or other companies.
Why can't I limit all sharing?	Federal law gives you the right to limit only • Sharing for affiliates' everyday business purposes –information about your creditworthiness • Affiliates from using your information to market to you • Sharing for nonaffiliates to market to you State laws and individual companies may give you additional rights to limit sharing.
Definitions	
Affiliates	Companies related by common ownership or control. They can be financial and nonfinancial companies. • <i>Our affiliates include companies that are owned in whole or in part by Realogy Holdings Corp., such as Better Homes and Gardens® Real Estate, CENTURY 21®, Coldwell Banker®, Coldwell Banker Commercial®, The Corcoran Group®, ERA®, Sotheby's International Realty®, ZipRealty®, NRT LLC, Cartus and Title Resource Group.</i>
Nonaffiliates	Companies not related by common ownership or control. They can be financial and nonfinancial companies. • <i>TITLE RESOURCES GUARANTY COMPANY does not share with nonaffiliates so they can market to you.</i>
Joint Marketing	A formal agreement between nonaffiliated financial companies that together market financial products or service to you. • <i>TITLE RESOURCES GUARANTY COMPANY does not share with nonaffiliated financial companies for joint marketing purposes.</i>
Other Important Information	
For European Union Customers	Please see our Privacy Policy located at https://www.titleresources.com/privacypolicy
For our California Customers	Please see our notice about the California Consumer Protection Act located at https://www.titleresources.com/privacypolicy

Prepared by:
Basalt Legal PLLC
6½ N. Second Ave., Suite 200
Walla Walla, WA 99362

152729 - \$10.00 - DG - 08/10/2020 - Benton County

Benton Franklin Title Company submits this
document as a COURTESY RECORDING ONLY.
It has not been examined to verify the accuracy
or validity, if any, upon title to the property described.
MISC 20-666

REF: DOT 2017-026249

DEED IN LIEU OF FORECLOSURE

Grantor: Dos Cabras Viejas, LLC, a Washington limited liability company
Grantees: Steve Tatro, Trustee, Sundance Capital 401K Plan;
Richard Henderson, Trustee, SSR Investments 401K Plan; and
Sid Litchfield, Trustee, S&A Construction 401K Plan
APN: 1-2098-400-0002-000, 1-2098-400-0003-000, 1-2098-400-0004-000

THE GRANTOR, **Dos Cabras Viejas, LLC**, a Washington limited liability company, for and in consideration of this Deed in Lieu of Foreclosure of the below-mentioned Deed of Trust, conveys and warrants to **Steve Tatro, Trustee, Sundance Capital 401K Plan; Richard Henderson, Trustee, SSR Investments 401K Plan; and Sid Litchfield, Trustee, S&A Construction 401K Plan**, the beneficiaries under the note and Deed of Trust, the following-described real estate, situated in the County of Benton, State of Washington ("Property"):

PARCEL A:

THE EAST HALF OF THE SOUTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 20, TOWNSHIP 9 NORTH, RANGE 28 EAST, W.M., RECORDS OF BENTON COUNTY, WASHINGTON.

PARCEL B:

THE WEST HALF OF THE SOUTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 20, TOWNSHIP 9 NORTH, RANGE 28 EAST, W.M., RECORDS OF BENTON COUNTY, WASHINGTON.

PARCEL C:

THE EAST HALF OF THE SOUTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 20, TOWNSHIP 9 NORTH, RANGE 28 EAST, W.M., RECORDS OF BENTON COUNTY, WASHINGTON.

Tax Parcel Nos: 1-2098-400-0002-000, 1-2098-400-0003-000, 1-2098-400-0004-000

This Deed is an absolute conveyance of title, in effect and form. This Deed is not intended as a mortgage, trust conveyance, or security of any kind. Consideration for this Deed is full release of Grantor from all debts and obligations heretofore existing on account of the Deed of Trust on the Property recorded on September 13, 2017, under Auditor's File No. 2017-026249, records of Benton County, Washington.

Notwithstanding any of the foregoing, the parties agree that this conveyance is subject to the afore-mentioned Deed of Trust and no merger is intended or shall be construed by this conveyance and the lien created by the aforementioned Deed of Trust shall survive this conveyance.

Dated this 6th day of August, 2020.

DOS CABRAS VIEJAS, LLC

BY [Signature]

John A. Sullins, Member and Authorized Agent

BY [Signature]

Brian Trimble, Member and Authorized Agent

STATE OF WASHINGTON)
County of Benton) ss.

On this day personally appeared before John W. Sullins, to me known to be one of the members of Dos Cabras Viejas, LLC, the limited liability company that executed the within and foregoing instrument and acknowledged said instrument to be the free and voluntary act and deed of said limited liability company, for the uses and purposes therein mentioned, and on oath stated that they are authorized to execute the said instrument.

Given under my hand and official seal this 6th day of August, 2020.

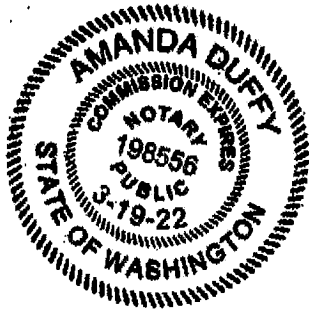


[Signature]
Notary Public in and for the State of
Washington, residing at West Richland
My appointment expires: 3-19-22

STATE OF WASHINGTON)
) ss.
County of Benton)

On this day personally appeared before Brian Trimble, to me known to be one of the members of Dos Cabras Viejas, LLC, the limited liability company that executed the within and foregoing instrument and acknowledged said instrument to be the free and voluntary act and deed of said limited liability company, for the uses and purposes therein mentioned, and on oath stated that they are authorized to execute the said instrument.

Given under my hand and official seal this 6th day of August, 2020.



Amanda Duffy
Notary Public in and for the State of
Washington, residing at West Richland
My appointment expires: 3-19-22

PATENT 10/15/56
9/12/56

363423

United States of America
to Yakima Sheep Company

give & grant

SE SW; Lt 4, Sec 18-9-28; SW NW, NW SW, S $\frac{1}{2}$ SW, &
S $\frac{1}{2}$ SE Sec 20-9-28; & S $\frac{1}{2}$, NW, W $\frac{1}{2}$ NE, SE NE Sec 28-9-28
cont 918.93 acres, ac to official plat of the survey
of sd land on file in Bureau of Land Management;
Subj to any vested & accrued w/r for mining, agr, etc
& rts to ditches & reservoirs used in conn with such
w/r as may be rec & ack by the local customs, laws &
decisions of courts; & reserved fr lands hby granted
a r/w thon for ditches or enls constr by auth of the US.
EXC & RESERV also to the US, all oil & gas in the

Lt 4, SE SW, Sec 18 & the SW NW, NW SW, S $\frac{1}{2}$ SW, S $\frac{1}{2}$ SE
Sec 20-9-28, & Sec 18, or the persons auth by it, the SE to
prosp for mine & remove such deposits fr same upon
compliance with cond & subj to prov & limit of Act of
7/17/14 (38 Stat. 509). As to the Lt 4, SE SW sd
sec 18, SW NW, NW SW, S $\frac{1}{2}$ SW, S $\frac{1}{2}$ SE sd sec 20, this entry
is made under Sec 29 of the Act of 2/25/20 (41 Stat. 437)
& the Act of 3/4/33 (47 Stat. 1570) & patent is issued
subj to rts of prior permittees or lessees to use so
much of surface of sd lands as is req for mining
operations, withou compensaion to patentee for damages
xcn ok Rose M Beall, Chief patents section

Fld by & Mailed to Yakima Sheep Company, Yakima. Wn

Post
10440
SEP 3 - 1982

DAVID W. SPADER, Clerk

IN THE SUPERIOR COURT OF THE STATE OF WASHINGTON
IN AND FOR BENTON COUNTY

THE STATE OF WASHINGTON,

Petitioner,

NO. 82-2-00936-6

PETITION

DAVID LAND AND LIVESTOCK COMPANY,
a Washington corporation, DENNIS
Z. DAVIN and YERNA DAVIN, his
wife, RAYMOND T. WICHNER and
BEATRICE WICHNER, his wife,
WILLIAM H. REYNOLDS and JANE DOE
REYNOLDS, his wife, DOUGLAS E.
ENSOR and PATI A. ENSOR, his
wife, DALE G. VAN SCHOLACK and
JUDITH ANN VAN SCHOLACK, his
wife, BURN V. GRAY and DALE B.
GRAY, her husband, NORTHWEST
LIVESTOCK PRODUCTION CREDIT
ASSOCIATION, a corporation,
YAKIMA MINERAL LEASE COMPANY, a
corporation, KENNETH O. EKENBERRY,
Attorney General, and JOSEPH B. IONAN,
Assistant Attorney General,
DISTRICT ATTORNEYS, and
DAVID LAND AND LIVESTOCK COMPANY,
INC., and BENTON COUNTY,
Respondents.

Comes now the State of Washington, petitioner, by Kenneth O.

Ekenberry, Attorney General, and Joseph B. Ionan, Assistant Attorney
General, and respectfully petitions and shows to this court:

1

That the Secretary of Transportation of the State of Washington, as
authorized by resolution of the Washington State Transportation Commission
Petition

KENNETH EKENBERRY, ATTORNEY GENERAL
JOSEPH B. IONAN
5TH FLOOR, BENTON COUNTY COURTHOUSE
OLYMPIA, WA 98501
Tel. 753-6126
Telex 154444

has surveyed, located, selected and adopted part of the route of SR 82
as established by the legislature of the State of Washington, over,
across, and/or adjacent to certain lands, real, personal, premises and
property described in Exhibit "A" hereto attached and by this reference
made a part hereof.

II

That the Washington State Transportation Commission, pursuant to
law, has established the section of SR 82 involved herein as a limited
access facility.

III

That the property and the property rights so described are necessary
for a public use of the State of Washington, to wit: the construction,
maintenance and operation of SR 82.

IV

That the names of each and every encumbrancer, owner or other person
interested in said lands or other property or any part thereof, so far as
can be ascertained from the public records, are as follows:

David Land and Livestock Company, a Washington corporation
Dennis Z. Davin and Yerna Davin, his wife

Raymond T. Wichner and Beatrice Wichner, his wife

William H. Reynolds and Jane Doe Reynolds, his wife

Douglas E. Ensor and Pati A. Ensor, his wife

Dale G. Van Scholack and Judith Ann Van Scholack, his wife

Burn V. Gray and Dale B. Gray, her husband

Northwest Livestock Production Credit Association, a corporation
Yakima Mineral Lease Company, a corporation

Petition

1 Kennewick Irrigation District
 2 Cities Service Company, Inc.
 3 Benton County
 4 WHEREFORE, petitioner prays for an order adjudicating that the lands
 5 real estate, premises and other property herein designated as Exhibit "A"
 6 hereto attached are necessary for the public use of the State of
 7 Washington; and that at the time said order is entered, a date be set for
 8 trial of this action before a court or jury, if a jury be demanded, at
 9 which trial the total amount to be awarded all parties interested in the
 10 lands herein sought to be appropriated be determined, and that upon
 11 payment into the registry of this court of the amount so determined, the
 12 title to said lands, premises, property and property rights be vested in
 13 fee simple to the petitioner, the State of Washington, for public highway
 14 purposes, to wit: the construction, operation and maintenance of a limit
 15 access highway.
 16 DATED this 27th day of August, 1982.
 17
 18
 19
 20
 21
 22
 23
 24
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 27

KENNETH O. HIRSHBERG
 Attorney General
 JESSIE B. STROMAN
 Assistant Attorney General
 Attorneys for Petitioner
 State of Washington

Petition

28218 26562 10440
 SINGLE

PAGE NO. 5-04645

INTERESTED PARTIES: DAVID LAND and LIVESLOCK COMPANY, a Washington Corporation;
 DENNIS E. and JANE ROE DAVIS, his wife, OVERLOOK PROPERTIES,
 EIGHTH PARKINER, whose partners are HAROLD A. HICOMER and
 JANE ROE HICOMER, his wife, WILLIAM M. HENRIS and JANE ROE
 HENRIS, his wife, DOUGLAS E. HENRIS and JANE ROE HENRIS, his
 wife, DALE S. VANSCHACK and JANE ROE VANSCHACK, his wife,
 and ERIC Y. GRAY and JANE ROE GRAY, his wife, HANSHAM, HANSHAM
 LIVESLOCK PRODUCTION CREDIT ASSOCIATION, JACITA HENRIS LEASE
 COMPANY, KENNEWICK IRRIGATION DISTRICT, CITIES SERVICE COMPANY,
 INC.

DESCRIPTION:

PARCEL "A":

All that part of the following described tract "A" lying southerly of a line described
 as follows:

Beginning at a point opposite Highway Engineer's Station (hereinafter referred to as
 SR 13) IR 103+99.07 on the IR line Survey of SR 82, Goose Bay Road Viaduct to set
 SR 13, and 191.13 feet Northwesterly therefrom, thence Northwesterly to a point opposite
 point 1110232.55 and 195 feet Northwesterly therefrom thence Northwesterly to a
 point opposite SR 13-1112406.20 and 195 feet Northwesterly therefrom, thence North-
 northerly to a point on the East line of Lot 4 of short plat 739 that is 175 feet
 line description.

TOGETHER WITH the perpetual right, permit, license and easement to use and occupy the
 following described lands to be designated as Parcel "B" for the purpose of constructing
 an access road.

PARCEL "B":

All that part of the following described tract "A" lying between the hereinabove
 described Parcel "A" and a line described as beginning at a point opposite SR 13
 1102450.00 on said IR line Survey and 255 feet Northwesterly therefrom, thence North-
 easterly to a point opposite SR 13-1110400.00 and 270 feet Northwesterly therefrom;
 thence Northwesterly to a point opposite 6 139+23.98 on the 6 line Survey of said
 SR 82 and 70 feet Westerly therefrom and the end of this line description.

TRACT "A":

Lot 4, Short Plat 739, according to the survey thereof recorded on April 13, 1979,
 under Auditor's File No. 768975.

Also the North half of the Southeast Quarter in Section 19, Township 9 North,
 Range 28 East, N.M.

Also the Southeast Quarter of the Southeast Quarter, and the South half of the
 Southeast Quarter of Section 20, Township 9 North, Range 28 East, N.M. records
 of Benton County, situated in the County of Benton, Washington.

The lands being herein condemned for an access easement containing an area of 0.89 acres.

The lands being herein condemned, in fee, contain an area of 1.45 acres, more or less, the specific details concerning all of which may be found within that certain map of definite location now of record and on file in the office of the Secretary of Transportation at Olympia, Washington, bearing date of approval January 18, 1960 revised July 19, 1962.

TOGETHER WITH all rights of ingress and egress, if any (including all existing future or potential easements of access, light, view and air) to, from and between said SR 82 and the remainder of said tract, *X.

EXCEPT that there shall be reasonable ingress and egress to, from and between the remainder of said tract *X and the 1/2 line right of way (hereinafter of Parcel "A").

RESERVED WITH the right to enter upon the independently situated lands, where necessary, to remove improvements, if any, located wholly or partially upon the right of way.

10440
31170

97 28127

FILED BY

Nov 4 8 53 AM '97

BOBBIE GAGNER
BENTON COUNTY AUDITOR

Return Address

Name Baker Boyer Bank

Address P.O. Box 1796

City, State, Zip Walla Walla, Washington 99362

VOL 677 PAGE 1090

Document Title(s) (or transactions contained therein):

BENTON-FRANKLIN TITLE CO. 10.00 ✓

- BT-MO
1. WARRANTY FULFILLMENT DEED
 - 2.
 - 3.
 - 4.

Reference Number(s) of Documents assigned or released:
(on page _____ of documents(s))

Grantor(s) (Last name first, then first name and initials)

1. BAKER-BOYER NATIONAL BANK, a Washington corporation
- 2.
- 3.
- 4.
5. Additional names on page _____ of document.

Grantee(s) (Last name first, then first name and initials)

1. STERLING, JAMES J.
2. STERLING, SHERI E.
- 3.
- 4.
5. Additional names on page _____ of document.

Legal description (abbreviated: i.e. lot, block, plat or section, township, range)
Ptn. 20-9-28

Additional legal is on page _____ of document.

Assessor's Property Tax Parcel/Account Number

Additional legal is on page _____ of document.

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.

WASHINGTON STATE COUNTY AUDITOR/RECORDER'S
INDEXING FORM (Cover Sheet)

Form 7265-2



FILED FOR RECORD AT REQUEST OF

BENTON-FRANKLIN TITLE CO.
89-999
BT 17437

WHEN RECORDED RETURN TO

Name.....

Address.....

City, State, Zip.....

THIS SPACE PROVIDED FOR RECORDER'S USE:

VOL 677 PAGE 1091

Statutory Warranty Deed
(FULFILLMENT)

THE GRANTOR BAKER-BOYER NATIONAL BANK, a Washington Corporation

for and in consideration of FULFILLMENT OF REAL ESTATE CONTRACT

in hand paid, conveys and warrants to JAMES J. STERLING and SHERIE STERLING, husband and wife
the following described real estate, situated in the County of Benton, State of Washington:

Legal Description is attached hereto and by this reference made a part hereof.

SUBJECT TO: Easements, Reservations, Restrictions, Covenants and Conditions of record
and liability to future assessment by Badger Mountain Irrigation District or assigns.

This deed is given in fulfillment of that certain real estate contract between the parties hereto, dated October 13, 1989, and conditioned for the conveyance of the above described property, and the covenants of warranty herein contained shall not apply to any title, interest or encumbrance arising by, through or under the purchaser in said contract, and shall not apply to any taxes, assessments or other charges levied, assessed or becoming due subsequent to the date of said contract.

Real Estate Sales Tax was paid on this sale on _____

, Rec. No. _____

Dated October 13, 1989

BENTON CO. TREASURER
89-04573
OCT 19 1989
336.60
EXCISE TAX PAID

BAKER-BOYER NATIONAL BANK
by _____

STATE OF WASHINGTON

COUNTY OF _____ PUBLIC COUNTY OF Benton ss.

I certify that I know or have satisfactory evidence that _____
signed this instrument and acknowledged to be (his/her) free and voluntary act for the uses and purposes mentioned in the instrument.
I certify that I know or have satisfactory evidence that _____
signed this instrument, on oath stated that (he/she) was authorized to execute the instrument and acknowledged it as the _____
of Baker-Boyer National Bank to be the free and voluntary act of such party for the uses and purposes mentioned in the instrument.

Dated

(SEAL OR STAMP)

Signature of Notary Public

Title

My appointment expires

(SEAL OR STAMP)

10/18/89
Dated
Signature of Notary Public
NOTARY PUBLIC FOR THE STATE OF WASHINGTON
Title

My appointment expires

9/15/91

10440
The West half of the Southeast quarter of the Southwest quarter of Section 20, Township 9 North, Range 28 East, W.M., records of Benton County, Washington, EXCEPT interstate highway right-of-way.

The East half of the Southeast quarter of the Southwest quarter of Section 20, Township 9 North, Range 28 East W.M., records of Benton County, Washington, EXCEPT interstate highway right-of-way.

The West half of the Southwest quarter of the Southeast quarter of Section 20, Township 9 North, Range 28 East, W.M., records of Benton County, Washington.

The East half of the Southwest quarter of the Southeast quarter of Section 20, Township 9 North, Range 28 East, W.M., records of Benton County, Washington.

The West half of the Southeast quarter of the Southeast quarter of Section 20, Township 9 North, Range 28 East, W.M., records of Benton County, Washington.

The East half of the Southeast quarter of the Southeast quarter of Section 20, Township 9 North, Range 28 East, W.M., records of Benton County, Washington.

Together with Easement for ingress and egress described as follows:

A parcel of land situated in the Southwest Quarter of the Southwest Quarter of Section 20, Township 9 North, Range 28 East, Willamette Meridan, Benton County, Washington, described as follows:
Beginning at the Southeast corner of the Southwest Quarter of the Southwest Quarter of said Section 20; Thence $N0^{\circ}53'39''W$, along the East line of said Southwest Quarter of the Southwest Quarter, a distance of 762.02 feet to the True Point of Beginning; Thence $S51^{\circ}46'33''W$ a distance of 85.53 feet to a point of curve; Thence Southwesterly along the arc of a curve to the right having a central angle of $44^{\circ}55'31''$, a radius of 640.00 feet, an arc distance of 501.82 feet to a point of reverse curve; Thence Southwesterly along the arc of a curve to the left, having a central angle of $75^{\circ}21'56''$, a radius of 20.00 feet, an arc distance of 26.31 feet to a point on the Easterly Right-of-way of Goose Gap road; Thence $N21^{\circ}20'08''E$ along said Easterly Right-of-way a distance of 91.34 feet; Thence $N2^{\circ}23'13''E$ along said Easterly Right-of-way a distance of 25.58 feet to a point of curve; Thence Southeasterly along the arc of a curve to the left having a central angle of $87^{\circ}59'39''$ a radius of 20.00 feet, a chord bearing of $S41^{\circ}36'37''E$, an arc distance of 30.72 feet to a point of compound curve; Thence Northeasterly along the arc of a curve to the left having a central angle of $42^{\circ}37'01''$, a radius of 560.00 feet, an arc distance of 416.53 feet; Thence $N51^{\circ}46'33''E$ a distance of 146.54 feet to a point on the Eastline of the Southwest Quarter of the Southwest Quarter of said Section 20; Thence $S0^{\circ}53'39''E$ along said East line a distance of 100.61 feet to the True Point of Beginning.



DELTA PETROLEUM CORP

ASSGN

38.00

2006-001558

Pg: 1 of 7

01/17/2006 01:48P

Benton County

	RECORDER'S USE ONLY
--	---------------------

Return To: Delta Petroleum Corporation
370 17th Street, Suite 4300
Denver, Colorado 80202

Benton County Auditor/Recorder's Indexing Form

- A. **Document Title:**
Oil and Gas Lease Assignment
- B. **Grantor:**
Savant Resources LLC
- C. **Grantee:**
Delta Petroleum Corporation
- D. **Legal description:**
Township 9 North, Range 28 East, W.M.
Section 34: N2NE
Additional legal description on page 7 of document
- E. **Assessor's property tax parcel/account number(s):**
Federal Lease - N/A
- F. **Auditor's recording number for assigned lease:**
Not Recorded



When Recorded Return To:
Delta Petroleum Corporation
370 17th Street, #4300
Denver, CO 80202
Attn: Lyell Coe, Vice President

ASSIGNMENT

THIS ASSIGNMENT (this "Assignment"), dated effective as of August 15, 2005 (the "Effective Date"), is from SAVANT RESOURCES LLC, a Colorado limited liability company ("Savant"), 730 Seventeenth Street, Suite 410, Denver, Colorado 80202-3510, to DELTA PETROLEUM CORPORATION ("Delta"), having an address of 370 Seventeenth Street, Suite 4300, Denver, Colorado 80202. Savant and Delta shall be referred to herein, individually, as a "Party," and, collectively, as the "Parties."

IN CONSIDERATION OF TEN DOLLARS (\$10.00), the mutual premises and covenants contained herein, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties hereby agree as follows:

1. **Assignment.** Subject to the terms and conditions of this Assignment, Savant hereby sells, assigns and transfers unto Delta all of Savant's right, title and interest in and to the following (collectively, the "Assets"), but **RESERVING AND EXCEPTING** unto Savant the Excluded Assets (as described in Section 1(f) below):

(a) **CRB Leases.** The leasehold estates created by the oil and gas leases (the "CRB Leases") described in Exhibit A hereto, insofar as the CRB Leases cover the land (the "CRB Land") described in Exhibit A hereto;

(b) **CRB Contracts.** The agreements, contracts, instruments, declarations and orders (collectively, the "CRB Contracts") described in Exhibit B hereto, including, that certain Acquisition and Exploration Agreement, dated October 24, 2002, between Savant and EnCana Oil & Gas (USA) Inc. ("EnCana"), as amended (collectively, the "EnCana Agreement");

(c) **Savant Reversion and Relinquished Override.** The Savant Reversion (as defined in Section 14 of the EnCana Agreement) and the Relinquished Override (as described in Section 15 of the EnCana Agreement).

(d) **Data.** Subject to Section 1(f)(ii) below, copies of all geological, geophysical, engineering and technical data, reports and information in Savant's possession including, all raw and processed data, and interpretations, write-ups, presentations and reports therefrom, the well logs from the BN # 1-9 well, MT data, seismic data, magnetic tapes and field notes (collectively, the "Data").

(e) **Records.** Subject to the Excluded Assets below, copies of the CRB Leases, the CRB Contracts, and all other documents related to the Assets in Savant's possession or control (collectively, the "Records").

P11, C1, Benton

(f) **Excluded Assets.** Notwithstanding anything to the contrary, Savant hereby expressly RESERVES AND EXCEPTS from the Assets all of the following (the "Excluded Assets"):

(i) All overriding royalty interests, other than the Relinquished Override (as described in Section 15 of the EnCana Agreement), reserved by Savant or assigned by Savant to Savant's designees burdening the CRB Leases of record on or before the Effective Date, and an overriding royalty interest (the "Savant Delta Override") equal to the difference between the aggregate of all landowner's royalty and overriding royalty interests existing of record on or before the Effective Date, and twenty percent (20%) of 8/8ths of all oil, gas, casinghead gas, condensate and other hydrocarbons produced, saved and marketed from the CRB Land pursuant to the terms of the CRB Leases, or lands pooled, communitized or unitized therewith. The Savant Delta Override shall be proportionately reduced, on a lease by lease basis, to the extent that a CRB Lease covers less than the entire mineral fee estate in and under the CRB Land covered by such CRB Lease, and to the extent that the interest in the CRB Lease assigned by Savant to Delta hereunder is less than the entire leasehold estate created by such CRB Lease. The Savant Delta Override shall be free and clear of all costs of exploration, drilling, development, production and operations, but shall bear its proportionate share of all gathering, compression, treating, processing, transportation or marketing costs borne by the working interest estate, and the Savant Delta Override shall bear its proportionate part of the gross production taxes, or any similar taxes, assessed against such interest. It is the intent of Delta and Savant that Savant deliver to Delta a proportionate eighty percent (80%) net revenue interest in each CRB Lease, on a lease-by-lease basis. The Savant Delta Override shall burden and apply to all extensions and renewals of the CRB Leases. For purposes of this Assignment, an "extension or renewal" shall mean any new lease covering all or any portion of the CRB Land covered by an expiring CRB Lease which is acquired (and, with respect to a federal or state lease, for which an offer to lease has been filed) by Delta, or Delta's successors or assigns, on or before the expiration of such CRB Lease or on or before six (6) months thereafter.

(ii) All agreements, data and other information that cannot be disclosed or assigned to Delta as a result of confidentiality arrangements under agreements between Savant and unaffiliated third parties. Notwithstanding the foregoing, Savant shall use its commercially reasonable efforts to obtain permission to deliver all such agreements, data and other information to Delta. To the extent that Savant is required to pay a transfer fee or additional license fee to obtain permission to deliver such agreements, data and other information, Savant shall not be obligated to deliver the same unless Delta shall agree to reimburse Savant for such fees.

(iii) All income, revenue, receipts, proceeds, benefits, monies, refunds, credits, accounts receivable, gains, awards, settlements, adjustments, production (including all oil, natural gas, natural gas liquids or condensate inventory), or other amounts due or payable to Savant under, with respect to, or attributable to, any of the Assets with respect to any period prior to the Effective Date.

(iv) All claims and causes of action of Savant arising from or relating to the Assets and relating to and only to times prior to the Effective Date.

TO HAVE AND TO HOLD the Assets unto Delta, and Delta's successors and assigns, subject to the terms and conditions of this Assignment.

2. **Assumption.** Savant shall be responsible for and shall pay for all costs, expenses and charges allocable to the Assets for the period prior to the Effective Date, and Delta shall assume and pay for all costs, expenses and charges allocable to the Assets for the period on and after the Effective Date. This Assignment is subject to and burdened by the terms and conditions of that certain Purchase and Sale Agreement (the "Delta Savant Agreement"), dated September 1, 2005, between Delta and Savant (a copy of which is available at the offices of Savant), the CRB Leases, and the CRB Contracts, and shall be burdened by the landowners' royalties, overriding royalties and other burdens of record on or before the Effective Date and the Savant Delta Override (described in Section 1(f)(i) above). Delta hereby assumes and agrees to bear all of Savant's duties, obligations and liabilities arising in connection with or related to the CRB Leases and the CRB Contracts accruing on or after the Effective Date. In the event of a conflict between the terms and conditions of this Assignment and the terms and conditions of the Delta Savant Agreement, the terms and conditions of the Delta Savant Agreement shall control and govern the point in conflict. None of the provisions of the Delta Savant Agreement shall be deemed to have merged with this Assignment. The terms and conditions of the Delta Savant Agreement shall be deemed to be covenants running with the CRB Land covered by the CRB Leases, and a burden upon Delta's interest in the CRB Leases for the benefit of Savant.

3. **Disclaimers.** Except as otherwise provided in the Delta Savant Agreement, the Assets are assigned "AS IS, WHERE IS, WITH ALL FAULTS, AND WITHOUT RECOURSE," AND THE PARTIES EXPRESSLY DISCLAIM ALL WARRANTIES, EXPRESS, IMPLIED, STATUTORY OR OTHERWISE, INCLUDING, WITHOUT LIMITATION, THE IMPLIED WARRANTY OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. The Parties hereby acknowledge and agree that the foregoing disclaimers are conspicuous.

4. **Consents.** Notwithstanding anything in this Assignment to the contrary, to the extent that any of the Assets are subject to an agreement, law or regulation requiring the prior written consent of a third party prior to the assignment of such Assets, and such consent has not been obtained, this Assignment shall not be deemed to assign such Assets until such consent shall have been obtained.

5. **Exhibits.** All exhibits attached hereto are hereby incorporated herein and made a part hereof for all purposes, as if set forth in full herein. References in such exhibits to instruments on file in the public records are hereby incorporated by reference herein for all purposes.

6. **Binding Effect.** This Assignment shall be binding upon and inure to the benefit of Assignor and Assignee, and their respective successors and assigns.

7. **Further Assurances.** The Parties shall use their reasonable efforts in good faith to execute all documents and take all other action reasonably necessary to consummate the transactions contemplated by this Assignment and the Agreement.

8. **Counterparts.** This Assignment may be executed in one or more counterparts, and each counterpart shall be deemed to be an original, but all of which shall be deemed to be one assignment. As appropriate, Assignor shall also execute, acknowledge and deliver separate counterparts of this Assignment on officially approved forms in sufficient counterparts to satisfy applicable statutory and regulatory requirements. Such counterpart assignments shall be deemed to contain all of the terms and conditions of the Agreement and this Assignment. The Assets assigned in such governmental assignments are the same, and not additional to the Assets assigned hereunder.

9. **Warranty of Title.** Subject to the CRB Contracts, the Delta Savant Agreement and the EnCana Agreement, Savant warrants title to the CRB Leases by, through and under Savant, but not otherwise.

EXECUTED on the dates below the signatures hereto, to be effective for all purposes as of the Effective Date.

SAVANT RESOURCES LLC

BY SAVANT OPERATING COMPANY, MANAGER

By: [Signature]
Patterson Shaw, President

Date: 9/28/2005

DELTA PETROLEUM CORPORATION

By: [Signature]
Roger A. Parker, President

Date: 9/27/2005

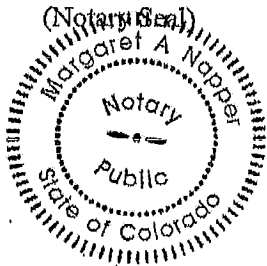
Acknowledgments

STATE OF COLORADO)

CITY AND COUNTY OF DENVER)

ss.

On this 28th day of September, 2005, before me personally appeared Patterson Shaw, known to me to be the President of Savant Operating Company, Manager of Savant Resources LLC, a Colorado limited liability company, that is described in and that executed this instrument, and acknowledged to me that he executed this instrument on behalf of said company.



Margaret A. Napper
Notary Public

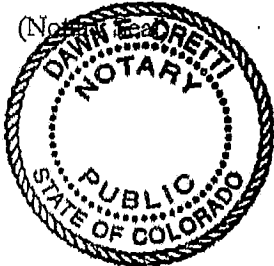
My commission expires November 17, 2007

STATE OF COLORADO)

CITY AND COUNTY OF DENVER)

ss.

On this 27th day of September, 2005, before me personally appeared Roger Parker, known to me to be the President of Delta Petroleum Corporation, a Colorado corporation, that is described in and that executed this instrument, and acknowledged to me that he executed this instrument on behalf of said corporation.



My Commission Expires 07/12/2008

Dawn E. Crotti
Notary Public

My commission expires: 7/12/2008

BENTON COUNTY										
COLUMBIA RIVER BASIN PHASE II - CATEGORY 1										
LEASE NO	LESSOR	COUNTY	LEASE DATE	LESSEE	TWN	RNG	SEC	LEGAL DESCRIPTION	GROSS ACRES	RECORDING
W4300	BLM WAOR-57483	BENTON	9/1/2002	SAVANT RESOURCES	5N	28E	34	N2NE	1,385.84	
					5N	28E	30	UNNUMBERED LOT NW1/4, UNNUMBERED LOT		
					"	"	"	SW1/4, UNNUMBERED LOT NW1/4, UNNUMBERED		
					"	"	"	LOT S1/4, E21/2		
					5N	28E	25	NENE		
					5N	28E	25	NW		
					5N	28E	20	ALL		
					5N	28E	18	UNNUMBERED LOT NW1/4, UNNUMBERED		
					"	"	"	LOT S1/4, NW1/4, S21/2, S21/2, S1/4, S1/4		

TOTAL NET ACRES

DELTA PETROLEUM CORP ASSGN 2006-001558 Pg: 7 of 7 01/17/2006 01:48P 38.00 Benton County



WHEN RECORDED RETURN TO:

Richland City Clerk
P.O. Box 190
Richland, WA 99352

PID #120984000001000, 120983000003000, 120984000003000, 120983000002000,
120984000002000 & 120984000004000

ORDINANCE NO. 19-06

AN ORDINANCE of the City of Richland providing for the annexation and assignment of zoning classification of approximately 117 acres located south of I-182, east of Dallas Road and west of the plat of Country Estates and amending the Official Zoning Map No. 59 to assign zoning to the annexation area. (Sterling)

WHEREAS, the City received a letter of request from Jim Sterling and Sheri Sterling, requesting annexation into the City of Richland; and

WHEREAS, the City Council held a meeting with the property owners on September 16, 2005 and adopted Resolution No. 37-05, which accepted the request for proposed annexation subject to simultaneous adoption of the City's Comprehensive Plan and the assumption of the appropriate share of all existing City Indebtedness, and further directed staff to submit an application to the Benton County Review Board; and

WHEREAS, the Richland Planning Commission at their regular meeting on September 28, 2005, did conduct a public hearing and formulated recommendations on the appropriate preliminary zoning designation for the property to be annexed; and

WHEREAS, staff prepared and submitted a request to the Benton County Boundary Review Board to annex the subject area into the City; and

WHEREAS, the City Council re-adopted resolution #20-06 on March 7, 2006, authorizing annexation of the subject property; and

WHEREAS, the Boundary Review Board reviewed the request and, following the provisions of RCW 36.93.110, waived their review of the proposed annexation; and

WHEREAS, June 6, 2006 was established as the date for City Council to hold a public hearing to consider the annexation petition; and

WHEREAS, the matter was duly considered by the City Council of the City of Richland at said hearing and it was finally determined by City Council that annexation would be of general benefit to the residents of the City of Richland.

NOW, THEREFORE, BE IT ORDAINED by the City Council of the City of Richland as follows:

Section 1.01 The real property as more specifically described as:

Those portions of the South ½ of the Southeast Quarter and the Southeast Quarter of the Southwest Quarter of Section 20, Township 9 North, Range 28 E.W.M., lying southerly of the I-182 Right-of-Way.

is hereby annexed to the City of Richland and is hereby declared to be within the corporate limits of the City of Richland, Benton County, Washington.

Section 1.02 The area proposed for annexation has been included in the City of Richland Comprehensive Plan.

Section 1.03 The property within the annexed area shall be taxed or assessed to pay indebtedness of the City of Richland contracted prior to or existing at the time of annexation.

Section 1.04 It is hereby found, as an exercise of the City's police power, that the best zoning for said property shall be R1-12 Single Family Residential 12,000 zoning when consideration is given to the interest of the general public.

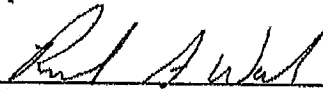
Section 1.05 Title 23 of the City of Richland Municipal Code and the Official Zoning Map of the City, as adopted by Section 23.08.040 of said title, are amended by amending Sectional Map No. 59, which is one of a series of maps constituting said Official Zoning Map. Said map shall bear the number and date of passage of this ordinance and by this reference made a part of this ordinance and of the Official Zoning Map of the City.

Section 1.06 Unless otherwise agreed to by the City, the City of Richland will be the provider of electrical power services and other utilities for any future development(s) that may occur within the proposed annexation area.

Section 1.07 The City Clerk is directed to file a copy of this annexation with the Board of County Commissioners of Benton County and the State of Washington in the manner required by law. The City Clerk is also directed to file with the Auditor of Benton County, Washington a copy of this ordinance and shall attach amended Sectional Map No. 59, and an amended Annexation Map, duly certified by the Clerk as a true copy.

Section 1.08 This ordinance shall become effective at such time that it is recorded with the Benton County Auditor.

PASSED by the City Council of the City of Richland on this 20th day of June
2006.

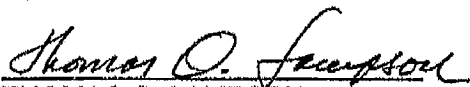


ROBERT A. WELCH
Mayor

ATTEST:

for 
CYNTHIA D. JOHNSON
City Clerk

APPROVED AS TO FORM:



THOMAS O. LAMPSON
City Attorney

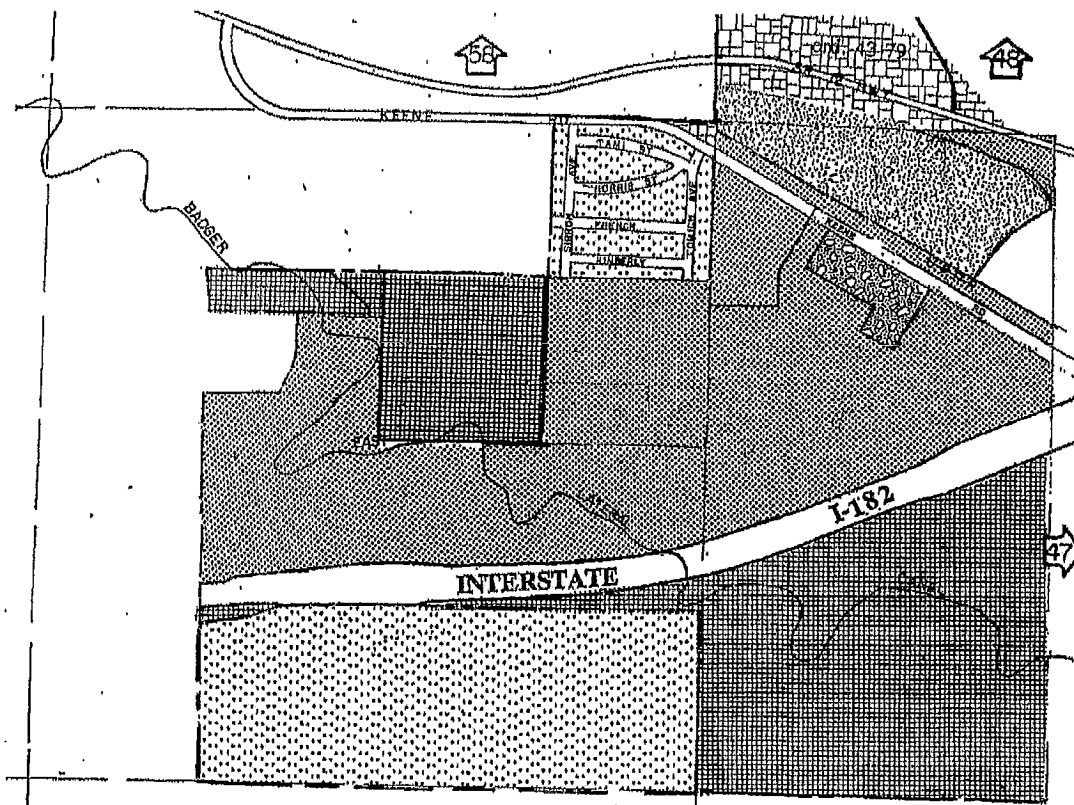
Date Published: June 25, 2006



2006-024209
Pg: 5 of 5

RICHLAND CITY CLERK ORD

07/26/2006 04:34P
36.00 Benton County



A CERTIFIED TRUE COPY

Debra C. Barber
Deputy CITY CLERK

Amended by Ord.:
67-78, 10/16/78

Ord. 19-06, 6/20/06

Ord. 835 12/17/73
Ord. 55-77, 10/3/77

Ord. 21-95 6/5/95

Ord. 14-96 4/15/96

Ord. 9-00 4/11/00

Ord. 11-01, 5/1/01

Ord. 14-01, 6/19/01

Ord. 3-03, 1/21/03

Ord. 4-03, 1/21/03

Ord. #28-05, 9/6/05

59

EXCISE TAX NOT REQUIRED
BENTON COUNTY EXCISE TAX DIVISION
BY Sherrill DEPUTY
Easement 9/19/04
WHEN RECORDED RETURN TO:



City Attorney
City of Richland
P.O. Box 190
Richland, WA 99352

Portion of Parcel No. 1-2098-400-0004-000

TEMPORARY TURN AROUND & UTILITY EASEMENT

The Grantor, **SHERI E. STERLING**, for and in consideration of the transfer of property and other valuable considerations. Conveys and quit claims to the **CITY OF RICHLAND**, Washington, a municipal corporation, a **temporary turn around and utility easement** in, over and under the following described property situated in the County of Benton, State of Washington:

SEE ATTACHED DESCRIPTION EXHIBIT A

For the purpose of constructing, installing maintaining, repairing, and operating a **temporary turn around and utility easement** with full right to go upon said premises at any time for such purposes, together with the right to trim brush and trees that may interfere with the construction, maintenance and operation of same.

THIS TEMPORARY TURN AROUND EASEMENT SHALL EXPIRE UPON THE RECORDATION OF A PERMANENT EASEMENT OR DEDICATION.

DATED this 22 day of March, 2004.

Sheri E. Sterling
SHERI E. STERLING

STATE OF CALIFORNIA)
COUNTY OF RIVERSIDE : Ss

On this 22 day of MARCH, 2004, before me, the undersigned, a Notary Public in and for the State of California, duly commissioned and sworn, personally appeared **SHERI E. STERLING**, to me known to be the individual that executed the foregoing instrument, and acknowledged the said instrument to be the free and voluntary act and deed of said entity, for the uses and purposes therein mentioned, and on oath stated that she is authorized to execute the said instrument.

Witness my hand and official seal hereto affixed the day and year first above written.

J. A. Putero Jr
Notary Public in and for the State of
California; residing at Palm Springs
My Commission Expires MAY 24, 2006
J. A. - PUTERO, JR
Print Name

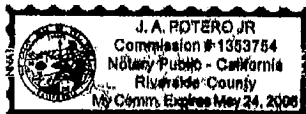




EXHIBIT A

LEGAL DESCRIPTION

A 100.00 ft. by 100.00 ft area of land located in the Southeast 1/4 of the Southeast 1/4 of Section 20 in Township 9 North of Range 28 East of the Willamette Meridian, Benton County, Washington, described more particularly as follows:

Commencing at the Southeast corner of said Southeast 1/4 of Section 20;

THENCE North 00 degrees 16 minutes 30 seconds West for a distance of 1145.77 feet along the East line of said Southeast 1/4 of Section 20 to the True Point of Beginning for this Legal Description;

THENCE North 00 degrees 16 minutes 30 seconds West for a distance of 50.00 feet, continuing along said East line of the Southeast 1/4;

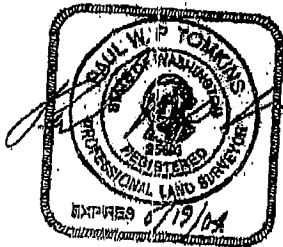
THENCE South 89 degrees 43 minutes 30 seconds West for a distance of 100.00 feet, at right angles to said East line;
THENCE South 60 degrees 16 minutes 30 seconds East for a distance of 100.00 feet, at right angles to said East line;

THENCE South 60 degrees 16 minutes 30 seconds East for a distance of 100.00 feet; parallel to said East line of the Southeast 1/4;

THENCE North 89 degrees 43 minutes 30 seconds East for a distance of 100.00 feet, to a point on the East line of said Southeast 1/4;

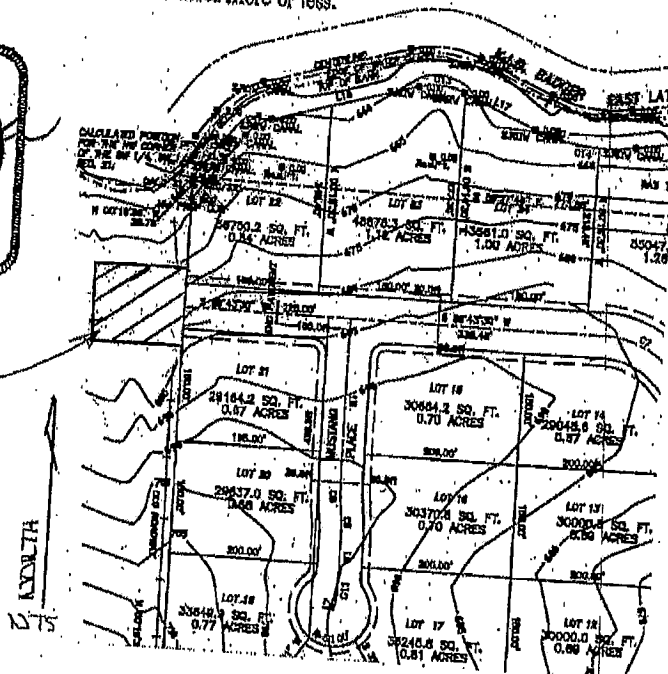
THENCE North 00 degrees 16 minutes 30 seconds West for a distance of 50.00 feet, along said East line of the Southeast 1/4 of Section 20 to the True Point of Beginning.

Said property contains 0.230 acres more or less.



1/16/04

TEMP. TURN-
AROUND ESMT.
(04-0007)



2011-032680 EAS

11/17/2011 02:54:11 PM Pages: 3 Fee: \$64.00

Vsi Law Group PLLC
Benton County Auditor's Office



After Recording Please Return To:

Loren D. Combs

VSI Law Group, PLLC

3600 Port of Tacoma Road, Suite 311

Tacoma, WA 98424

EXCISE TAX NOT PRESENTED
BENTON COUNTY EXCISE

BY Kim R. Jones DEPUTY Easement
11-17-11

UTILITY EASEMENT

Grantor: SHERI E. STERLING, a single person

Grantee: NOR AM INVESTMENT, LLC, a Washington limited liability company

Abbreviated Legal Description: The West half of the Southeast quarter of the Southeast quarter of Section 20, Township 9 North, Range 28 East, W.M., records of Benton County, Washington. Complete legal description is in Exhibit A of document

Tax Parcel No.: 120984000003000

SHERI E. STERLING, a single person, ("Grantor"), record owner of the property hereinafter described, for good and valuable consideration, hereby grants to NOR AM INVESTMENT, LLC ("Grantee"), its successors and assigns, a perpetual easement to install, construct, operate, inspect, maintain, repair, remove, and replace water mains and lines, sanitary sewer mains and lines, and any and all appurtenances, over, under, upon and across the property legally described in Exhibit A attached hereto and graphically depicted in Exhibit B attached hereto (the "Easement"), which is a portion of Benton County Assessor's Parcel Number 120984000003000.

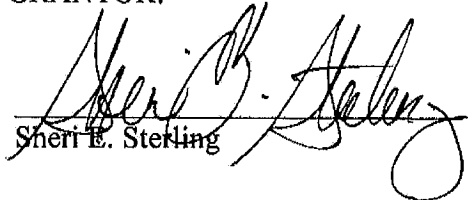
Grantee, its employees, agents, and contractors shall have the right at such times as may be reasonably necessary to enter upon Grantor's property to access the Easement area for the purposes of installing, constructing, operating, inspecting, maintaining, repairing, removing, or replacing water mains and lines, sanitary sewer mains and lines, and appurtenances. The Grantor shall retain the right to use the surface of the Easement if such use does not unreasonably interfere with the rights granted to Grantee herein. However, the Grantor shall not erect buildings or structures on or over the Easement.

This Easement shall be a covenant running with the land and shall be binding on the successors, heirs, and assigns of both the parties hereto.

This Easement shall be a covenant running with the land and shall be binding on the successors, heirs, and assigns of both the parties hereto.

DATED this 9 day of ~~October~~ ^{November}, 2011

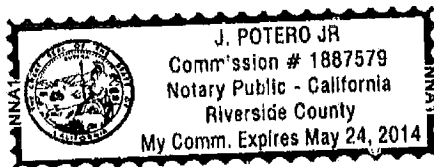
GRANTOR:

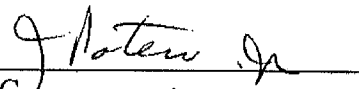

Sheri E. Sterling

STATE OF CALIFORNIA)
)
County of Riverside) ss.

I certify that I ~~know or~~ have satisfactory evidence that Sheri E. Sterling is the person who appeared before me, and said person acknowledged that she signed this instrument and acknowledged it to be her free and voluntary act for the uses and purposes mentioned in the instrument.

^{NOVEMBER}
DATED: ~~October~~ 9, 2011.




NOTARY PUBLIC

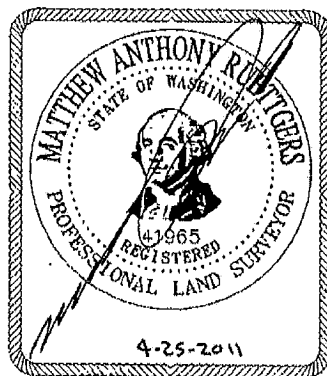
Print Name: J. Potero Jr.

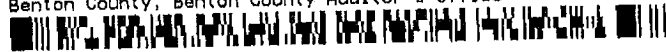
My appointment expires: MAY 24, 2014

EXHIBIT "A"
EASEMENT DESCRIPTION
PARCEL NO.: 120984000003000

All that portion of that certain parcel of land described in Quit Claim Deed recorded under Auditor's File Number 9727178, contained within a 20.00 foot wide strip of land, lying 10.00 feet on either side of the following described centerline:

Commencing at the Southeast corner of Section 20; thence South 88°31'59" West, 3920.48 feet on the south line of said section to the Southwest corner of that property described in Volume 676, Page 2225 of Benton County records (Auditor's File Number 9727181); thence on the west line of said property, North 00°54'54" West, 817.09 feet to the **True Point of Beginning**; thence North 51°44'49" East, 69.09 feet; thence North 52°50'25" East, 259.56 feet; thence North 76°16'46" East, 400.53 feet; thence North 77°13'16" East, 258.93 feet; thence North 88°27'14" East, 400.16 feet; thence North 88°36'16" East, 965.90 feet; thence North 01°23'44" West, 167.50 feet; North 88°36'12" East, 1305.00 feet; thence South 01°23'44" East, 167.53 feet; thence North 87°05'49" East, 354.73 feet to a point on the East line of said Section 20 and the terminus point of this description. Said point lying North 00°14'56" West, 1152.54 feet from the Point of Commencement. All lying in the Southeast ¼ and Southwest ¼ of Section 20, Township 9 North, Range 28 East, Willamette Meridian, Benton County, Washington





After Recording Please Return To:

Loren D. Combs
VSI Law Group, PLLC
3600 Port of Tacoma Road, Suite 311
Tacoma, WA 98424

EXCISE TAX NOT REQUIRED
BENTON COUNTY EXCISE TAX L. 11/17/11

BY Kim R. Jacobs DEPUTY Easement
11-17-11

TEMPORARY EASEMENT

Grantor: SHERI E. STERLING, a single person

Grantee: NOR AM INVESTMENT, LLC, a Washington limited liability company

Abbreviated Legal Description: The West half of the Southeast quarter of the Southeast quarter of Section 20, Township 9 North, Range 28 East, W.M., records of Benton County, Washington. Complete legal description is in Exhibit A of document

Tax Parcel No.: 120984000003000

SHERI E. STERLING, a single person, ("Grantor"), record owner of the property hereinafter described, for good and valuable consideration, does hereby grant to the NOR AM INVESTMENT, LLC ("Grantee"), a temporary construction easement over, upon and across the real property legally described in Exhibit A and graphically depicted on Exhibit B attached hereto (the "Easement"), situated in Benton County, State of Washington.

The purpose of the Easement is to allow the Grantee, its officers, employees, agents and contractors the right to use and occupy the Easement area for construction activities for installation of water and sewer utilities.

The Easement shall terminate when all installation work for the water and sewer mains is complete.

DATED this 9 day of November, 2011

GRANTOR:

Sheri E. Sterling
Sheri E. Sterling

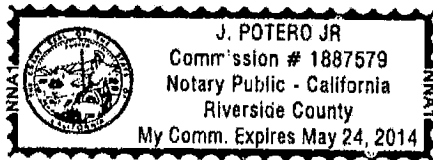
STATE OF CALIFORNIA)

)

ss.

County of Riverside)

I certify that I ~~know~~ or have satisfactory evidence that Sheri E. Sterling is the person who appeared before me, and said person acknowledged that she signed this instrument and acknowledged it to be her free and voluntary act for the uses and purposes mentioned in the instrument.

DATED: November 9, 2011.

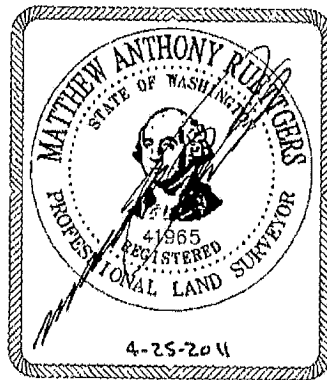
NOTARY PUBLIC

Print Name: J POTO JR, JR.My appointment expires: May 24, 2014

EXHIBIT "A"
CONSTRUCTION EASEMENT DESCRIPTION
PARCEL NO.: 120984000003000

All that portion of that certain parcel of land described in Quit Claim Deed recorded under Auditor's File Number 9727178, contained within a 50.00 foot wide strip of land, lying 25.00 feet on either side of the following described centerline:

Commencing at the Southeast corner of Section 20; thence South $88^{\circ}31'59''$ West, 3920.48 feet on the south line of said section to the Southwest corner of that property described in Volume 676, Page 2225 of Benton County records (Auditor's File Number 9727181); thence on the west line of said property, North $00^{\circ}54'54''$ West, 817.09 feet to the **True Point of Beginning**; thence North $51^{\circ}44'49''$ East, 69.09 feet; thence North $52^{\circ}50'25''$ East, 259.56 feet; thence North $76^{\circ}16'46''$ East, 400.53 feet; thence North $77^{\circ}13'16''$ East, 258.93 feet; thence North $88^{\circ}27'14''$ East, 400.16 feet; thence North $88^{\circ}36'16''$ East, 965.90 feet; thence North $01^{\circ}23'44''$ West, 167.50 feet; North $88^{\circ}36'12''$ East, 1305.00 feet; thence South $01^{\circ}23'44''$ East, 167.53 feet; thence North $87^{\circ}05'49''$ East, 354.73 feet to a point on the East line of said Section 20 and the terminus point of this description. Said point lying North $00^{\circ}14'56''$ West, 1152.54 feet from the Point of Commencement. All lying in the Southeast $\frac{1}{4}$ and Southwest $\frac{1}{4}$ of Section 20, Township 9 North, Range 28 East, Willamette Meridian, Benton County, Washington



EASEMENT DETAIL

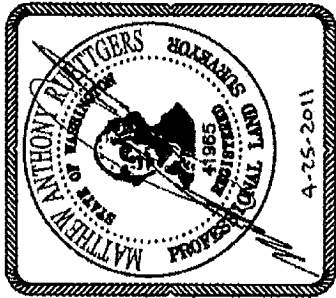
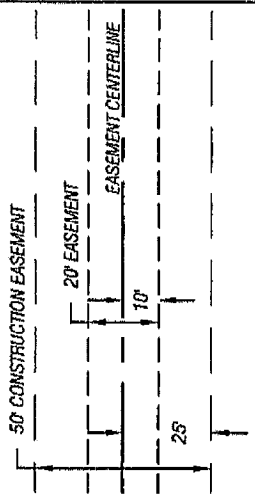


EXHIBIT "B"
EASEMENT PICTORIAL ILLUSTRATION
LOCATED IN SW 1/4 & SE 1/4 OF SECTION 20,
TOWNSHIP 9 NORTH, RANGE 28 EAST,
W.M., BENTON COUNTY, WASHINGTON

LEGEND:

AFN AUDITOR'S FILE NUMBER
APN ASSESSOR'S PARCEL NUMBER

NOT TO SCALE

HWY SR I-182

APN: 120982000015009
APN: 120982000015009
APN: 120982000015009

SEE DETAIL
FOR TYPICAL
DIMENSIONS

APN: 120984000004000
APN: 120984000004000
APN: 120984000004000

APN: 120984000003000
APN: 120984000003000
APN: 120984000003000

APN: 120984000002000
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APN: 120983000003000
APN: 120983000003000
APN: 120983000003000

APN: 120983000002000
APN: 120983000002000
APN: 120983000002000

20 21
29 28

19 20
30 29

NOTE:
SEE EXHIBIT "C" FOR
EASEMENT CENTERLINE
DIMENSIONS

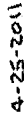
APN: 120984000003000
APN: 9727178

PacWest Engineering, LLC
10209 Bridgeport Way SW, Suite C-1
Lakewood, Wa. 98499
Phone (253) 830-5960
Fax (253) 830-5999



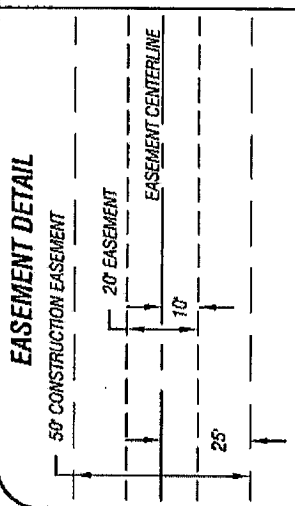
DWG: STERLING.DWG
DATE: 4-25-2011
PROJECT: 07-540

**EASEMENT PICTORIAL ILLUSTRATION
LOCATED IN SW 1/4 & SE 1/4 OF SECTION 20,
TOWNSHIP 9 NORTH, RANGE 28 EAST,
W.M., BENTON COUNTY, WASHINGTON**

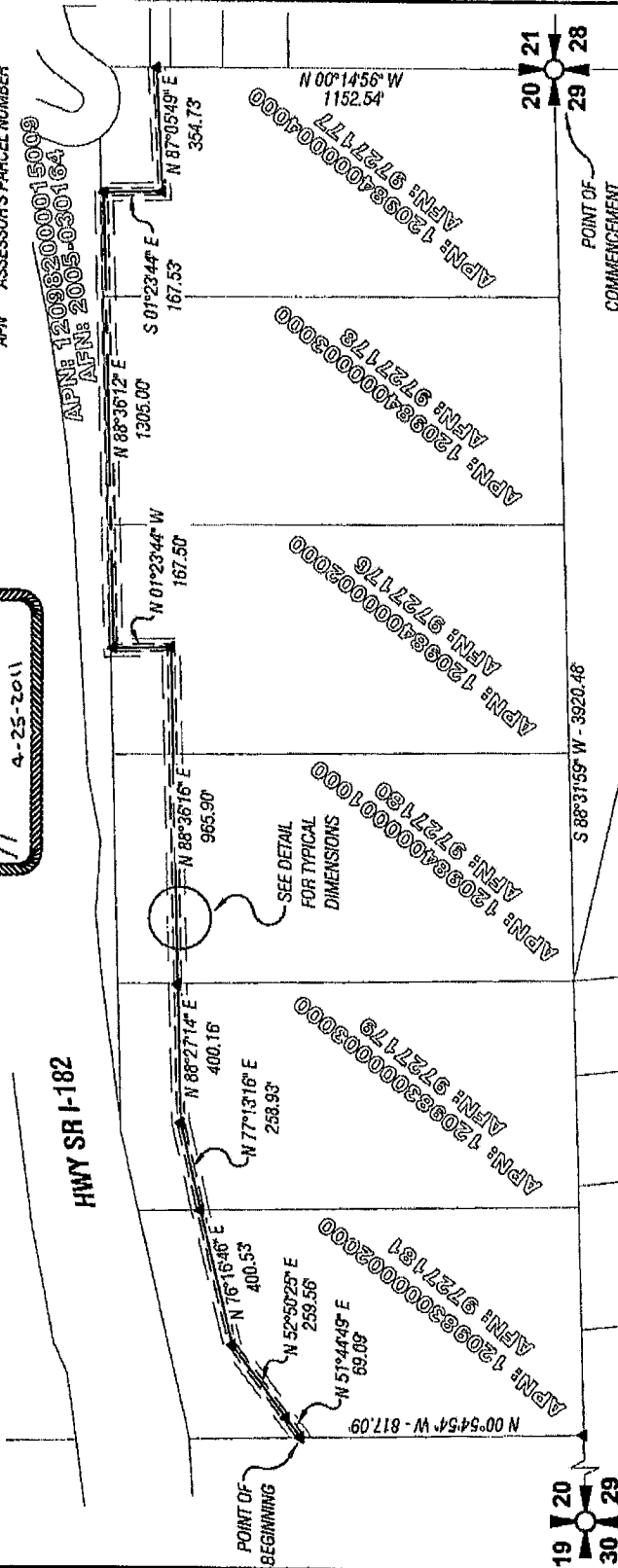


▲	CALCULATED POINT
AFN	AUDITOR'S FILE NUMBER
APN	ASSESSOR'S PARCEL NUMBER

NOT TO SCALE



HWY SR I-182



POINT OF COMMENCEMENT

PacWest Engineering, LLC

I0209 Bridgeport Way SW, Suite C-1

Lakewood, Wa. 98499

Phone (253) 830-5960

DWG: STERLING.DWG

DATE: 4-25-2011

PROJECT: 07-540



After Recording Please Return To:

Loren D. Combs
VSI Law Group, PLLC
3600 Port of Tacoma Road, Suite 311
Tacoma, WA 98424

EXCISE TAX NOT REQUIRED
BENTON COUNTY EXCISE TAX DIVISION

BY *Kim R. Jacobs* DEPUTY *Easement*

11-17-11

UTILITY EASEMENT

Grantor: SHERI E. STERLING, a single person

Grantee: NOR AM INVESTMENT, LLC, a Washington limited liability company

Abbreviated Legal Description: The East half of the Southwest quarter of the Southeast quarter of Section 20, Township 9 North, Range 28 East, W.M., records of Benton County, Washington. Complete legal description is in Exhibit A of document.

Tax Parcel No.: 120984000004000

SHERI E. STERLING, a single person, ("Grantor"), record owner of the property hereinafter described, for good and valuable consideration, hereby grants to NOR AM INVESTMENT, LLC ("Grantee"), its successors and assigns, a perpetual easement to install, construct, operate, inspect, maintain, repair, remove, and replace water mains and lines, sanitary sewer mains and lines, and any and all appurtenances, over, under, upon and across the property legally described in Exhibit A attached hereto and graphically depicted in Exhibit B attached hereto (the "Easement"), which is a portion of Benton County Assessor's Parcel Number 120984000004000.

Grantee, its employees, agents, and contractors shall have the right at such times as may be reasonably necessary to enter upon Grantor's property to access the Easement area for the purposes of installing, constructing, operating, inspecting, maintaining, repairing, removing, or replacing water mains and lines, sanitary sewer mains and lines, and appurtenances. The Grantor shall retain the right to use the surface of the Easement if such use does not unreasonably interfere with the rights granted to Grantee herein. However, the Grantor shall not erect buildings or structures on or over the Easement.

This Easement shall be a covenant running with the land and shall be binding on the successors, heirs, and assigns of both the parties hereto.

This Easement shall be a covenant running with the land and shall be binding on the successors, heirs, and assigns of both the parties hereto.

DATED this 9 ^{November} day of ~~October~~, 2011 *JK*

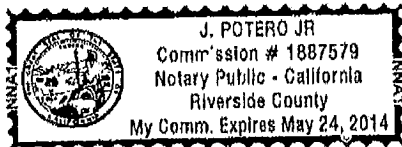
GRANTOR:

Sheri E. Sterling
Sheri E. Sterling

STATE OF CALIFORNIA)
) ss.
County of Riverside)

I certify that I ~~know or~~ have satisfactory evidence that Sheri E. Sterling is the person who appeared before me, and said person acknowledged that she signed this instrument and acknowledged it to be her free and voluntary act for the uses and purposes mentioned in the instrument.

November
DATED: ~~October~~ 9, 2011. *JK*

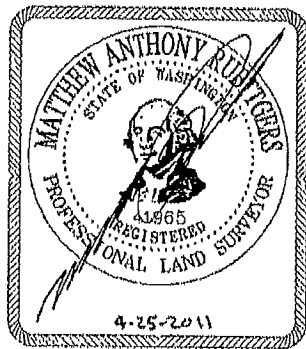


J. Potero Jr
NOTARY PUBLIC
Print Name: J. POTERO, JR
My appointment expires: MAY 24, 2014

EXHIBIT "A"
EASEMENT DESCRIPTION
PARCEL NO.: 120984000004000

All that portion of that certain parcel of land described in Quit Claim Deed recorded under Auditor's File Number 9727177, contained within a 20.00 foot wide strip of land, lying 10.00 feet on either side of the following described centerline:

Commencing at the Southeast corner of Section 20; thence South $88^{\circ}31'59''$ West, 3920.48 feet on the south line of said section to the Southwest corner of that property described in Volume 676, Page 2225 of Benton County records (Auditor's File Number 9727181); thence on the west line of said property, North $00^{\circ}54'54''$ West, 817.09 feet to the True Point of Beginning; thence North $51^{\circ}44'49''$ East, 69.09 feet; thence North $52^{\circ}50'25''$ East, 259.56 feet; thence North $76^{\circ}16'46''$ East, 400.53 feet; thence North $77^{\circ}13'16''$ East, 258.93 feet; thence North $88^{\circ}27'14''$ East, 400.16 feet; thence North $88^{\circ}36'16''$ East, 965.90 feet; thence North $01^{\circ}23'44''$ West, 167.50 feet; North $88^{\circ}36'12''$ East, 1305.00 feet; thence South $01^{\circ}23'44''$ East, 167.53 feet; thence North $87^{\circ}05'49''$ East, 354.73 feet to a point on the East line of said Section 20 and the terminus point of this description. Said point lying North $00^{\circ}14'56''$ West, 1152.54 feet from the Point of Commencement. All lying in the Southeast $\frac{1}{4}$ and Southwest $\frac{1}{4}$ of Section 20, Township 9 North, Range 28 East, Willamette Meridian, Benton County, Washington





After Recording Please Return To:

Loren D. Combs
VSI Law Group, PLLC
3600 Port of Tacoma Road, Suite 311
Tacoma, WA 98424

EXCISE TAX NOT REQUIRED
BENTON COUNTY EXCISE TAX DIVISION

BY Kim R. Jacobs DEPUTY Easement
11-17-11

TEMPORARY EASEMENT

Grantor: SHERI E. STERLING, a single person

Grantee: NOR AM INVESTMENT, LLC, a Washington limited liability company

Abbreviated Legal Description: The East half of the Southwest quarter of the Southeast quarter of Section 20, Township 9 North, Range 28 East, W.M., records of Benton County, Washington. Complete legal description is in Exhibit A of document.

Tax Parcel No.: 120984000004000

SHERI E. STERLING, a single person, ("Grantor"), record owner of the property hereinafter described, for good and valuable consideration, does hereby grant to the NOR AM INVESTMENT, LLC ("Grantee"), a temporary construction easement over, upon and across the real property legally described in Exhibit A and graphically depicted on Exhibit B attached hereto (the "Easement"), situated in Benton County, State of Washington.

The purpose of the Easement is to allow the Grantee, its officers, employees, agents and contractors the right to use and occupy the Easement area for construction activities for installation of water and sewer utilities.

The Easement shall terminate when all installation work for the water and sewer mains is complete.

DATED this 9 ^{November} day of ~~October~~ 2011

GRANTOR:

Sheri E. Sterling

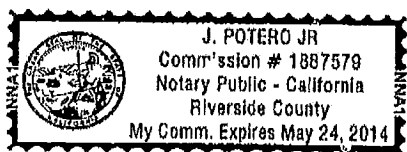
STATE OF CALIFORNIA)

County of Riverside)

ss.

I certify that I ~~know~~ or have satisfactory evidence that Sheri E. Sterling is the person who appeared before me, and said person acknowledged that she signed this instrument and acknowledged it to be her free and voluntary act for the uses and purposes mentioned in the instrument.

NOVEMBER 9th
DATED: ~~October~~ 9, 2011.



NOTARY PUBLIC

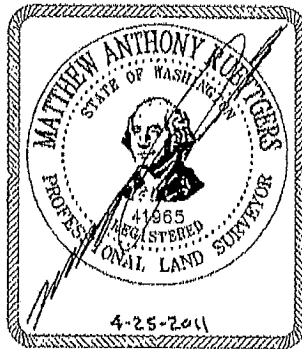
Print Name:

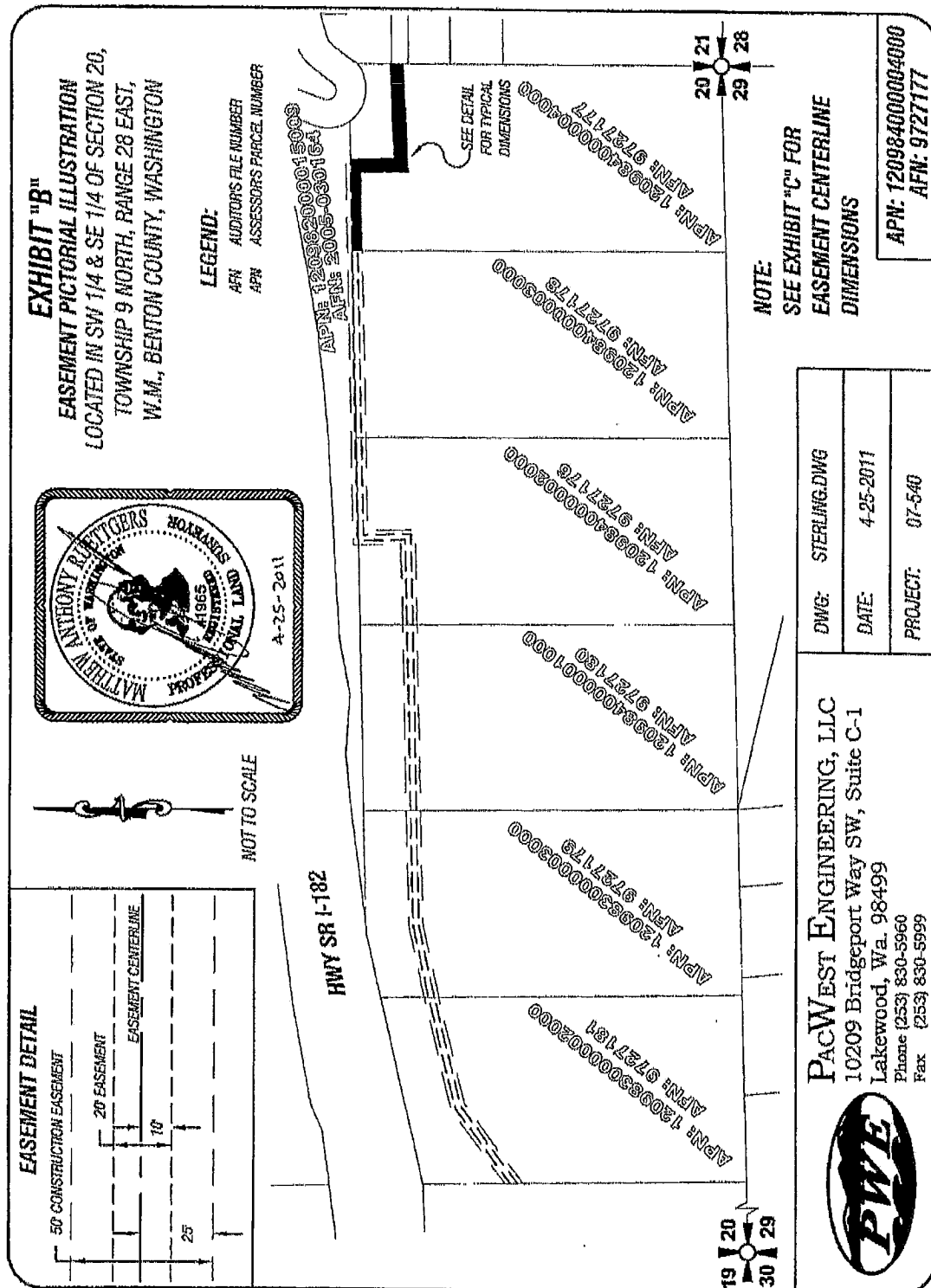
My appointment expires: MAY 24, 2014

EXHIBIT "A"
CONSTRUCTION EASEMENT DESCRIPTION
PARCEL NO.: 120984000004000

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2011-032684 EAS
11/17/2011 02:54:11 PM Pages: 3 Fee: \$64.00
Vsi Law Group PLLC
Benton County, Benton County Auditor's Office

After Recording Please Return To:
Loren D. Combs
VSI Law Group, PLLC
3600 Port of Tacoma Road, Suite 311
Tacoma, WA 98424

EXCISE TAX NOT ESTIMATED
BENTON COUNTY EXCISE TAX DIVISION

BY Kim R. Jassby DEPUTY Easement
11-17-11

UTILITY EASEMENT

Grantor: SHERI E. STERLING, a single person

Grantee: NOR AM INVESTMENT, LLC, a Washington limited liability company

Abbreviated Legal Description: The East half of the Southeast quarter of the Southeast quarter of Section 20, Township 9 North, Range 28 East, W.M., records of Benton County, Washington. Complete legal description is in Exhibit A of document.

Tax Parcel No.: 120984000002000

SHERI E. STERLING, a single person, ("Grantor"), record owner of the property hereinafter described, for good and valuable consideration, hereby grants to NOR AM INVESTMENT, LLC ("Grantee"), its successors and assigns, a perpetual easement to install, construct, operate, inspect, maintain, repair, remove, and replace water mains and lines, sanitary sewer mains and lines, and any and all appurtenances, over, under, upon and across the property legally described in Exhibit A attached hereto and graphically depicted in Exhibit B attached hereto (the "Easement"), which is a portion of Benton County Assessor's Parcel Number 120984000002000.

Grantee, its employees, agents, and contractors shall have the right at such times as may be reasonably necessary to enter upon Grantor's property to access the Easement area for the purposes of installing, constructing, operating, inspecting, maintaining, repairing, removing, or replacing water mains and lines, sanitary sewer mains and lines, and appurtenances. The Grantor shall retain the right to use the surface of the Easement if such use does not unreasonably interfere with the rights granted to Grantee herein. However, the Grantor shall not erect buildings or structures on or over the Easement.

This Easement shall be a covenant running with the land and shall be binding on the successors, heirs, and assigns of both the parties hereto.

This Easement shall be a covenant running with the land and shall be binding on the successors, heirs, and assigns of both the parties hereto.

DATED this 9 ^{November} day of ~~October~~, 2011

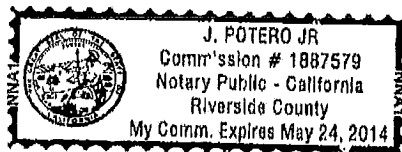
GRANTOR:

Sheri E. Sterling
Sheri E. Sterling

STATE OF CALIFORNIA)
)
County of Riverside) ss.

I certify that I ~~know~~ or have satisfactory evidence that Sheri E. Sterling is the person who appeared before me, and said person acknowledged that she signed this instrument and acknowledged it to be her free and voluntary act for the uses and purposes mentioned in the instrument.

^{November 9th}
DATED: ~~October~~ 9, 2011.



J. Poto Jr
NOTARY PUBLIC

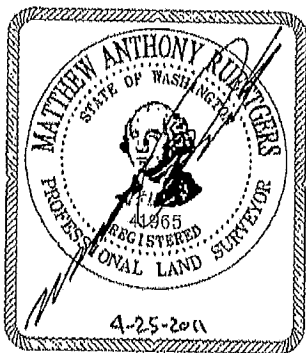
Print Name: J. POTO JR

My appointment expires: May 24, 2014

EXHIBIT "A"
EASEMENT DESCRIPTION
PARCEL NO.: 120984000002000

All that portion of that certain parcel of land described in Quit Claim Deed recorded under Auditor's File Number 9727176, contained within a 20.00 foot wide strip of land, lying 10.00 feet on either side of the following described centerline:

Commencing at the Southeast corner of Section 20; thence South $88^{\circ}31'59''$ West, 3920.48 feet on the south line of said section to the Southwest corner of that property described in Volume 676, Page 2225 of Benton County records (Auditor's File Number 9727181); thence on the west line of said property, North $00^{\circ}54'54''$ West, 817.09 feet to the **True Point of Beginning**; thence North $51^{\circ}44'49''$ East, 69.09 feet; thence North $52^{\circ}50'25''$ East, 259.56 feet; thence North $76^{\circ}16'46''$ East, 400.53 feet; thence North $77^{\circ}13'16''$ East, 258.93 feet; thence North $88^{\circ}27'14''$ East, 400.16 feet; thence North $88^{\circ}36'16''$ East, 965.90 feet; thence North $01^{\circ}23'44''$ West, 167.50 feet; North $88^{\circ}36'12''$ East, 1305.00 feet; thence South $01^{\circ}23'44''$ East, 167.53 feet; thence North $87^{\circ}05'49''$ East, 354.73 feet to a point on the East line of said Section 20 and the terminus point of this description. Said point lying North $00^{\circ}14'56''$ West, 1152.54 feet from the Point of Commencement. All lying in the Southeast $\frac{1}{4}$ and Southwest $\frac{1}{4}$ of Section 20, Township 9 North, Range 28 East, Willamette Meridian, Benton County, Washington



2011-032685 EAS
11/17/2011 02:54:11 PM Pages: 6 Fee: \$66.00
VSI Law Group PLLC
Benton County, Benton County Auditor's Office

After Recording Please Return To:

Loren D. Combs
VSI Law Group, PLLC
3600 Port of Tacoma Road, Suite 311
Tacoma, WA 98424

EXCISE TAX NOT RECALCULATED
BENTON COUNTY EXCISE TAX DIVISION

BY: Kim R. Jacobs DEPUTY Easement
11-17-11

TEMPORARY EASEMENT

Grantor: SHERI E. STERLING, a single person

Grantee: NOR AM INVESTMENT, LLC, a Washington limited liability company

Abbreviated Legal Description: The East half of the Southeast quarter of the Southeast quarter of Section 20, Township 9 North, Range 28 East, W.M., records of Benton County, Washington. Complete legal description is in Exhibit A of document.

Tax Parcel No.: 120984000002000

SHERI E. STERLING, a single person, ("Grantor"), record owner of the property hereinafter described, for good and valuable consideration, does hereby grant to the NOR AM INVESTMENT, LLC ("Grantee"), a temporary construction easement over, upon and across the real property legally described in Exhibit A and graphically depicted on Exhibit B attached hereto (the "Easement"), situated in Benton County, State of Washington.

The purpose of the Easement is to allow the Grantee, its officers, employees, agents and contractors the right to use and occupy the Easement area for construction activities for installation of water and sewer utilities.

The Easement shall terminate when all installation work for the water and sewer mains is complete.

DATED this 9 day of November, 2011

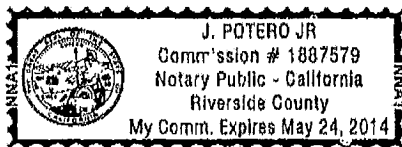
GRANTOR:

Sheri E. Sterling

STATE OF CALIFORNIA)
)
County of Riverside) SS.

I certify that I ~~know~~ or have satisfactory evidence that Sheri E. Sterling is the person who appeared before me, and said person acknowledged that she signed this instrument and acknowledged it to be her free and voluntary act for the uses and purposes mentioned in the instrument.

DATED: ~~October~~ ^{November 9th} 2011.

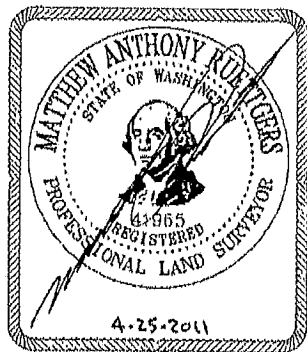


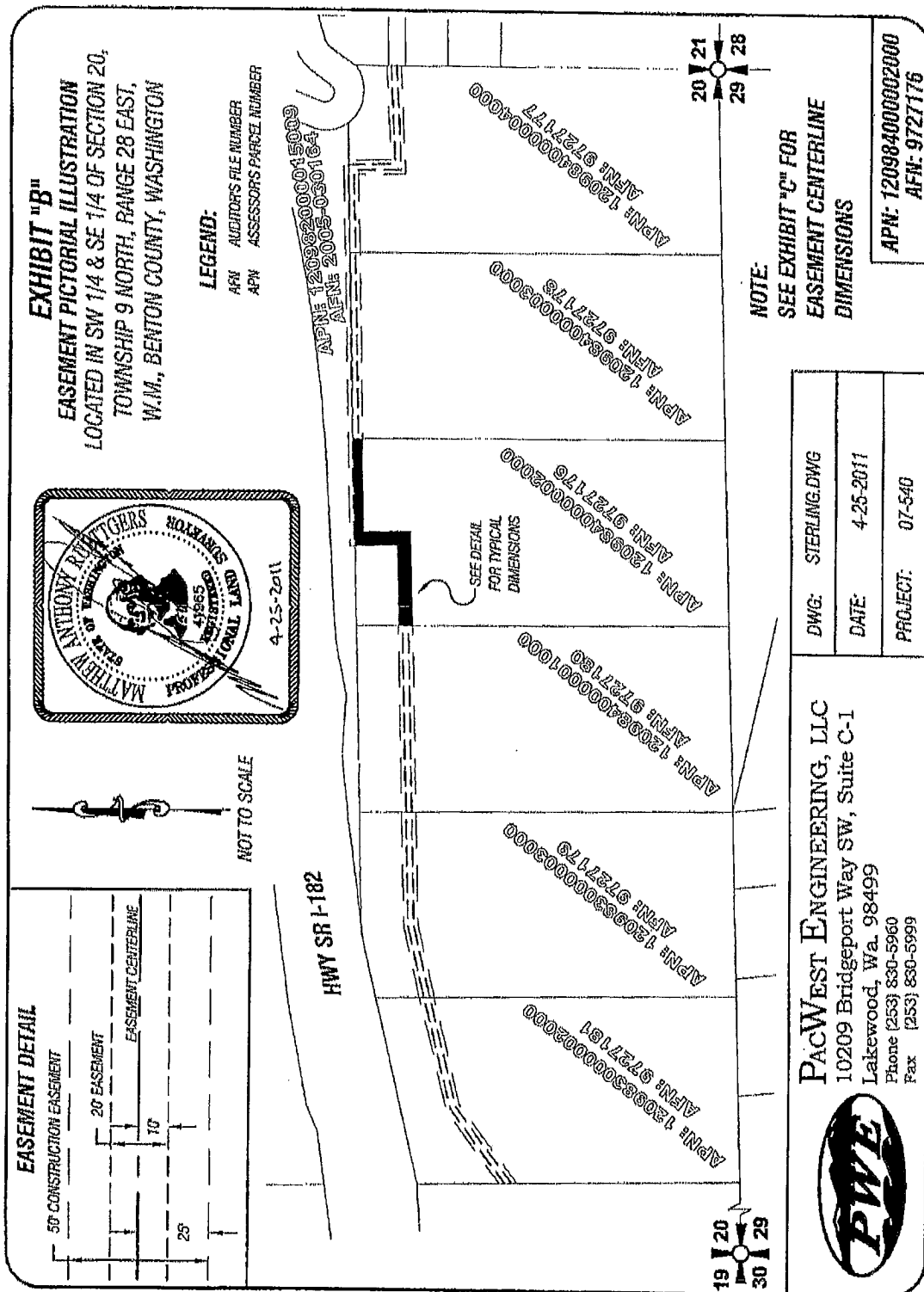
J. Poto Jr
NOTARY PUBLIC
Print Name: J. POTO JR
My appointment expires: May 24, 2014

EXHIBIT "A"
CONSTRUCTION EASEMENT DESCRIPTION
PARCEL NO.: 120984000002000

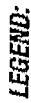
All that portion of that certain parcel of land described in Quit Claim Deed recorded under Auditor's File Number 9727176, contained within a 50.00 foot wide strip of land, lying 25.00 feet on either side of the following described centerline:

Commencing at the Southeast corner of Section 20; thence South $88^{\circ}31'59''$ West, 3920.48 feet on the south line of said section to the Southwest corner of that property described in Volume 676, Page 2225 of Benton County records (Auditor's File Number 9727181); thence on the west line of said property, North $00^{\circ}54'54''$ West, 817.09 feet to the True Point of Beginning; thence North $51^{\circ}44'49''$ East, 69.09 feet; thence North $52^{\circ}50'25''$ East, 259.56 feet; thence North $76^{\circ}16'46''$ East, 400.53 feet; thence North $77^{\circ}13'16''$ East, 258.93 feet; thence North $88^{\circ}27'14''$ East, 400.16 feet; thence North $88^{\circ}36'16''$ East, 965.90 feet; thence North $01^{\circ}23'44''$ West, 167.50 feet; North $88^{\circ}36'12''$ East, 1305.00 feet; thence South $01^{\circ}23'44''$ East, 167.53 feet; thence North $87^{\circ}05'49''$ East, 354.73 feet to a point on the East line of said Section 20 and the terminus point of this description. Said point lying North $00^{\circ}14'56''$ West, 1152.54 feet from the Point of Commencement. All lying in the Southeast $\frac{1}{4}$ and Southwest $\frac{1}{4}$ of Section 20, Township 9 North, Range 28 East, Willamette Meridian, Benton County, Washington



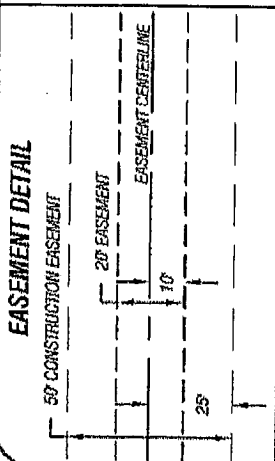


**EASEMENT PICTORIAL ILLUSTRATION
LOCATED IN SW 1/4 & SE 1/4 OF SECTION 20,
TOWNSHIP 9 NORTH, RANGE 28 EAST,
W.M., BENTON COUNTY, WASHINGTON**

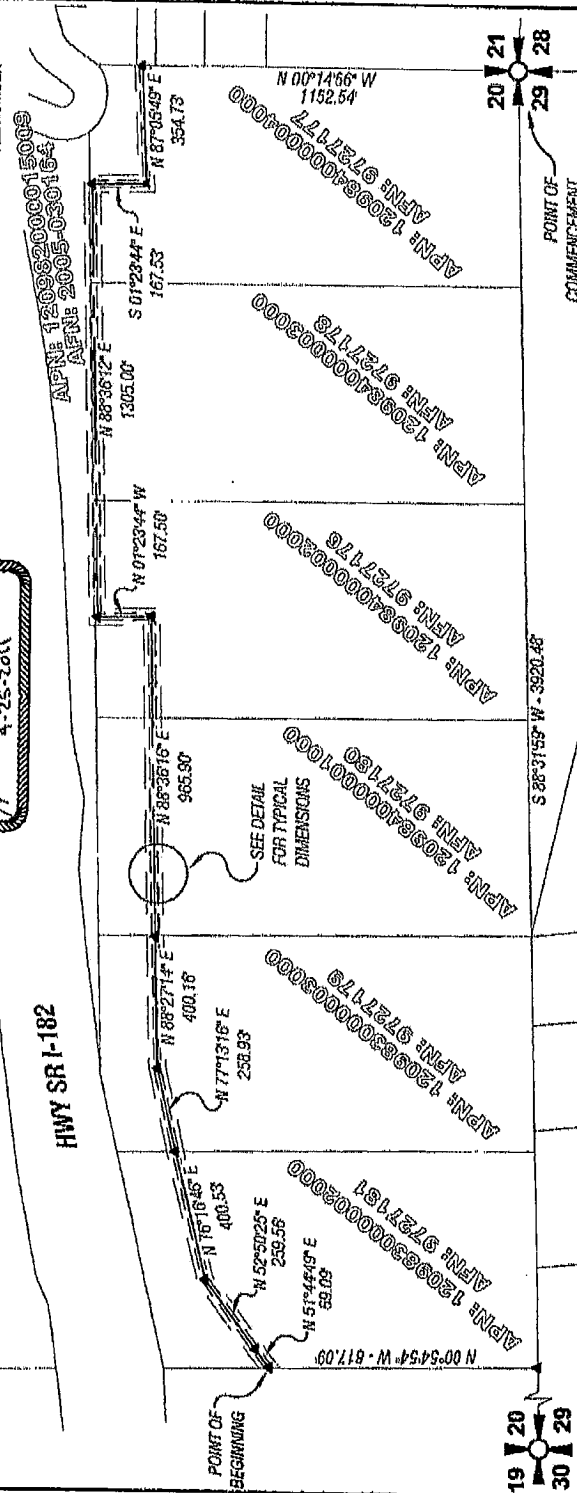


▲	CALCULATED POINT
AFN	AUDITOR'S FILE NUMBER
APN	ASSESSORS PARCEL NUMBER

NOT TO SCALE



HQ NY SP 1-182



PACWEST ENGINEERING, LLC
10209 Bridgeport Way SW, Suite C-1
Lakewood, Wa. 98499
Phone (253) 830-5960
Fax (253) 830-5999



DWG: STERLING.DWG

DATE: 4-25-2011

PROJECT: 07-540

After Recording Please Return To:
Loren D. Combs
VSI Law Group, PLLC
3600 Port of Tacoma Road, Suite 311
Tacoma, WA 98424

EXCISE TAX NOT REQUIRED
BENTON COUNTY EXCISE TAX DIVISION

BY Kim Jacobs 4-10-12 DEPUTY CLERK

UTILITY EASEMENT

Grantor: SHERI E. STERLING, a single person

Grantee: NOR AM INVESTMENT, LLC, a Washington limited liability company

Abbreviated Legal Description: The East half of the Southeast quarter of the Southeast quarter of Section 20, Township 9 North, Range 28 East, W.M., records of Benton County, Washington. Complete legal description is in Exhibit A of document.

Tax Parcel No.: 120984000002000

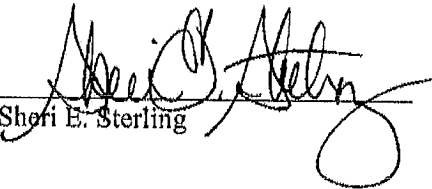
SHERI E. STERLING, a single person, ("Grantor"), record owner of the property hereinafter described, for good and valuable consideration, hereby grants to NOR AM INVESTMENT, LLC ("Grantee"), its successors and assigns, a perpetual easement to install, construct, operate, inspect, maintain, repair, remove, and replace water mains and lines, sanitary sewer mains and lines, and any and all appurtenances, over, under, upon and across the property legally described in Exhibit A attached hereto and graphically depicted in Exhibit B attached hereto (the "Easement"), which is a portion of Benton County Assessor's Parcel Number 120984000002000.

Grantee, its employees, agents, and contractors shall have the right at such times as may be reasonably necessary to enter upon Grantor's property to access the Easement area for the purposes of installing, constructing, operating, inspecting, maintaining, repairing, removing, or replacing water mains and lines, sanitary sewer mains and lines, and appurtenances. The Grantor shall retain the right to use the surface of the Easement if such use does not unreasonably interfere with the rights granted to Grantee herein. However, the Grantor shall not erect buildings or structures on or over the Easement.

This Easement shall be a covenant running with the land and shall be binding on the successors, heirs, and assigns of both the parties hereto.

DATED this 6 day of April, 2012

GRANTOR:


Sheri E. Sterling

STATE OF CALIFORNIA)
)
County of Riverside) ss.

I certify that I have satisfactory evidence that Sheri E. Sterling is the person who appeared before me, and said person acknowledged that she signed this instrument and acknowledged it to be her free and voluntary act for the uses and purposes mentioned in the instrument.

DATED: March ____, 2012.

SEE ATTACHED CERTIFICATE

NOTARY PUBLIC

Print Name: _____

My appointment expires: _____

ACKNOWLEDGMENT

State of California
County of RIVERSIDE

On April 6, 2012 before me, Dianne A. Krulitz NOTARY PUBLIC
(insert name and title of the officer)

personally appeared Sheri E. Sterling
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are
subscribed to the within instrument and acknowledged to me that he/she/they executed the same in
his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the
person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing
paragraph is true and correct.

WITNESS my hand and official seal.

Signature Dianne A. Krulitz (Seal)

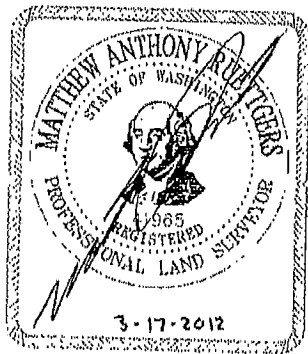


Utility Easement

EXHIBIT "A"
EASEMENT DESCRIPTION
PARCEL NO.: 120984000002000

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After Recording Please Return To:
Loren D. Combs
VSI Law Group, PLLC
3600 Port of Tacoma Road, Suite 311
Tacoma, WA 98424

EXCISE TAX NOT REQUIRED
BENTON COUNTY EXCISE TAX DIVISION

BY Sam C. Ciccillo DEPUTY Easement
4-10-12

TEMPORARY EASEMENT

Grantor: SHERI E. STERLING, a single person

Grantee: NOR AM INVESTMENT, LLC, a Washington limited liability company

Abbreviated Legal Description: The East half of the Southeast quarter of the Southeast quarter of Section 20, Township 9 North, Range 28 East, W.M., records of Benton County, Washington. Complete legal description is in Exhibit A of document.

Tax Parcel No.: 120984000002000

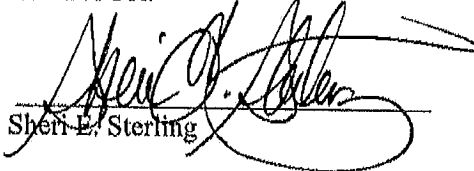
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The purpose of the Easement is to allow the Grantee, its officers, employees, agents and contractors the right to use and occupy the Easement area for construction activities for installation of water and sewer utilities.

The Easement shall terminate when all installation work for the water and sewer mains is complete.

DATED this 6th day of April ~~March~~, 2012

GRANTOR:


Sheri E. Sterling

STATE OF CALIFORNIA)
) ss.
County of Riverside)

I certify that I have satisfactory evidence that Sheri E. Sterling is the person who appeared before me, and said person acknowledged that she signed this instrument and acknowledged it to be her free and voluntary act for the uses and purposes mentioned in the instrument.

DATED: ~~March~~ ____, 2012.

SEE ATTACHED CERTIFICATE

NOTARY PUBLIC

Print Name: _____

My appointment expires: _____

ACKNOWLEDGMENT

State of California
County of RIVERSIDE

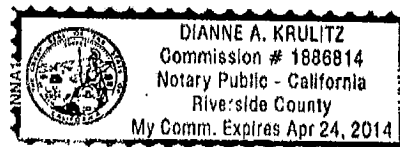
On April 6, 2012 before me, Dianne A. Krulitz NOTARY PUBLIC
(insert name and title of the officer)

personally appeared Sheri E. Stirling
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are
subscribed to the within instrument and acknowledged to me that he/she/they executed the same in
his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the
person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing
paragraph is true and correct.

WITNESS my hand and official seal.

Signature Dianne A. Krulitz (Seal)

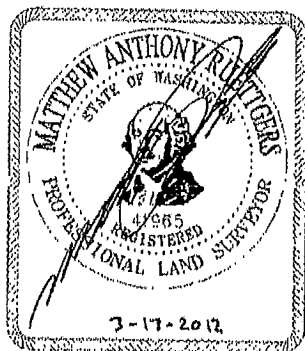


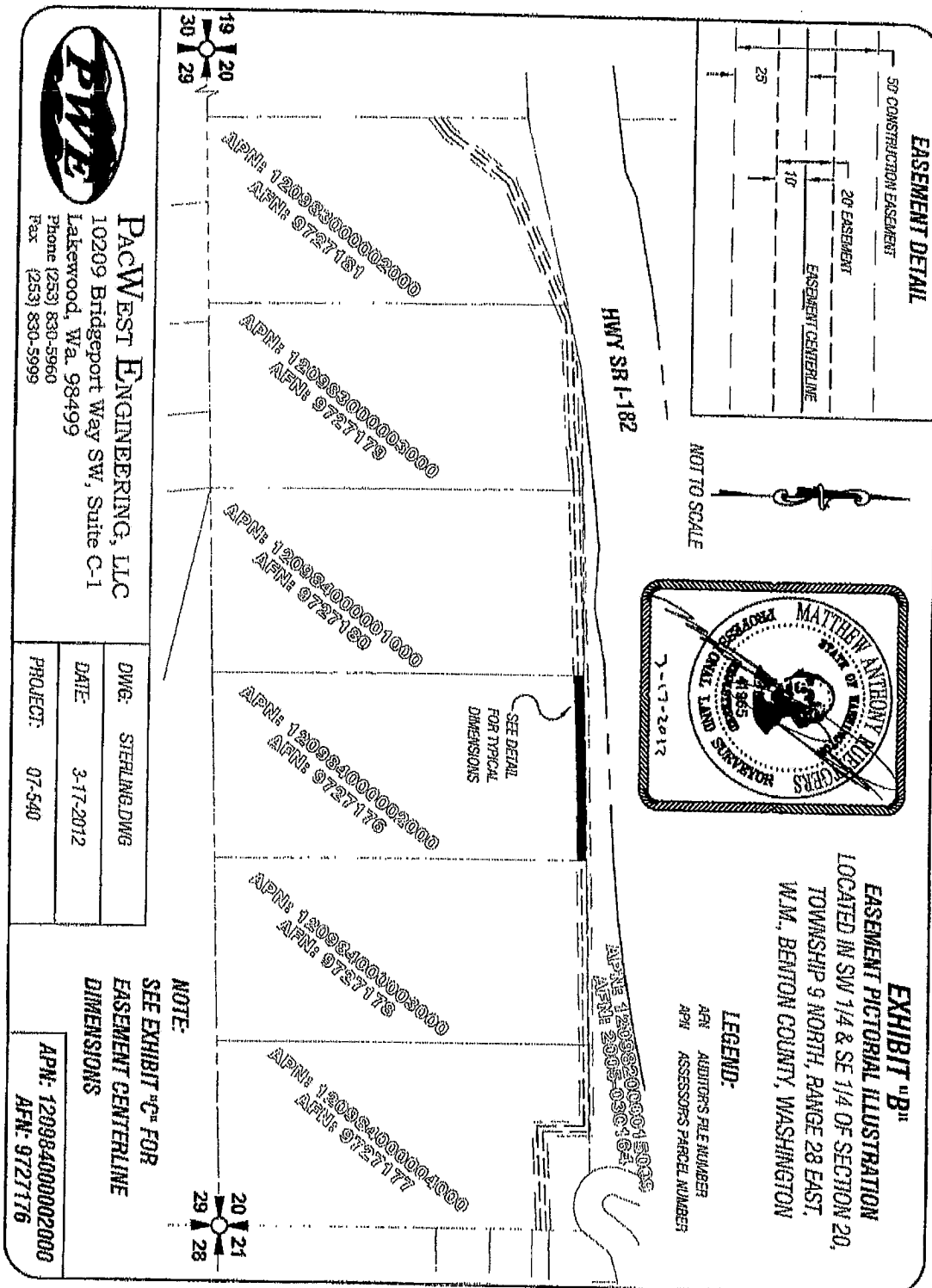
Temporary Co-Signatory

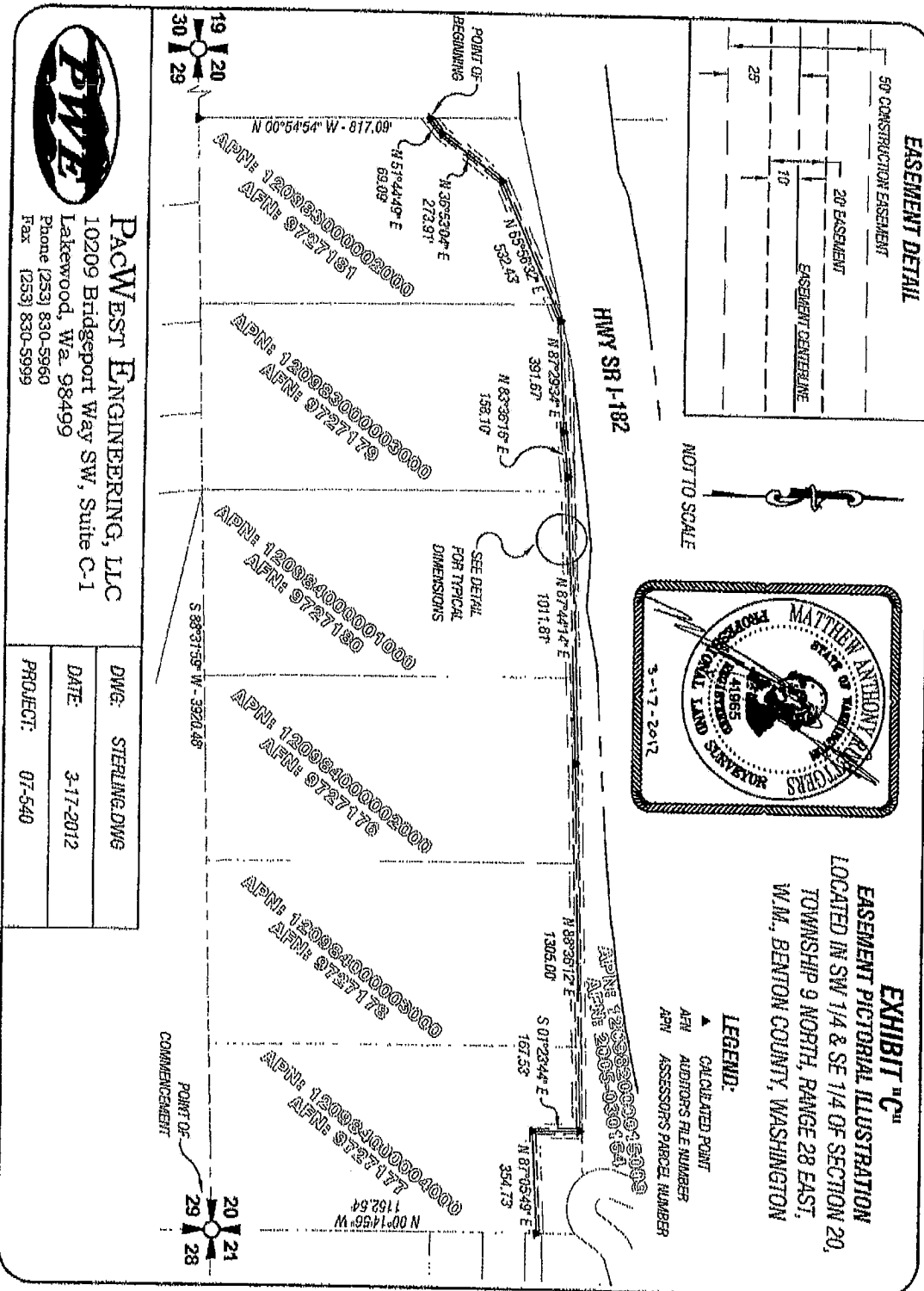
EXHIBIT "A"
CONSTRUCTION EASEMENT DESCRIPTION
PARCEL NO.: 120984000002000

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Return Address:

JIM STERLING

890 GEORGE WASHINGTON WAY

RICHLAND, WA 993528

EXCISE TAX NOT REQUIRED
BENTON COUNTY EXCISE TAX DIVISION
BY James J. Sterling DEPUTY
Easement

EASEMENT

Grantor: Sheri E. Sterling, a single person

Grantee: James J. Sterling

Legal Description: Portion of South 1/4, SE 1/4, Sec. 20, T.9N., R.28E., W.M.

Assessor's Tax Parcel #: 1-2098-400-0002-000, 12098-400-0003-003, 1-2098-400-0002-000

For valuable consideration, receipt of which is hereby acknowledged, the Grantor, Sheri E. Sterling, a single person, hereby grants and conveys to the Grantee, James J. Sterling, his heirs successors and assigns, the right, privilege and authority to construct, improve, repair and maintain an access road and utilities, over and upon the following lands, located in Benton County, State of Washington, to-wit:

ACCESS & UTILITY EASEMENT

AN EASEMENT FOR ACCESS AND UTILITIES 30.00 FEET IN WIDTH, WITH 15.00 FEET OF SAID WIDTH LYING ON EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE SITUATED IN THE SOUTH HALF OF THE SOUTHEAST QUARTER OF SECTION 20, TOWNSHIP 9 NORTH, RANGE 28 EAST OF THE WILLAMETTE MERIDIAN, BENTON COUNTY WASHINGTON;

COMMENCING AT THE SOUTHEAST CORNER OF SAID SECTION 20; THENCE N 00°18'39"W, 1152.54 FEET ALONG THE EAST LINE OF SAID SOUTHEAST QUARTER TO THE CENTERLINE OF AN EXISTING 20.00 WIDE UTILITY EASEMENT AS DESCRIBED IN AUDITOR'S FILE NO. 2011-032672, RECORDS OF BENTON COUNTY, WASHINGTON AND THE BEGINNING OF SAID CENTERLINE; THENCE ALONG SAID CENTERLINE THE FOLLOWING COURSES; THENCE S 87°05'49"W, 353.36 FEET; THENCE N 01°23'44"W, 167.53 FEET; THENCE S 88°36'12"W, 1305.00 FEET; THENCE S 01°23'44"E, 30.00 FEET TO THE TERMINUS OF SAID CENTERLINE.

EXCEPT ANY PORTION THEREOF LYING IN THE NORTH HALF OF THE SOUTHEAST QUARTER OF SAID SECTION 20.

The covenants herein contained shall run with the land and are binding upon all subsequent owners thereof. In Witness Whereof, the said Grantor has executed this instrument this 13 day of November, 2013.

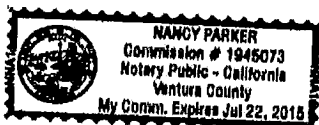
Sheri E. Sterling
SHERI E. STERLING

STATE OF CALIFORNIA

County of

On this 13 day of November, 2013, before me, the undersigned Notary Public, in and for the State of California, duly commissioned and sworn, personally appeared: Sheri E. Sterling, to me proven to be the individual that executed the foregoing instrument, and acknowledged said instrument to be the free and voluntary act and deed of said entity, for the uses and purposes mentioned in the instrument, and on oath stated that she is authorized to execute said instrument.

Given under my hand and official seal this 13 day of November, 2013.



Nancy Parker
Notary Public in and for the State of California
residing at Oxnard, CA

My commission expires: July 22, 2015



BENTON COUNTY RECORDING COVER SHEET

RETURN TO:
Benton P.U.D.,
PO Box 6270
Kennewick, WA 99336-

EXCISE TAX NOT REQUIRED
BENTON COUNTY EXCISE TAX DIVISION
BY *[Signature]* 6/19/12 DEPUTY
EASEMENT

Document Title(s) (or transactions contained therein): 1. Bill of Sale 2.
Reference Number(s) of Documents assigned or released: (on page _____ of document(s))
Grantor(s) (Last name first, then first name and initials) 1. Public Utility District No. 1 of Benton County, Washington 2. Additional names on page _____ of document
Grantee(s) (Last name first, then first name and initials) 1. City of Richland 2. Additional names on page _____ of document.
Legal description (abbreviated: i.e. lot, block, plat or section, township, range), 1. Varies, see Exhibit A and B
Assessor's Property Tax Parcel/Account Number: N/A
The Auditor/Recorder will rely on the information provided on the form. The staff will not read the document or verify the accuracy or completeness of the indexing information provided herein.

EXCISE TAX NOT REQUIRED
BENTON COUNTY EXCISE TAX DIVISION
BY B. Murray 6/19/12 DEPUTY
EASEMENT

BILL OF SALE

KNOW ALL PERSONS BY THESE PRESENTS,

That PUBLIC UTILITY DISTRICT NO. 1 OF BENTON COUNTY, a Washington municipal corporation ("PUD"), pursuant to the provisions of that certain Electrical Service Area and Facilities Purchase Agreement ("Agreement") with the CITY OF RICHLAND, a Washington municipal corporation ("City"), does by these presents grant, bargain, sell and convey unto the City the following described personal property, located in the County of Benton, State of Washington, to-wit:

Overhead and underground electric lines, poles, conduits, vaults, transformers, switches, wire and affiliated equipment in the geographical areas as identified in red on Exhibit A and Exhibit B of the Agreement, (hereinafter the "Personal Property").

The PUD covenants, agrees and warrants that it owns said Personal Property and that the same is free from liens and encumbrances and that it will defend the sale of the Personal Property hereby made, against all and every person or persons whomsoever, lawfully claiming the same or any part thereof.

THE PUD MAKES NO WARRANTIES OR REPRESENTATIONS REGARDING THE PERSONAL PROPERTY, MAKES NO WARRANTY OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE, AND THE PERSONAL PROPERTY IS TRANSFERRED "AS IS", WHERE IS, EXCEPT AS STATED IN SECTION E OF ARTICLE IX OF THE ELECTRICAL SERVICE AREA AND FACILITIES PURCHASE AGREEMENT BETWEEN THE PARTIES HERETO EXECUTED ON

_____ AND _____

IN WITNESS WHEREOF, the PUD hereunder set its hand this _____ day of _____,
2012.

PUBLIC UTILITY DISTRICT
NO. 1 OF BENTON COUNTY

By: James Sanders
It's General Manager

City of Richland

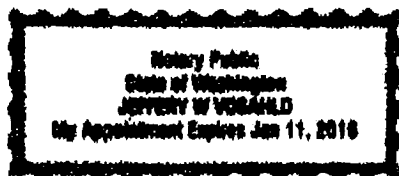
By: Cynthia Johnson
It's City Manager

STATE of WASHINGTON

County of BENTON

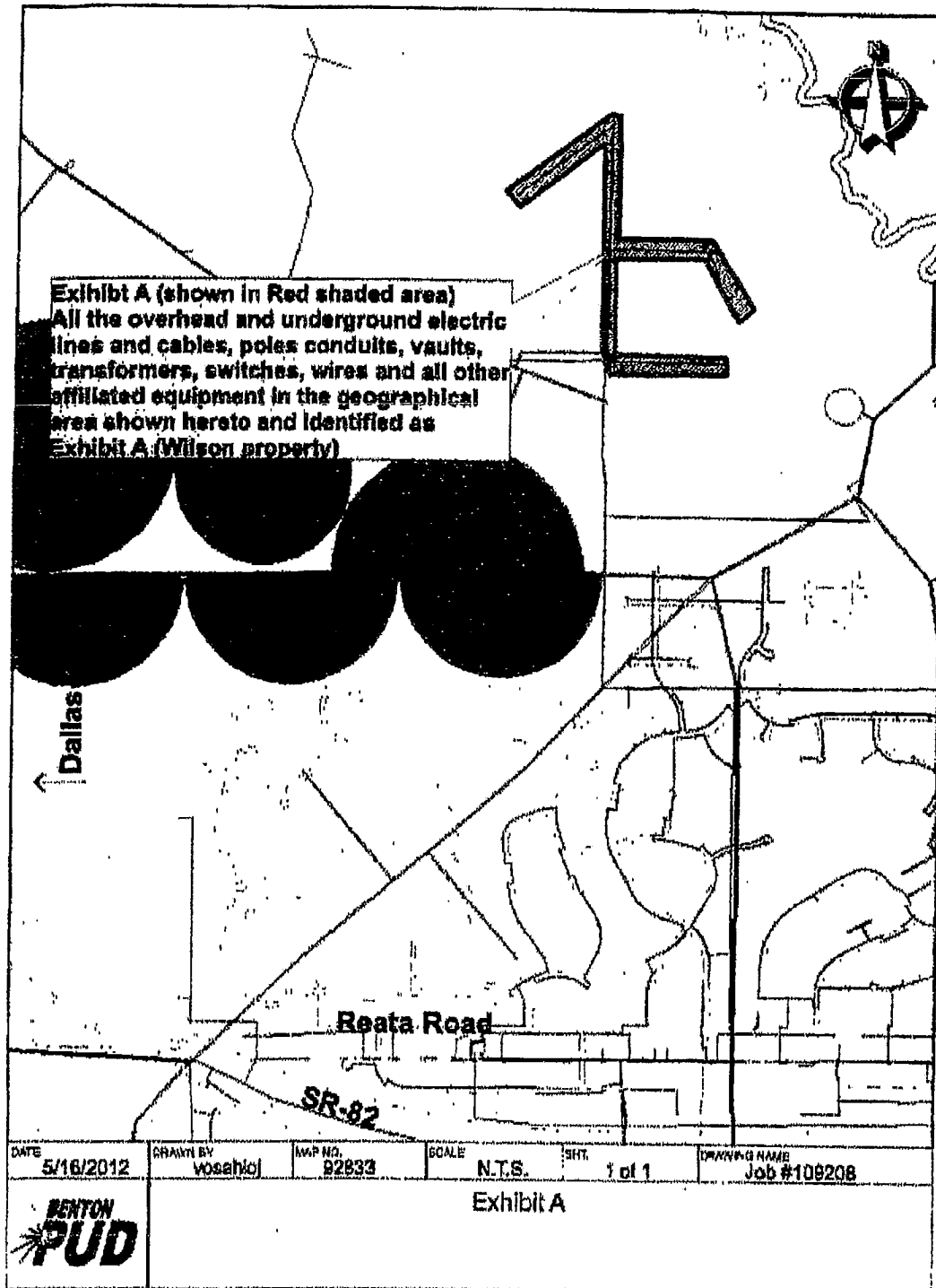
On this 13th day of JUNE 2012, before me, the undersigned Notary Public, personally appeared James Sanders known to me to be the General Manager of PUBLIC UTILITY DISTRICT NO.1 OF BENTON COUNTY and Cynthia Johnson known to me to be the City Manager for the CITY OF RICHLAND, the corporation that signed 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 he/she was authorized to execute the said the instrument.

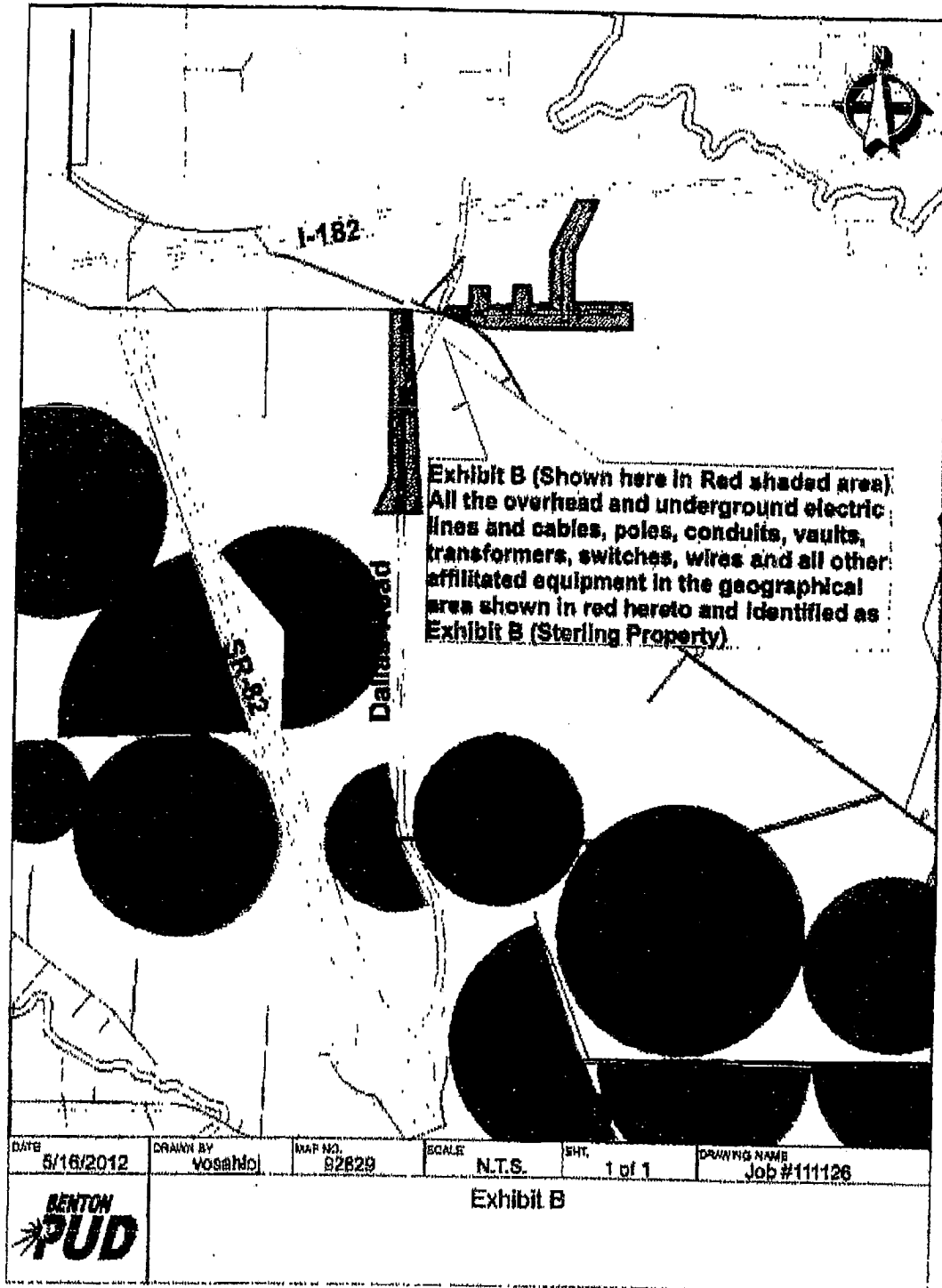
GIVEN under my hand and official seal this 13th day of
JUNE, 2012.



[Signature]
Notary's Signature

My Appointment Expires 1/11/2016





After Recording Please Return To:

Loren D. Combs
VSI Law Group, PLLC
3600 Port of Tacoma Road, Suite 311
Tacoma, WA 98424

EXCISE TAX NOT REQUIRED
BENTON COUNTY EXCISE TAX DIVISION

BY Kim R Jacobs DEPUTY Assessment
11-17-11

UTILITY EASEMENT

Grantor: JAMES J. STERLING, a single person

Grantee: NOR AM INVESTMENT, LLC, a Washington limited liability company

Abbreviated Legal Description: The West half of the Southwest quarter of the Southeast quarter of Section 20, Township 9 North, Range 28 East, W.M., records of Benton County, Washington.

Complete legal description is in Exhibit A of document

Tax Parcel No.: 120984000001000

JAMES J. STERLING, a single person, ("Grantor"), record owner of the property hereinafter described, for good and valuable consideration, hereby grants to NOR AM INVESTMENT, LLC ("Grantee"), its successors and assigns, a perpetual easement to install, construct, operate, inspect, maintain, repair, remove, and replace water mains and lines, sanitary sewer mains and lines, and any and all appurtenances, over, under, upon and across the property legally described in Exhibit A attached hereto and graphically depicted in Exhibit B attached hereto (the "Easement"), which is a portion of Benton County Assessor's Parcel Number 120984000001000.

Grantee, its employees, agents, and contractors shall have the right at such times as may be reasonably necessary to enter upon Grantor's property to access the Easement area for the purposes of installing, constructing, operating, inspecting, maintaining, repairing, removing, or replacing water mains and lines, sanitary sewer mains and lines, and appurtenances. The Grantor shall retain the right to use the surface of the Easement if such use does not unreasonably interfere with the rights granted to Grantee herein. However, the Grantor shall not erect buildings or structures on or over the Easement.

This Easement shall be a covenant running with the land and shall be binding on the successors, heirs, and assigns of both the parties hereto.

DATED this 31st day of October, 2011

GRANTOR:


James J. Sterling

STATE OF WASHINGTON)

)

SS.

County of Benton

)

I certify that I know or have satisfactory evidence that James J. Sterling is the person who appeared before me, and said person acknowledged that he signed this instrument and acknowledged it to be his free and voluntary act for the uses and purposes mentioned in the instrument.

DATED: October 31st, 2011.

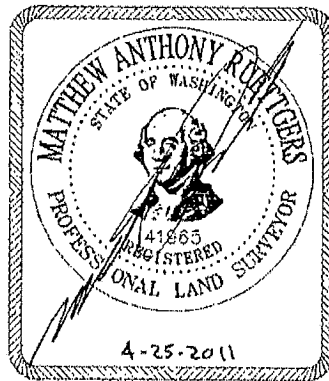



 NOTARY PUBLIC
 Print Name: Tracy N Taylor
 My appointment expires: 12-1-2012

EXHIBIT "A"
EASEMENT DESCRIPTION
PARCEL NO.: 120984000001000

All that portion of that certain parcel of land described in Quit Claim Deed recorded under Auditor's File Number 9727180, contained within a 20.00 foot wide strip of land, lying 10.00 feet on either side of the following described centerline:

Commencing at the Southeast corner of Section 20; thence South $88^{\circ}31'59''$ West, 3920.48 feet on the south line of said section to the Southwest corner of that property described in Volume 676, Page 2225 of Benton County records (Auditor's File Number 9727181); thence on the west line of said property, North $00^{\circ}54'54''$ West, 817.09 feet to the **True Point of Beginning**; thence North $51^{\circ}44'49''$ East, 69.09 feet; thence North $52^{\circ}50'25''$ East, 259.56 feet; thence North $76^{\circ}16'46''$ East, 400.53 feet; thence North $77^{\circ}13'16''$ East, 258.93 feet; thence North $88^{\circ}27'14''$ East, 400.16 feet; thence North $88^{\circ}36'16''$ East, 965.90 feet; thence North $01^{\circ}23'44''$ West, 167.50 feet; North $88^{\circ}36'12''$ East, 1305.00 feet; thence South $01^{\circ}23'44''$ East, 167.53 feet; thence North $87^{\circ}05'49''$ East, 354.73 feet to a point on the East line of said Section 20 and the terminus point of this description. Said point lying North $00^{\circ}14'56''$ West, 1152.54 feet from the Point of Commencement. All lying in the Southeast $\frac{1}{4}$ and Southwest $\frac{1}{4}$ of Section 20, Township 9 North, Range 28 East, Willamette Meridian, Benton County, Washington



After Recording Please Return To:

Loren D. Combs
VSI Law Group, PLLC
3600 Port of Tacoma Road, Suite 311
Tacoma, WA 98424

EXACT PAYMENT TO THE
BENTON COUNTY AUDITOR'S OFFICE

BY Kim R. Jacobs COUNTY CLERK
11-17-11

TEMPORARY EASEMENT

Grantor: JAMES J. STERLING, a single person

Grantee: NOR AM INVESTMENT, LLC, a Washington limited liability company

Abbreviated Legal Description: The West half of the Southwest quarter of the Southeast quarter of Section 20, Township 9 North, Range 28 East, W.M., records of Benton County, Washington. Complete legal description is in Exhibit A of document

Tax Parcel No.: 120984000001000

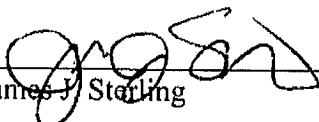
JAMES J. STERLING, a single person, ("Grantor"), record owner of the property hereinafter described, for good and valuable consideration, does hereby grant to the NOR AM INVESTMENT, LLC ("Grantee"), a temporary construction easement over, upon and across the real property legally described in Exhibit A and graphically depicted on Exhibit B attached hereto (the "Easement"), situated in Benton County, State of Washington.

The purpose of the Easement is to allow the Grantee, its officers, employees, agents and contractors the right to use and occupy the Easement area for construction activities for installation of water and sewer utilities.

The Easement shall terminate when all installation work for the water and sewer mains is complete.

DATED this 31st day of October, 2011

GRANTOR:


James J. Sterling

STATE OF WASHINGTON)

)

ss.

County of Benton)

I certify that I know or have satisfactory evidence that James J. Sterling is the person who appeared before me, and said person acknowledged that he signed this instrument and acknowledged it to be his free and voluntary act for the uses and purposes mentioned in the instrument.

DATED: October 31st, 2011.

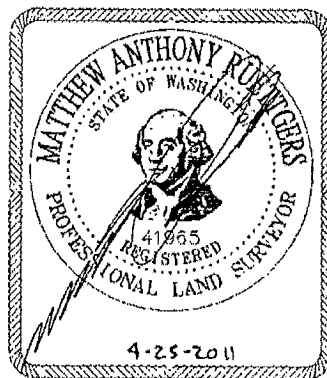


Tracy N. Taylor
NOTARY PUBLIC
Print Name: Tracy N. Taylor
My appointment expires: 12-1-2012

EXHIBIT "A"
CONSTRUCTION EASEMENT DESCRIPTION
PARCEL NO.: 120984000001000

All that portion of that certain parcel of land described in Quit Claim Deed recorded under Auditor's File Number 9727180, contained within a 50.00 foot wide strip of land, lying 25.00 feet on either side of the following described centerline:

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PROJECT: 07-540



+After Recording Please Return To:
Loren D. Combs
VSI Law Group, PLLC
3600 Port of Tacoma Road, Suite 311
Tacoma, WA 98424

NOTARY PUBLIC
BENTON COUNTY EX-101-1000000

BY Kim R. Jacobs DEPUTY Easement
11.17.11

UTILITY EASEMENT

Grantor: JIM. STERLING and LAURA STERLING, husband and wife
Grantee: NOR AM INVESTMENT, LLC, a Washington limited liability company
Abbreviated Legal Description: Section 20 Township 9 Range 28 Quarter SE: Southeast Quarter of the Northwest Quarter: Northeast Quarter of the Southwest Quarter and the North Half of Southeast Quarter. Complete legal description is in Exhibit A of document
Tax Parcel No.: 120982000015009

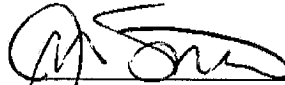
JAMES J. STERLING, a single person, ("Grantor"), record owner of the property hereinafter described, for good and valuable consideration, hereby grants to NOR AM INVESTMENT, LLC ("Grantee"), its successors and assigns, a perpetual easement to install, construct, operate, inspect, maintain, repair, remove, and replace water mains and lines, sanitary sewer mains and lines, and any and all appurtenances, over, under, upon and across the property legally described in Exhibit A attached hereto and graphically depicted in Exhibit B attached hereto (the "Easement"), which is a portion of Benton County Assessor's Parcel Number 120982000015009.

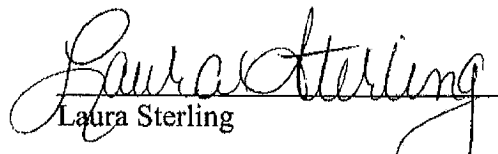
Grantee, its employees, agents, and contractors shall have the right at such times as may be reasonably necessary to enter upon Grantor's property to access the Easement area for the purposes of installing, constructing, operating, inspecting, maintaining, repairing, removing, or replacing water mains and lines, sanitary sewer mains and lines, and appurtenances. The Grantor shall retain the right to use the surface of the Easement if such use does not unreasonably interfere with the rights granted to Grantee herein. However, the Grantor shall not erect buildings or structures on or over the Easement.

This Easement shall be a covenant running with the land and shall be binding on the successors, heirs, and assigns of both the parties hereto.

DATED this 31st day of October, 2011

GRANTOR:


Jim Sterling


Laura Sterling

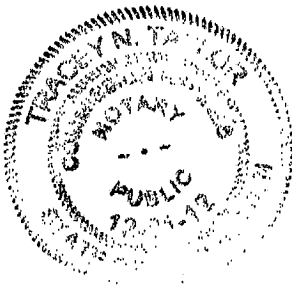
STATE OF WASHINGTON)

) ss.

County of Benton)

I certify that I know or have satisfactory evidence that Jim Sterling and Laura Sterling are the persons who appeared before me, and said persons acknowledged that they signed this instrument and acknowledged it to be their free and voluntary act for the uses and purposes mentioned in the instrument.

DATED: October 31, 2011.



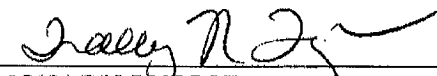
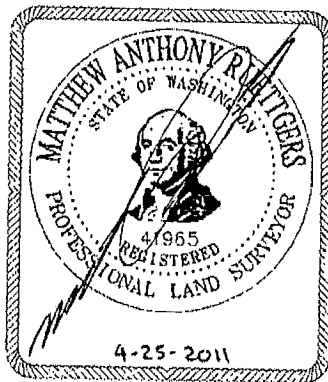

NOTARY PUBLIC
Print Name: Tracey N Taylor
My appointment expires: 12-31-2012

EXHIBIT "A"
EASEMENT DESCRIPTION
PARCEL NO.: 120982000015009

All that portion of that certain parcel of land described in Statutory Warranty Deed recorded under Auditor's File Number 2005-030164, contained within a 20.00 foot wide strip of land, lying 10.00 feet on either side of the following described centerline:

Commencing at the Southeast corner of Section 20; thence South $88^{\circ}31'59''$ West, 3920.48 feet on the south line of said section to the Southwest corner of that property described in Volume 676, Page 2225 of Benton County records (Auditor's File Number 9727181); thence on the west line of said property, North $00^{\circ}54'54''$ West, 817.09 feet to the **True Point of Beginning**; thence North $51^{\circ}44'49''$ East, 69.09 feet; thence North $52^{\circ}50'25''$ East, 259.56 feet; thence North $76^{\circ}16'46''$ East, 400.53 feet; thence North $77^{\circ}13'16''$ East, 258.93 feet; thence North $88^{\circ}27'14''$ East, 400.16 feet; thence North $88^{\circ}36'16''$ East, 965.90 feet; thence North $01^{\circ}23'44''$ West, 167.50 feet; thence North $88^{\circ}36'12''$ East, 1305.00 feet; thence South $01^{\circ}23'44''$ East, 167.53 feet; thence North $87^{\circ}05'49''$ East, 354.73 feet to a point on the East line of said Section 20 and the terminus point of this description. Said point lying North $00^{\circ}14'56''$ West, 1152.54 feet from the Point of Commencement. All lying in the Southeast $\frac{1}{4}$ and Southwest $\frac{1}{4}$ of Section 20, Township 9 North, Range 28 East, Willamette Meridian, Benton County, Washington



2011-032669 EAS

11/17/2011 02:45:05 PM Pages: 5 Fee: \$66.00
Vsi Law Group PLLC
Benton County, Benton County Auditor's Office



After Recording Please Return To:
Loren D. Combs
VSI Law Group, PLLC
3600 Port of Tacoma Road, Suite 311
Tacoma, WA 98424

TACOMA COUNTY AUDITOR
BENTON COUNTY, WA 98424

Kim R. Jacobs Easement
11-17-11

TEMPORARY EASEMENT

Grantor: JIM.STERLING and LAURA STERLING, husband and wife

Grantee: NOR AM INVESTMENT, LLC, a Washington limited liability company

Abbreviated Legal Description: Section 20 Township 9 Range 28 Quarter SE: Southeast Quarter of the Northwest Quarter: Northeast Quarter of the Southwest Quarter and the North Half of Southeast Quarter. Complete legal description is in Exhibit A of document

Tax Parcel No.: 120982000015009

JIM STERLING AND LAURA STERLING, husband and wife, ("Grantor"), record owners of the property hereinafter described, for good and valuable consideration, do hereby grant to the NOR AM INVESTMENT, LLC ("Grantee"), a temporary construction easement over, upon and across the real property legally described in Exhibit A and graphically depicted on Exhibit B attached hereto (the "Easement"), situated in Benton County, State of Washington.

The purpose of the Easement is to allow the Grantee, its officers, employees, agents and contractors the right to use and occupy the Easement area for construction activities for installation of water and sewer utilities.

The Easement shall terminate when all installation work for the water and sewer mains is complete.

DATED this 31st day of October, 2011

GRANTOR:

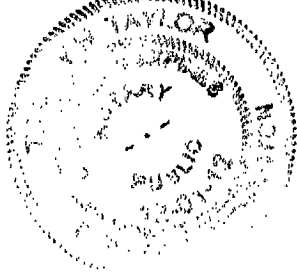

Jim Sterling


Laura Sterling

STATE OF WASHINGTON)
) ss.
County of Benton)

I certify that I know or have satisfactory evidence that Jim Sterling and Laura Sterling, husband and wife, are the persons who appeared before me, and said persons acknowledged that they signed this instrument and acknowledged it to be their free and voluntary act for the uses and purposes mentioned in the instrument.

DATED: October 31, 2011.

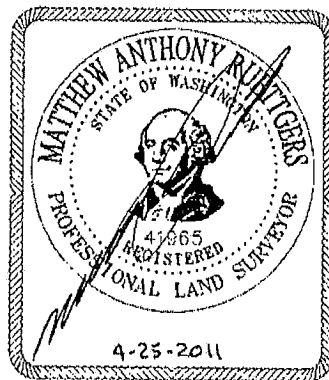


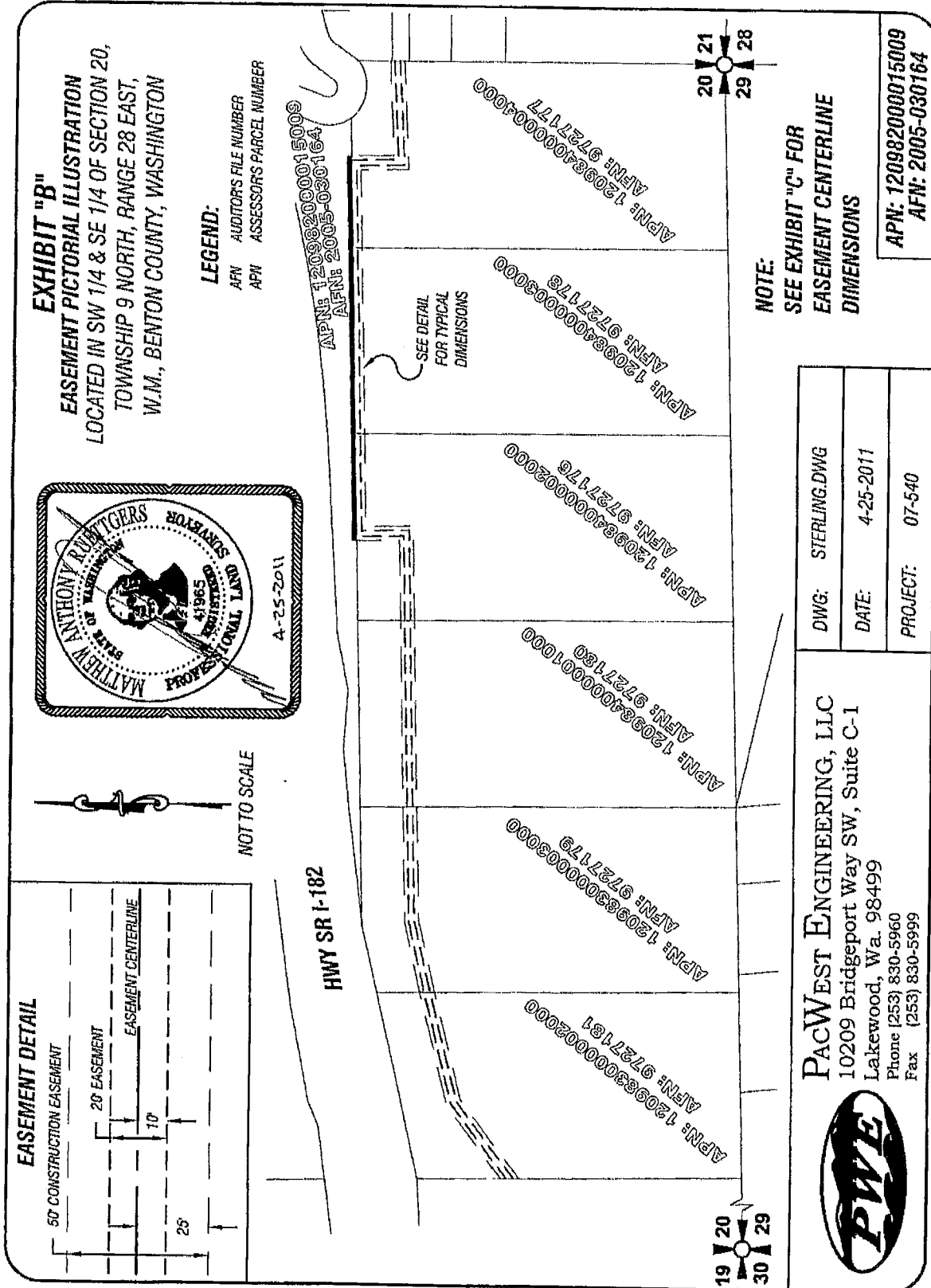

 NOTARY PUBLIC
 Print Name: Tracy N Taylor
 My appointment expires: 12-1-2012

EXHIBIT "A"
CONSTRUCTION EASEMENT DESCRIPTION
PARCEL NO.: 120982000015009

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After Recording Please Return To:
Loren D. Combs
VSI Law Group, PLLC
3600 Port of Tacoma Road, Suite 311
Tacoma, WA 98424

EXCISE TAX NO. PAID
BENTON COUNTY AUDITOR'S OFFICE

Kim B. Jacobs 11-17-11 *Easement*

UTILITY EASEMENT

Grantor: JAMES J. STERLING, a single person

Grantee: NOR AM INVESTMENT, LLC, a Washington limited liability company

Abbreviated Legal Description: The West half of the Southeast quarter of the Southwest quarter of Section 20, Township 9 North, Range 28 East, W.M., records of Benton County, Washington, EXCEPT interstate highway right-of-way. Complete legal description is in Exhibit A of document.

Tax Parcel No.: 120983000002000

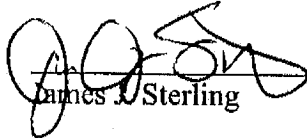
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DATED this 31 day of October, 2011

GRANTOR:


James J. Sterling

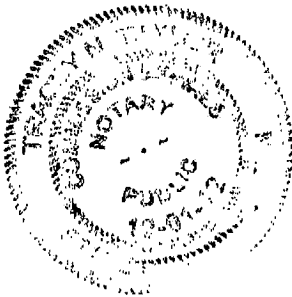
STATE OF WASHINGTON)

County of Benton)

ss.

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DATED: October 31st, 2011.

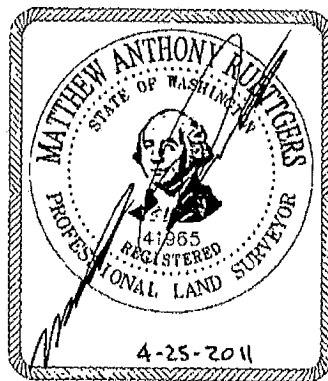



NOTARY PUBLIC
Print Name: Tracy N Taylor
My appointment expires: 12-1-2012

EXHIBIT "A"
EASEMENT DESCRIPTION
PARCEL NO.: 120983000002000

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Loren D. Combs
VSI Law Group, PLLC
3600 Port of Tacoma Road, Suite 311
Tacoma, WA 98424

EXCISE TAX IS REQUIRED
BENTON COUNTY EXCISE TAX DIVISION

BY Kim R. Jacobs DEPUTY Easement
11-17-11

TEMPORARY EASEMENT

Grantor: JAMES J. STERLING, a single person

Grantee: NOR AM INVESTMENT, LLC, a Washington limited liability company

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Tax Parcel No.: 120983000002000

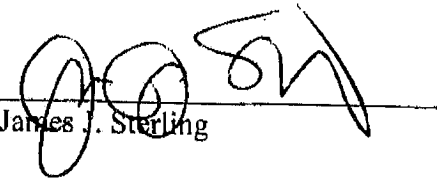
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DATED this 31 day of October, 2011

GRANTOR:


James J. Sterling

STATE OF WASHINGTON)

County of Benton)

ss.

I certify that I know or have satisfactory evidence that James J. Sterling is the person who appeared before me, and said person acknowledged that he signed this instrument and acknowledged it to be his free and voluntary act for the uses and purposes mentioned in the instrument.

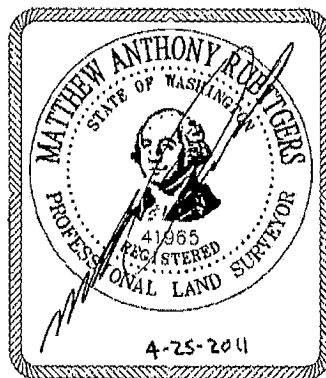
DATED: October 31st, 2011.

Tracy N. Taylor
NOTARY PUBLIC
Print Name: Tracy N. Taylor
My appointment expires: 12-31-2012

EXHIBIT "A"
CONSTRUCTION EASEMENT DESCRIPTION
PARCEL NO.: 120983000002000

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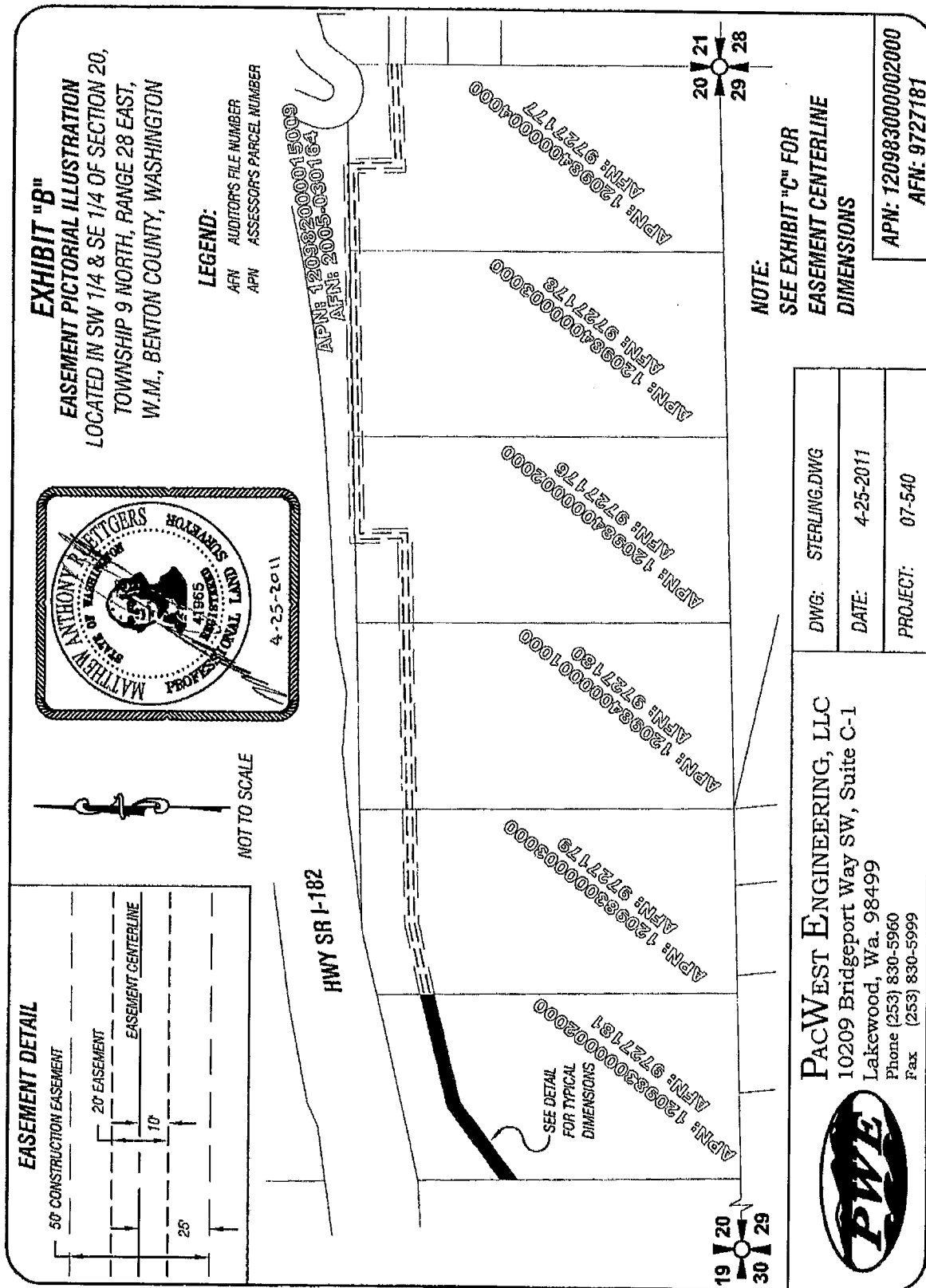
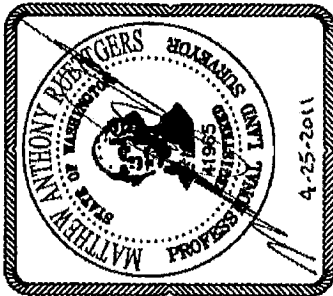
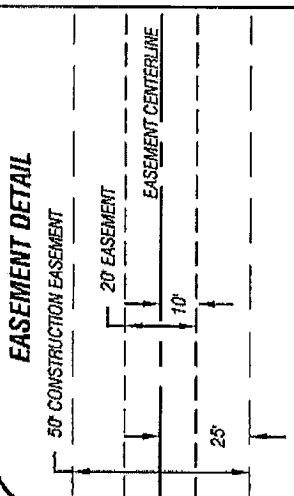


EXHIBIT "C"
EASEMENT PICTORIAL ILLUSTRATION
LOCATED IN SW 1/4 & SE 1/4 OF SECTION 20,
TOWNSHIP 9 NORTH, RANGE 28 EAST,
W.M., BENTON COUNTY, WASHINGTON



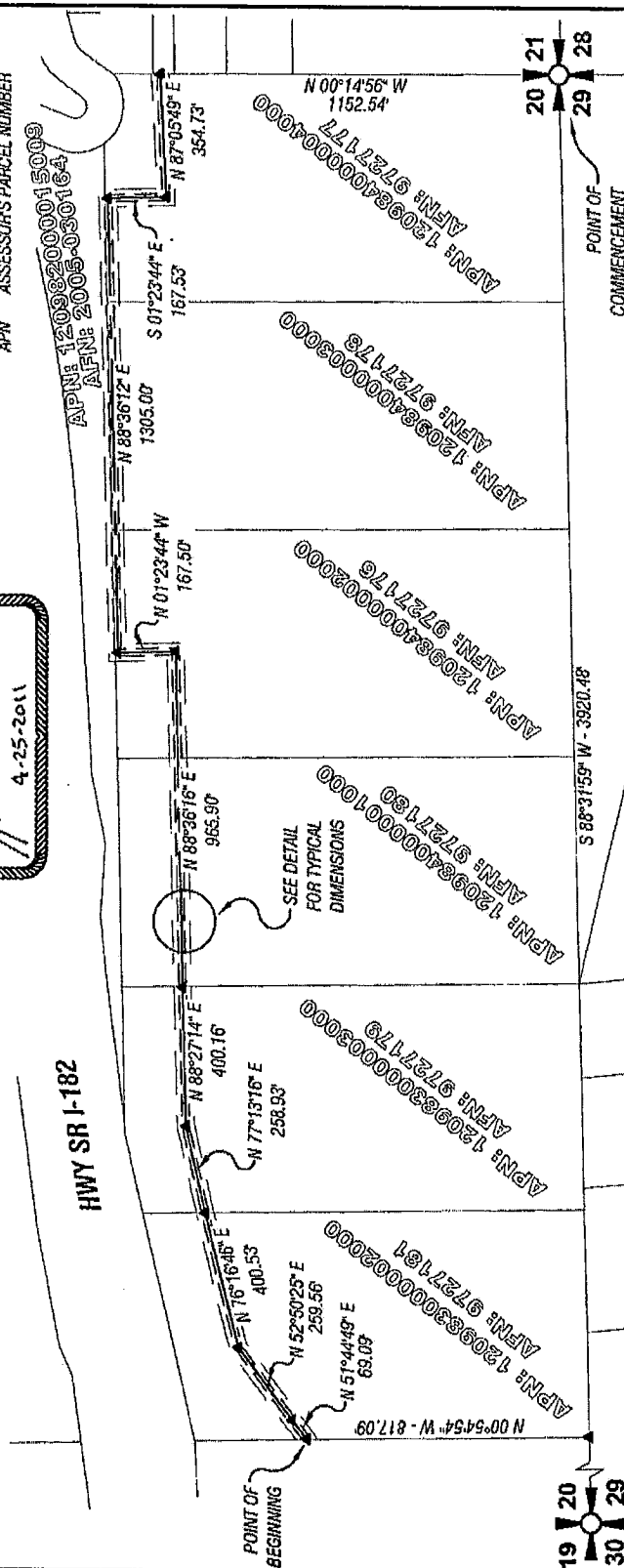
4-25-2011

NOT TO SCALE



LEGEND:

- | | |
|-----|--------------------------|
| ▲ | CALCULATED POINT |
| AFN | AUDITOR'S FILE NUMBER |
| APN | ASSESSOR'S PARCEL NUMBER |



S 88°31'59" W - 3920.48'

POINT OF COMMENCEMENT

PacWest Engineering, LLC

10209 Bridgeport Way SW, Suite C-1

Lakewood, Wa. 98499

Phone (253) 830-5960

Fax (253) 830-5999

DWG: STERLING.DWG

DATE: 4-25-2011

PROJECT: 07-540

After Recording Please Return To:
Loren D. Combs
VSI Law Group, PLLC
3600 Port of Tacoma Road, Suite 311
Tacoma, WA 98424

EXCISE TAX NOT REQUIRED
BENTON COUNTY RECORDS & TAXATION

by *Kim R. Jacobs* DEPUTY *Easement*
11-17-11

UTILITY EASEMENT

Grantor: JAMES J. STERLING, a single person

Grantee: NOR AM INVESTMENT, LLC, a Washington limited liability company

Abbreviated Legal Description: The East half of the Southwest quarter of the Southwest quarter of Section 20, Township 9 North, Range 28 East, W.M., records of Benton County, Washington, EXCEPT interstate right-of-way. Complete legal description is in Exhibit A of document.

Tax Parcel No.: 120983000003000

JAMES J. STERLING, a single person, ("Grantor"), record owner of the property hereinafter described, for good and valuable consideration, hereby grants to NOR AM INVESTMENT, LLC ("Grantee"), its successors and assigns, a perpetual easement to install, construct, operate, inspect, maintain, repair, remove, and replace water mains and lines, sanitary sewer mains and lines, and any and all appurtenances, over, under, upon and across the property legally described in Exhibit A attached hereto and graphically depicted in Exhibit B attached hereto (the "Easement"), which is a portion of Benton County Assessor's Parcel Number 120983000003000.

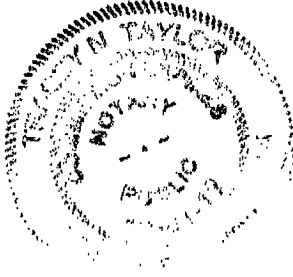
Grantee, its employees, agents, and contractors shall have the right at such times as may be reasonably necessary to enter upon Grantor's property to access the Easement area for the purposes of installing, constructing, operating, inspecting, maintaining, repairing, removing, or replacing water mains and lines, sanitary sewer mains and lines, and appurtenances. The Grantor shall retain the right to use the surface of the Easement if such use does not unreasonably interfere with the rights granted to Grantee herein. However, the Grantor shall not erect buildings or structures on or over the Easement.

DATED this 31st day of October, 2011


James J. Sterling

I certify that I know or have satisfactory evidence that James J. Sterling is the person who appeared before me, and said person acknowledged that he signed this instrument and acknowledged it to be his free and voluntary act for the uses and purposes mentioned in the instrument.

DATED: October 31st, 2011.

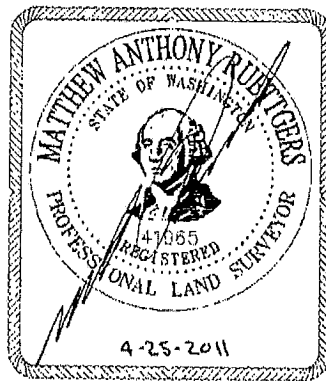


 NOTARY PUBLIC
 Print Name: Traump Taylor
 My appointment expires: 12-1-2012

EXHIBIT "A"
EASEMENT DESCRIPTION
PARCEL NO.: 120983000003000

All that portion of that certain parcel of land described in Quit Claim Deed recorded under Auditor's File Number 9727179, contained within a 20.00 foot wide strip of land, lying 10.00 feet on either side of the following described centerline:

Commencing at the Southeast corner of Section 20; thence South 88°31'59" West, 3920.48 feet on the south line of said section to the Southwest corner of that property described in Volume 676, Page 2225 of Benton County records (Auditor's File Number 9727181); thence on the west line of said property, North 00°54'54" West, 817.09 feet to the **True Point of Beginning**; thence North 51°44'49" East, 69.09 feet; thence North 52°50'25" East, 259.56 feet; thence North 76°16'46" East, 400.53 feet; thence North 77°13'16" East, 258.93 feet; thence North 88°27'14" East, 400.16 feet; thence North 88°36'16" East, 965.90 feet; thence North 01°23'44" West, 167.50 feet; North 88°36'12" East, 1305.00 feet; thence South 01°23'44" East, 167.53 feet; thence North 87°05'49" East, 354.73 feet to a point on the East line of said Section 20 and the terminus point of this description. Said point lying North 00°14'56" West, 1152.54 feet from the Point of Commencement. All lying in the Southeast ¼ and Southwest ¼ of Section 20, Township 9 North, Range 28 East, Willamette Meridian, Benton County, Washington



**After Recording Please Return To:**

Loren D. Combs

VSI Law Group, PLLC

3600 Port of Tacoma Road, Suite 311

Tacoma, WA 98424

EXCISE TAX NOT REQUIRED
BENTON COUNTY EXCISE TAX DIVISION

BY

Kim R. Jacobs

DEPUTY

Easement

11-17-11

TEMPORARY EASEMENT**Grantor:** JAMES J. STERLING, a single person**Grantee:** NOR AM INVESTMENT, LLC, a Washington limited liability company**Abbreviated Legal Description:** The East half of the Southwest quarter of the Southwest quarter of Section 20, Township 9 North, Range 28 East, W.M., records of Benton County, Washington, EXCEPT interstate right-of-way. Complete legal description is in Exhibit A of document**Tax Parcel No.:** 120983000003000

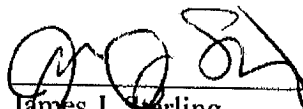
JAMES J. STERLING, a single person, ("Grantor"), record owner of the property hereinafter described, for good and valuable consideration, does hereby grant to the NOR AM INVESTMENT, LLC ("Grantee"), a temporary construction easement over, upon and across the real property legally described in Exhibit A and graphically depicted on Exhibit B attached hereto (the "Easement"), situated in Benton County, State of Washington.

The purpose of the Easement is to allow the Grantee, its officers, employees, agents and contractors the right to use and occupy the Easement area for construction activities for installation of water and sewer utilities.

The Easement shall terminate when all installation work for the water and sewer mains is complete.

DATED this 31st day of October, 2011

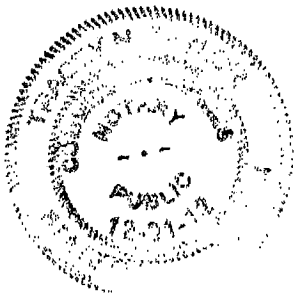
GRANTOR:


James J. Sterling

County of Benton

SS.

DATED: October 31st, 2011.

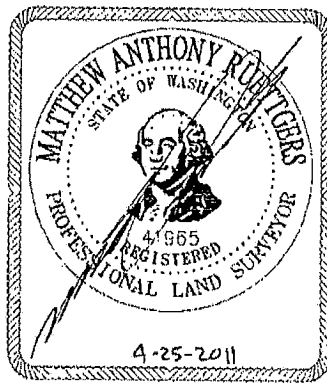


My appointment expires:

EXHIBIT "A"
CONSTRUCTION EASEMENT DESCRIPTION
PARCEL NO.: 120983000003000

All that portion of that certain parcel of land described in Quit Claim Deed recorded under Auditor's File Number 9727179, contained within a 50.00 foot wide strip of land, lying 25.00 feet on either side of the following described centerline:

Commencing at the Southeast corner of Section 20; thence South 88°31'59" West, 3920.48 feet on the south line of said section to the Southwest corner of that property described in Volume 676, Page 2225 of Benton County records (Auditor's File Number 9727181); thence on the west line of said property, North 00°54'54" West, 817.09 feet to the **True Point of Beginning**; thence North 51°44'49" East, 69.09 feet; thence North 52°50'25" East, 259.56 feet; thence North 76°16'46" East, 400.53 feet; thence North 77°13'16" East, 258.93 feet; thence North 88°27'14" East, 400.16 feet; thence North 88°36'16" East, 965.90 feet; thence North 01°23'44" West, 167.50 feet; North 88°36'12" East, 1305.00 feet; thence South 01°23'44" East, 167.53 feet; thence North 87°05'49" East, 354.73 feet to a point on the East line of said Section 20 and the terminus point of this description. Said point lying North 00°14'56" West, 1152.54 feet from the Point of Commencement. All lying in the Southeast ¼ and Southwest ¼ of Section 20, Township 9 North, Range 28 East, Willamette Meridian, Benton County, Washington



2012-010113 EAS

04/09/2012 03:07:19 PM Pages: 4 Fee: \$65.00

Vsi Law Group, PLLC
Benton County, Benton County Auditor's Office



After Recording Please Return To:

Loren D. Combs

VSI Law Group, PLLC

3600 Port of Tacoma Road, Suite 311

Tacoma, WA 98424

EXCISE TAX NOT REQUIRED
BENTON COUNTY EXCISE TAX DIVISION

By Kim J. [Signature] DEPUTY Assessor
4-9-12

UTILITY EASEMENT

Grantor: JIM STERLING and LAURA STERLING, husband and wife

Grantee: NOR AM INVESTMENT, LLC, a Washington limited liability company

Abbreviated Legal Description: Section 20 Township 9 Range 28 Quarter SE: Southeast Quarter of the Northwest Quarter: Northeast Quarter of the Southwest Quarter and the North Half of Southeast Quarter. Complete legal description is in Exhibit A of document

Tax Parcel No.: 120982000015009

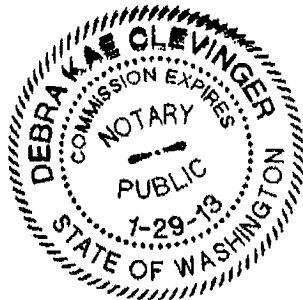
JIM STERLING and LAURA STERLING, husband and wife, ("Grantor"), record owners of the property hereinafter described, for good and valuable consideration, hereby grant to NOR AM INVESTMENT, LLC ("Grantee"), its successors and assigns, a perpetual easement to install, construct, operate, inspect, maintain, repair, remove, and replace water mains and lines, sanitary sewer mains and lines, and any and all appurtenances, over, under, upon and across the property legally described in Exhibit A attached hereto and graphically depicted in Exhibit B attached hereto (the "Easement"), which is a portion of Benton County Assessor's Parcel Number 120982000015009.

Grantee, its employees, agents, and contractors shall have the right at such times as may be reasonably necessary to enter upon Grantor's property to access the Easement area for the purposes of installing, constructing, operating, inspecting, maintaining, repairing, removing, or replacing water mains and lines, sanitary sewer mains and lines, and appurtenances. The Grantor shall retain the right to use the surface of the Easement if such use does not unreasonably interfere with the rights granted to Grantee herein. However, the Grantor shall not erect buildings or structures on or over the Easement.

DATED this 4 day of April, 2012

Jim Sterling
Laura Sterling

DATED: April 4, 2012



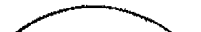
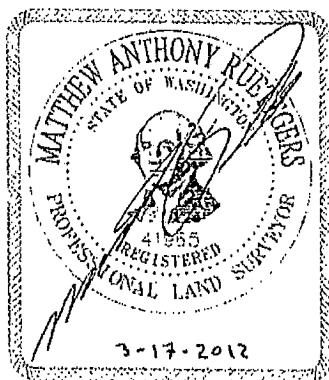

NOTARY PUBLIC
Print Name: Nehra K Clewinger
My appointment expires: 12-9-12

EXHIBIT "A"
EASEMENT DESCRIPTION
PARCEL NO.: 120982000015009

All that portion of that certain parcel of land described in Statutory Warranty Deed recorded under Auditor's File Number 2005-030164, contained within a 20.00 foot wide strip of land, lying 10.00 feet on either side of the following described centerline:

Commencing at the Southeast corner of Section 20; thence South 88°31'59" West, 3920.48 feet on the south line of said section to the Southwest corner of that property described in Volume 676, Page 2225 of Benton County records (Auditor's File Number 9727181); thence on the west line of said property, North 00°54'54" West, 817.09 feet to the True Point of Beginning; thence North 51°44'49" East, 69.09 feet; thence North 36°53'04" East, 273.91 feet; thence North 65°56'32" East, 532.43 feet; thence North 87°29'34" East, 391.67 feet; thence North 83°36'16" East, 158.10 feet; thence North 87°44'14" East, 1011.81 feet; North 88°36'12" East, 1305.00 feet; thence South 01°23'44" East, 167.53 feet; thence North 87°05'49" East, 354.73 feet to a point on the East line of said Section 20 and the terminus point of this description. Said point lying North 00°14'56" West, 1152.54 feet from the Point of Commencement. All lying in the Southeast ¼ and Southwest ¼ of Section 20, Township 9 North, Range 28 East, Willamette Meridian, Benton County, Washington



After Recording Please Return To:

Loren D. Combs

VSI Law Group, PLLC

3600 Port of Tacoma Road, Suite 311

Tacoma, WA 98424



EXCISE TAX NOT REQUIRED
BENTON COUNTY EXCISE TAX DIVISION

BY Kim Jacobs DEPUTY Assessor
4-9-12

TEMPORARY EASEMENT

Grantor: JIM STERLING and LAURA STERLING, husband and wife

Grantee: NOR AM INVESTMENT, LLC, a Washington limited liability company

Abbreviated Legal Description: Section 20 Township 9 Range 28 Quarter SE: Southeast Quarter of the Northwest Quarter; Northeast Quarter of the Southwest Quarter and the North Half of Southeast Quarter. Complete legal description is in Exhibit A of document

Tax Parcel No.: 120982000015009

JIM STERLING AND LAURA STERLING, husband and wife, ("Grantor"), record owners of the property hereinafter described, for good and valuable consideration, do hereby grant to the NOR AM INVESTMENT, LLC ("Grantee"), a temporary construction easement over, upon and across the real property legally described in Exhibit A and graphically depicted on Exhibits B and C attached hereto (the "Easement"), situated in Benton County, State of Washington.

The purpose of the Easement is to allow the Grantee, its officers, employees, agents and contractors the right to use and occupy the Easement area for construction activities for installation of water and sewer utilities.

DATED this 4th day of April, 2012


Jim Sterling


Laura Sterling

County of Benton

SS.

DATED: April 7, 2012

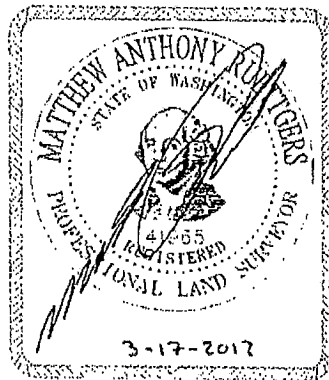



NOTARY PUBLIC
Print Name: LOREN D. COMBS
My appointment expires: 7/7/2022

EXHIBIT "A"
CONSTRUCTION EASEMENT DESCRIPTION
PARCEL NO.: 120982000015009

All that portion of that certain parcel of land described in Quit Statutory Warranty Deed recorded under Auditor's File Number 2005-030164, contained within a 50.00 foot wide strip of land, lying 25.00 feet on either side of the following described centerline:

Commencing at the Southeast corner of Section 20; thence South $88^{\circ}31'59''$ West, 3920.48 feet on the south line of said section to the Southwest corner of that property described in Volume 676, Page 2225 of Benton County records (Auditor's File Number 9727181); thence on the west line of said property, North $00^{\circ}54'54''$ West, 817.09 feet to the True Point of Beginning; thence North $51^{\circ}44'49''$ East, 69.09 feet; thence North $36^{\circ}53'04''$ East, 273.91 feet; thence North $65^{\circ}56'32''$ East, 532.43 feet; thence North $87^{\circ}29'34''$ East, 391.67 feet; thence North $83^{\circ}36'16''$ East, 158.10 feet; thence North $87^{\circ}44'14''$ East, 1011.81 feet; North $88^{\circ}36'12''$ East, 1305.00 feet; thence South $01^{\circ}23'44''$ East, 167.53 feet; thence North $87^{\circ}05'49''$ East, 354.73 feet to a point on the East line of said Section 20 and the terminus point of this description. Said point lying North $00^{\circ}14'56''$ West, 1152.54 feet from the Point of Commencement. All lying in the Southeast $\frac{1}{4}$ and Southwest $\frac{1}{4}$ of Section 20, Township 9 North, Range 28 East, Willamette Meridian, Benton County, Washington



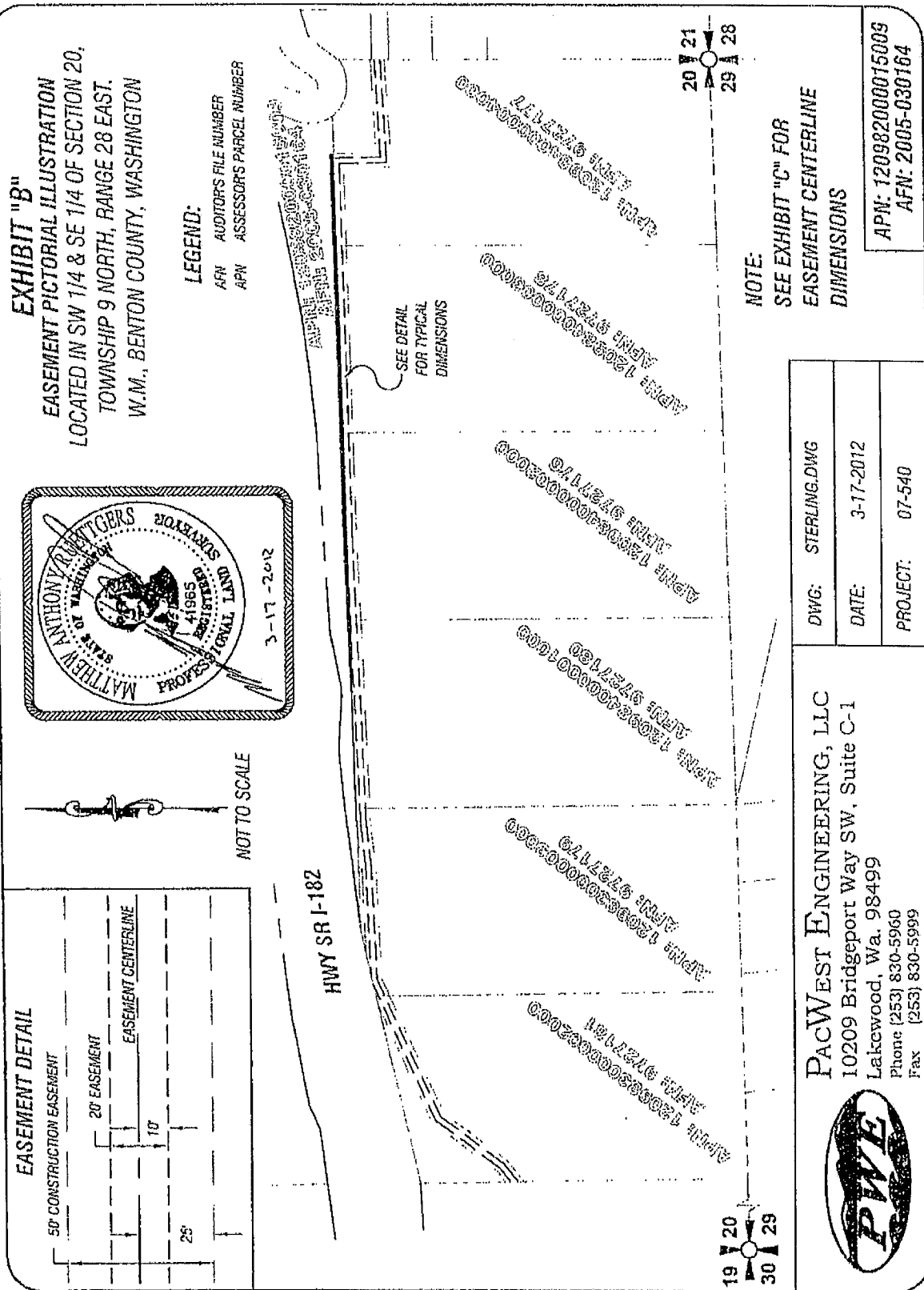
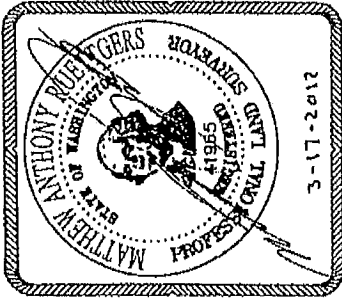
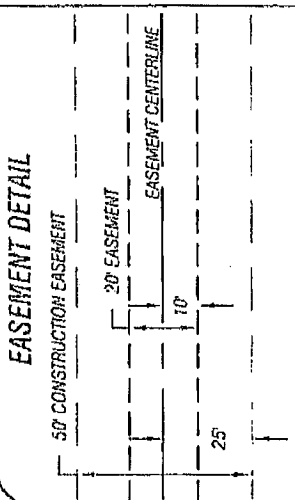


EXHIBIT "C"

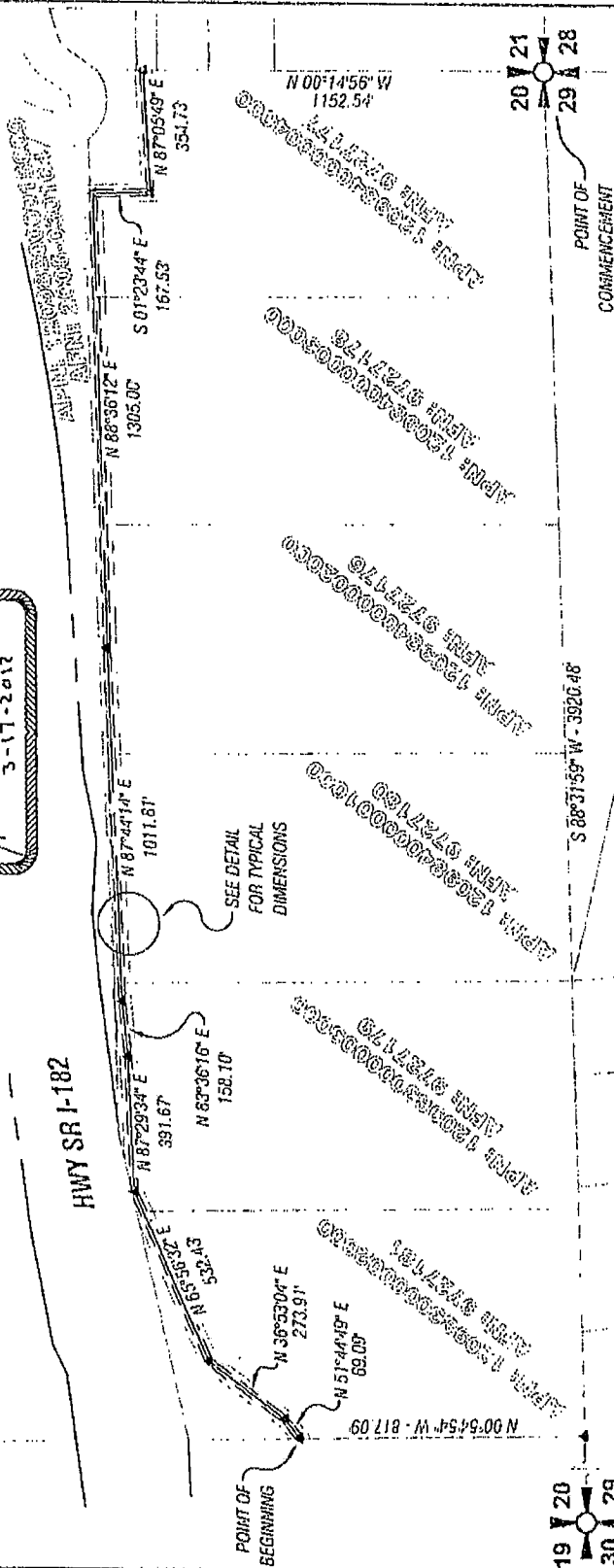


NOT TO SCALE



LEGEND:

- | | |
|-----|--------------------------|
| ▲ | CALCULATED POINT |
| AFN | AUDITOR'S FILE NUMBER |
| APN | ASSESSOR'S PARCEL NUMBER |



PACWEST ENGINEERING, LLC
10209 Bridgeport Way SW, Suite C-1
Lakewood, Wa. 98499
Phone (253) 830-5960
Fax (253) 830-5999



DWG-STERLING.DWG

DATE: 3-17-2012

PROJECT: 07-540

Return Address:

JIM STERLING

890 GEORGE WASHINGTON WAY

RICHLAND, WA 993528

EXCISE TAX NOT REQUIRED
BENTON COUNTY EXCISE TAX DIVISION
BY Alexis Cee 11/21/13 DEPUTY
Easement

109113

EASEMENT BENTON FRANKLIN TITLE CO.

Grantor: Sheri E. Sterling, a single person

Grantee: James J. Sterling

Legal Description: Portion of South 1/4, SE 1/4, Sec. 20, T.9N., R.28E., W.M.

Assessor's Tax Parcel #: 1-2098-400-0002-000, 12098-400-0003-003, 1-2098-400-0002-000

For valuable consideration, receipt of which is hereby acknowledged, the Grantor, Sheri E. Sterling, a single person, hereby grants and conveys to the Grantee, James J. Sterling, his heirs successors and assigns, the right, privilege and authority to construct, improve, repair and maintain an access road and utilities, over and upon the following lands, located in Benton County, State of Washington, to-wit:

ACCESS & UTILITY EASEMENT

AN EASEMENT FOR ACCESS AND UTILITIES 30.00 FEET IN WIDTH, WITH 15.00 FEET OF SAID WIDTH LYING ON EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE SITUATED IN THE SOUTH HALF OF THE SOUTHEAST QUARTER OF SECTION 20, TOWNSHIP 9 NORTH, RANGE 28 EAST OF THE WILLAMETTE MERIDIAN, BENTON COUNTY WASHINGTON;

COMMENCING AT THE SOUTHEAST CORNER OF SAID SECTION 20; THENCE N 00°18'39"W, 1152.54 FEET ALONG THE EAST LINE OF SAID SOUTHEAST QUARTER TO THE CENTERLINE OF AN EXISTING 20.00 WIDE UTILITY EASEMENT AS DESCRIBED IN AUDITOR'S FILE NO. 2011-032672, RECORDS OF BENTON COUNTY, WASHINGTON AND THE BEGINNING OF SAID CENTERLINE; THENCE ALONG SAID CENTERLINE THE FOLLOWING COURSES; THENCE S 87°05'49"W, 353.36 FEET; THENCE N 01°23'44"W, 167.53 FEET; THENCE S 88°36'12"W, 1305.00 FEET; THENCE S 01°23'44"E, 30.00 FEET TO THE TERMINUS OF SAID CENTERLINE.

EXCEPT ANY PORTION THEREOF LYING IN THE NORTH HALF OF THE SOUTHEAST QUARTER OF SAID SECTION 20.

The covenants herein contained shall run with the land and are binding upon all subsequent owners thereof. In Witness Whereof, the said Grantor has executed this instrument this 13 day of November, 2013.

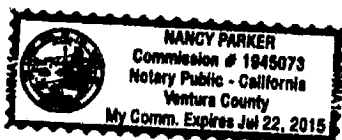
Sheri E. Sterling
SHERI E. STERLING

STATE OF CALIFORNIA

County of

On this 13 day of November, 2013, before me, the undersigned Notary Public, in and for the State of California, duly commissioned and sworn, personally appeared: Sheri E. Sterling, to me proven to be the individual that executed the foregoing instrument, and acknowledged said instrument to be the free and voluntary act and deed of said entity, for the uses and purposes mentioned in the instrument, and on oath stated that she is authorized to execute said instrument.

Given under my hand and official seal this 13 day of November, 2013.



Nancy Parker
Notary Public in and for the State of California
residing at Oxnard, CA

My commission expires: July 22, 2015

EXHIBIT MAP
ACCESS & UTILITY EASEMENT
S 1/2, SEC. 20, T.9N., R.28E., W.M.

JIM STERLING PROPERTY:
TAX PARCEL NO.
1-2096-200-0015-009

MATCH LINE

N723°44'W
30.00'

TERMINUS POINT
ACCESS EASEMENT

20' EXIST. UTIL. ESM'T.
30' ACCESS ESM'T.

SHERI STERLING:
TAX PARCEL NO.
1-2098-400-0002-000

30' ACCESS ESM'T.

EXHIBIT MAP
ACCESS & UTILITY EASEMENT
S 1/2, SEC. 20, T.9N., R.28E., W.M.

JIM STERLING PROPERTY:
TAX PARCEL NO.
1-2098-200-0015-009

SHERI STERLING:
TAX PARCEL NO.
1-2098-400-0003-000

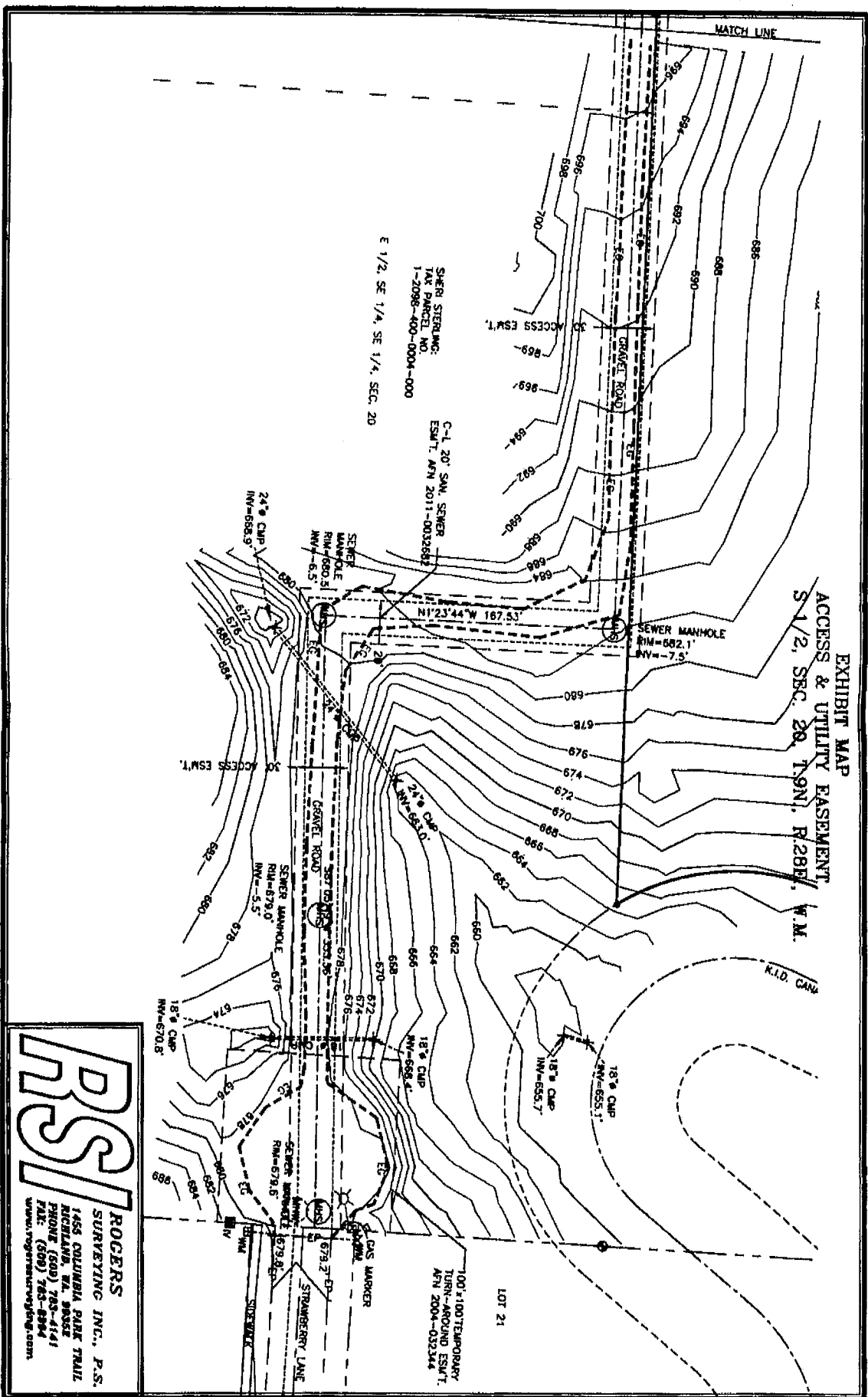
30' ACCESS ESM'T.

S&S 30' 12" W. 1305.00'

MATCH LINE

MATCH LINE

RSI ROGERS
SURVEYING INC., P.S.
1455 COLUMBIA PARK TRAIL
RICHLAND, VA. 22352
PHONE (509) 723-4141
FAX (509) 723-8864
www.rogerssurveying.com





When recorded return to:

Dos Cabras Viejas, LLC
8524 W. Gage Blvd
Ste A-1 #293
Kennewick, WA 99336

DEED OF TRUST

(For use in the state of Washington only)

THIS DEED OF TRUST, made this , between

DOS CABRAS VIEJAS a Washington Limited Liability Company, as GRANTORS, whose address is **8524 W. Gage Blvd., Ste A-1 #293, Kennewick, WA 99336**

and

CHICAGO TITLE COMPANY OF WASHINGTON BENTON-FRANKLIN COUNTIES as TRUSTEE, whose address is **8102 W GRANDRIDGE BLVD, SUITE B, KENNEWICK, WA 99336**

And

STEVE TATRO, TRUSTEE, SUNDANCE CAPITAL 401K PLAN
RICHARD HENDERSON, TRUSTEE, SSR INVESTMENTS 401K PLAN
SID LITCHFIELD, TRUSTEE, S&A CONSTRUCTION 401K PLAN

as BENEFICIARIES, whose address is , ,

SUNDANCE CAPITAL 401K PLAN TRUST, 148 COUNTRY WAY, WALLA WALLA, WA 99362
SSR INVESTMENTS 401K PLAN TRUST, 1284 TWO ACRE LANE, WALLA WALLA, WA 99362
S&A CONSTRUCTION 401K PLAN TRUST, 85320 FUJI LANE, MILTON FREEWATER OR 97862

WITNESSETH: Grantor(s) hereby bargain(s), sell(s), and convey(s) to Trustee in trust, with power of sale, the following described real property in Benton County, Washington:

PARCEL A:

THE EAST HALF OF THE SOUTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 20, TOWNSHIP 9 NORTH, RANGE 28 EAST, W.M., RECORDS OF BENTON COUNTY, WASHINGTON.

PARCEL B:

THE WEST HALF OF THE SOUTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 20, TOWNSHIP 9 NORTH, RANGE 28 EAST, W.M., RECORDS OF BENTON COUNTY, WASHINGTON.

PARCEL C:

THE EAST HALF OF THE SOUTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 20, TOWNSHIP 9 NORTH, RANGE 28 EAST, W.M., RECORDS OF BENTON COUNTY, WASHINGTON.

Tax Parcel Number(s): **1-2098-400-0002-000, 1-2098-400-0003-000, 1-2098-400-0004-000**

which real property is not used principally for agricultural or farming purposes, together with all the tenements, hereditaments, and appurtenances now or hereafter thereunto belonging or in any wise appertaining, and the rents, issues, and profits thereof.

This Deed of Trust is for the purpose of securing performance of each agreement of Grantor(s) contained in this Deed of Trust, and payment of the sum of **ONE MILLION FOUR HUNDRED TWELVE THOUSANDSIX HUNDRED SIX DOLLARS (\$1,412,606.00)** with interest, in accordance with the terms of a promissory note of even date herewith, payable to Beneficiaries or order, and made by Grantor(s), and all renewals, modifications, and extensions thereof, and also such further sums as

may be advanced or loaned by Beneficiaries to Grantor(s), or any of Grantor(s)' successors or assigns, together with interest thereon at such rate as shall be agreed upon.

DUE DATE: The entire balance of the promissory note secured by this Deed of Trust, together with any and all interest accrued thereon, shall be due and payable in full on **OCTOBER 31 2018**.

To protect the security of this Deed of Trust, Grantor(s) covenant(s) and agree(s):

1. To keep the property in good condition and repair; to permit no waste thereof; to complete any building, structure, or improvement being built or about to be built thereon; to restore promptly any building, structure, or improvement thereon which may be damaged or destroyed; and to comply with all laws, ordinances, regulations, covenants, conditions, and restrictions affecting the property.
2. To pay before delinquent all lawful taxes and assessments upon the property; to keep the property free and clear of all other charges, liens, or encumbrances impairing the security of this Deed of Trust.
3. To keep all buildings now or hereafter erected on the property described herein continuously insured against loss by fire or other hazards in an amount not less than the total debt secured by this Deed of Trust. All policies shall be held by the Beneficiary, and be in such companies as the Beneficiary may approve and have loss payable first to the Beneficiary, as its interest may appear, and then to the Grantor(s). The amount collected under any insurance policy may be applied upon any indebtedness hereby secured in such order as the Beneficiary shall determine. Such application by the Beneficiary shall not cause discontinuance of any proceedings to foreclose this Deed of Trust. In the event of foreclosure, all rights of the Grantor(s) in insurance policies then in force shall pass to the purchaser at the foreclosure sale.
4. To defend any action or proceeding purporting to affect the security hereof or the rights or powers of Beneficiary or Trustee, and to pay all costs and expenses, including cost of title search and attorney's fees in a reasonable amount, in any such action or proceeding, and in any suit brought by Beneficiary to foreclose this Deed of Trust.
5. To pay all costs, fees, and expenses in connection with this Deed of Trust, including the expenses of the Trustee incurred in enforcing the obligation secured hereby and Trustee's and attorney's fees actually incurred, as provided by statute.
6. Should Grantor(s) fail to pay when due any taxes, assessments, insurance premiums, liens, encumbrances, or other charges against the property hereinabove described, Beneficiary may pay the same, and the amount so paid, with interest at the rate set forth in the note secured hereby, shall be added to and become a part of the debt secured in this Deed of Trust.
7. **DUE ON SALE: (OPTIONAL - Not applicable unless initialed by Grantor and Beneficiary.)** The property described in this security instrument may not be sold or transferred without the Beneficiary's consent. Upon breach of this provision, Beneficiary may declare all sums due under the note and Deed of Trust immediately due and payable, unless prohibited by applicable law.

Grantor (Initials)

Beneficiary (Initials)

8. **NO FURTHER ENCUMBRANCES: (OPTIONAL - Not applicable unless initialed by Grantor and Beneficiary.)** As an express condition of Beneficiary making the loan secured by this Deed of Trust, Grantor shall not further encumber, pledge, mortgage, hypothecate, place any lien, charge or claim upon, or otherwise give as security the property or any interest therein nor cause or allow by operation of law the encumbrance of the Trust Estate or any interest therein without the written consent of a Beneficiary even though such encumbrance may be junior to the encumbrance created by this Deed of Trust. Encumbrance of the property contrary to the provisions of this provision shall constitute a default and Beneficiary may, at Beneficiary's option, declare the entire balance of principal and interest immediately due and payable, whether the same be created by Grantor or an unaffiliated third party asserting a judgment lien, mechanic's or materialmen's lien or any other type of encumbrance or title defect.

Grantor (Initials)

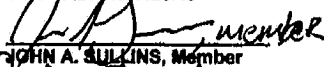
Beneficiary (Initials)

IT IS MUTUALLY AGREED THAT:

1. In the event any portion of the property is taken or damaged in an eminent domain proceeding, the entire amount of the award or such portion as may be necessary to fully satisfy the obligation secured by this Deed of Trust shall be paid to Beneficiary to be applied to said obligation.
2. By accepting payment of any sum secured by this Deed of Trust after its due date, Beneficiary does not waive its right to require prompt payment when due of all other sums so secured or to declare default for failure to so pay.
3. The Trustee shall reconvey all or any part of the property covered by this Deed of Trust to the person entitled thereto, on written request of the Grantor(s) and the Beneficiary, or upon satisfaction of the obligation secured and written request for reconveyance made by the Beneficiary or the person entitled thereto.
4. Upon default by Grantor(s) in the payment of any indebtedness secured by this Deed of Trust or in the performance of any agreement contained in this Deed of Trust, all sums secured hereby shall immediately become due and payable at the option of the Beneficiary subject to any cure period provided in the note secured by this Deed of Trust. . In such event and upon written request of Beneficiary, Trustee shall sell the trust property, in accordance with the Deed of Trust Act of the State of Washington, at public auction to the highest bidder. Any person except Trustee may bid at Trustee's sale. Trustee shall apply the proceeds of the sale as follows: (1) to the expense of the sale, including a reasonable Trustee's fee and attorney's fee; (2) to the obligation secured by this Deed of Trust; and (3) the surplus, if any, shall be distributed to the persons entitled thereto.
5. Trustee shall deliver to the purchaser at the sale its deed, without warranty, which shall convey to the purchaser all right, title and interest in the real and personal property which Grantor(s) had or had the power to convey at the time of the execution of this Deed of Trust, and such as Grantor(s) may have acquired thereafter. Trustee's deed shall recite the facts showing that the sale was conducted in compliance with all the requirements of law and of this Deed of Trust, which recital shall be prima facie evidence of such compliance and conclusive evidence thereof in favor of bona fide purchaser and encumbrancers for value.
6. The power of sale conferred by this Deed of Trust and by the Deed of Trust Act of the State of Washington is not an exclusive remedy; Beneficiary may cause this Deed of Trust to be foreclosed as a mortgage.
7. In the event of the death, incapacity, disability, or resignation of Trustee, or at the discretion of the Beneficiary, Beneficiary may appoint in writing a successor trustee, and upon the recording of such appointment in the mortgage records of the county in which this Deed of Trust is recorded, the successor trustee shall be vested with all powers of the original trustee. The trustee is not obligated to notify any party hereto of pending sale under any other Deed of Trust or of an action or proceeding in which Grantor(s), Trustee, or Beneficiary shall be a party unless such action or proceeding is brought by the Trustee.
8. This Deed of Trust applies to, inures to the benefit of, and is binding not only on the parties hereto, but on his/her/their heirs, devisees, legatees, administrators, executors, and assigns. The term Beneficiary shall mean the holder and owner of the note secured hereby, whether or not named as Beneficiary herein.
9. ADDITIONAL TERMS AND CONDITIONS: (check one)
 - a. ☐ None
 - b. ☐ As set forth on the attached Exhibit _____ which is incorporated by this reference.

(Note: If neither a nor b is checked, then option "a" applies.)

DOS CABRAS MEJAS


JOHN A. SULLIVAN, Member


BRIAN TRIMBLE, Member

STATE OF WASHINGTON

ss.

COUNTY OF BENTON

I certify that I know or have satisfactory evidence that **DOS CABRAS VIEJAS** is the person who appeared before me, and said person acknowledged that he signed this instrument and acknowledged it to be his free and voluntary act for the uses and purposes mentioned in this instrument.

Dated: 09-13-2017




Notary name: Max Babiy
Notary Public in and for the State of WA
Residing at _____
My appointment expires: 02-06-2019

REQUEST FOR FULL RECONVEYANCE - *Do not record. To be used only when note has been paid.*

TO: TRUSTEE

The undersigned is the legal owner and holder of the note and all other indebtedness secured by the within Deed of Trust. Said note, together with all other indebtedness secured by said Deed of Trust, has been fully paid and satisfied; and you are hereby requested and directed, on payment to you of any sums owing to you under the terms of said Deed of Trust, to cancel said note above mentioned, and all other evidences of indebtedness secured by said Deed of Trust delivered to you herewith, together with the said Deed of Trust, and to reconvey, without warranty, to the parties designated by the terms of said Deed of Trust, all the estate now held by you thereunder.

Dated: _____

PROMISSORY NOTE

\$462,718.00

9/12/17

Date

KENNEWICK, WA

City, State

FOR VALUE RECEIVED, DOS CABRAS VIEJAS, a Washington Limited Liability Company hereinafter "Maker" promises to pay to Sid Litchfield, Trustee, S&A Construction 401K Plan hereinafter "Holder" or order at 85320 Fuji Lane, Milton Freewater, OR. 97862

or other such place as may be designated by the Holder from time to time, the principal sum of **Three Hundred Thirty Seven Thousand Dollars (\$337,000.00)**, with interest thereon from 10 day of March, 2017 on the unpaid principal at the rate of **20 percent (0.20%)** per annum and the principal sum of **ONE HUNDRED TWENTY FIVE THOUSAND SEVEN HUNDRED EIGHTEEN DOLLARS (\$125,718.00)** with interest thereon from 10 day of March 2017 on the unpaid principal at a rate of **6 percent (0.06%)** per annum. as follows:

1. INSTALLMENT PAYMENTS: Maker shall pay, (check one)

a. ☒ **NO INSTALLMENTS.** No installment payments are required.

b. ☐ **PRINCIPAL and INTEREST INSTALLMENTS** of
Zero

Dollars (\$0.00)

c. ☐ **INTEREST ONLY PAYMENTS** on the outstanding principal balance.

(The following must be completed if "b" or "c" is checked)

The installment payments shall begin on the _____ day of _____

and shall continue on the _____ day of each succeeding: (check one)

☐ calendar month ☐ third calendar month ☐ sixth calendar month ☐ twelfth calendar month

☐ Other

2. DUE DATE: The entire balance of this Note together with any and all interest accrued thereon shall be due and payable in full on 31st day of October 2018.

3. DEFAULT INTEREST: After maturity, or failure to make any payment, any unpaid principal shall accrue interest at the rate of _____ percent (**18%**) per annum (18% if not filled in) OR the maximum rate allowed by law, whichever is less, during such period of Maker's default under this Note.

4. **ALLOCATION OF PAYMENTS:** Each payment shall be credited first to any late charge due, second to interest, and the remainder to principal.
5. **PREPAYMENT:** Maker may prepay all or part of the balance owed under this Note at any time without penalty.
6. **CURRENCY:** All principal and interest payments shall be made in lawful money of the United States.
7. **LATE CHARGE:** If Holder receives any installment payment more than **Fifteen (15)** days (15 days if not filled in) after its due date, then a late payment charge of **\$N/A**, or **Five percent (%)** of the installment payment (5% of the installment payment if neither is filled in) shall be added to the scheduled payment.
8. **DUE ON SALE: (OPTIONAL-Not applicable unless initialed by Holder and Maker to this Note)** If this Note is secured by a Deed of Trust or any other instrument securing repayment of this Note, the property described in such security instruments may not be sold or transferred without the Holder's consent. Upon breach of this provision, Holder may declare all sums due under this Note immediately due and payable, unless prohibited by applicable law.

Maker (Initials)

Holder (Initials)

9. **ACCELERATION:** If Maker fails to make any payment owed under this Note, or if Maker defaults under any Deed of Trust or any other instruments securing repayment of this Note, and such default is not cured within days (30 days if not filled in) after written notice of such default, then Holder may, at its option, declare all outstanding sums owed on this Note to be immediately due and payable, in addition to any other rights or remedies that Holder may have under the Deed of Trust or other instruments securing repayment of this Note.
10. **ATTORNEYS' FEES AND COSTS:** Maker shall pay all costs incurred by Holder in collecting sums due under this Note after a default, including reasonable attorneys' fees, whether or not suit is brought. If Maker or Holder sues to enforce this Note or obtain a declaration of its rights hereunder, the prevailing party in any such proceeding shall be entitled to recover its reasonable attorneys' fees and costs incurred in the proceeding (including those incurred in any bankruptcy proceeding or appeal) from the non-prevailing party.
11. **WAIVER OF PRESENTMENTS:** Maker waives presentment for payment, notice of dishonor, protest and notice of protest.
12. **NON-WAIVER:** No failure or delay by Holder in exercising Holder's rights under this Note shall be a waiver of such rights.
13. **SEVERABILITY:** If any clause or any other portion of this Note shall be determined to be void or unenforceable for any reason, such determination shall not affect the validity or enforceability of any other clause or portion of this Note, all of which shall remain in full force and effect.
14. **INTEGRATION:** There are no verbal or other agreements which modify or affect the terms of this Note. This Note may not be modified or amended except by written agreement signed by Maker and Holder.

- 15. CONFLICTING TERMS:** In the event of any conflict between the terms of this Note and the terms of any Deed of Trust or other instruments securing payment of this Note, the terms of this Note shall prevail.
- 16. EXECUTION:** Each Maker executes this Note as a principal and not as a surety. If there is more than one Maker, each such Maker shall be jointly and severally liable under this Note.
- 17. COMMERCIAL PROPERTY:** (**OPTIONAL-Not applicable unless Initialed by Holder and Maker to this Note**) Maker represents and warrants to Holder that the sums represented by this Note are being used for business, investment or commercial purposes, and not for personal, family or household purposes.

Maker (Initials)

Holder (Initials)

ORAL AGREEMENTS: ORAL AGREEMENTS OR ORAL COMMITMENTS TO LOAN MONEY, TO EXTEND CREDIT, OR TO FOREBEAR FROM ENFORCING REPAYMENT OF A DEBT ARE NOT ENFORCEABLE UNDER WASHINGTON LAW.

- 18. DEFINITIONS:** The word Maker shall be construed interchangeably with the words Borrower or Payer and the word Holder shall be construed interchangeably with the words Lender or Payee. In this Note, singular and plural words shall be construed interchangeably as may be appropriate in the context and circumstances to which such words apply.

- 19. ADDITIONAL TERMS AND CONDITIONS:** (check one)

a. ☐ NONE

OR

- b. ☐ As set forth on the attached "Exhibit A" which is incorporated by this reference.

(Note: If neither a or b is checked, then option "a" applies)

- 20. THIS NOTE IS SECURED BY** ☒ **DEED OF TRUST,** ☐ **MORTGAGE** ☐ _____ **OF EVEN DATE.**

Maker (signatures)

DOS CABRAS VIEJAS


JOHN A. SULLINS, Member


BRIAN TRIMBLE, MEMBER

Maker's address for all notices given by Holder under this Note:

8524 W. Gage Blvd.

Ste A-1 #293

Kennewick, WA 99336

DO NOT DESTROY THIS NOTE

WHEN PAID this original Note together with the Deed of Trust securing the same, must be surrendered to the Trustee for cancellation and retention before any reconveyance can be processed.

PROMISSORY NOTE

\$474,937.00

9/12/17

Date

KENNEWICK, WA

City, State

FOR VALUE RECEIVED, DOS CABRAS VIEJAS, a Washington Limited Liability Company hereinafter "Maker" promises to pay to RICHARD HENDERSON 401K Plan hereinafter "Holder" or order at 1284 TWO ACRE LANE, WALLA WALLA, WA. 99362 or other such place as may be designated by the Holder from time to time, the principal sum of **Three Hundred Thirty Seven Thousand Dollars (\$337,000.00)**, with interest thereon from 10 day of March, 2017 on the unpaid principal at the rate of **20 percent (0.20%)** per annum and the principal sum of **ONE HUNDRED THIRTY SEVEN THOUSAND NINE HUNDRED THIRTY SEVEN DOLLARS (\$137,937.00)** with interest thereon from 10 day of March 2017 on the unpaid principal at a rate of **6 percent (0.06%)** per annum, as follows:

1. INSTALLMENT PAYMENTS: Maker shall pay, (check one)

a. ☒ **NO INSTALLMENTS.** No installment payments are required.

b. ☐ **PRINCIPAL and INTEREST INSTALLMENTS** of
Zero

Dollars (\$0.00)

c. ☐ **INTEREST ONLY PAYMENTS** on the outstanding principal balance.

(The following must be completed if "b" or "c" is checked)

The installment payments shall begin on the _____ day of _____

and shall continue on the _____ day of each succeeding: (check one)

☐ calendar month ☐ third calendar month ☐ sixth calendar month ☐ twelfth calendar month

☐ Other

:

2. DUE DATE: The entire balance of this Note together with any and all interest accrued thereon shall be due and payable in full on 31st day of October 2018.

3. DEFAULT INTEREST: After maturity, or failure to make any payment, any unpaid principal shall accrue interest at the rate of _____ percent (**18%**) per annum (18% if not filled in) OR the maximum rate allowed by law, whichever is less, during such period of Maker's default under this Note.

4. **ALLOCATION OF PAYMENTS:** Each payment shall be credited first to any late charge due, second to interest, and the remainder to principal.
5. **PREPAYMENT:** Maker may prepay all or part of the balance owed under this Note at any time without penalty.
6. **CURRENCY:** All principal and interest payments shall be made in lawful money of the United States.
7. **LATE CHARGE:** If Holder receives any installment payment more than **Fifteen (15)** days (15 days if not filled in) after its due date, then a late payment charge of **\$N/A**, or **Five percent (%)** of the installment payment (5% of the installment payment if neither is filled in) shall be added to the scheduled payment.
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Maker (Initials)

Holder (Initials)

9. **ACCELERATION:** If Maker fails to make any payment owed under this Note, or if Maker defaults under any Deed of Trust or any other instruments securing repayment of this Note, and such default is not cured within days (30 days if not filled in) after written notice of such default, then Holder may, at its option, declare all outstanding sums owed on this Note to be immediately due and payable, in addition to any other rights or remedies that Holder may have under the Deed of Trust or other instruments securing repayment of this Note.
10. **ATTORNEYS' FEES AND COSTS:** Maker shall pay all costs incurred by Holder in collecting sums due under this Note after a default, including reasonable attorneys' fees, whether or not suit is brought. If Maker or Holder sues to enforce this Note or obtain a declaration of its rights hereunder, the prevailing party in any such proceeding shall be entitled to recover its reasonable attorneys' fees and costs incurred in the proceeding (including those incurred in any bankruptcy proceeding or appeal) from the non-prevailing party.
11. **WAIVER OF PRESENTMENTS:** Maker waives presentment for payment, notice of dishonor, protest and notice of protest.
12. **NON-WAIVER:** No failure or delay by Holder in exercising Holder's rights under this Note shall be a waiver of such rights.
13. **SEVERABILITY:** If any clause or any other portion of this Note shall be determined to be void or unenforceable for any reason, such determination shall not affect the validity or enforceability of any other clause or portion of this Note, all of which shall remain in full force and effect.
14. **INTEGRATION:** There are no verbal or other agreements which modify or affect the terms of this Note. This Note may not be modified or amended except by written agreement signed by Maker and Holder.

- 15. CONFLICTING TERMS:** In the event of any conflict between the terms of this Note and the terms of any Deed of Trust or other instruments securing payment of this Note, the terms of this Note shall prevail.
- 16. EXECUTION:** Each Maker executes this Note as a principal and not as a surety. If there is more than one Maker, each such Maker shall be jointly and severally liable under this Note.
- 17. COMMERCIAL PROPERTY:** (**OPTIONAL-Not applicable unless Initialed by Holder and Maker to this Note**) Maker represents and warrants to Holder that the sums represented by this Note are being used for business, investment or commercial purposes, and not for personal, family or household purposes.

Maker (Initials)

Holder (Initials)

ORAL AGREEMENTS: ORAL AGREEMENTS OR ORAL COMMITMENTS TO LOAN MONEY, TO EXTEND CREDIT, OR TO FOREBEAR FROM ENFORCING REPAYMENT OF A DEBT ARE NOT ENFORCEABLE UNDER WASHINGTON LAW.

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- 19. ADDITIONAL TERMS AND CONDITIONS:** (check one)

a. ☐ NONE

OR

b. ☐ As set forth on the attached "Exhibit A" which is incorporated by this reference.

(Note: If neither a or b is checked, then option "a" applies)

- 20. THIS NOTE IS SECURED BY** ☒ **DEED OF TRUST,** ☐ **MORTGAGE** ☐ _____ **OF EVEN DATE.**

Maker (signatures)

DOS CABRAS VIEJAS


JOHN A. SULLINS, Member


BRIAN TRIMBLE, MEMBER

Maker's address for all notices given by Holder under this Note:
8524 W. Gage Blvd.
Ste A-1 #293
Kennewick, WA 99336

DO NOT DESTROY THIS NOTE

WHEN PAID this original Note together with the Deed of Trust securing the same, must be surrendered to the Trustee for cancellation and retention before any reconveyance can be processed.

PROMISSORY NOTE

\$474,950.00

9/12/17

Date

KENNEWICK, WA

City, State

FOR VALUE RECEIVED, **DOS CABRAS VIEJAS**, a Washington Limited Liability Company hereinafter "Maker" promises to pay to **Steve Tatro, Trustee, Sundance Capital 401K Plan** hereinafter "Holder" or order at **148 Country Way, Walla Walla, Wa. 99362**

or other such place as may be designated by the Holder from time to time, the principal sum of **Three Hundred Thirty Seven Thousand Dollars (\$337,000.00)**, with interest thereon from 10 day of March, 2017 on the unpaid principal at the rate of **20 percent (\$0.20%)** per annum and the principal sum of **ONE HUNDRED THIRTY SEVEN THOUSAND NINE HUNDRED FIFTY DOLLARS (\$137,950.00)** with interest thereon from 10 day of March 2017 on the unpaid principal at a rate of **6 percent (0.06%)** per annum, as follows:

1. INSTALLMENT PAYMENTS: Maker shall pay, (check one)

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b. ☐ **PRINCIPAL and INTEREST INSTALLMENTS** of
Zero

Dollars (\$0.00)

c. ☐ **INTEREST ONLY PAYMENTS** on the outstanding principal balance.

(The following must be completed if "b" or "c" is checked)

The installment payments shall begin on the _____ day of _____

and shall continue on the _____ day of each succeeding: (check one)

☐ calendar month ☐ third calendar month ☐ sixth calendar month ☐ twelfth calendar month

☐ Other

2. DUE DATE: The entire balance of this Note together with any and all interest accrued thereon shall be due and payable in full on 31st day of October 2018.

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Maker (Initials)

Holder (Initials)

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Maker (Initials)

Holder (Initials)

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- 19. ADDITIONAL TERMS AND CONDITIONS:** (check one)

a. ☐ NONE

OR

b. ☐ As set forth on the attached "Exhibit A" which is incorporated by this reference.

(Note: If neither a or b is checked, then option "a" applies)

- 20. THIS NOTE IS SECURED BY** ☒ **DEED OF TRUST,** ☐ **MORTGAGE** ☐ _____ **OF EVEN DATE.**

Maker (signatures)

DOS CABRAS VIEJAS


JOHN A. SULLIVAN, Member


BRIAN TRIEMBLE, Member

Maker's address for all notices given by Holder under this Note:
8524 W. Gage Blvd.
STE A-1 #293
Kennewick, WA 99336

DO NOT DESTROY THIS NOTE

WHEN PAID this original Note together with the Deed of Trust securing the same, must be surrendered to the Trustee for cancellation and retention before any reconveyance can be processed.

20-9-28

4395

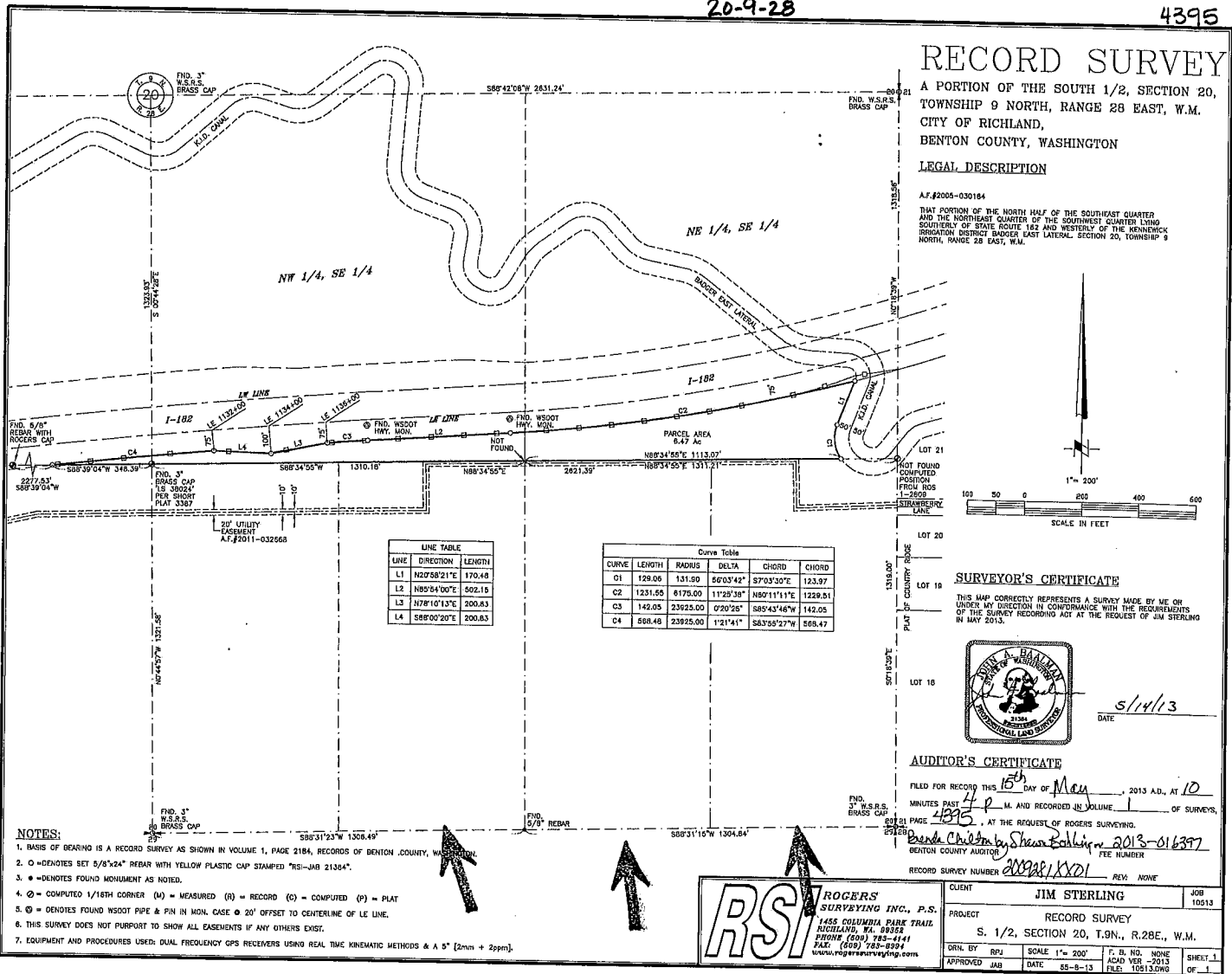
RECORD SURVEY

A PORTION OF THE SOUTH 1/2, SECTION 20,
TOWNSHIP 9 NORTH, RANGE 28 EAST, W.M.
CITY OF RICHLAND,
BENTON COUNTY, WASHINGTON

LEGAL DESCRIPTION

A.F. #2005-030184

THAT PORTION OF THE NORTH HALF OF THE SOUTHEAST QUARTER
AND THE NORTHEAST QUARTER OF THE SOUTHWEST QUARTER LYING
SOUTHERLY OF STATE ROUTE 162 AND WESTERLY OF THE KENNEDY
IRRIGATION DISTRICT BATTLE EAST LATERAL, SECTION 20, TOWNSHIP 9
NORTH, RANGE 28 EAST, W.M.



LINE	DIRECTION	LENGTH
L1	N20°58'21\"E	170.48
L2	N89°54'00\"E	502.15
L3	N78°10'13\"E	200.63
L4	S88°00'20\"E	200.63

CURVE	LENGTH	RADIUS	DELTA	CHORD	CHORD
C1	128.06	131.90	S6°03'42\"	S7°03'30\"E	123.97
C2	1231.55	6175.00	1°29'36\"	N80°11'11\"E	1229.51
C3	142.05	23625.00	0°30'26\"	S89°43'46\"W	142.05
C4	588.46	23825.00	1°21'41\"	S83°59'22\"W	588.47

SURVEYOR'S CERTIFICATE

THIS MAP CORRECTLY REPRESENTS A SURVEY MADE BY ME OR
UNDER MY DIRECTION IN CONFORMANCE WITH THE REQUIREMENTS
OF THE SURVEY RECORDING ACT AT THE REQUEST OF JIM STERLING
IN MAY 2013.



5/14/13

DATE

AUDITOR'S CERTIFICATE

FILED FOR RECORD THIS 15th DAY OF May, 2013 A.D., AT 10
MINUTES PAST 4 P.M. AND RECORDED IN VOLUME 1 OF SURVEYS,
PAGE 4395, AT THE REQUEST OF ROGERS SURVEYING.
Benton County Auditor
RECORD SURVEY NUMBER 200901/KXD1

NOTES:

1. BASIS OF BEARING IS A RECORD SURVEY AS SHOWN IN VOLUME 1, PAGE 2184, RECORDS OF BENTON COUNTY, WASHINGTON.
2. ○ DENOTES SET 5/8\"x24\" REBAR WITH YELLOW PLASTIC CAP STAMPED \"RSI-JAB 21354\".
3. ● DENOTES FOUND MONUMENT AS NOTED.
4. ○ - COMPUTED 1/16TH CORNER (M) = MEASURED (R) = RECORD (C) = COMPUTED (P) = PLAT
5. ○ - DENOTES FOUND WSDOT PIPE & PIN IN MON. CASE ○ 20' OFFSET TO CENTERLINE OF LE LINE.
6. THIS SURVEY DOES NOT PURPORT TO SHOW ALL EASEMENTS IF ANY OTHERS EXIST.
7. EQUIPMENT AND PROCEDURES USED: DUAL FREQUENCY GPS RECEIVERS USING REAL TIME KINEMATIC METHODS & A 5\" (2mm + 2ppm).



CLIENT	JIM STERLING	JOB	10513
PROJECT	RECORD SURVEY S. 1/2, SECTION 20, T.9N., R.28E., W.M.		
DRN. BY	RPJ	SCALE	1\"= 200'
APPROVED	JAB	DATE	5-8-13
F. B. NO.	NONE	ACAD. VER.	-2013
FILE	10513.DWG	SHEET	1 OF 1

THIS MAP IS GIVEN TO ASSIST IN
LOCATING THE PREMISES. IT IS
NOT BASED ON A SURVEY AND DOES
NOT PURPORT TO SHOW ALL HIGHWAYS,
PROPERTY, THE COMPANY ASSUMES NO
LIABILITY FOR VARIATIONS, IF ANY,
IN DIMENSIONS AND LOCATIONS.





Exhibit 4

Critical Areas Analysis and FWHCA Report

6. Critical Areas Assessment

Halara Hills Critical Areas Assessment and Fish and Wildlife Habitat Conservation Area Plan Richland, Washington

Date: March 2022

Prepared for: Pahlisch Homes, Inc.
210 SW Wilson Avenue, Suite 100
Bend, Oregon 97702

Prepared by: AKS Engineering & Forestry, LLC
Stacey Reed, PWS, Senior Scientist
StaceyR@aks-eng.com

Study Area: Benton County Parcels 120984000004000,
120984000003000, and 120984000002000 of
the SE Quarter of S20, T9N, R28E, Willamette
Meridian, in Richland, Washington

AKS Job Number: 8971



2777 NW Lolo Drive, Suite 150
Bend, OR 97703
(541) 317-8429

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- Figure 3. NRCS Soil Survey Map
- Figure 4. National Wetlands Inventory Map
- Figure 5. DNR Water Type Map
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Appendix A: Site Photographs

Introduction

AKS Engineering & Forestry, LLC (AKS) was contracted by Pahlisch Homes, Inc. (Applicant) to conduct a site assessment for a residential subdivision project (referred to as Halara Hills) to determine if any critical areas are present in the project area or directly adjacent to the project area. The project area is ±59.29 acres in size consisting of Benton County Parcels 120984000004000, 120984000003000, and 120984000002000 of the Southeast Quarter of Section 20, Township 9 North, Range 28 East, Willamette Meridian in Richland, Washington. The site is located south of Interstate 182 and west of Strawberry Lane, latitude 46.244473, longitude -119.33051 (Figures 1 and 2).

AKS determined that no potentially jurisdictional wetlands or waters were present on the site. An irrigation canal is present in the northeastern portion of the site. However, the irrigation canal does not meet the City of Richland's (City) definition for a Fish and Wildlife Habitat Conservation Area (FWHCA) in the Critical Areas Ordinance (Chapter 22.10 of the Richland Municipal Code [RMC]); therefore, it does not require a Riparian Management Zone buffer. A dry ravine also extends through the northeastern portion of the site. However, the ravine lacked a well-defined bed and bank; therefore, it also does not require a Riparian Management Zone buffer.

The project site is designated as Washington Department of Fish and Wildlife (WDFW) Priority Habitat shrub-steppe habitat and also designated as a City of Richland Critical Areas for Steep Slopes and FWHCA. Based on an AKS site visit, and confirmed by WDFW area habitat biologist Michael Ritter, priority shrub-steppe habitat is present on the site. According to RMC 22.10.185. A (1) (2), priority shrub-steppe habitat is regulated as FWHCA.

Unavoidable encroachment into priority shrub-steppe habitat (FWHCA) is necessary to provide needed housing. To minimize habitat loss of the site, the project site plan was revised to significantly reduce the number of residential lots proposed in a previous land use submittal. The revised site plan includes protection of over 23 acres of on-site shrub-steppe habitat for preservation into perpetuity. The preservation of this habitat is contiguous with FWHCA protected in the adjacent Badger Mountain Preserve, adding to a large, non-fragmented, continuously connected habitat. The Applicant is willing to donate the preserved habitat tracts to the Badger Mountain Preserve, which will ensure long-term protection and stewardship of this area.

On-site preservation mitigation will ensure no net loss of priority habitat functions. The FWHCA mitigation approach was established in coordination with WDFW staff and meets the mitigation standards listed under RMC Section 22.10.210. WDFW staff concurs that permanent protection of the habitat in the southern portion of the site will mitigate the loss of shrub-steppe habitat in the northeastern portion to result in no net loss of wildlife populations.

In addition to on-site shrub-steppe habitat preservation mitigation, the Applicant has agreed to perform additional voluntary enhancement within the preservation area to further enhance the quality of shrub-steppe ecosystem.

This report has been prepared to address Chapter 22.10 Critical Areas, Article IV Fish and Wildlife Habitat Conservation Areas of the City of Richland Municipal Code.

General Site Description and Land Use History

The project site is located immediately north of the Badger Mountain Preserve, which is classified as FWHCA. The project area is currently undeveloped vacant land that appears to have been historically used for grazing. The topography of the site ranges from generally flat terrain in the northern portion transitioning into steep terrain in the southern portion.

The vegetation community throughout the majority of flatter (northern) portions of the site lacks woody vegetation and is generally dominated by cheatgrass (*Bromus tectorum*), bluebunch wheatgrass (*Pseudoroegneria spicata*), diffuse knapweed (*Centaurea diffusa*), tall hedge mustard (*Sisymbrium altissimum*), Russian thistle (*Kali tragus*), and common yarrow (*Achillea millefolium*). The site visit was conducted in January, outside of the growing season; therefore, grass and forb identification are tentative. The northeastern corner of the site, in the vicinity of a dry ravine, contains native sagebrush (*Artemisia* spp.).

The steeper southern portions of the site are dominated by big sagebrush (*Artemisia tridentata*), low sagebrush (*Artemisia arbuscula*) with scattered tufts of native bluebunch wheatgrass, rabbitbrush (*Chrysothamnus* spp.), and balsamroot (*Balsamorhiza* spp.).

The surrounding land uses include residential subdivisions to the east and lower density residential development to the west, with Interstate 182 bordering the site to the north and Badger Mountain Preserve to the south. A review of Google Earth aerial photos shows that the project area has not been subject to any notable disturbance since July 1996. A network of dirt roads is present in the flatter, northern portion of the site. A sanitary sewer line and gravel road are present along the northern site boundary.

According to the US Environmental Protection Agency (EPA) Waters GeoView online mapping tool, the site is located within the Yakima River watershed (ID number 170300031205). This portion of the watershed region receives approximately 6 inches of rain annually.

Background Mapping

Soils

According to the Natural Resources Conservation Service (NRCS) Benton County Area Soil Survey Map, the following soil units are mapped within the project site (Figure 3):

- Warden silt loam (Unit WdAB), 0 to 5 percent slopes; Non-hydric
- Shano silt loam (Unit ShF) 30 to 65 percent slopes; Non-hydric

Wetland and Waters Mapping

According to the US Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI) Map, no wetlands are present in the project area (Figure 4). One riverine water feature is mapped to the northeast within 300 feet of the project site (in the vicinity of the irrigation canal).

According to the Washington State Department of Natural Resources (DNR) Water Type map, an unknown (Type U) waterway is mapped within the same footprint as the irrigation canal (Figure 5). According to the City of Richland, this open canal is an artificial irrigation canal associated with the East Badger Lateral owned and maintained by the Kennewick Irrigation District.

The DNR Washington Natural Heritage Program (WNHP) map does not show wetlands of high conservation value or known rare plants on the project site.

WDFW Priority Habitat and Species (PHS) Mapping

According to the WDFW PHS map, priority terrestrial shrub-steppe habitat is documented in the vicinity of the project site (Figure 6). According to WDFW's *Management Recommendations for Washington's Priority Habitats: Shrubsteppe* (updated September 2020), shrub-steppe is defined as, "having one or more layers of perennial bunchgrasses and a conspicuous but discontinuous layer of native shrubs, typically dominated by big sagebrush." Shrub-steppe can also have a layer of algae, mosses, or lichens. Healthy shrub-steppe supports a surface layer of cryptobiotic crust: a thin crust comprised of mosses, lichens, algae, and bacteria. Priority shrub-steppe habitat will typically have an average of at least approximately 30 percent shrub canopy cover.

The WDFW PHS map also indicates the potential for Townsend's ground squirrel to be present in the vicinity of the project area. Populations occurring south and west of the Yakima River are listed as a state candidate species. The Townsend's ground squirrel is known to be present in the adjacent Badger Mountain Preserve. Since Townsend's ground squirrel is not designated as a federal or state listed endangered, threatened, or sensitive species, according to RMC Section 22.10.185. A, the Townsend's ground squirrel is not regulated by the City as FWHCA.

Existing Site Conditions

Fieldwork was conducted on January 22, 2022 by AKS qualified professional, Stacey Reed, PWS, Senior Scientist. The site was traversed, noting dominant vegetation, presence and distribution of shrub-steppe communities, notable topographic features, and evidence of wildlife usage. The weather condition during the site visit was dry and sunny.

Shrub-steppe habitat was surveyed using the field methodology outlined in Appendix 7 of WDFW's *Management Recommendations for Washington's Priority Habitats: Shrubsteppe* (updated September 2020), which includes an assessment of the present cover of continuous native shrub-steppe shrub layer, co-dominant herbaceous vegetation, invasive vegetation species, presence of biological soil crust, and soil surface conditions.

There was no evidence of hydrophytic vegetation or wetlands on the site. A dry ravine extends through the northeastern portion of the site, exiting through a culvert under the gravel road in the northeast corner. The entire segment of the ravine lacked flow, including evidence of any recent flow. The ravine lacked a well-defined channel and ordinary high water mark. It does not support habitat fish or aquatic invertebrates.

The only wildlife observed during the AKS site visit included a small flock of quail (appeared to be California quail). No scat or evidence of native mammals were observed. Canine (domestic dog) prints were observed in the mud throughout the northern flatter portion of the site.

Representative site photographs are included in Appendix A.

Priority Shrub-Steppe Habitat

Past fire has altered the native shrub-steppe habitat throughout the site, limiting the amount of quality habitat on the site. Healthier priority shrub-steppe habitat was documented in the northeastern and southern portions of the site. The northeastern area can be defined as having two viable shrub-steppe

communities. One community was notably healthier, located on the northwest facing slope, east of the dry ravine. This community contained a dense community (over 50 percent continuous canopy) of native sagebrush dominated by bluebunch wheatgrass in the understory, with scattered mats of cryptobiotic crust and balsamroot, indicating a “good condition” shrub-steppe habitat community. The community located west of the dry ravine, contained more openly spaced native sagebrush (≈30 percent) with lesser amounts of bluebunch wheatgrass and cryptobiotic crust. This community was defined as “marginal condition” shrub-steppe habitat. The steeper, southern portion of the site contained a large, continuous patch (over 50 percent) of native sagebrush along with rabbitbrush, balsamroot, and bluebunch wheatgrass, and was defined as “good condition” shrub-steppe habitat.

The extent of viable on-site priority shrub-steppe communities are shown on attached Figures 7 through 7B, although historically the entire site is considered by WDFW as priority shrub-steppe habitat.

Townsend’s Ground Squirrel

The AKS site visit was conducted when the Townsend’s ground squirrel species is typically in hibernation. Therefore, the site was surveyed for potentially sized burrows and food sources. According to WDFW, burrow dimensions for Townsend’s ground squirrel ranges from 2.5 to 3.8 inches horizontally. The northern flatter area was generally devoid of suitably sized burrows. A few of the recent geotechnical test pit scars contained burrows indicating rodent colonies, which could be non-native California ground squirrel. Few suitably sized individual burrows were observed in the priority shrub-steppe habitat in the far northeast corner of the site.

Project

The Applicant is proposing to construct an 82-lot residential subdivision within the flatter, northern portion of the site, requiring unavoidable encroachment into shrub-steppe FWHCA ecosystem in the northeastern portion of the site.

Fish and Wildlife Habitat Conservation Area Mitigation Plan

The sections below describe how the project meets the performance standards listed under RMC Section 22.10.210 and avoidance and minimization criteria in RMC Section 22.10.220 for encroachment into priority shrub-steppe habitat (FWHCA).

FWHCA Avoidance Alternatives

The Tri-Cities offer growing employment opportunities, contributing to a demand for housing. The project site is ideal to support housing, as it is zoned R-1-12, and is located adjacent to an existing subdivision with utility and public infrastructure connections, an interstate highway, schools, and a public nature preserve.

The project avoids encroachment into FWHCA habitat with connectivity to larger continuous tracts of FWHCA shrub-steppe habitat on the adjacent Badger Mountain Preserve. There are no opportunities to avoid priority shrub-steppe habitat. Site access from the existing Strawberry Lane extends through this area, bisecting and fragmenting the habitat. The FWHCA shrub-steppe habitat in the northeastern portion of the site, where encroachment is proposed, is located adjacent to an existing residential community, concrete-lined irrigation canal, and interstate highway, limiting its ability to provide meaningful and protected wildlife use. The site plan preserves all FWHCA habitat offering contiguous connection to Badger Mountain Preserve, which allows and promotes movement of wildlife.

FWHCA Minimization

The project layout was designed to minimize encroachment into priority FWHCA habitat as much as practical. Using recommendations outlined in WDFW's *Site-specific Management: How to Avoid and Minimize Impacts of Development to Shrub-steppe* (updated September 2020), the following features were analyzed to reduce impacts to shrub-steppe habitat on the site.

Development Densities: The proposed site plan significantly reduced single-family residential lot count from a previous land use submittal for the site from 101 lots to 82 lots. The reduction in lot quantity and project size minimizes the extent of encroachment into priority shrub-steppe habitat.

Siting of Homes and Lots: The site plan was revised to remove lots from within FWHCA in the southern portion of the site, reducing impacts to shrub-steppe habitat. FWHCA in the southern portion of the site will be preserved in separate tracts, which is planned to be donated to the Badger Mountain Preserve.

Lighting: To minimize wildlife disturbance, the rear of homes along the southern perimeter of the site will implement the dark sky lighting.

Roads and Utilities: The transportation alignment was designed to avoid bisecting large, continuous patches of shrub-steppe.

Domestic Animals: Permanent fencing will be placed along the southern perimeter of residential lots to prevent domestic dogs and cats from harassing wildlife within preserved habitat.

Wildfire Prevention: Wildfire is one of the primary disturbances to shrub-steppe ecosystems. The project will remove cheatgrass from the site (an annual grass that creates fuel for fire across large areas), thus reducing the fire fuel area. Defensible space is a key tool included in any effective Wildland Urban Interface program. The concept of defensible space will be implemented through the reduction of fire fuels within the Home Ignition Zone (up to 200 feet from the foundation of a home) as it applies on individual lots. In addition to vegetation management, new homes will meet the current state and local building codes relative to fire safety. Pahlisch Homes uses a variety of construction techniques to reduce the risk of fire loss, including 1/8th-inch metal screening on exterior vents, fiber-cement siding, concrete (or similar) surfaces in most exterior applications. All of these items, in addition to compliance with minimum setback standards, have fire reduction advantages that exceed current building code requirements.

FWHCA Compensatory Mitigation

The site plan includes preservation of over 23 acres of priority shrub-steppe habitat. The on-site preservation mitigation consists of the long-term protection of a large, contiguous open space adjacent to Badger Mountain Preserve. Preservation of this area will ensure long-term protection of locally significant habitat and no net loss of functions and values. The preservation area is depicted as Tracts A-C as shown on attached Figure 8.

AKS coordinated closely with WDFW habitat biologist Michael Ritter and he agrees the recommended preservation mitigation action will offset the permanent loss of shrub-steppe habitat within the site. The preservation will compensate for the impact to shrub-steppe habitat by providing protection to a similar suitable resource, meeting the approval criteria set forth under RMC Section 22.10.220.A.5. Currently the shrub-steppe habitat in the southern portion of the site is not protected and subject to human

disturbance. Protection and preservation of this area will provide long-term enhancement of this resource.

Permanent Fencing

During construction, the outer extent of the post-construction remaining FWHCA will be marked in the field with silt fencing, which will be maintained throughout the duration of project construction. Permanent fencing consisting of a 4-foot tall open fence is planned to be installed along the perimeter of lots to provide long term protection of shrub-steppe habitat. To minimize fire fuel, the subdivision's CC&Rs will include a maintenance requirement for individual lot owners keep the fence free and clear of debris.

Long-Term Protection

A conservation covenant would protect these areas in perpetuity prior to plat. Pahlisch Homes is willing to deed the preservation tracts to the Badger Mountain Preserve upon platting of the land.

Additional Voluntary Habitat Enhancement

The Applicant acknowledges the importance of locally significant habitat and native wildlife. Therefore, the Applicant has voluntarily agreed to conduct the following additional (non-mitigation) on-site enhancement activities to ensure suitable priority habitat is maintained for the community.

As part of site development, the following voluntary enhancement measures will occur within portions of the preservation Tracts A-C (shown on attached Figure 8). The enhancement measures below were derived from the Bureau of Land Management's (BLM) December 2013 Technical Note 443, *Enhancement of Degraded Shrub-Steppe Habitats with an Emphasis on Potential Applicability in Eastern Washington*.

1. Targeted areas of ground broadcast seed area native arrowleaf balsamroot (*Balsamorhiza sagittata*).
2. Targeted areas of ground broadcast seed native grass and forb seed mix to promote Townsend's ground squirrel food sources (Sandberg bluegrass (*Poa secunda*), common yarrow (*Achillea millefolium*), and Idaho fescue (*Festuca idahoensis*).

To minimize disturbance of existing habitat, we recommend non-tilled hand broadcasting seed in patches within select targeted areas along the sloped area. It is recommended that seed be obtained from a local source.

Statement of Preparation

This assessment was prepared in accordance with the Washington Department of Fish and Wildlife reporting standards and with the City of Richland's Critical Areas Ordinance (Chapter 22.10). Fieldwork and reporting were conducted by professionals qualified to conduct natural resource projects in Washington. Information contained in this document should be considered preliminary and used at your own risk until it has been reviewed and approved in writing by the appropriate local, state, or federal agencies with jurisdiction over natural resources on the site.

Statement of Preparers Qualifications

Stacey Reed is a qualified scientist/biologist with over 20 years of experience providing natural resource services to private and public clients throughout Oregon and Washington. Stacey has a bachelor's degree from the Evergreen State College in Washington, with coursework emphasis on Environmental Science and Restoration Ecology. She is a certified Professional Wetland Scientist (PWS). Throughout her career,

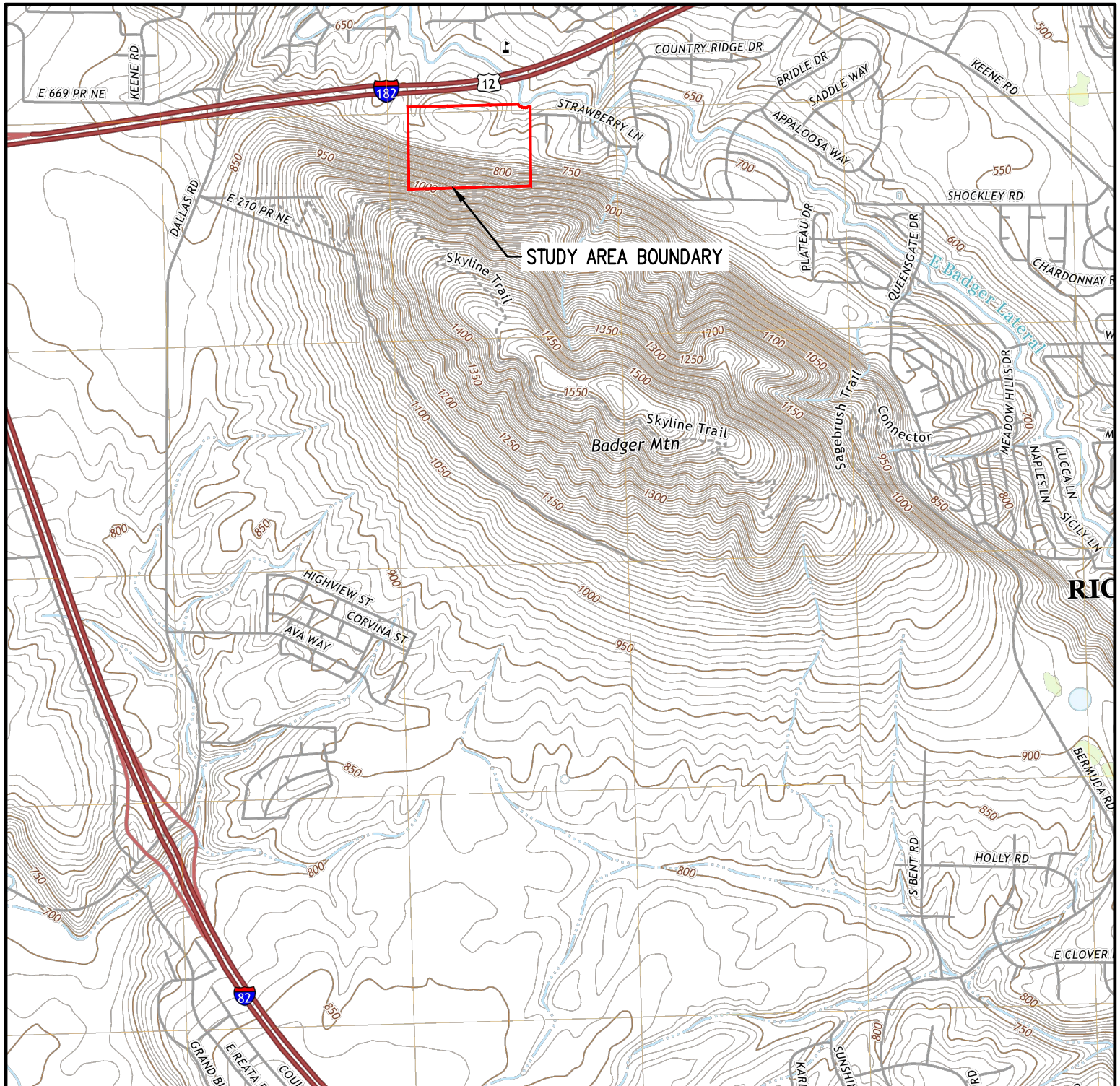
Stacey has conducted terrestrial PHS surveys, including assessments for large-scale wind farm and linear pipeline projects in Klickitat County.

A handwritten signature in black ink that reads "Stacey Reed". The signature is written in a cursive, flowing style.

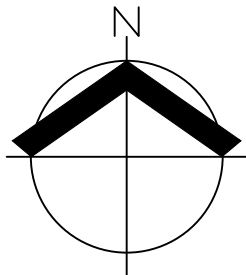
Stacey Reed, PWS, Senior Scientist
Field Work and Report Preparation
StaceyR@aks-eng.com

Literature Cited and Referenced

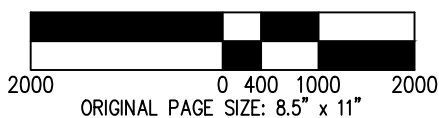
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USGS 7.5' TOPOGRAPHIC SERIES QUADRANGLE:
BADGER MOUNTAIN, WA (2020)

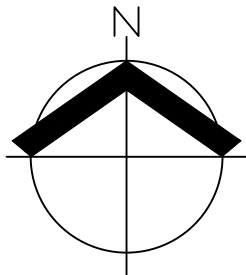


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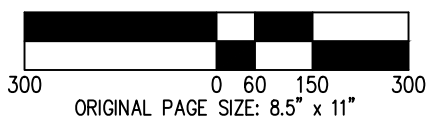


DATE: 02/23/2022

USGS VICINITY MAP HALARA HILLS CRITICAL AREAS REPORT		FIGURE 1
AKS ENGINEERING & FORESTRY, LLC 2777 NW LOLO DR, STE 150 BEND, OR 97703 541.317.8429 WWW.AKS-ENG.COM		DRWN: RAS CHKD: SKT
		AKS JOB: 8971



SCALE: 1" = 300 FEET

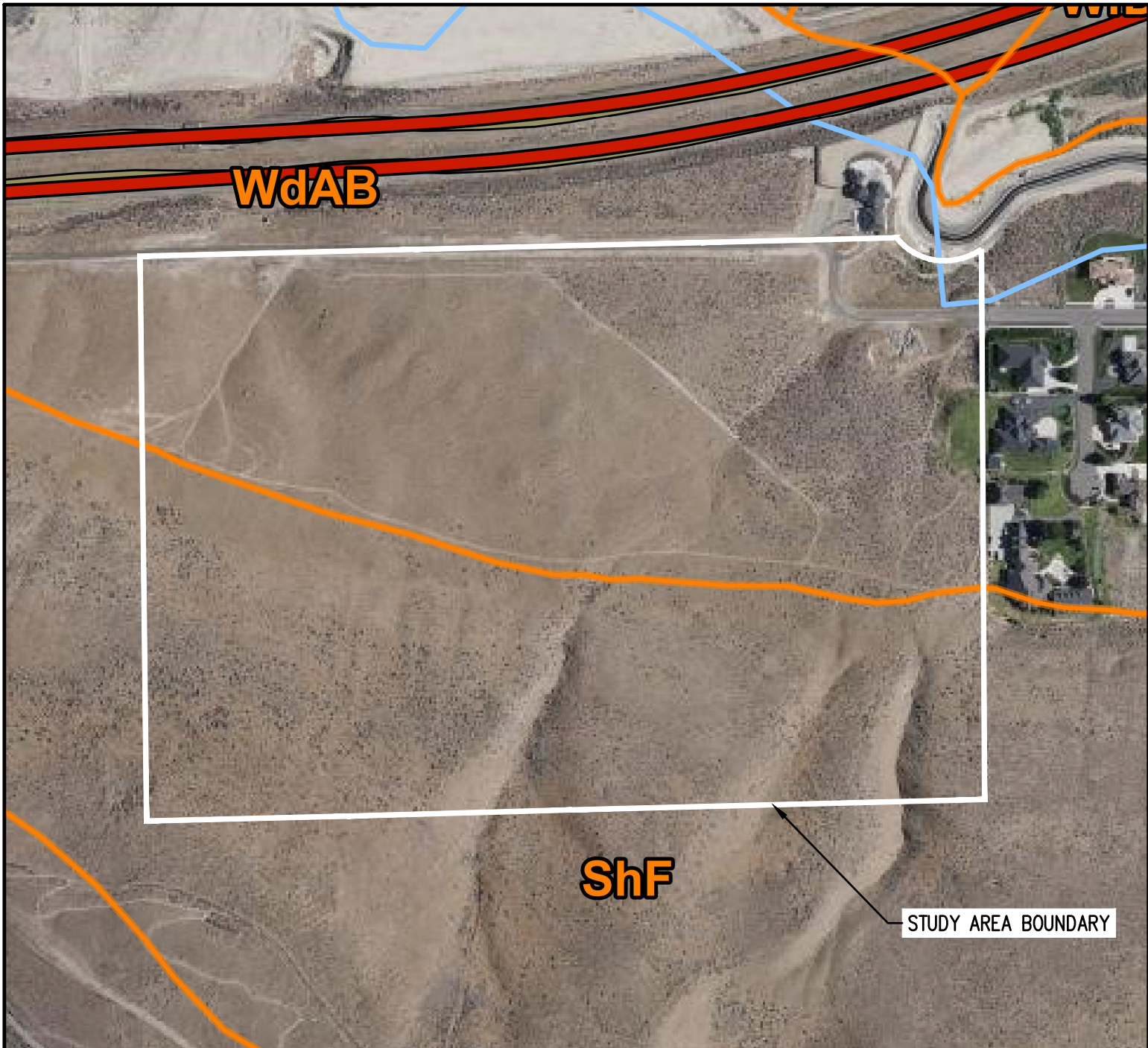


BENTON COUNTY
SEC. 20, T.9N., R.28E.
PARCEL NO. 120984000002000,
120984000003000, AND 120984000004000

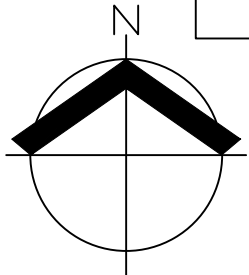
DATE: 02/23/2022

PARCEL MAP HALARA HILLS CRITICAL AREAS REPORT	FIGURE 2
AKS ENGINEERING & FORESTRY, LLC 2777 NW LOLO DR, STE 150 BEND, OR 97703 541.317.8429 WWW.AKS-ENG.COM	DRWN: RAS CHKD: SKT AKS JOB: 8971

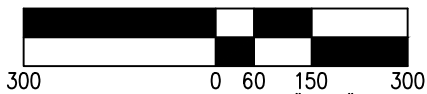




MAP UNIT SYMBOL	MAP UNIT NAME
SHF	SHANO SILT LOAM, 30% TO 65% SLOPES; NON-HYDRIC
WDAB	WARDEN SILT LOAM, 0% TO 5% SLOPES; NON-HYDRIC



SCALE: 1" = 300 FEET



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NRCS WEB SOIL SURVEY FOR
BENTON COUNTY

DATE: 02/23/2022

NRCS SOIL SURVEY MAP HALARA HILLS CRITICAL AREAS REPORT		FIGURE 3
AKS ENGINEERING & FORESTRY, LLC 2777 NW LOLO DR, STE 150 BEND, OR 97703 541.317.8429 WWW.AKS-ENG.COM		DRWN: RAS CHKD: SKT
		AKS JOB: 8671





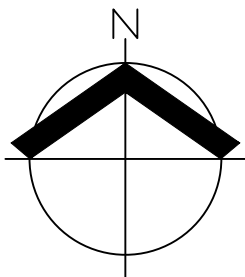
Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland

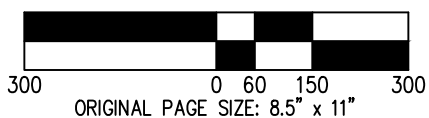
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond

- Lake
- Other
- Riverine

US FISH & WILDLIFE SERVICE
NATIONAL WETLAND INVENTORY



SCALE: 1" = 300 FEET



DATE: 02/23/2022

NATIONAL WETLAND INVENTORY MAP HALARA HILLS CRITICAL AREAS REPORT

AKS ENGINEERING & FORESTRY, LLC
2777 NW LOLO DR, STE 150
BEND, OR 97703
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FIGURE
4

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CHKD: SKT
AKS JOB:
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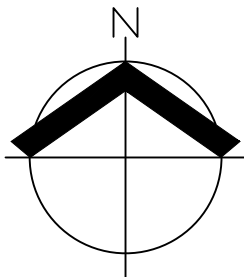
STUDY AREA BOUNDARY

Map Symbols

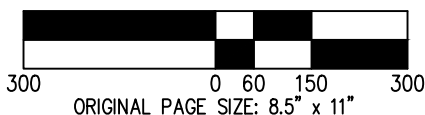
- | | | | |
|-------|-------------------|---|--------------------|
| ~ ~ ~ | Harvest Boundary | ☉ | Landing |
| - - - | Road Construction | ▽ | Waste Area |
| ~ | Stream | 🌲 | Clumped WRTS/GRTS |
| ▨ | RMZ / WMZ Buffers | 🏠 | Existing Structure |
| ✕ | Rock Pit | | |

- Water Courses (FP)
- Water Courses (FP)
- Type S
 - Type F
 - Type N, Np, Ns
 - U, unknown
 - X, non-typed per WAC 222-16

WASHINGTON DEPARTMENT OF
NATURAL RESOURCES (2018)



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DATE: 02/23/2022

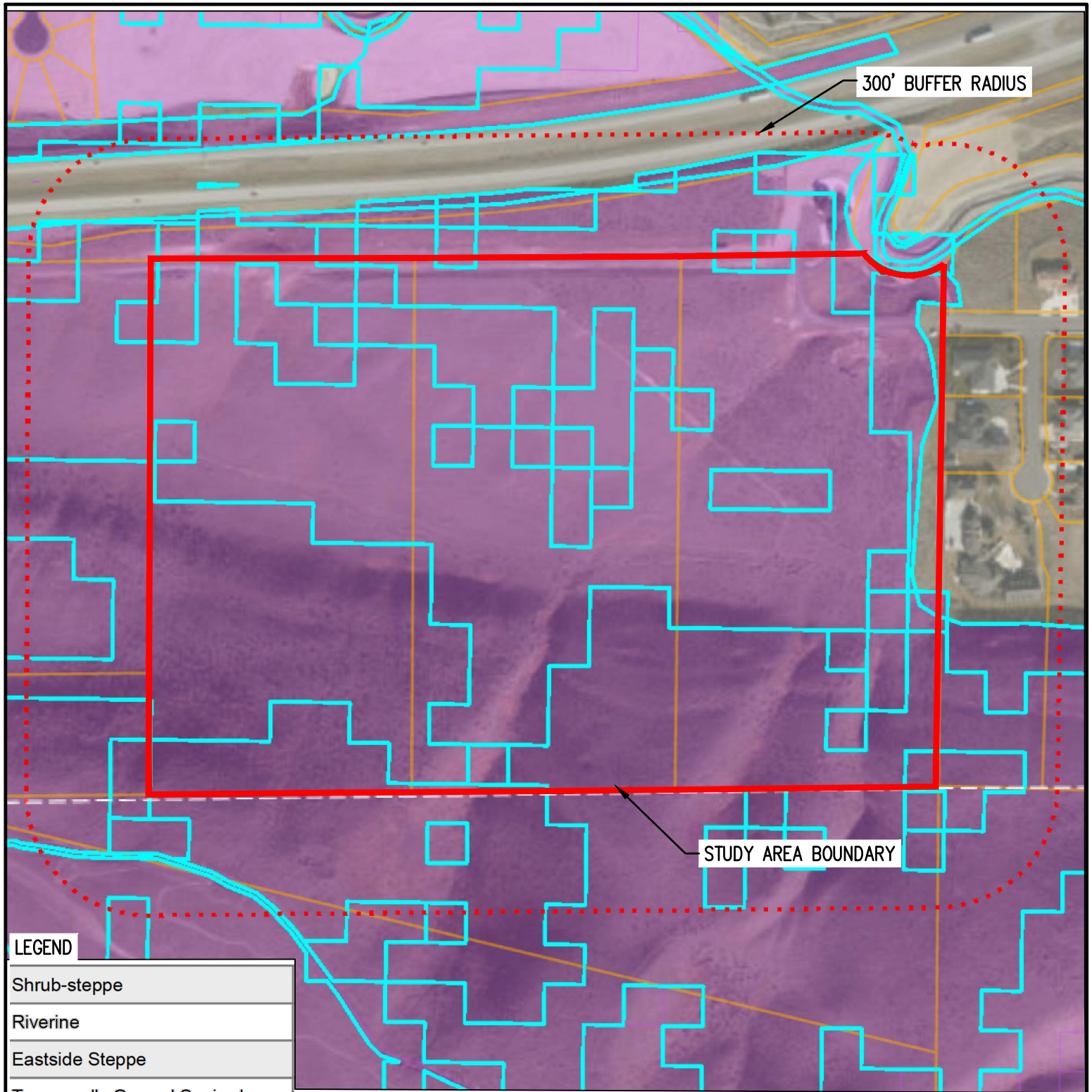
DNR WATER TYPE MAP HALARA HILLS CRITICAL AREAS REPORT

AKS ENGINEERING & FORESTRY, LLC
2777 NW LOLO DR, STE 150
BEND, OR 97703
541.317.8429 WWW.AKS-ENG.COM



FIGURE
5

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CHKD: SKT
AKS JOB:
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LEGEND

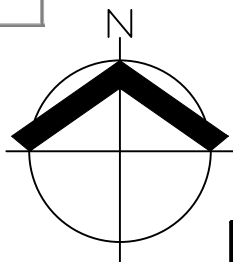
Shrub-steppe

Riverine

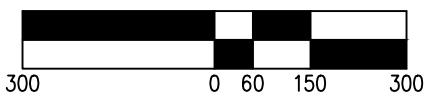
Eastside Steppe

Townsend's Ground Squirrel -
townsendii

WASHINGTON DEPARTMENT OF
FISH AND WILDLIFE (2022)



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PRIORITY HABITAT AND SPECIES MAP HALARA HILLS CRITICAL AREAS REPORT

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DATE: 02/23/2022

FIGURE
6

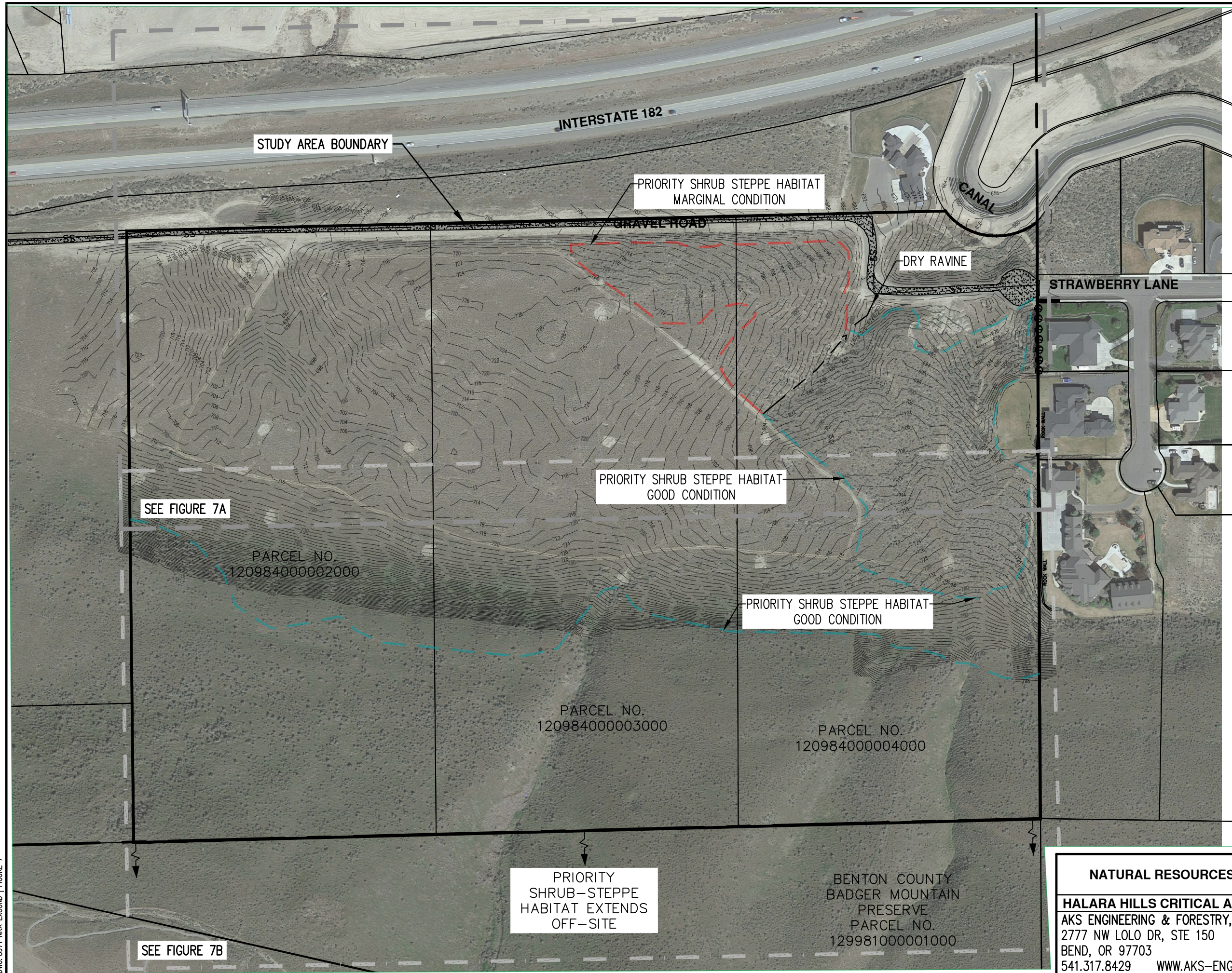
DRWN: RAS

CHKD: SKT

AKS JOB:

8671

DWG: 8971 NRA EXCOND | FIGURE 7

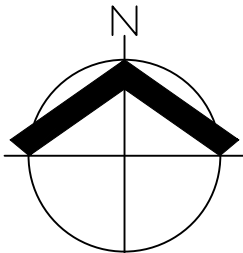


GOOGLE EARTH AERIAL (APRIL 2021)

LEGEND (COLOR COPY)

- TOTAL ON-SITE PRIORITY SHRUB-STEPPE HABITAT AREA:
1,209,381 SF±/ (27.76 ACRES±)
- GOOD CONDITION:
1,092,265 SF±/ (25.07 ACRES±)
- MARGINAL CONDITION:
117,116 SF±/ (2.69 ACRES±)

PARTIAL 1-FOOT INTERVAL GROUND CONTOURS DERIVED FROM KNUTZEN ENGINEERING ON NOVEMBER 12, 2020. TOPOGRAPHY OF SOUTHERN PORTION OF STUDY AREA HAS NOT BEEN SURVEYED.



SCALE: 1"= 200 FEET

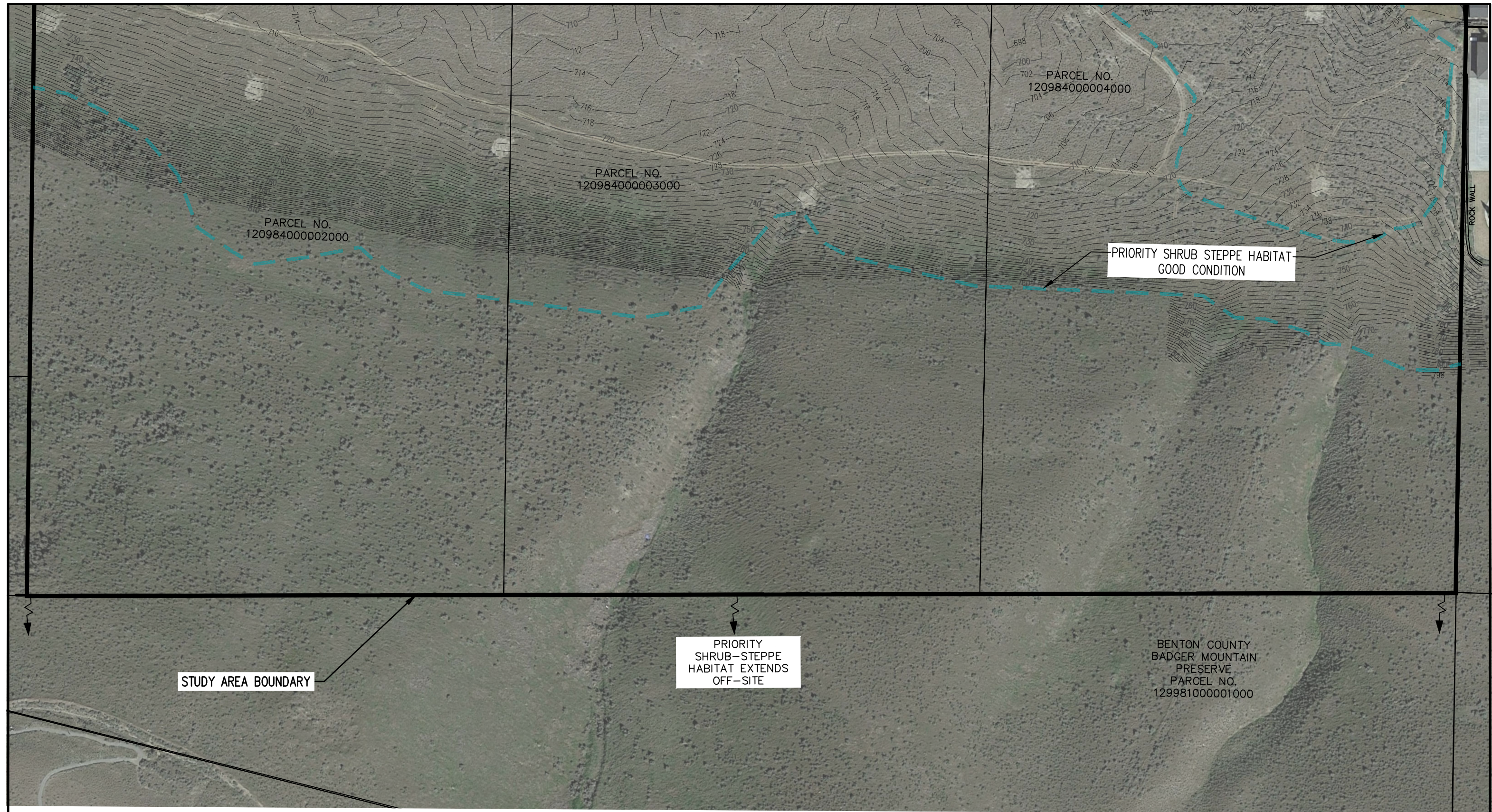
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DATE: 02/11/2022

NATURAL RESOURCES EXISTING CONDITIONS MAP		FIGURE
HALARA HILLS CRITICAL AREAS ASSESSMENT		7
AKS ENGINEERING & FORESTRY, LLC 2777 NW LOLO DR, STE 150 BEND, OR 97703 541.317.8429 WWW.AKS-ENG.COM		DRWN: RAS CHKD: SKT AKS JOB: 8971



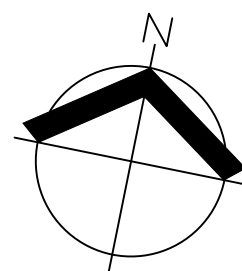
DWG: 8971 NRA EXCOND | FIGURE 7A



LEGEND (COLOR COPY)

- TOTAL ON-SITE PRIORITY SHRUB-STEPPE HABITAT AREA: 1,209,381 SF±/ (27.76 ACRES±)
- GOOD CONDITION: 1,092,265 SF±/ (25.07 ACRES±)
- MARGINAL CONDITION: 117,116 SF±/ (2.69 ACRES±)

PARTIAL 1-FOOT INTERVAL GROUND CONTOURS DERIVED FROM KNUTZEN ENGINEERING ON NOVEMBER 12, 2020. TOPOGRAPHY OF SOUTHERN PORTION OF STUDY AREA HAS NOT BEEN SURVEYED.



GOOGLE EARTH AERIAL (APRIL 2021)

SCALE: 1"=125 FEET

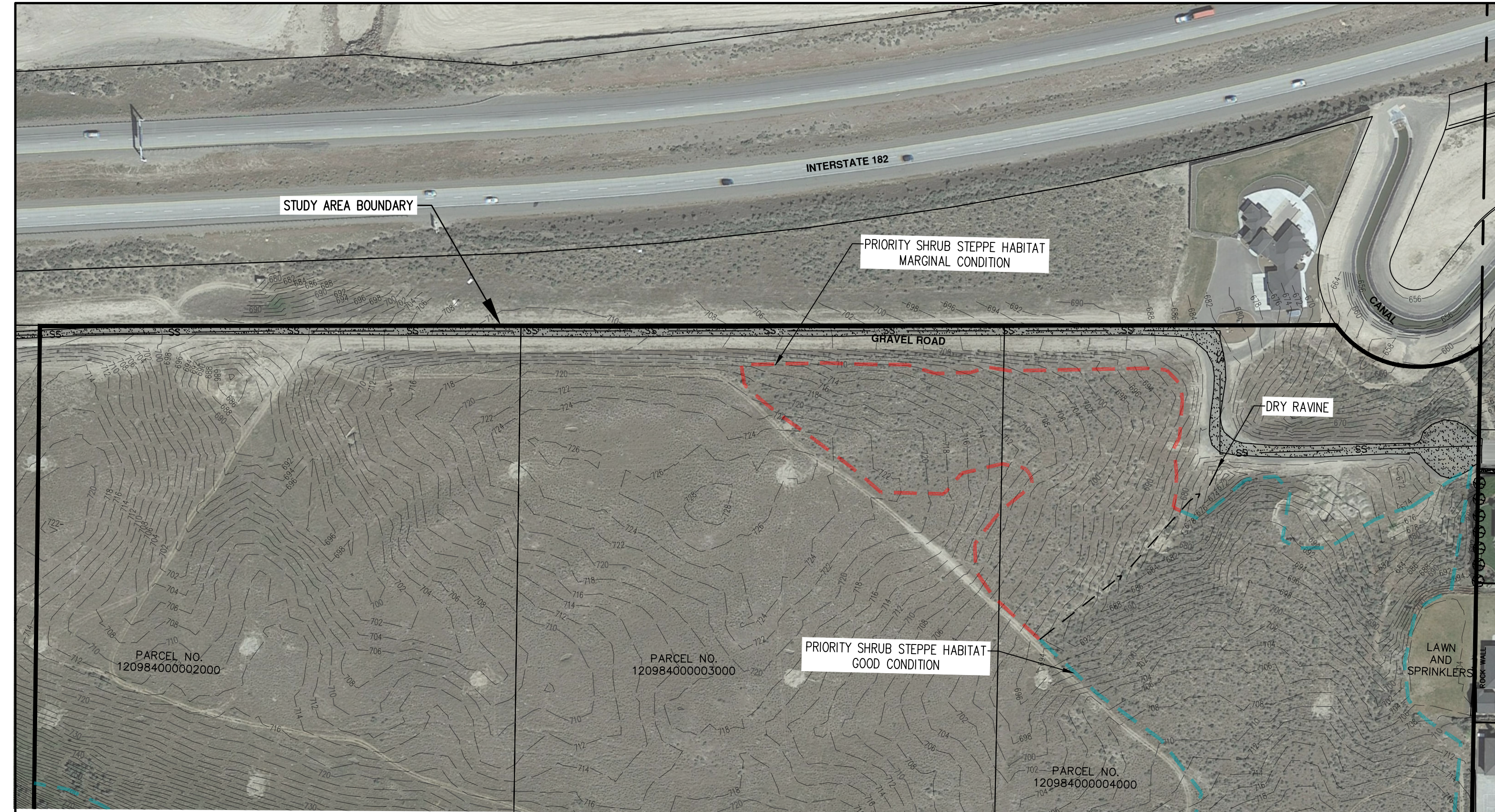
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ORIGINAL PAGE SIZE: 11X17

DATE: 02/11/2022

NATURAL RESOURCES EXISTING CONDITIONS MAP		FIGURE
HALARA HILLS CRITICAL AREAS ASSESSMENT		7A
AKS ENGINEERING & FORESTRY, LLC 2777 NW LOLO DR, STE 150 BEND, OR 97703 541.317.8429 WWW.AKS-ENG.COM		DRWN: RAS CHKD: SKT AKS JOB: 8971

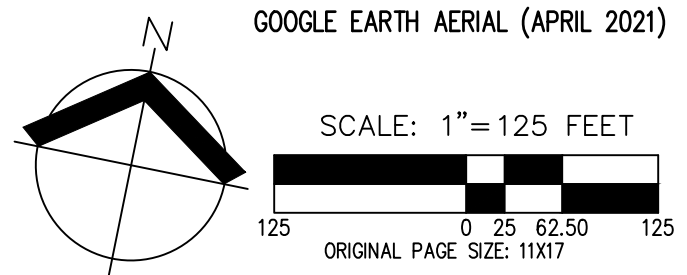




LEGEND (COLOR COPY)

- GOOD CONDITION:
1,092,265 SF±/ (25.07 ACRES±)
 - MARGINAL CONDITION:
117,116 SF±/ (2.69 ACRES±)
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GOOGLE EARTH AERIAL (APRIL 2021)

DATE: 02/11/2022

NATURAL RESOURCES EXISTING CONDITIONS MAP		FIGURE
HALARA HILLS CRITICAL AREAS ASSESSMENT		7B
AKS ENGINEERING & FORESTRY, LLC 2777 NW LOLO DR, STE 150 BEND, OR 97703 541.317.8429 WWW.AKS-ENG.COM		DRWN: RAS CHKD: SKT AKS JOB: 8971



Appendix A: Site Photographs



Photo A. View facing northeast of non-shrubsteppe habitat across the majority of the development area.



Photo B. View facing northwest of non-shrubsteppe habitat across the development area.



Photo C. View facing west of transition from no shrubsteppe habitat to dense sagebrush considered priority shrubsteppe.



Photo D. View facing southeast of priority shrubsteppe habitat in the northeast portion of site adjacent to existing residential development.



Photo E. View facing east of transition from “marginal” condition shrubsteppe habitat in foreground to “good” condition shrubsteppe habitat in the background.



Photo F. View facing west of flatter development area on right with protected hillside habitat on left.



Photo G. View facing north of off-site irrigation canal.



Photo H. View facing northeast of priority shrubsteppe habitat in northeast corner of project site.



Exhibit 5

Geotechnical Report

9. Geotechnical Engineering Report

Geotechnical Engineering Report

Country Ridge Subdivision
Strawberry Lane
Richland, Washington

Prepared for:
Pahlisch Homes, Inc.
210 SW Wilson Avenue, Suite 100
Bend, Oregon 97702

November 17, 2020
PBS Project 66265.000



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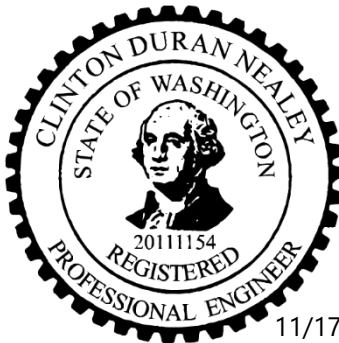
Geotechnical Engineering Report

**Country Ridge Subdivision
Strawberry Lane
Richland, Washington**

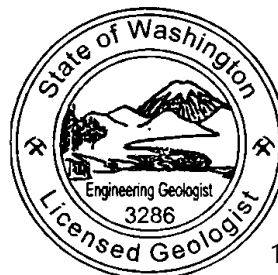
Prepared for:
Pahlisch Homes, Inc.
210 SW Wilson Avenue, Suite 100
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November 17, 2020
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Figure 1. Vicinity Map

Figure 2. Site Plan

Figure 3. Slope Map

APPENDICES

Appendix A: Field Explorations

Table A-1. Terminology Used to Describe Soil

Table A-2. Key to Test Pit and Boring Log Symbols

Figures A1–A9. Logs for Test Pits TP-1 through TP-18

Appendix B: Laboratory Testing

Figure B1. Summary of Laboratory Data

1 INTRODUCTION

1.1 General

This report presents results of PBS Engineering and Environmental Inc. (PBS) geotechnical engineering services for the proposed subdivision located immediately south of State Highway 12 at the west terminus of Strawberry Lane in Richland, Washington (site). The general site location is shown on the Vicinity Map, Figure 1. The locations of PBS' explorations in relation to existing site features are shown on the Site Plan, Figure 2.

1.2 Purpose and Scope

The purpose of PBS' services was to develop geotechnical design and construction recommendations in support of the planned subdivision. This was accomplished by performing the following scope of services.

1.2.1 Literature and Records Review

PBS reviewed various published geologic maps of the area for information regarding geologic conditions and hazards at or near the site.

1.2.2 Subsurface Explorations

PBS observed excavation of 18 test pits to depths of up to 12 feet below the existing ground surface (bgs) at the site. The test pits were logged and representative soil samples collected by a member of the PBS geotechnical engineering staff. Interpreted test pit logs are included as Figures A1 through A9 in Appendix A, Field Explorations.

1.2.3 Field Infiltration Testing

Four open-hole, falling-head field infiltration tests were completed in test pits TP-6, TP-8, TP-15, and TP-18 within the proposed development at depths of approximately 4 feet bgs. Infiltration testing was monitored by PBS geotechnical engineering staff.

1.2.4 Soils Testing

Representative soil samples were returned to our laboratory and classified in general accordance with the Unified Soil Classification System (ASTM D2487) and/or the Visual-Manual Procedure (ASTM D2488). Laboratory tests included natural moisture contents and grain-size analyses. Laboratory test results are included in the exploration logs in Appendix A, Field Explorations; and in Appendix B, Laboratory Testing.

1.2.5 Geotechnical Engineering Analysis

Data collected during the subsurface exploration, literature research, and testing were used to develop site-specific geotechnical design parameters and construction recommendations.

1.2.6 Report Preparation

This Geotechnical Engineering Report summarizes the results of our explorations, testing, and analyses, including information relating to the following:

- Field exploration logs and site plan showing approximate exploration locations
- Infiltration test results
- Laboratory test results
- Groundwater levels and considerations
- Liquefaction potential

- Shallow foundation recommendations:
 - Minimum embedment
 - Allowable bearing pressure
 - Estimated settlement
 - Sliding coefficient
- Earthwork and grading, cut, and fill recommendations:
 - Structural fill materials and preparation
 - Utility trench excavation and backfill requirements
 - Slab and pavement subgrade preparation
 - Wet weather considerations
- Seismic design criteria in accordance with the 2018 International Building Code (IBC) with state of Washington amendments
- Slab-on-grade design recommendations
- Asphalt concrete (AC) pavement section recommendations

1.3 Project Understanding

PBS understands the client plans to subdivide the northern portion of the three parcels located west of the terminus of Strawberry Lane in Richland, Washington. The three parcels total 60 acres, although current plans are to develop 38.4 acres to the north due to the presence steep slopes to the south. Development will occur in three phases and will include development of 100 lots for construction of single-family residences. PBS assumes one- and two-story, wood-frame construction. Development will include construction of access roadways and installation of utilities.

2 SITE CONDITIONS

2.1 Surface Description

The site is located in Richland, Washington, positioned along the slope and toe of Badger Mountain. The site consists of a roughly rectangular parcel divided by semi-flat, undulating topography on the northern half of the site where the proposed lots will be positioned, and a steep, uniform slope along the southern half. This report will refer to the northern half of the site as the “low-lying area” and the southern half as “hillslope,” as identified on Figure 2. The site is currently undeveloped and vegetated with grasses and sage brush. The site is bordered to the east by residential development, to the north by State Highway 12, and to the south and west by undeveloped open spaces.

The low-lying area of the site ranges in elevation between approximately 665 feet above mean sea level (amsl) and 720 feet amsl (NAVD 88; USGS, 2017). This area is composed of gradual hills forming a north-sloping pediment at the toe of Badger Mountain with individual hills separated by small basins. The hillslope portion of the site (within the site boundary) ranges from an elevation of 720 feet amsl to 1130 feet amsl. Outside of the site, the land continues to slope up to the south with Badger Mountain forming the local topographic high point at 1575 feet amsl to the south.

Slope conditions of the site are discussed in greater detail under section 2.6.

2.2 Geologic Setting

2.2.1 Regional Geologic Setting

The site is located within the eastern extent of the Yakima fold and thrust belt, a structural-tectonic sub-province occupying the western extent of the greater Columbia Basin geologic province. The Columbia Basin province is separated from the Deschutes-Columbia Plateau and Blue Mountains Provinces of Oregon by the Oregon border. The province is composed primarily of volcanic basement rocks of the Columbia River Basalt Group (CRBG) subdivided into smaller recognizable flows and members that are overlain by Quaternary deposits (Derkey et al., 2006). These older flood basalts were generated by volcanic eruptions in eastern Oregon, eastern Washington, and western Idaho between 16.7 million years ago (Ma) and 5.5 Ma (Reidel, 2004).

The Yakima fold and thrust belt is an actively deforming series of faults and folds that is accommodating clockwise rotation through crustal shortening within the western Columbia Province (McCaffrey et al., 2016). Active Quaternary and Holocene faults are found throughout this sub-province. Northwest-southeast and east-west trending anticlinal ridges and wide synclinal valleys dominate much of the Yakima fold and thrust belt. Reverse faulting is pervasive along the flanks of these anticline-syncline complexes (Gomberg et al., 2012). The eastern-most extent of the Yakima fold and thrust belt is continued across the Oregon-Washington border by the Horse Heaven Anticline (locally referred to as the Horse Heaven Hills) and the Wallula fault system before reaching the Blue Mountains province of Oregon.

The Horse Heaven Anticline forms the local topographic high point along the southern margin of the Columbia Basin, and has been continuously incised by the ancestral and historical Columbia River resulting in a narrow water gap at the southern extent of the Columbia Basin (Reidel and Fecht, 1994; Schuster, 1994). Throughout the Pleistocene, cataclysmic outburst flood waters from Glacial Lake Missoula resulted in rapid sedimentation as floodwaters ponded behind the Horse Heaven Anticline. Slowing flood waters blanketed the basin with slackwater flood deposits over much of the low-lying areas, as well as created extensive gravel bar complexes near the Columbia River. After glacial outburst flooding, reworking of fine-grained material by aeolian processes has created deposits of loess in elevated areas that were not directly affected by glacial floodwaters.

2.2.2 Local Geology

Low elevation areas of the site are underlain by Pleistocene Cataclysmic fine-grained flood deposits (Reidel and Fecht, 1994). These flood deposits are described as sand to silt sized particles of predominantly quartz, feldspar, and basalt sands, and mapped as greater than 60 feet thick. They are commonly rhythmically bedded and contain lenses of rounded gravels.

Badger Mountain and the associated northwest-oriented linear ridge line is mapped as consisting of various compositions of the Miocene to Pliocene age Columbia River Basalt Group (CRBG). These rocks are described as well-stratified lava flows of dark gray and gray-black basalt with occasional layers of sedimentary rocks between lava flows. The ridgeline is a surface expression of the Rattlesnake Hills anticline and fault complex that borders the eastern margin of the Yakima fold and thrust belt. Faulting throughout the Quaternary has elevated and deformed the basalts that comprise Badger Mountain, forming steep sloping ridgelines protruding upward from younger surficial deposits (Reidel and Fecht, 1994).

The Rattlesnake Hills fault complex and seismogenic structures (USGS fault No. 565) are mapped within the northern and southern portions of the site (Figure 2). Southeastern portions of the Rattlesnake Hills structures are described as echelon double-plunging anticlines that are bounded by thrust or reverse faults and form the linear ridgeline west of the Tri-Cities metropolitan area. These topographic features extend across the Columbia River and continue into northeastern Oregon as part of the Wallula Fault system (USGS fault No.

846). The northeastern and southwestern corners of the site are overlapping areas that are mapped as fault splays of the Rattlesnake Hills seismogenic features.

2.3 Subsurface Conditions

The site was explored by excavating 18 test pits, designated TP-1 through TP-18, to depths of up to 12 feet bgs. The excavation was performed by Mahaffey Enterprises, Inc., of Kennewick, Washington, using a CAT 308E excavator outfitted with a 60-inch smooth bucket.

PBS has summarized the subsurface units as follows:

- SILT (ML):** Brown silt with varying fine-grained sand content was encountered at and below the ground surface in all explorations. The silt varied from medium stiff to hard, was generally dry, and non-plastic.
- GRAVEL (GP):** Angular, basalt gravel was found in test pits TP-6, TP-10, and TP-16. A roughly 1-foot-thick layer was found at about 2 feet bgs in test pits TP-10 and TP-16. Gravel was also encountered at about 6 feet bgs to the termination depth in test pit TP-6, where the layer was cemented and difficult to excavate with the equipment available. Silt and fine-grained sand was intermixed with gravel everywhere gravel was encountered.

2.4 Groundwater

Static groundwater was not encountered during our explorations to the depth explored. Based on a review of regional groundwater logs available from the Washington State Department of Ecology, we anticipate that static groundwater is present at a depth greater than 50 feet bgs. Please note that groundwater levels can fluctuate during the year depending on climate, irrigation season, extended periods of precipitation, drought, and other factors.

2.5 Infiltration Testing

PBS completed four open-hole, falling-head infiltration tests in test pits TP-6, TP-8, TP-15, and TP-18, at depths of approximately 4 feet bgs within the unlined test pits. The infiltration testing was conducted in general accordance with the Stormwater Management Manual for Eastern Washington procedures. The unlined test pits were filled with water to achieve a minimum 1-foot-high column of water. After a period of saturation, the height of the water column in the test pit was then measured initially and at regular, timed intervals. Results of our field infiltration testing are presented in Table 1.

Table 1. Infiltration Test Results

Test Location	Depth (feet bgs)	Field Measured Infiltration Rate (in/hr)	Soil Classification	Recommended Hydrologic Soil Group
TP-6	4	1.3	SILT (ML)	B/C
TP-8	4	1.9	SILT (ML)	B
TP-15	4	2.0	SILT (ML)	B
TP-18	4	1.8	SILT (ML)	B

The infiltration rates listed in Table 1 are not permeabilities/hydraulic conductivities, but field-measured rates, and do not include correction factors related to long-term infiltration rates. The design engineer should determine the appropriate correction factors to account for the planned level of pre-treatment, maintenance, vegetation, siltation, etc. Field-measured infiltration rates are typically reduced by a minimum factor of 2 to 4 for use in design. PBS recommends that the lowest infiltration rate be applied site-wide, before correction factors are used, to account for soil mixing that occurs during normal construction activities.

Soil types can vary significantly over relatively short distances. The infiltration rates noted above are representative of one discrete location and depth. Installation of infiltration systems within the layer the field rate was measured is considered critical to proper performance of the systems. PBS recommends our services be retained to verify that infiltration systems are functioning as intended.

The United States Department of Agriculture (USDA) categorizes soils in four hydrologic soil groups, A through D, and are designated mainly by particle size and hydraulic conductivity. Table 3 below shows general characteristics of each group as they are identified by the USDA.

Table 2. USDA Hydrologic Soil Group Parameters

Soil Properties	Hydrologic Soil Group			
	A	B	C	D
Saturated Hydraulic Conductivity (k) (inches/hour)	$k > 5.67$	$1.42 < k < 5.67$	$0.14 < k < 1.42$	$k < 0.14$

2.6 Critical Areas – Geologically Hazardous Areas

Critical areas are defined as geologically hazardous areas that may not be suited for commercial, residential, or industrial development due to public health or safety concerns and warrant additional evaluation. Geologically hazardous areas are present on the southern portion of the property. Based on our field investigation and review of topographic data, approximately 32 acres of the site qualifies as a high geologic hazard.

2.6.1 Landslide Hazard

Landslides occur when masses of soil or rock lose stability due to over-saturation of the material, contributing to elevated pore water pressures; erosion of the terminal end of the slope, causing de-buttressing and generating additional instability of the overburden material; along geologic contacts; or as a combination of these processes in conjunction with one another.

A vectorized version of the Badger Mountain 7.5-minute quadrangle was acquired from the USGS National Map Database TNM download portal (USGS, 2020b). These 10-foot elevation contours were used to generate slope maps for the site and surrounding areas to assess slope inclinations utilizing ArcMap GIS and the 3D Analyst toolset. City Code 22.10.240 describes slopes that constitute a landslide hazards area. As such, slopes have been grouped as greater than 15% and greater than 40%, with no slopes greater than 80% within the site or upslope of the site (Figure 3).

Slopes greater than 40% exist throughout the hillslope portion of the property and continue beyond the property boundary. PBS did not explore the hillside due to excavator inaccessibility. However, previous exploration in the vicinity revealed a veneer of variable thickness consisting of unconsolidated windblown loess and colluvium overlying basalt bedrock. Similar subsurface conditions may be present on the site and, if present, site slopes could be destabilized by cutting near the toe of the slope.

Review of available Washington Department of Natural Resources (WADNR) data does not indicate the presences of mapped landslides within the property boundary (WADNR, 2020). However, landslide deposits are identified on similar slopes of Badger Mountain approximately 3,000 feet southeast of the site (WADNR, 2020; Reidel et al., 1994). Therefore, it is inferred that any modifications to the hillslope portion of the site could induce slope instability and impact downslope structures.

2.6.2 Erosion Hazard

Minimally vegetated slopes likely composed of unconsolidated soils like those found on site and in the project vicinity may be subject to rapid erosion as a result of heavy precipitation, rapid snow melt, or typical rainfall following a wildfire. Alternatively, wind may also cause erosion to occur. Cutting into the toe of the slope or disturbing vegetation on site slopes could increase the potential for erosion at the site.

2.6.3 Seismic Hazard

Seismic hazards are geologic hazards associated with earthquakes. Seismic waves generated by earthquakes produce shaking with intensity that increases based on proximity to the earthquake (epicenter), soil type and consistency/relative density, and the magnitude of the earthquake (size). Earthquakes can trigger additional hazards to occur as a result of shaking. Strong earthquake ground shaking will occur during a code-based seismic event on the CSZ as well as from local faults.

2.6.3.1 Fault Surface Rupture

Fault surface rupture is deformation observed at the ground surface from deformation along a fault plane that occurs during an earthquake. Deformation is manifested in the form of tension cracks, sags, pressure ridges, and vertical and horizontal offsets of the ground surface that can cause extensive damage to structures and infrastructure that crosses or is located in close proximity to an underlying fault. Review of the US Geological Survey Quaternary Fault and Fold Database and WADNR Geologic Information GIS portal indicates two splays of the Rattlesnake Hills fault (USGS fault ID 565) are present at the toe of Badger Mountain and along the north-facing hillside (Figure 2). In addition, the associated anticline mapped at the crest of Badger Mountain is identified as a seismogenic fold capable of generating earthquakes.

2.6.3.2 Seismically Induced Landslides

Seismically induced landslides are landslides that occur as the result of shaking generated by an earthquake. Shaking can cause slope materials to slide, tumble, or flow along preexisting geologic contacts, joints within the rock mass, or shedding of loose surficial materials.

3 CONCLUSIONS AND RECOMMENDATIONS

3.1 Geotechnical Design Considerations

The subsurface conditions at the site consist predominantly of silt with variable fine-grained sand content. A 1-foot-thick layer of gravel was encountered at a depth of 2 feet bgs in test pits TP-10 and TP-16 and at a depth of 6 feet bgs to the termination depth in TP-6. Based on our observations and analyses, conventional foundation support on shallow spread footings is feasible for the proposed new residential structures. Due to the presence of medium-stiff silt soils at the ground surface, we recommend site grading include moisture conditioning and recompaction of all subgrades within cut areas and under roads, sidewalks, driveways, and building pads.

Excavation of site soils is likely feasible using conventional equipment. Bedrock was not observed to the depths explored but may be encountered if excavations exceed 12 feet bgs. PBS did not perform subsurface exploration to assess slope conditions under the assumption that the slope would not be disturbed by the proposed development.

The grading and final development plans for the project had not been completed when this report was prepared. Once completed, PBS should be engaged to review the project plans and update our recommendations, as necessary.

Site grading should not undermine/remove the toe of the existing slope without additional geotechnical evaluation.

3.2 Shallow Foundations

Shallow spread footings bearing on recompacted native silt may be used to support loads associated with the proposed development, provided the recommendations in this report are followed. Footings should not be supported on undocumented fill.

3.2.1 Minimum Footing Widths and Design Bearing Pressure

Continuous wall and isolated spread footings should be sized in accordance with local codes but should not be less than 12 inches wide. Footings should be sized using a maximum allowable bearing pressure of 2,000 pounds per square foot (psf). This is a net bearing pressure and the weight of the footing and overlying backfill can be disregarded in calculating footing sizes. The recommended allowable bearing pressure applies to the total of dead plus long-term live loads. Allowable bearing pressures may be increased by one-third for seismic and wind loads.

Footings will settle in response to column and wall loads. Based on our evaluation of the subsurface conditions and our analysis, we estimate post-construction settlement will be less than 1 inch for the column and perimeter foundation loads. Differential settlement will be on the order of one-half of the total settlement.

3.2.2 Footing Embedment Depths

PBS recommends that all footings be founded a minimum of 24 inches below the lowest adjacent grade. The footings should be founded below an imaginary line projecting upward at a 1H:1V (horizontal to vertical) slope from the base of any adjacent, parallel utility trenches or deeper excavations.

3.2.3 Footing Preparation

Excavations for footings should be carefully prepared to a neat and undisturbed state. PBS recommends our services be retained to confirm suitable bearing conditions and evaluate all exposed footing subgrades. Observations should also confirm that loose or soft materials have been removed from new footing excavations and concrete slab-on-grade areas. Localized deepening of footing excavations may be required to penetrate loose, wet, or deleterious materials.

3.2.4 Lateral Resistance

Lateral loads can be resisted by passive earth pressure on the sides of footings and grade beams, and by friction at the base of the footings. A passive earth pressure of 250 pounds per cubic foot (pcf) may be used for footings confined by native soils and new structural fills. The allowable passive pressure has been reduced by a factor of two to account for the large amount of deformation required to mobilize full passive resistance. Adjacent floor slabs, pavements, or the upper 12-inch depth of adjacent unpaved areas should not be considered when calculating passive resistance. For footings supported on native soils or new structural fills, use a coefficient of friction equal to 0.35 when calculating resistance to sliding. These values do not include a factor of safety (FS).

3.3 Floor Slabs

Satisfactory subgrade support for building floor slabs can be obtained from the recompacted native silty sand subgrade prepared in accordance with our recommendations presented in the Site Preparation, Wet/Freezing Weather and Wet Soil Conditions, and Imported Granular Materials sections of this report. A minimum 6-inch-thick layer of imported granular material should be placed and compacted over the prepared subgrade. Thicker aggregate sections may be necessary where undocumented fill is present, soft/loose soils are present at subgrade elevation, and/or during wet conditions. Imported granular material should be composed of crushed rock or crushed gravel that is relatively well graded between coarse and fine, contains no deleterious materials, has a maximum particle size of 1 inch, and has less than 5 percent by dry weight passing the US Standard No. 200 Sieve.

Floor slabs supported on a subgrade and base course prepared in accordance with the preceding recommendations may be designed using a modulus of subgrade reaction (k) of 100 pounds per cubic inch (pci).

3.4 Seismic Design Considerations

3.4.1 Code-Based Seismic Design Parameters

The current seismic design criteria for this project are based on the 2018 International Building Code with State of Washington amendments. Based on subsurface conditions encountered at the site, Site Class D is appropriate for use in design. The seismic design criteria, in accordance with the 2018 IBC, are summarized in Table 3.

Table 3. 2018 IBC Seismic Design Parameters

Parameter	Short Period	1 Second
Maximum Credible Earthquake Spectral Acceleration	$S_s = 0.43 \text{ g}$	$S_1 = 0.16 \text{ g}$
Site Class	D	
Site Coefficient	$F_a = 1.46$	$F_v = 2.27$
Adjusted Spectral Acceleration	$S_{MS} = 0.63 \text{ g}$	$S_{M1} = 0.37 \text{ g}$
Design Spectral Response Acceleration Parameters	$S_{DS} = 0.42 \text{ g}$	$S_{D1} = 0.25 \text{ g}$

g = Acceleration due to gravity

3.4.2 Liquefaction Potential

Liquefaction is defined as a decrease in the shear resistance of loose, saturated, cohesionless soil (e.g., sand) or low plasticity silt soils, due to the buildup of excess pore pressures generated during an earthquake. This results in a temporary transformation of the soil deposit into a viscous fluid. Liquefaction can result in ground settlement, foundation bearing capacity failure, and lateral spreading of ground.

Based on a review of the Washington Division of Geology and Earth Resources, the site is shown as having a low to moderate liquefaction hazard; however, based on the lack of groundwater observed during our explorations and the depth to groundwater reported in nearby well logs, our current opinion is that the risk of structurally damaging liquefaction settlement at the site is low.

3.5 Temporary and Permanent Slopes

Cuts at the toe of the existing slope are not allowed without completing additional analyses. All temporary cut slopes should be excavated with a smooth-bucket excavator, with the slope surface repaired if disturbed. In addition, upslope surface runoff should be rerouted to not run down the face of the slopes. Equipment should

not be allowed to induce vibration or infiltrate water above the slopes, and no surcharges are allowed within 25 feet of the slope crest.

Permanent cut and fill slopes up to 10 feet high can be inclined at 2H:1V in stiff or better silt or compacted structural fill. If slow seepage is present, use of a rock blanket or a suitably revegetated, reinforced erosion control blanket may be required. PBS should be consulted if seepage is present; additional erosion control measures, such as additional drainage elements, and/or flatter slopes, may also be required. Exposed soils that are soft or loose may also require these measures. Fill slopes should be over-built and cut back into compacted structural fill at the design inclination using a smooth-bucket excavator. Erosion control is critical to maintaining slopes.

3.6 Ground Moisture

The perimeter ground surface and hard-scape should be sloped to drain away from all structures and away from adjacent slopes. Gutters should be tight-lined to a suitable discharge and maintained as free-flowing. All crawl spaces (if present) should be adequately ventilated and sloped to drain to a suitable, exterior discharge.

4 CONSTRUCTION RECOMMENDATIONS

4.1 Site Preparation

Construction of the proposed subdivision will involve clearing and grubbing of the existing vegetation or demolition of possible existing structures. Demolition should include removal of existing pavement, utilities, etc., if present, throughout the proposed new development. Underground utility lines or other abandoned structural elements should also be removed. The voids resulting from removal of foundations or loose soil in utility lines should be backfilled with compacted structural fill. The base of these excavations should be excavated to firm native subgrade before filling, with sides sloped at a minimum of 1H:1V to allow for uniform compaction. Materials generated during demolition should be transported off site or stockpiled in areas designated by the owner's representative.

4.1.1 Proofrolling/Subgrade Verification

Following site preparation and prior to placing aggregate base over shallow foundation, floor slab, and pavement subgrades, the exposed subgrade should be evaluated either by proofrolling or another method of subgrade verification. The subgrade should be proofrolled with a fully loaded dump truck or similar heavy, rubber-tire construction equipment to identify unsuitable areas. If evaluation of the subgrades occurs during wet conditions, or if proofrolling the subgrades will result in disturbance, they should be evaluated by PBS using a steel foundation probe. We recommend that PBS be retained to observe the proofrolling and perform the subgrade verifications. Unsuitable areas identified during the field evaluation should be compacted to a firm condition or be excavated and replaced with structural fill.

4.1.2 Wet/Freezing Weather and Wet Soil Conditions

Due to the presence of fine-grained silt and sands in the near-surface materials at the site, construction equipment may have difficulty operating on the near-surface soils when the moisture content of the surface soil is more than a few percentage points above the optimum moisture required for compaction. Soils disturbed during site preparation activities, or unsuitable areas identified during proofrolling or probing, should be removed and replaced with compacted structural fill.

Site earthwork and subgrade preparation should not be completed during freezing conditions, except for mass excavation to the subgrade design elevations. We recommend the earthwork construction at the site be performed during the dry season.

Protection of the subgrade is the responsibility of the contractor. Construction of granular haul roads to the project site entrance may help reduce further damage to the pavement and disturbance of site soils. The actual thickness of haul roads and staging areas should be based on the contractors' approach to site development, and the amount and type of construction traffic. The imported granular material should be placed in one lift over the prepared undisturbed subgrade and compacted using a smooth-drum, non-vibratory roller. A geotextile fabric should be used to separate the subgrade from the imported granular material in areas of repeated construction traffic. Depending on site conditions, the geotextile should meet Washington State Department of Transportation (WSDOT) SS 9-33.2 – Geosynthetic Properties for soil separation or stabilization. The geotextile should be installed in conformance with WSDOT SS 2-12.3 – Construction Geosynthetic (Construction Requirements) and, as applicable, WSDOT SS 2-12.3(2) – Separation or WSDOT SS 2-12.3(3) – Stabilization.

4.1.3 Compacting Test Pit Locations

The test pit excavations were backfilled using the excavator bucket and relatively minimal compactive effort; therefore, soft spots can be expected at these locations. We recommend that the relatively uncompacted soil be removed from the test pits to a depth of at least 3 feet below finished subgrade elevation in pavement areas and to full depth in building areas. The resulting excavation should be backfilled with structural fill.

4.2 Excavation

The near-surface soils at the site can be excavated with conventional earthwork equipment to depths of up to 12 feet. Larger earthwork equipment may be required for deeper excavations and where bedrock could be encountered. Sloughing and caving should be anticipated. All excavations should be made in accordance with applicable Occupational Safety and Health Administration (OSHA) and state regulations. The contractor is solely responsible for adherence to the OSHA requirements. Open excavation techniques may be used provided the excavation is configured in accordance with the OSHA requirements, groundwater seepage is not present, and with the understanding that some sloughing may occur. Trenches/excavations should be flattened if sloughing occurs or seepage is present. Use of a trench shield or other approved temporary shoring is recommended if vertical walls are desired for cuts deeper than 4 feet bgs. If dewatering is used, we recommend that the type and design of the dewatering system be the responsibility of the contractor, who is in the best position to choose systems that fit the overall plan of operation.

4.3 Structural Fill

Structural fill should be placed over subgrade that has been prepared in conformance with the Site Preparation and Wet/Freezing Weather and Wet Soil Conditions sections of this report. Structural fill material should consist of relatively well-graded soil, or an approved rock product that is free of organic material and debris, and contains particles not greater than 4 inches nominal dimension.

The suitability of soil for use as compacted structural fill will depend on the gradation and moisture content of the soil when it is placed. As the amount of fines (material finer than the US Standard No. 200 Sieve) increases, soil becomes increasingly sensitive to small changes in moisture content and compaction becomes more difficult to achieve. Soils containing more than about 5 percent fines cannot consistently be compacted to a dense, non-yielding condition when the water content is significantly greater (or significantly less) than optimum.

If fill and excavated material will be placed on slopes steeper than 5H:1V, these must be keyed/benched into the existing slopes and installed in horizontal lifts. Vertical steps between benches should be approximately 2 feet.

4.3.1 On-Site Soil

On-site soils encountered in our explorations are generally suitable for placement as structural fill during moderate, dry weather when moisture content can be maintained by air drying and/or addition of water. The fine-grained fraction of the site soils are moisture sensitive, and during wet weather, may become unworkable because of excess moisture content. In order to reduce moisture content, some aerating and drying of fine-grained soils may be required. The material should be placed in lifts with a maximum uncompacted thickness of approximately 8 inches and compacted to at least 92 percent of the maximum dry density, as determined by ASTM D1557 (modified proctor).

4.3.2 Imported Granular Materials

Imported granular material used during periods of wet weather or for haul roads, building pad subgrades, staging areas, etc., should be pit or quarry run rock, crushed rock, or crushed gravel and sand, and should meet the specifications provided in WSDOT SS 9-03.14(2) – Select Borrow. In addition, the imported granular material should be fairly well graded between coarse and fine, and of the fraction passing the US Standard No. 4 Sieve, less than 5 percent by dry weight should pass the US Standard No. 200 Sieve.

Imported granular material should be placed in lifts with a maximum uncompacted thickness of 9 inches and be compacted to not less than 95 percent of the maximum dry density, as determined by ASTM D1557.

4.3.3 Base Aggregate

Base aggregate for floor slabs and beneath pavements should be clean crushed rock or crushed gravel. The base aggregate should contain no deleterious materials, meet specifications provided in WSDOT SS 9-03.9(3) – Crushed Surfacing Base Course, and have less than 5 percent (by dry weight) passing the US Standard No. 200 Sieve. The imported granular material should be placed in one lift and compacted to at least 95 percent of the maximum dry density, as determined by ASTM D1557.

4.3.4 Foundation Base Aggregate

Imported granular material placed at the base of excavations for spread footings, slabs-on-grade, and other below-grade structures should be clean, crushed rock or crushed gravel, and sand that is fairly well graded between coarse and fine. The granular materials should contain no deleterious materials, have a maximum particle size of 1½ inch, and meet WSDOT SS 9-03.12(1)A – Gravel Backfill for Foundations (Class A). The imported granular material should be placed in one lift and compacted to not less than 95 percent of the maximum dry density, as determined by ASTM D1557.

4.3.5 Trench Backfill

Trench backfill placed beneath, adjacent to, and for at least 2 feet above utility lines (i.e., the pipe zone) should consist of well-graded granular material with a maximum particle size of 1 inch and less than 10 percent by dry weight passing the US Standard No. 200 Sieve, and should meet the standards prescribed by WSDOT SS 9-03.12(3) – Gravel Backfill for Pipe Zone Bedding. The pipe zone backfill should be compacted to at least 90 percent of the maximum dry density as determined by ASTM D1557, or as required by the pipe manufacturer or local building department.

Within pavement areas or beneath building pads, the remainder of the trench backfill should consist of well-graded granular material with a maximum particle size of 1½ inches, less than 10 percent by dry weight passing the US Standard No. 200 Sieve, and should meet standards prescribed by WSDOT SS 9-03.19 – Bank Run Gravel for Trench Backfill. This material should be compacted to at least 92 percent of the maximum dry density, as determined by ASTM D1557, or as required by the pipe manufacturer or local building department.

The upper 2 feet of the trench backfill should be compacted to at least 95 percent of the maximum dry density, as determined by ASTM D1557.

Outside of structural improvement areas (e.g., roadway alignments or building pads), trench backfill placed above the pipe zone should consist of excavated material free of wood waste, debris, clods, or rocks greater than 6 inches in diameter and meet WSDOT SS 9-03.14 – Borrow and WSDOT SS 9-03.15 – Native Material for Trench Backfill. This general trench backfill should be compacted to at least 90 percent of the maximum dry density, as determined by ASTM D1557, or as required by the pipe manufacturer or local building department.

4.3.6 Stabilization Material

Stabilization rock should consist of pit or quarry run rock that is well-graded, angular, crushed rock consisting of 4- or 6-inch-minus material with less than 5 percent passing the US Standard No. 4 Sieve. The material should be free of organic matter and other deleterious material. WSDOT SS 9-13.1(5) – Quarry Spalls can be used as a general specification for this material with the stipulation of limiting the maximum size to 6 inches.

5 ADDITIONAL SERVICES AND CONSTRUCTION OBSERVATIONS

In most cases, other services beyond completion of a final geotechnical engineering report are necessary or desirable to complete the project. Occasionally, conditions or circumstances arise that require additional work that was not anticipated when the geotechnical report was written. PBS offers a range of environmental, geological, geotechnical, and construction services to suit the varying needs of our clients.

PBS should be retained to review the plans and specifications for this project before they are finalized. Such a review allows us to verify that our recommendations and concerns have been adequately addressed in the design.

Satisfactory earthwork performance depends on the quality of construction. Sufficient observation of the contractor's activities is a key part of determining that the work is completed in accordance with the construction drawings and specifications. We recommend that PBS be retained to observe general excavation, stripping, fill placement, footing subgrades, and/or pile installation. Subsurface conditions observed during construction should be compared with those encountered during the subsurface explorations. Recognition of changed conditions requires experience; therefore, qualified personnel should visit the site with sufficient frequency to detect whether subsurface conditions change significantly from those anticipated.

6 LIMITATIONS

This report has been prepared for the exclusive use of the addressee, and their architects and engineers, for aiding in the design and construction of the proposed development and is not to be relied upon by other parties. It is not to be photographed, photocopied, or similarly reproduced, in total or in part, without express written consent of the client and PBS. It is the addressee's responsibility to provide this report to the appropriate design professionals, building officials, and contractors to ensure correct implementation of the recommendations.

The opinions, comments, and conclusions presented in this report are based upon information derived from our literature review, field explorations, laboratory testing, and engineering analyses. It is possible that soil, rock, or groundwater conditions could vary between or beyond the points explored. If soil, rock, or groundwater conditions are encountered during construction that differ from those described herein, the client is responsible for ensuring that PBS is notified immediately so that we may reevaluate the recommendations of this report.

Unanticipated fill, soil and rock conditions, and seasonal soil moisture and groundwater variations are commonly encountered and cannot be fully determined by merely taking soil samples or completing explorations such as test pits. Such variations may result in changes to our recommendations and may require additional funds for expenses to attain a properly constructed project; therefore, we recommend a contingency fund to accommodate such potential extra costs.

The scope of work for this subsurface exploration and geotechnical report did not include environmental assessments or evaluations regarding the presence or absence of wetlands or hazardous substances in the soil, surface water, or groundwater at this site.

If there is a substantial lapse of time between the submission of this report and the start of work at the site, if conditions have changed due to natural causes or construction operations at or adjacent to the site, or if the basic project scheme is significantly modified from that assumed, this report should be reviewed to determine the applicability of the conclusions and recommendations presented herein. Land use, site conditions (both on and off site), or other factors may change over time and could materially affect our findings; therefore, this report should not be relied upon after three years from its issue, or in the event that the site conditions change.

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Important Information about This Geotechnical-Engineering Report

Subsurface problems are a principal cause of construction delays, cost overruns, claims, and disputes.

While you cannot eliminate all such risks, you can manage them. The following information is provided to help.

The Geoprofessional Business Association (GBA) has prepared this advisory to help you – assumedly a client representative – interpret and apply this geotechnical-engineering report as effectively as possible. In that way, you can benefit from a lowered exposure to problems associated with subsurface conditions at project sites and development of them that, for decades, have been a principal cause of construction delays, cost overruns, claims, and disputes. If you have questions or want more information about any of the issues discussed herein, contact your GBA-member geotechnical engineer. Active engagement in GBA exposes geotechnical engineers to a wide array of risk-confrontation techniques that can be of genuine benefit for everyone involved with a construction project.

Understand the Geotechnical-Engineering Services Provided for this Report

Geotechnical-engineering services typically include the planning, collection, interpretation, and analysis of exploratory data from widely spaced borings and/or test pits. Field data are combined with results from laboratory tests of soil and rock samples obtained from field exploration (if applicable), observations made during site reconnaissance, and historical information to form one or more models of the expected subsurface conditions beneath the site. Local geology and alterations of the site surface and subsurface by previous and proposed construction are also important considerations. Geotechnical engineers apply their engineering training, experience, and judgment to adapt the requirements of the prospective project to the subsurface model(s). Estimates are made of the subsurface conditions that will likely be exposed during construction as well as the expected performance of foundations and other structures being planned and/or affected by construction activities.

The culmination of these geotechnical-engineering services is typically a geotechnical-engineering report providing the data obtained, a discussion of the subsurface model(s), the engineering and geologic engineering assessments and analyses made, and the recommendations developed to satisfy the given requirements of the project. These reports may be titled investigations, explorations, studies, assessments, or evaluations. Regardless of the title used, the geotechnical-engineering report is an engineering interpretation of the subsurface conditions within the context of the project and does not represent a close examination, systematic inquiry, or thorough investigation of all site and subsurface conditions.

Geotechnical-Engineering Services are Performed for Specific Purposes, Persons, and Projects, and At Specific Times

Geotechnical engineers structure their services to meet the specific needs, goals, and risk management preferences of their clients. A geotechnical-engineering study conducted for a given civil engineer

will not likely meet the needs of a civil-works constructor or even a different civil engineer. Because each geotechnical-engineering study is unique, each geotechnical-engineering report is unique, prepared *solely* for the client.

Likewise, geotechnical-engineering services are performed for a specific project and purpose. For example, it is unlikely that a geotechnical-engineering study for a refrigerated warehouse will be the same as one prepared for a parking garage; and a few borings drilled during a preliminary study to evaluate site feasibility will not be adequate to develop geotechnical design recommendations for the project.

Do not rely on this report if your geotechnical engineer prepared it:

- for a different client;
- for a different project or purpose;
- for a different site (that may or may not include all or a portion of the original site); or
- before important events occurred at the site or adjacent to it; e.g., man-made events like construction or environmental remediation, or natural events like floods, droughts, earthquakes, or groundwater fluctuations.

Note, too, the reliability of a geotechnical-engineering report can be affected by the passage of time, because of factors like changed subsurface conditions; new or modified codes, standards, or regulations; or new techniques or tools. *If you are the least bit uncertain about the continued reliability of this report, contact your geotechnical engineer before applying the recommendations in it. A minor amount of additional testing or analysis after the passage of time – if any is required at all – could prevent major problems.*

Read this Report in Full

Costly problems have occurred because those relying on a geotechnical-engineering report did not read the report in its entirety. Do not rely on an executive summary. Do not read selective elements only. *Read and refer to the report in full.*

You Need to Inform Your Geotechnical Engineer About Change

Your geotechnical engineer considered unique, project-specific factors when developing the scope of study behind this report and developing the confirmation-dependent recommendations the report conveys. Typical changes that could erode the reliability of this report include those that affect:

- the site's size or shape;
- the elevation, configuration, location, orientation, function or weight of the proposed structure and the desired performance criteria;
- the composition of the design team; or
- project ownership.

As a general rule, *always* inform your geotechnical engineer of project or site changes – even minor ones – and request an assessment of their impact. *The geotechnical engineer who prepared this report cannot accept*

responsibility or liability for problems that arise because the geotechnical engineer was not informed about developments the engineer otherwise would have considered.

Most of the “Findings” Related in This Report Are Professional Opinions

Before construction begins, geotechnical engineers explore a site’s subsurface using various sampling and testing procedures. *Geotechnical engineers can observe actual subsurface conditions only at those specific locations where sampling and testing is performed.* The data derived from that sampling and testing were reviewed by your geotechnical engineer, who then applied professional judgement to form opinions about subsurface conditions throughout the site. Actual site-wide subsurface conditions may differ – maybe significantly – from those indicated in this report. Confront that risk by retaining your geotechnical engineer to serve on the design team through project completion to obtain informed guidance quickly, whenever needed.

This Report’s Recommendations Are Confirmation-Dependent

The recommendations included in this report – including any options or alternatives – are confirmation-dependent. In other words, they are not final, because the geotechnical engineer who developed them relied heavily on judgement and opinion to do so. Your geotechnical engineer can finalize the recommendations *only after observing actual subsurface conditions* exposed during construction. If through observation your geotechnical engineer confirms that the conditions assumed to exist actually do exist, the recommendations can be relied upon, assuming no other changes have occurred. *The geotechnical engineer who prepared this report cannot assume responsibility or liability for confirmation-dependent recommendations if you fail to retain that engineer to perform construction observation.*

This Report Could Be Misinterpreted

Other design professionals’ misinterpretation of geotechnical-engineering reports has resulted in costly problems. Confront that risk by having your geotechnical engineer serve as a continuing member of the design team, to:

- confer with other design-team members;
- help develop specifications;
- review pertinent elements of other design professionals’ plans and specifications; and
- be available whenever geotechnical-engineering guidance is needed.

You should also confront the risk of constructors misinterpreting this report. Do so by retaining your geotechnical engineer to participate in prebid and preconstruction conferences and to perform construction-phase observations.

Give Constructors a Complete Report and Guidance

Some owners and design professionals mistakenly believe they can shift unanticipated-subsurface-conditions liability to constructors by limiting the information they provide for bid preparation. To help prevent the costly, contentious problems this practice has caused, include the complete geotechnical-engineering report, along with any attachments or appendices, with your contract documents, *but be certain to note*

conspicuously that you’ve included the material for information purposes only. To avoid misunderstanding, you may also want to note that “informational purposes” means constructors have no right to rely on the interpretations, opinions, conclusions, or recommendations in the report. Be certain that constructors know they may learn about specific project requirements, including options selected from the report, *only* from the design drawings and specifications. Remind constructors that they may perform their own studies if they want to, and *be sure to allow enough time* to permit them to do so. Only then might you be in a position to give constructors the information available to you, while requiring them to at least share some of the financial responsibilities stemming from unanticipated conditions. Conducting prebid and preconstruction conferences can also be valuable in this respect.

Read Responsibility Provisions Closely

Some client representatives, design professionals, and constructors do not realize that geotechnical engineering is far less exact than other engineering disciplines. This happens in part because soil and rock on project sites are typically heterogeneous and not manufactured materials with well-defined engineering properties like steel and concrete. That lack of understanding has nurtured unrealistic expectations that have resulted in disappointments, delays, cost overruns, claims, and disputes. To confront that risk, geotechnical engineers commonly include explanatory provisions in their reports. Sometimes labeled “limitations,” many of these provisions indicate where geotechnical engineers’ responsibilities begin and end, to help others recognize their own responsibilities and risks. *Read these provisions closely.* Ask questions. Your geotechnical engineer should respond fully and frankly.

Geoenvironmental Concerns Are Not Covered

The personnel, equipment, and techniques used to perform an environmental study – e.g., a “phase-one” or “phase-two” environmental site assessment – differ significantly from those used to perform a geotechnical-engineering study. For that reason, a geotechnical-engineering report does not usually provide environmental findings, conclusions, or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. *Unanticipated subsurface environmental problems have led to project failures.* If you have not obtained your own environmental information about the project site, ask your geotechnical consultant for a recommendation on how to find environmental risk-management guidance.

Obtain Professional Assistance to Deal with Moisture Infiltration and Mold

While your geotechnical engineer may have addressed groundwater, water infiltration, or similar issues in this report, the engineer’s services were not designed, conducted, or intended to prevent migration of moisture – including water vapor – from the soil through building slabs and walls and into the building interior, where it can cause mold growth and material-performance deficiencies. Accordingly, *proper implementation of the geotechnical engineer’s recommendations will not of itself be sufficient to prevent moisture infiltration.* Confront the risk of moisture infiltration by including building-envelope or mold specialists on the design team. *Geotechnical engineers are not building-envelope or mold specialists.*

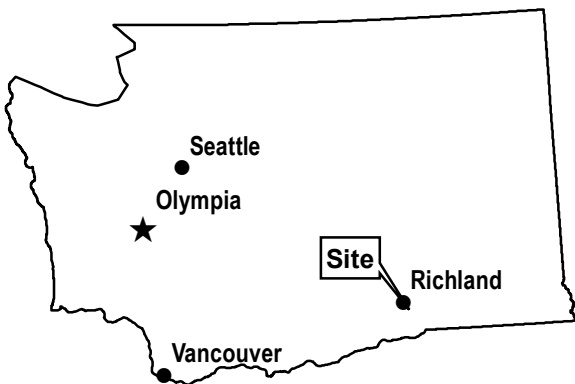


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Figures



VICINITY MAP

COUNTRY RIDGE RICHLAND, WASHINGTON

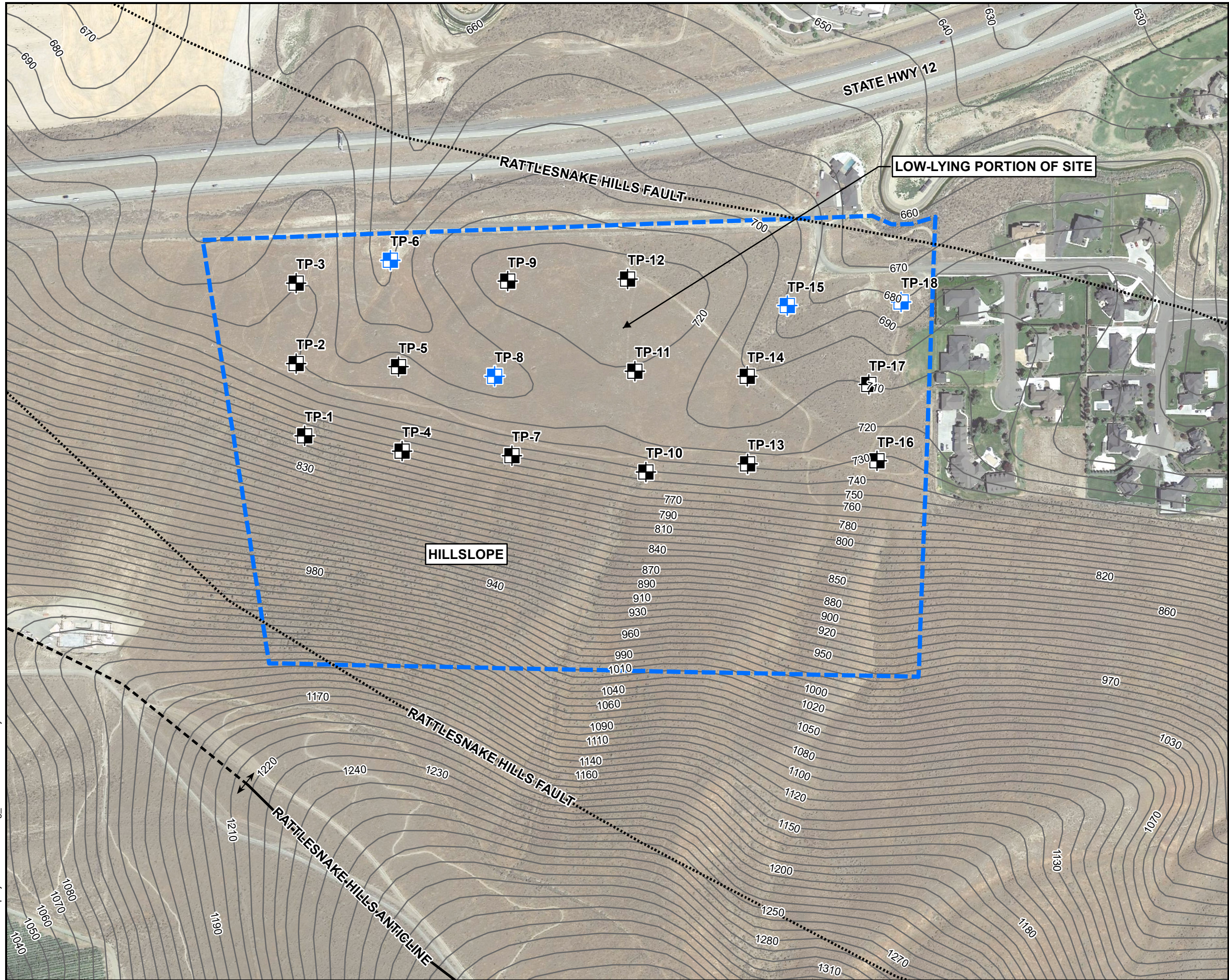
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FIGURE

1

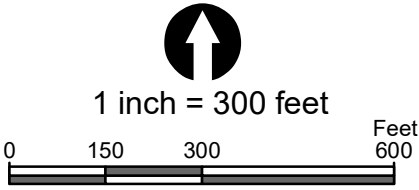
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EXPLANATION

- TP-1 - Test pit name and approximate location
- TP-6 - Test pit name and approximate location with infiltration test
- Approximate site boundary
- 10-foot elevation contour
- USGS Quaternary fault trace:
solid where visible, dotted where concealed
- WADNR Quaternary anticline trace:
solid where visible, dashed where inferred

SOURCES: Google Earth 2020, USGS 10-foot elevation contours 2020, USGS Quaternary fault and fold database 2020, and WADNR seismogenic features 2020



SITE PLAN

**COUNTRY RIDGE
RICHLAND, WASHINGTON**

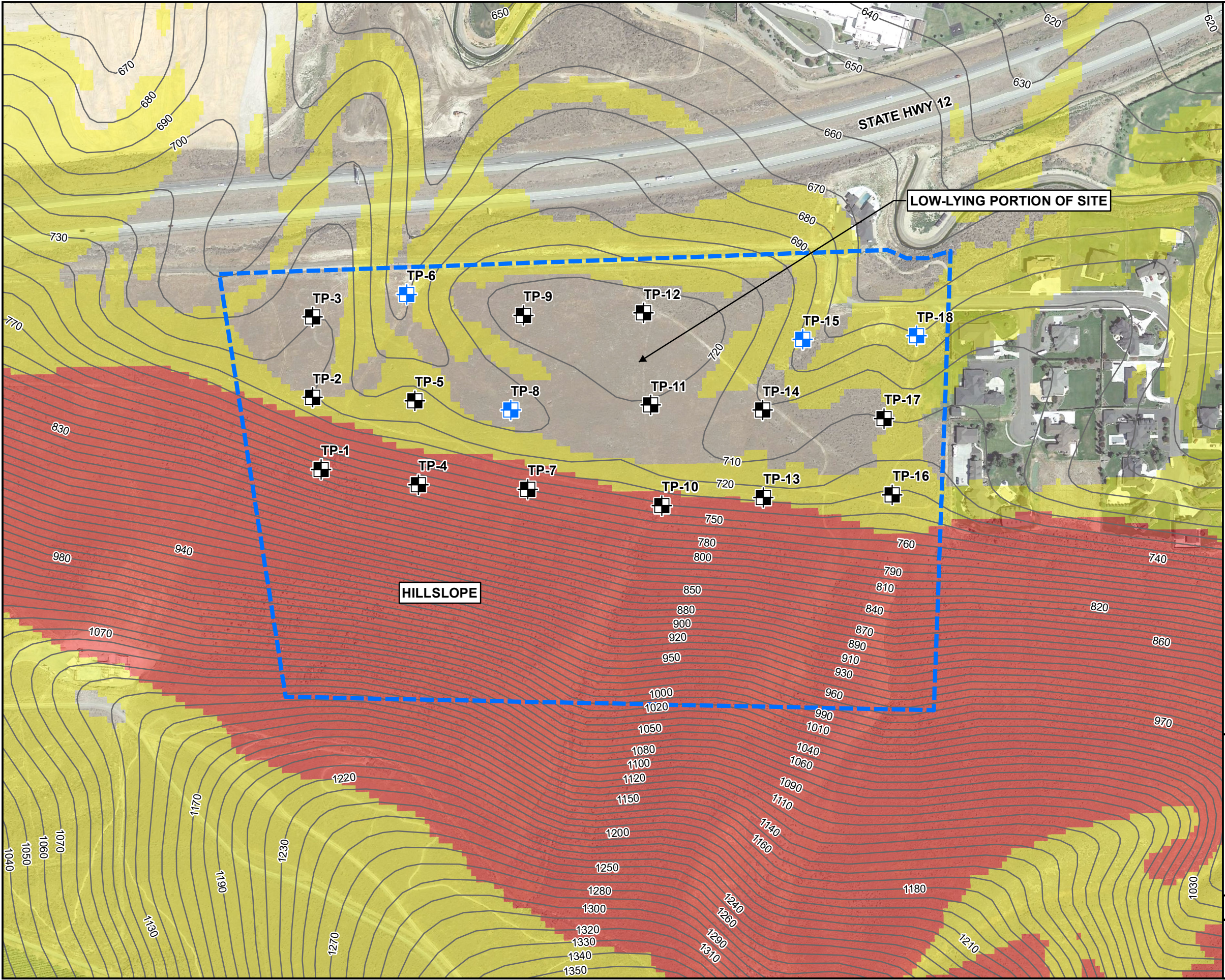
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FIGURE

2

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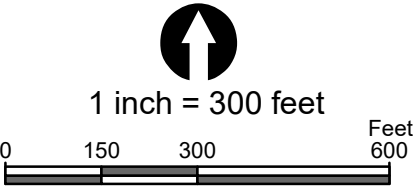
EXPLANATION

- TP-1 - Test pit name and approximate location
- TP-6 - Test pit name and approximate location with infiltration test
- Approximate site boundary
- 10-foot elevation contour

Calculated Percent Slope (% Slope)

- >15%
- >40%

SOURCES: Google Earth 2020, USGS 10-foot elevation contours 2020, WADNR fault and fold database 2020, Slope inclination generated from USGS 10-foot elevation contours



SLOPE MAP

**COUNTRY RIDGE
RICHLAND, WASHINGTON**

DATE: NOV 2020 · PROJECT: 66265.000



FIGURE

3

Appendix A

Field Explorations

Appendix A: Field Explorations

A1 GENERAL

PBS explored subsurface conditions at the project site by excavating 18 test pits to depths of 10 to 12 feet bgs on September 9, 2020. The approximate locations of the explorations are shown on Figure 2, Site Plan. The procedures used to advance the test pits, collect samples, and other field techniques are described in detail in the following paragraphs. Unless otherwise noted, all soil sampling and classification procedures followed engineering practices in general accordance with relevant ASTM procedures. "General accordance" means that certain local drilling/excavation and descriptive practices and methodologies have been followed.

A2 TEST PITS

A2.1 Excavation

Test pits were excavated using a CAT 308E excavator equipped with a 60-inch-wide, smooth bucket provided and operated by Mahaffey Enterprises, Inc., of Kennewick, Washington. The test pits were observed by a member of the PBS geotechnical staff, who maintained a detailed log of the subsurface conditions and materials encountered during the course of the work.

A2.2 Sampling

Representative disturbed samples were taken at selected depths in the test pits. The disturbed soil samples were examined by a member of the PBS geotechnical staff and sealed in plastic bags for further examination.

A2.3 Test Pit Logs

The test pit logs show the various types of materials that were encountered in the excavations and the depths where the materials and/or characteristics of these materials changed, although the changes may be gradual. Where material types and descriptions changed between samples, the contacts were interpreted. The types of samples taken during excavation, along with their sample identification number, are shown to the right of the classification of materials. The natural water (moisture) contents are shown farther to the right. Measured seepage levels, if observed, are noted in the column to the right.

A3 MATERIAL DESCRIPTION

Initially, samples were classified visually in the field. Consistency, color, relative moisture, degree of plasticity, and other distinguishing characteristics of the soil samples were noted. Afterward, the samples were reexamined in the PBS laboratory, various standard classification tests were conducted, and the field classifications were modified where necessary. The terminology used in the soil classifications and other modifiers are defined in Table A-1, Terminology Used to Describe Soil.

Soil Descriptions

Soils exist in mixtures with varying proportions of components. The predominant soil, i.e., greater than 50 percent based on total dry weight, is the primary soil type and is capitalized in our log descriptions (SAND, GRAVEL, SILT, or CLAY). Smaller percentages of other constituents in the soil mixture are indicated by use of modifier words in general accordance with the ASTM D2488-06 Visual-Manual Procedure. "General Accordance" means that certain local and common descriptive practices may have been followed. In accordance with ASTM D2488-06, group symbols (such as GP or CH) are applied on the portion of soil passing the 3-inch (75mm) sieve based on visual examination. The following describes the use of soil names and modifying terms used to describe fine- and coarse-grained soils.

Fine-Grained Soils (50% or greater fines passing 0.075 mm, No. 200 sieve)

The primary soil type, i.e., SILT or CLAY is designated through visual-manual procedures to evaluate soil toughness, dilatency, dry strength, and plasticity. The following outlines the terminology used to describe fine-grained soils, and varies from ASTM D2488 terminology in the use of some common terms.

Primary soil NAME, Symbols, and Adjectives			Plasticity Description	Plasticity Index (PI)
SILT (ML & MH)	CLAY (CL & CH)	ORGANIC SOIL (OL & OH)		
SILT		Organic SILT	Non-plastic	0 – 3
SILT		Organic SILT	Low plasticity	4 – 10
SILT/Elastic SILT	Lean CLAY	Organic SILT/ Organic CLAY	Medium Plasticity	10 – 20
Elastic SILT	Lean/Fat CLAY	Organic CLAY	High Plasticity	20 – 40
Elastic SILT	Fat CLAY	Organic CLAY	Very Plastic	>40

Modifying terms describing secondary constituents, estimated to 5 percent increments, are applied as follows:

Description	% Composition	
With Sand	% Sand ≥ % Gravel	15% to 25% plus No. 200
With Gravel	% Sand < % Gravel	
Sandy	% Sand ≥ % Gravel	≤30% to 50% plus No. 200
Gravelly	% Sand < % Gravel	

Borderline Symbols, for example CH/MH, are used when soils are not distinctly in one category or when variable soil units contain more than one soil type. **Dual Symbols**, for example CL-ML, are used when two symbols are required in accordance with ASTM D2488.

Soil Consistency terms are applied to fine-grained, plastic soils (i.e., $PI \geq 7$). Descriptive terms are based on direct measure or correlation to the Standard Penetration Test N-value as determined by ASTM D1586-84, as follows. SILT soils with low to non-plastic behavior (i.e., $PI < 7$) may be classified using relative density.

Consistency Term	SPT N-value	Unconfined Compressive Strength	
		tsf	kPa
Very soft	Less than 2	Less than 0.25	Less than 24
Soft	2 – 4	0.25 – 0.5	24 – 48
Medium stiff	5 – 8	0.5 – 1.0	48 – 96
Stiff	9 – 15	1.0 – 2.0	96 – 192
Very stiff	16 – 30	2.0 – 4.0	192 – 383
Hard	Over 30	Over 4.0	Over 383

Soil Descriptions

Coarse - Grained Soils (less than 50% fines)

Coarse-grained soil descriptions, i.e., SAND or GRAVEL, are based on the portion of materials passing a 3-inch (75mm) sieve. Coarse-grained soil group symbols are applied in accordance with ASTM D2488-06 based on the degree of grading, or distribution of grain sizes of the soil. For example, well-graded sand containing a wide range of grain sizes is designated SW; poorly graded gravel, GP, contains high percentages of only certain grain sizes. Terms applied to grain sizes follow.

Material NAME	Particle Diameter	
	Inches	Millimeters
SAND (SW or SP)	0.003 – 0.19	0.075 – 4.8
GRAVEL (GW or GP)	0.19 – 3	4.8 – 75
Additional Constituents:		
Cobble	3 – 12	75 – 300
Boulder	12 – 120	300 – 3050

The primary soil type is capitalized, and the fines content in the soil are described as indicated by the following examples. Percentages are based on estimating amounts of fines, sand, and gravel to the nearest 5 percent. Other soil mixtures will have similar descriptive names.

Example: Coarse-Grained Soil Descriptions with Fines

>5% to < 15% fines (Dual Symbols)	≥15% to < 50% fines
Well graded GRAVEL with silt: GW-GM	Silty GRAVEL: GM
Poorly graded SAND with clay: SP-SC	Silty SAND: SM

Additional descriptive terminology applied to coarse-grained soils follow.

Example: Coarse-Grained Soil Descriptions with Other Coarse-Grained Constituents

Coarse-Grained Soil Containing Secondary Constituents	
With sand or with gravel	≥ 15% sand or gravel
With cobbles; with boulders	Any amount of cobbles or boulders.

Cobble and boulder deposits may include a description of the matrix soils, as defined above.

Relative Density terms are applied to granular, non-plastic soils based on direct measure or correlation to the Standard Penetration Test N-value as determined by ASTM D1586-84.

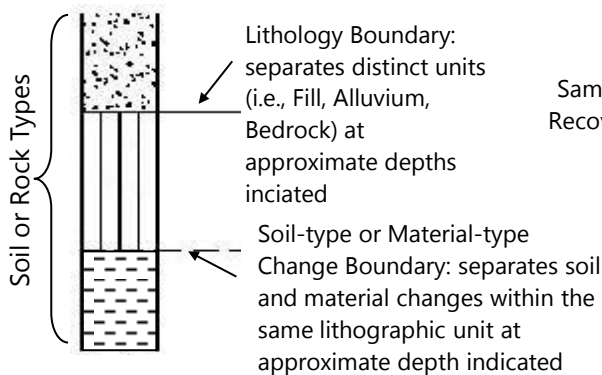
Relative Density Term	SPT N-value
Very loose	0 – 4
Loose	5 – 10
Medium dense	11 – 30
Dense	31 – 50
Very dense	> 50

SAMPLING DESCRIPTIONS

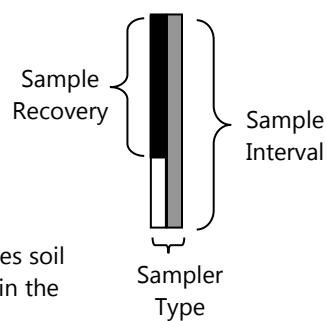
SPT Drive Sampler Standard Penetration Test ASTM D 1586	Shelby Tube Push Sampler ASTM D 1587	Specialized Drive Samplers (Details Noted on Logs)	Specialized Drill or Push Sampler (Details Noted on Logs)	Grab Sample	Rock Coring Interval	Screen (Water or Air Sampling)	Water Level During Drilling/Excavation	Water Level After Drilling/Excavation
								

LOG GRAPHICS

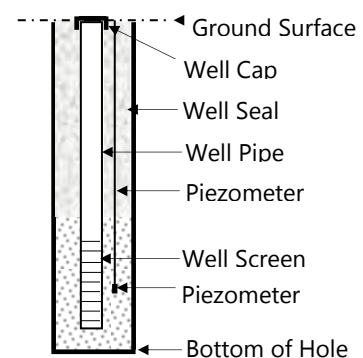
Soil and Rock



Sampling Symbols



Instrumentation Detail



Geotechnical Testing Acronym Explanations

PP	Pocket Penetrometer	HYD	Hydrometer Gradation
TOR	Torvane	SIEV	Sieve Gradation
DCP	Dynamic Cone Penetrometer	DS	Direct Shear
ATT	Atterberg Limits	DD	Dry Density
PL	Plasticity Limit	CBR	California Bearing Ratio
LL	Liquid Limit	RES	Resilient Modulus
PI	Plasticity Index	VS	Vane Shear
P200	Percent Passing US Standard No. 200 Sieve	bgs	Below ground surface
OC	Organic Content	MSL	Mean Sea Level
CON	Consolidation	HCL	Hydrochloric Acid
UC	Unconfined Compressive Strength		



COUNTRY RIDGE SUBDIVISION
RICHLAND, WASHINGTON

TEST PITS

PBS PROJECT NUMBER:
66265.000

TEST PIT LOCATION:
(See Site Plan)

DEPTH IN FEET	GRAPHIC LOG	MATERIAL DESCRIPTION NOTE: Lines representing the interface between soil/rock units of differing description are approximate only, inferred where between samples, and may indicate gradual transition.	DEPTH	TESTING	SAMPLE TYPE & SAMPLE ID	◆ DYNAMIC CONE PENETROMETER ■ STATIC PENETROMETER ● MOISTURE CONTENT %	COMMENTS
TP-1							
0.0		Stiff, brown, SILT (ML) with sand; non-plastic; fine sand; dry roots to 12 inches bgs	669.0 0.0				
2.0				P200	☒ S-1		
4.0				DCP		9 ●	P200 = 80%
6.0							
8.0							
10.0							
12.0		Final depth 11.0 feet bgs; test pit backfilled with excavated material to existing ground surface. Groundwater not encountered at time of exploration.	658.0 11.0		☒ S-2		
14.0							
Date Completed: 9/9/2020 Elevation: 669 Final Depth: 11 feet bgs Latitude: 46.24467 Longitude: -119.33453							

TP-2							
0.0		Brown SILT (ML) with sand; non-plastic; fine sand; dry roots to 12 inches bgs	649.0 0.0				
2.0							
4.0					☒ S-1		
6.0							
8.0							
10.0							
12.0		Final depth 11.0 feet bgs; test pit backfilled with excavated material to existing ground surface. Groundwater not encountered at time of exploration.	638.0 11.0		☒ S-2		
14.0							
Date Completed: 9/9/2020 Elevation: 649 Final Depth: 11 feet bgs Latitude: 46.24498 Longitude: -119.33458							

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FIGURE A1
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DEPTH IN FEET	GRAPHIC LOG	MATERIAL DESCRIPTION NOTE: Lines representing the interface between soil/rock units of differing description are approximate only, inferred where between samples, and may indicate gradual transition.	DEPTH	TESTING	SAMPLE TYPE & SAMPLE ID	◆ DYNAMIC CONE PENETROMETER ▣ STATIC PENETROMETER ● MOISTURE CONTENT %	COMMENTS
TP-3							
0.0		Brown SILT (ML) with sand; non-plastic; fine sand; dry roots to 12 inches bgs	638.0 0.0				
2.0							
4.0					▣ S-1		
6.0							
8.0							
10.0			628.0 10.0		▣ S-2		
12.0		Final depth 10.0 feet bgs; test pit backfilled with excavated material to existing ground surface. Groundwater not encountered at time of exploration.					
14.0							
Date Completed: 9/9/2020 Elevation: 638 Final Depth: 10 feet bgs Latitude: 46.24566 Longitude: -119.33458							

TP-4							
0.0		Brown SILT (ML) with sand; non-plastic; fine sand; dry roots to 12 inches bgs	659.0 0.0				
2.0							
4.0					▣ S-1		
6.0							
8.0							
10.0			649.0 10.0		▣ S-2		
12.0		Final depth 10.0 feet bgs; test pit backfilled with excavated material to existing ground surface. Groundwater not encountered at time of exploration.					
14.0							
Date Completed: 9/9/2020 Elevation: 659 Final Depth: 10 feet bgs Latitude: 46.24446 Longitude: -119.33334							

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FIGURE A2
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TEST PIT LOCATION:
(See Site Plan)

DEPTH IN FEET	GRAPHIC LOG	MATERIAL DESCRIPTION NOTE: Lines representing the interface between soil/rock units of differing description are approximate only, inferred where between samples, and may indicate gradual transition.	DEPTH	TESTING	SAMPLE TYPE & SAMPLE ID	◆ DYNAMIC CONE PENETROMETER ▣ STATIC PENETROMETER ● MOISTURE CONTENT %	COMMENTS
TP-5							
0.0		Brown SILT (ML) with sand; non-plastic; fine sand; dry roots to 12 inches bgs	667.0 0.0				
2.0							
4.0					▣ S-1		
6.0							
8.0							
10.0		Final depth 10.0 feet bgs; test pit backfilled with excavated material to existing ground surface. Groundwater not encountered at time of exploration.	657.0 10.0				
12.0							
14.0							
Date Completed: 9/9/2020 Elevation: 667 Final Depth: 10 feet bgs Latitude: 46.24499 Longitude: -119.33339							

TP-6							
0.0		Brown SILT (ML) with sand; non-plastic; fine sand; dry roots to 12 inches bgs moderate cementation	612.0 0.0				
2.0							
4.0					▣ S-1		
6.0		Poorly graded GRAVEL (GP) with sand and cobbles; fine sand; coarse, angular to subangular basalt gravel; dry	606.0 6.0				
8.0							
10.0		Final depth 10.0 feet bgs; test pit backfilled with excavated material to existing ground surface. Groundwater not encountered at time of exploration.	602.0 10.0		▣ S-2		
12.0							
14.0							
Date Completed: 9/9/2020 Elevation: 612 Final Depth: 10 feet bgs Latitude: 46.24592 Longitude: -119.33356							

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FIGURE A3
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DEPTH IN FEET	GRAPHIC LOG	MATERIAL DESCRIPTION NOTE: Lines representing the interface between soil/rock units of differing description are approximate only, inferred where between samples, and may indicate gradual transition.	DEPTH	TESTING	SAMPLE TYPE & SAMPLE ID	◆ DYNAMIC CONE PENETROMETER ▣ STATIC PENETROMETER ● MOISTURE CONTENT %	COMMENTS
TP-7							
0.0		Brown SILT (ML) with sand; non-plastic; fine sand; dry roots to 12 inches bgs	659.0 0.0				
2.0							
4.0					▣ S-1		
6.0							
8.0							
10.0		boulders at 9 feet bgs					
12.0		Final depth 12.0 feet bgs; test pit backfilled with excavated material to existing ground surface. Groundwater not encountered at time of exploration.	647.0 12.0				
14.0							
Date Completed: 9/9/2020 Elevation: 659 Final Depth: 12 feet bgs Latitude: 46.24423 Longitude: -119.33202							

TP-8							
0.0		Brown SILT (ML) with sand; non-plastic; fine sand; dry roots to 6 inches bgs moderate cementation	586.0 0.0				
2.0							
4.0					▣ S-1		
6.0							
8.0							
10.0		Final depth 10.0 feet bgs; test pit backfilled with excavated material to existing ground surface. Groundwater not encountered at time of exploration.	576.0 10.0		▣ S-2		
12.0							
14.0							
Date Completed: 9/9/2020 Elevation: 586 Final Depth: 10 feet bgs Latitude: 46.24488 Longitude: -119.33218							

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FIGURE A4
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DEPTH IN FEET	GRAPHIC LOG	MATERIAL DESCRIPTION NOTE: Lines representing the interface between soil/rock units of differing description are approximate only, inferred where between samples, and may indicate gradual transition.	DEPTH	TESTING	SAMPLE TYPE & SAMPLE ID	◆ DYNAMIC CONE PENETROMETER ▣ STATIC PENETROMETER ● MOISTURE CONTENT %	COMMENTS
TP-9							
0.0		Brown SILT (ML) with sand; non-plastic; fine sand; dry roots to 6 inches bgs	652.0 0.0				
2.0							
4.0					▣ S-1		
6.0							
8.0							
10.0			642.0 10.0		▣ S-2		
12.0		Final depth 10.0 feet bgs; test pit backfilled with excavated material to existing ground surface. Groundwater not encountered at time of exploration.					
14.0							
Date Completed: 9/9/2020 Elevation: 652 Final Depth: 10 feet bgs Latitude: 46.24567 Longitude: -119.33192							

TP-10							
0.0		Brown SILT (ML) with sand; non-plastic; fine sand; dry	665.0 0.0				
2.0		Poorly graded GRAVEL (GP) with sand and cobbles; fine sand; coarse, angular to subangular basalt gravel; dry	663.0 2.0				
4.0		Brown, silty SAND (SM); non-plastic; fine sand; dry	662.0 3.0		▣ S-1		
6.0							
8.0							
10.0			655.0 10.0		▣ S-2		
12.0		Final depth 10.0 feet bgs; test pit backfilled with excavated material to existing ground surface. Groundwater not encountered at time of exploration.					
14.0							
Date Completed: 9/9/2020 Elevation: 665 Final Depth: 10 feet bgs Latitude: 46.24403 Longitude: -119.33035							

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FIGURE A5
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DEPTH IN FEET	GRAPHIC LOG	MATERIAL DESCRIPTION NOTE: Lines representing the interface between soil/rock units of differing description are approximate only, inferred where between samples, and may indicate gradual transition.	DEPTH	TESTING	SAMPLE TYPE & SAMPLE ID	◆ DYNAMIC CONE PENETROMETER ▣ STATIC PENETROMETER ● MOISTURE CONTENT %	COMMENTS
TP-11							
0.0		Brown SILT (ML) with sand; non-plastic; fine sand; dry roots to 12 inches bgs	646.0 0.0				
2.0							
4.0					▣ S-1		
6.0		moderate cementation					
8.0							
10.0			636.0 10.0		▣ S-2		
12.0		Final depth 10.0 feet bgs; test pit backfilled with excavated material to existing ground surface. Groundwater not encountered at time of exploration.					
14.0							
Date Completed: 9/9/2020 Elevation: 646 Final Depth: 10 feet bgs Latitude: 46.24490 Longitude: -119.33049							

TP-12							
0.0		Brown SILT (ML) with sand; non-plastic; fine sand; dry	644.0 0.0				
2.0							
4.0		roots to 36 inches bgs			▣ S-1		
6.0							
8.0							
10.0			634.0 10.0				
12.0		Final depth 10.0 feet bgs; test pit backfilled with excavated material to existing ground surface. Groundwater not encountered at time of exploration.					
14.0							
Date Completed: 9/9/2020 Elevation: 644 Final Depth: 10 feet bgs Latitude: 46.24566 Longitude: -119.33058							

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FIGURE A6
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DEPTH IN FEET	GRAPHIC LOG	MATERIAL DESCRIPTION NOTE: Lines representing the interface between soil/rock units of differing description are approximate only, inferred where between samples, and may indicate gradual transition.	DEPTH	TESTING	SAMPLE TYPE & SAMPLE ID	◆ DYNAMIC CONE PENETROMETER ▣ STATIC PENETROMETER ● MOISTURE CONTENT %	COMMENTS
TP-13							
0.0		Brown SILT (ML) with sand; non-plastic; fine sand; dry roots to 0.5 inches bgs	634.0 0.0				
2.0							
4.0					▣ S-1		
6.0							
8.0							
10.0					▣ S-2		
12.0		Final depth 10.5 feet bgs; test pit backfilled with excavated material to existing ground surface. Groundwater not encountered at time of exploration.	623.5 10.5				
14.0							
Date Completed: 9/9/2020 Elevation: 634 Final Depth: 10.5 feet bgs Latitude: 46.24411 Longitude: -119.32917							

TP-14							
0.0		Brown SILT (ML) with sand; non-plastic; fine sand; dry	625.0 0.0				
2.0							
4.0					▣ S-1		
6.0							
8.0							
10.0							
12.0		Final depth 11.0 feet bgs; test pit backfilled with excavated material to existing ground surface. Groundwater not encountered at time of exploration.	614.0 11.0		▣ S-2		
14.0							
Date Completed: 9/9/2020 Elevation: 625 Final Depth: 11 feet bgs Latitude: 46.24487 Longitude: -119.32912							

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FIGURE A7
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(See Site Plan)

DEPTH IN FEET	GRAPHIC LOG	MATERIAL DESCRIPTION NOTE: Lines representing the interface between soil/rock units of differing description are approximate only, inferred where between samples, and may indicate gradual transition.	DEPTH	TESTING	SAMPLE TYPE & SAMPLE ID	◆ DYNAMIC CONE PENETROMETER ▣ STATIC PENETROMETER ● MOISTURE CONTENT %	COMMENTS
TP-15							
0.0		Brown, SILT (ML) with sand; non-plastic; fine sand; dry roots to 6 inches bgs	602.0 0.0				
2.0							
4.0				P200	▣ S-1	●	
6.0		moderate cementation					
8.0							
10.0							
12.0		Final depth 11.0 feet bgs; test pit backfilled with excavated material to existing ground surface. Groundwater not encountered at time of exploration.	591.0 11.0				
14.0							
Infiltration testing completed at 4 feet bgs P200 = 82%							
Date Completed: 9/9/2020 Elevation: 602 Final Depth: 11 feet bgs Latitude: 46.24537 Longitude: -119.32847							

TP-16							
0.0		Brown SILT (ML) with sand; non-plastic; fine sand; dry roots to 6 inches bgs	1034.0 0.0				
2.0		Poorly graded GRAVEL (GP) with sand and cobbles; fine sand; coarse, angular to subangular basalt gravel; dry	1032.0 2.0				
4.0		Brown, silty SAND (SM); non-plastic; fine sand; dry	1031.0 3.0		▣ S-1		
6.0							
8.0							
10.0		Final depth 10.0 feet bgs; test pit backfilled with excavated material to existing ground surface. Groundwater not encountered at time of exploration.	1024.0 10.0				
12.0							
14.0							
Date Completed: 9/9/2020 Elevation: 1034 Final Depth: 10 feet bgs Latitude: 46.24409 Longitude: -119.32761							

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FIGURE A8
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TEST PITS

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66265.000

TEST PIT LOCATION:
(See Site Plan)

DEPTH IN FEET	GRAPHIC LOG	MATERIAL DESCRIPTION NOTE: Lines representing the interface between soil/rock units of differing description are approximate only, inferred where between samples, and may indicate gradual transition.	DEPTH	TESTING	SAMPLE TYPE & SAMPLE ID	◆ DYNAMIC CONE PENETROMETER ▣ STATIC PENETROMETER ● MOISTURE CONTENT %	COMMENTS
TP-17							
0.0		Brown SILT (ML) with sand; non-plastic; fine sand; dry roots to 12 inches bgs	630.0 0.0				
2.0							
4.0					▣ S-1		
6.0							
8.0							
10.0			619.5 10.5				
12.0		Final depth 10.5 feet bgs; test pit backfilled with excavated material to existing ground surface. Groundwater not encountered at time of exploration.					
14.0							
Date Completed: 9/9/2020 Elevation: 630 Final Depth: 10.5 feet bgs Latitude: 46.24476 Longitude: -119.32762							

TP-18							
0.0		Brown, sandy SILT (ML); non-plastic; fine sand; dry roots to 12 inches bgs	606.0 0.0				
2.0							
4.0				P200	▣ S-1 ▣ S-2	●	
6.0							
8.0							
10.0			595.5 10.5		▣ S-3		
12.0		Final depth 10.5 feet bgs; test pit backfilled with excavated material to existing ground surface. Groundwater not encountered at time of exploration.					
14.0							
Date Completed: 9/9/2020 Elevation: 606 Final Depth: 10.5 feet bgs Latitude: 46.24545 Longitude: -119.32730							

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FIGURE A9
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Appendix B

Laboratory Testing

Appendix B: Laboratory Testing

B1 GENERAL

Samples obtained during the field explorations were examined in the PBS laboratory. The physical characteristics of the samples were noted and field classifications were modified where necessary. During the course of examination, representative samples were selected for further testing. The testing program for the soil samples included standard classification tests, which yield certain index properties of the soils important to an evaluation of soil behavior. The testing procedures are described in the following paragraphs. Unless noted otherwise, all test procedures are in general accordance with applicable ASTM standards. "General accordance" means that certain local and common descriptive practices and methodologies have been followed.

B2 CLASSIFICATION TESTS

B2.1 Visual Classification

The soils were classified in accordance with the Unified Soil Classification System with certain other terminology, such as the relative density or consistency of the soil deposits, in general accordance with engineering practice. In determining the soil type (that is, gravel, sand, silt, or clay) the term that best described the major portion of the sample is used. Modifying terminology to further describe the samples is defined in Table A-1, Terminology Used to Describe Soil, in Appendix A.

B2.2 Moisture (Water) Contents

Natural moisture content determinations were made on samples of the fine-grained soils (that is, silts, clays, and silty sands). The natural moisture content is defined as the ratio of the weight of water to dry weight of soil, expressed as a percentage. The results of the moisture content determinations are presented on the exploration logs in Appendix A and on Figure B1, Summary of Laboratory Data, in Appendix B.

B2.3 Grain-Size Analyses (P200 Wash)

Washed sieve analyses (P200) were completed on samples to determine the portion of soil samples passing the No. 200 Sieve (i.e., silt and clay). The results of the P200 test results are presented on the exploration logs in Appendix A and on Figure B1, Summary of Laboratory Data, in Appendix B.



SUMMARY OF LABORATORY DATA

COUNTRY RIDGE SUBDIVISION
RICHLAND, WASHINGTON

PBS PROJECT NUMBER:
66265.000

SAMPLE INFORMATION

MOISTURE
CONTENT
(PERCENT)

DRY
DENSITY
(PCF)

SIEVE

ATTERBERG LIMITS

EXPLORATION
NUMBER

SAMPLE
NUMBER

SAMPLE
DEPTH
(FEET)

ELEVATION
(FEET)

GRAVEL
(PERCENT)

SAND
(PERCENT)

P200
(PERCENT)

LIQUID
LIMIT
(PERCENT)

PLASTIC
LIMIT
(PERCENT)

PLASTICITY
INDEX
(PERCENT)

TP-1

S-1

3

666.0

3.2

80

TP-15

S-1

4

598.0

4.2

82

TP-18

S-2

4

602.0

3.9

66



Exhibit 6

Traffic Impact Analysis

8. Transportation Impact Analysis

Date:	May 30, 2022
To:	John Deskins, PE, City of Richland
From:	Joe Bessman, PE
Project Reference No.:	1677
Project Name:	Pahlisch Ladera Subdivision



Signed May 30, 2022
Renews Oct 1, 2022

This memorandum provides a Transportation Impact Analysis for the proposed Pahlisch Homes' Ladera Subdivision in south Richland, Washington. This report was prepared in compliance with the City's Draft Traffic Impact Analysis requirements and follows the prior submittal of scoping materials and discussions with staff.

The preliminary layout of the subdivision includes 82 single-family detached lots ranging from about 13,000 to 30,000 square-feet in size. Primary access is proposed to the subdivision from an extension of Strawberry Lane, as shown in Figure 1. The overall site is zoned appropriately for the proposed development (site zoning is also illustrated in Figure 1).

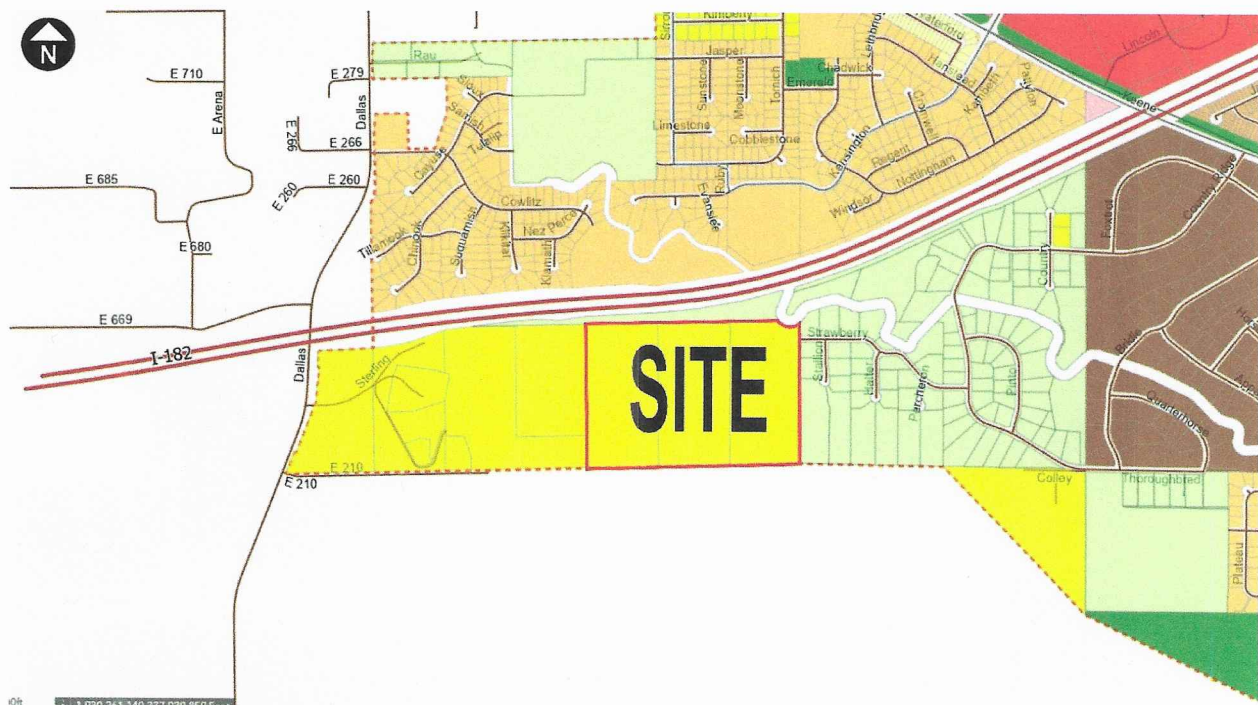


Figure 1. Site Vicinity Map. Notes: Yellow: R-1-12 Single Family Residential Zoning, Light Green: Suburban Agricultural, Brown: PUD. Source: Richlandwa.maps.arcgis.com.

The location of the site within the City's *Functional Classification Map* is included in Figure 2, illustrating the higher order roadway system around the site. As shown in the figure, the site is located on the south side of I-182 with access through the local street system to Keene Road, a *Principal Arterial*.

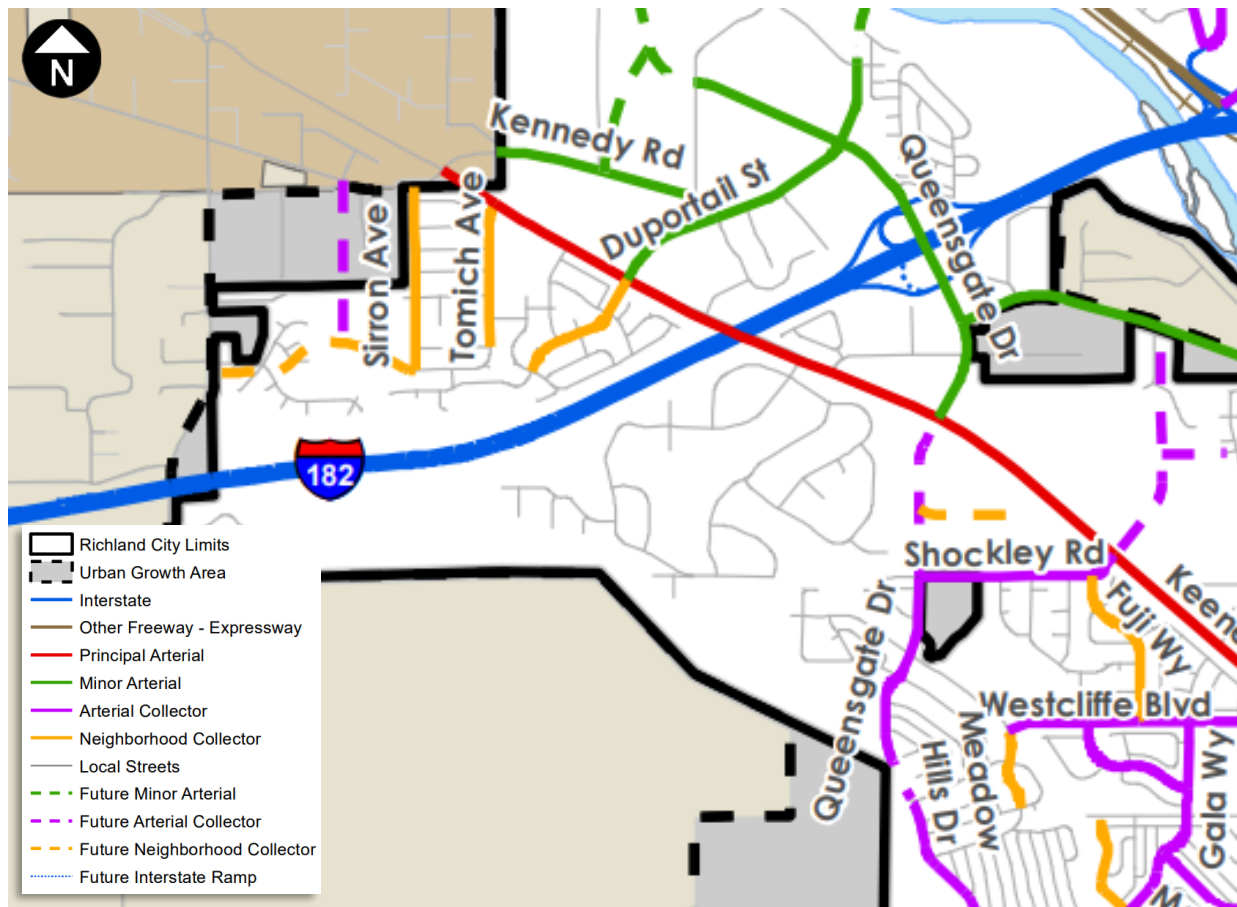


Figure 2. Functional Classification Map. Source: City of Richland 2017 Comprehensive Plan Supporting Analysis.

The City's 2017 *Comprehensive Plan Supporting Analysis* does not show any roadway improvements in the immediate surrounding area with the exception of the extension of Queensgate Drive south to Shockley Road. It is our understanding that Strawberry Lane will extend west to Dallas Road in the future as part of standard street connectivity and extension policies, which is a County road classified as a *Minor Arterial*. Currently, there is no right-of-way to support this connection, nor is it shown in the 2017 *Comprehensive Plan Supporting Analysis*. Accordingly, this connection is not assumed or contemplated within this report.

DESCRIPTION OF THE PROPOSED DEVELOPMENT

The site of the proposed development is currently vacant and is located in an area bounded by I-182 to the north and Badger Mountain Centennial Preserve to the south. The land directly to the east has been developed with single-family homes. West of the site are a mix of vacant lots and low-density single-family homes located on acreage.

The preliminary site plan is included in Figure 3, illustrating the proposed street orientation and parcel lot lines. The development is proposed to include 82 lots for single-family homes along with three tracts totaling over 23 acres along the southern portion of the site abutting the adjacent preserve. Access will be provided with the extension of Strawberry Lane into the site that will tee into a loop road formed by new roads: Lamont Street and Redtail Loop.

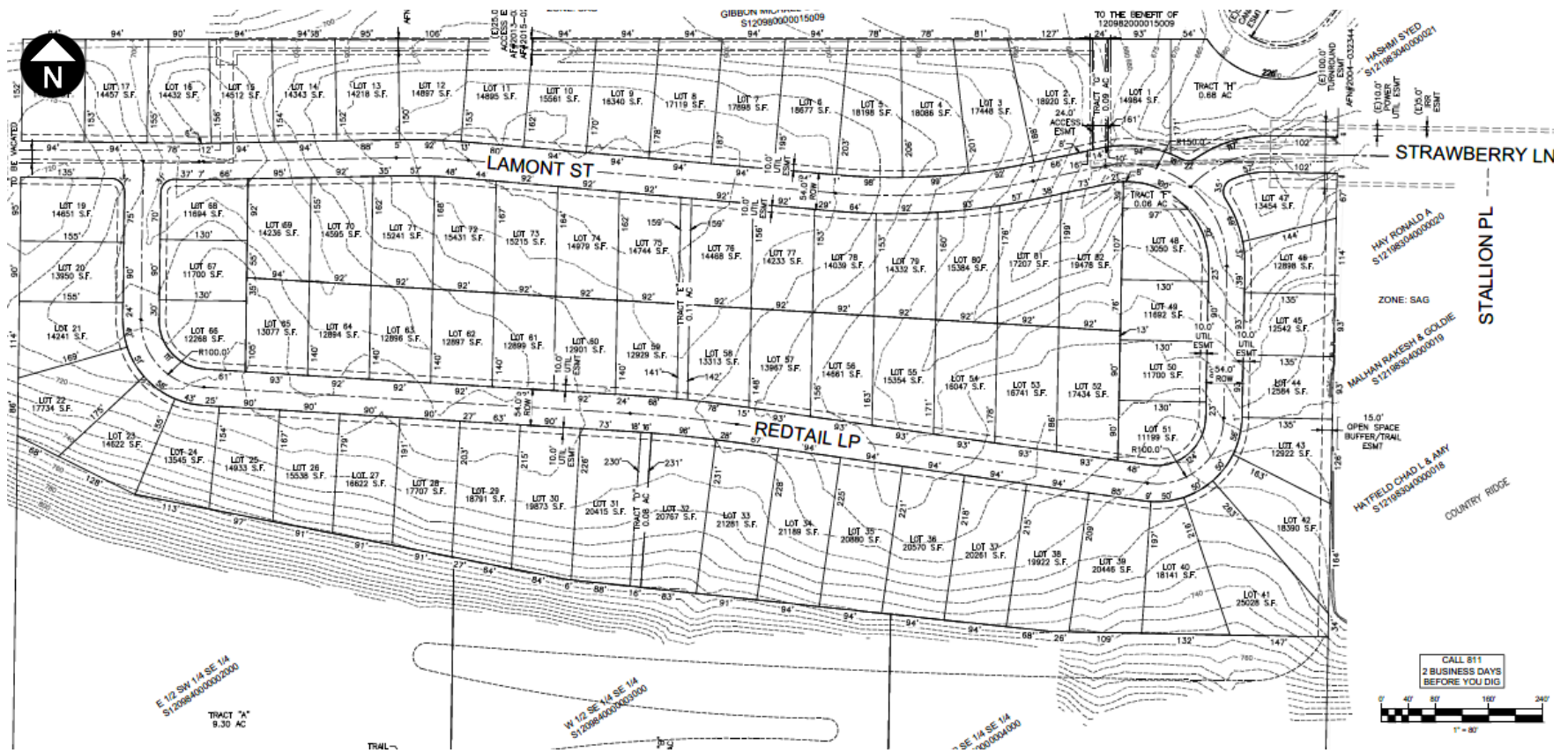


Figure 3: Preliminary Site Plan

Source: Knutzen Engineering, dated 4/25/22.

The property previously applied for a similar subdivision in 2021 for 101 units that was denied by the hearings examiner. The primary reason for the application's denial was a lack of a secondary emergency access to support the property. A potential future extension of Strawberry Lane to Dallas Road would provide this alternate access for the proposed development and the adjacent existing residential areas. In the meantime, the team is reviewing alternate emergency access options for the subdivision in coordination with emergency service providers.

Due to the timing of the prior application, the study was based on estimated base turning movement volumes due to the continued impact of the COVID-19 pandemic and September wildfires. The resulting recommendations included a traffic signal at the Country Ridge Drive/Keene Road intersection. This updated traffic impact analysis provides a detailed review of current traffic volumes and the reduced impact of the smaller proposed development.

SURROUNDING TRANSPORTATION INFRASTRUCTURE

The *Local Streets*, Strawberry Lane and Country Ridge Drive, will connect the site to Keene Road. Strawberry Lane has nearly complete sidewalks on both sides of the road with one gap near Country Ridge Drive on the south side. Country Ridge Drive has sidewalks between the East Badger Lateral canal and Strawberry Lane, but is missing dedicated pedestrian facilities from the canal to Keene Drive. Both roadways have striped shoulders that provide a space for walking and/or biking. However, they are not marked as bicycle lanes. On-street parking appears to be available on the shoulder and in the gravel area adjacent to homes along most of both streets.

Keene Road provides a regional northwest to southeast connection between Highway 224 and South Richland. It is classified in the City's Comprehensive Plan as a *Principal Arterial*. Within the study area it has a five-lane section with bicycle lanes on both sides. Sidewalks are provided on the southwest side and the Keene Road Trail is provided on the northeast side. Keene Road has a posted speed of 45 miles per hour.

Queensgate Drive is a *Minor Arterial* that connects between Keene Road and I-182. It connects to Keene Road at a T-intersection controlled by a traffic signal. There are future plans to extend Queensgate Drive south to Shockley Road in the future providing additional access and connectivity to the area south of Keene Road. Queensgate Drive north of Keene Road is a four-lane roadway with median. Bicycle lanes, sidewalks, and a multi-use path provide pedestrian and bicyclist facilities. There is a posted speed of 35 miles per hour.

Table 1 summarizes area roadway characteristics.

Table 1. Area Roadway Characteristics

Roadway	Functional Classification	Number of Lanes	Posted Speed	Sidewalks?	Bicycle Lanes?	Parking?
Strawberry Lane	Local Street	2-Lanes	Not Posted	Mostly complete	Striped shoulder	Partial
Country Ridge Drive	Local Street	2-Lanes	25 mph	Partial	Striped shoulder	Partial
Keene Road	Principal Arterial	5-Lanes	45 mph	Yes	Yes	No
Queensgate Drive	Minor Arterial	4-5-Lanes	35 mph	Yes	Yes	No

TRIP GENERATION

Trip generation estimates for the site were prepared based on the most current edition of the Institute of Transportation Engineers' (ITE) standard reference *Trip Generation, 11th Edition*. The land use category that applies to the proposed single-family home development is land use category 210: *Single-Family Detached Housing*. The ITE manual category description is included below:

- *Land Use 210: A single-family detached housing site includes any single-family detached home on an individual lot. A typical site surveyed is a suburban subdivision.*

In review of the ITE data, the fitted curve equations provide a strong correlation to the data points, and per guidance within the Trip Generation Handbook as the coefficient of correlation (R^2 value) is above 0.75 the regression equations were applied. This results in slightly higher trip generation estimates than use of the ITE average rate equations. Both values are provided in Table 2 for comparison, with the higher fitted equation rates applied throughout this analysis.

Table 2. Trip Generation Estimates (ITE 11th Edition)

Land Use	ITE Code	Size	Daily Trips	Weekday AM Peak Hour			Weekday PM Peak Hour		
				Total	In	Out	Total	In	Out
Single-Family Detached Housing <i>Average Rate</i>	210	82 Units	773 <i>9.43/Unit</i>	57 <i>0.70/Unit</i>	15 <i>26%</i>	42 <i>74%</i>	77 <i>0.94/Unit</i>	48 <i>63%</i>	29 <i>37%</i>
Single-Family Detached Housing <i>Fitted Equation</i>	210	82 Units	841 <i>Fitted Eqn</i>	62 <i>Fitted Eqn</i>	16 <i>26%</i>	46 <i>74%</i>	82 <i>Fitted Eqn</i>	51 <i>63%</i>	31 <i>37%</i>

TRIP DISTRIBUTION AND ASSIGNMENT

Trips were assigned to the transportation network based on recent traffic counts and the locations of attractions and destinations. Approximately 40-percent of trips are expected to head northwest on Keene Road, 25-percent are expected to head north on Queensgate Drive towards Columbia Park Trail and I-182. The last 35-percent are expected to head southeast on Keene Road. The distribution and assignment of site-generated trips are shown in Figure 4.

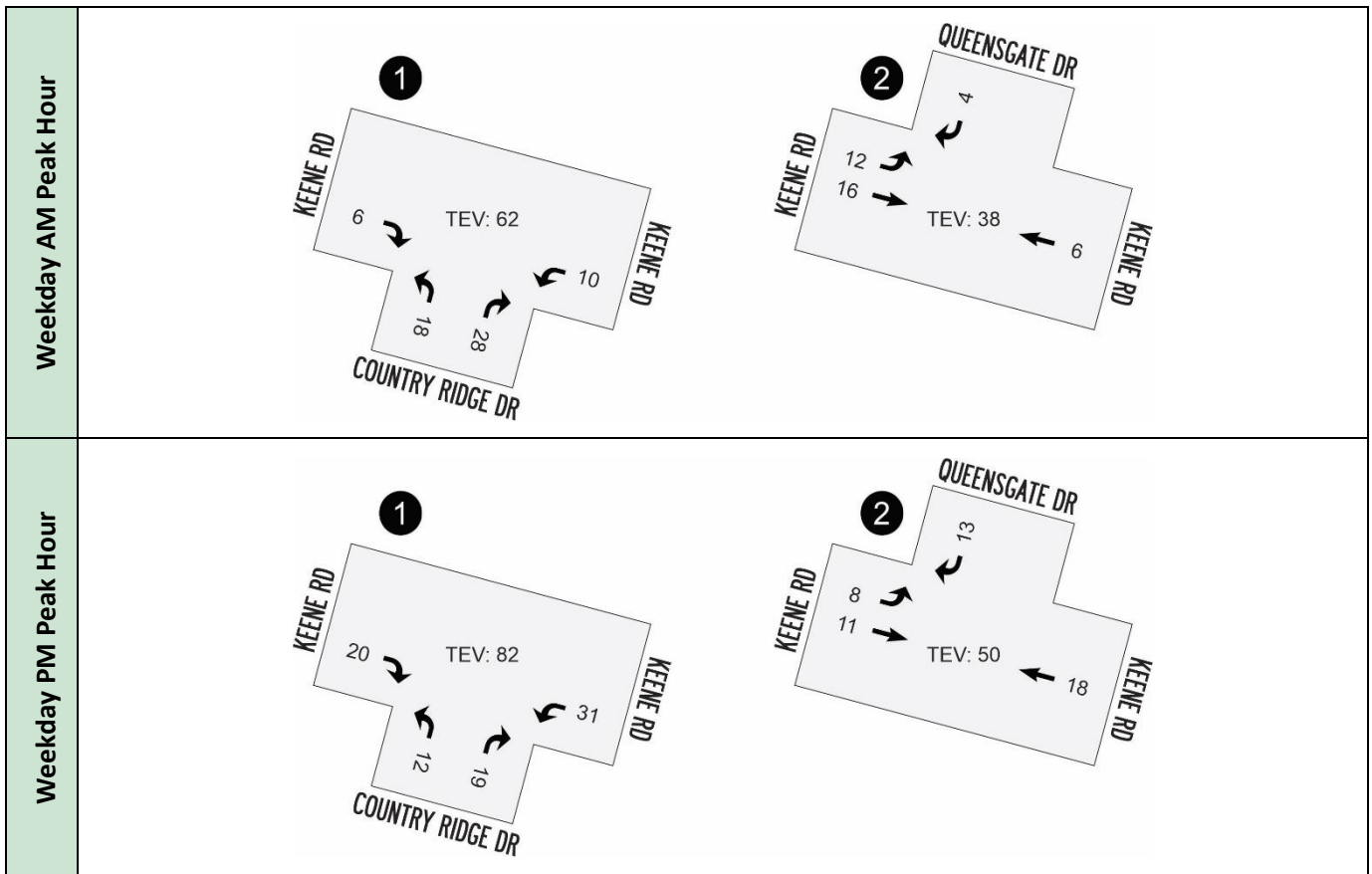


Figure 4. Estimated Trip Distribution and Assignment.

STUDY AREA

Based on the trip assignment illustrated in Figure 4, both the Country Ridge Drive/Keene Road and Queensgate Drive/Keene Road intersections are included as study intersections in this report.

ANALYSIS YEARS

The City's draft Traffic Impact Analysis requirements detail the horizon study years. For a development generating fewer than 1,000 daily trips, such as the proposed Ladera subdivision, the study is only required to analyze the year of opening. To be consistent with the previous Traffic Impact Analysis prepared for this site and at the request of City staff, this study will review a 5-year horizon in addition to the year of opening. The study years in this report include:

- 2021 – Existing Conditions
- 2025 – Projected Build out Year
- 2030 – Five Year Forecast

SAFETY REVIEW

Crash records were obtained for the study intersections from the WSDOT crash database between January 2016 and December 2020. Crashes required for reporting during this period include those involving any level of personal injury or property damage exceeding \$1,000.

The crashes reported at the study intersections are summarized in Table 3 along with the severity and crash types. As shown in the table, both intersections had a crash rate less than the 1.00, which is often used as a threshold to identify safety issues. The signalized Queensgate Drive/Keene Road intersection is discussed further below since it experiences a high overall number of crashes.

Table 3. Reported Crash Summary (January 2016 through December 2020)

Intersection	# of Crashes	Severity			Crash Type				Intersection Crash Rate per MEV*
		Fatal	Injury	Non-Injury	Turning/ Angle	Rear-End	Sideswipe	Fixed Object	
1: Country Ridge Dr/ Keene Rd	1	0	0	1	0	1	0	0	0.03
2: Queensgate Dr/ Keene Rd	43	0	19	24	31	10	1	1	0.75

*Million Entering Vehicles

Queensgate Drive/Keene Road

The Queensgate Drive/Keene Road intersection is a T-intersection, with Keene Road oriented in a northwest to southeast alignment and Queensgate Drive oriented perpendicular on the north side of the road. A traffic signal controls all three approaches. A driveway is located on the south side of the intersection that, according to the city, is controlled by a stop sign. Signal heads are provided for the northbound approach in anticipation of a planned extension of Queensgate Drive to the south, but these signal displays are not in use.

Forty-three crashes were reported at the Queensgate Drive/Keene Road intersection over the five-year review period, which resulted in a crash rate of 0.75.

- Nineteen of the 43 crashes resulted in a possible injury or suspected minor injury, while 24 had no apparent injuries.
- The majority of the crashes at the intersection were turning collisions.
 - Twenty-two of the 31 turning and angle collisions involved eastbound left-turning vehicles and westbound through vehicles on Keene Road. Nearly half of these (10) occurred when it was dark and streetlights were on. Most of the crashes occurred when the street surface was dry. The eastbound left-turn movement is controlled by a protected signal phase and street lighting is provided along Keene Road on both sides.
 - Figure 5 shows the pattern of turning crashes over the five-year period and shows that they were highest in 2018 and 2019. It is not clear if there were signal changes or contributing circumstances (beyond the COVID-related closures) that increased the turning crash incidences in these years. It is very unlikely that no crashes would be experienced at a major intersection in 2017 and again in 2020.

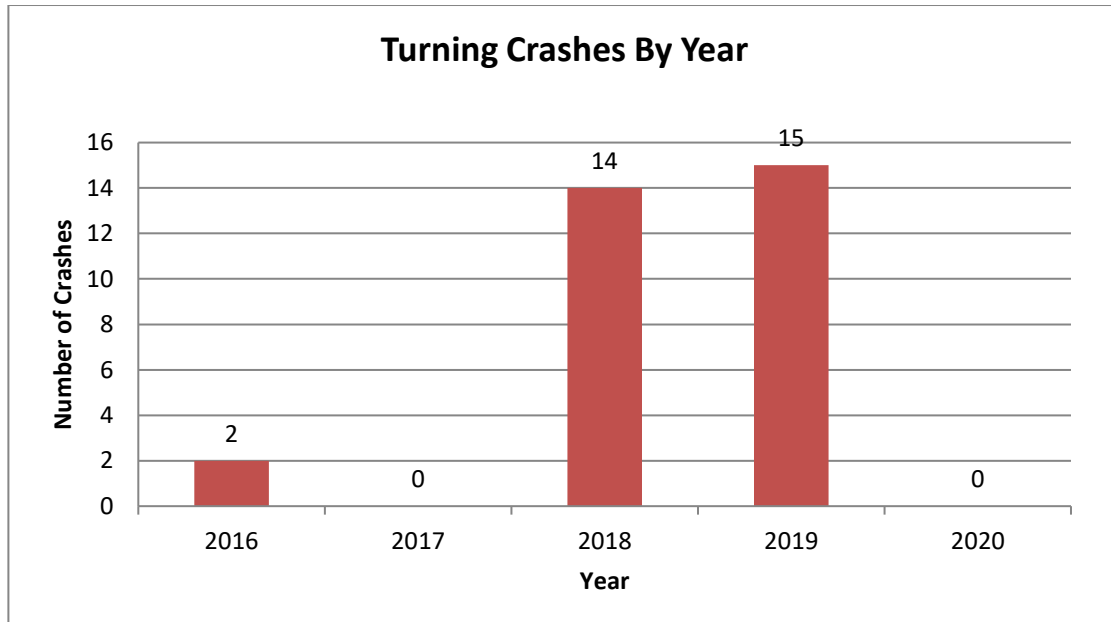


Figure 5. Turning Movement Collisions by Year at Queensgate Drive/Keene Road intersection.

- It appears that three of the reported turning crashes may be associated with the driveway on the south side of the intersection. Although no vehicles were recorded using this approach during the weekday a.m. and p.m. turning movement counts, this approach can be utilized by vehicles and is served by a separate westbound left-turn lane on Keene Road. The contributing circumstance by the driver for each of these crashes was recorded as “Did not grant [right-of-way] to vehicle.” Due to the alignment of the intersection, some of these crashes could have occurred on Keene Road and not the driveway. Regardless, it appears that vehicles on this approach are infrequent, and it may be difficult to turn out of the driveway when the other approaches are controlled by the traffic signal. With the future plans to extend Queensgate Drive, this approach will be widened and included within the traffic signal, better meeting driver expectations.

- Ten rear-end crashes were reported at this intersection. They were evenly divided among all the major approaches, with one potentially occurring on the south leg-driveway approach. Nearly all of these crashes occurred during daylight hours and all occurred when the roadway surface was dry.

Overall, this intersection had a higher number of turning crashes than expected, particularly during hours when it was dark, in years 2018 and 2019. The most recent year of data, 2020, did not identify any crashes. While impacted by COVID closures this may be due to delays in data coding, though it is unclear since both 2016 and 2017 also experienced a low number of crashes.

Intersection Sight Distance

Intersection sight distance along the primary access route along Strawberry Lane to Keene Road was reviewed to verify adequate view of conflicting traffic is available. The minimum recommended sight distance criteria used in this review is based on the standard reference *A Policy on Geometric Design of Highways and Streets, 7th Edition* published by the American Association of State Highway and Transportation Officials (AASHTO) in 2018 (commonly referred to as the *Green Book*). This reference provides the recommended sight distances as measured from a height of 3.5 feet 14.5 feet from the edge of travel way, based on the speed of the roadway (as shown in Figures 6 and 7). The AASHTO reference is based on conflicts between motorists traveling along the roadway and motorists completing movements at the intersection.

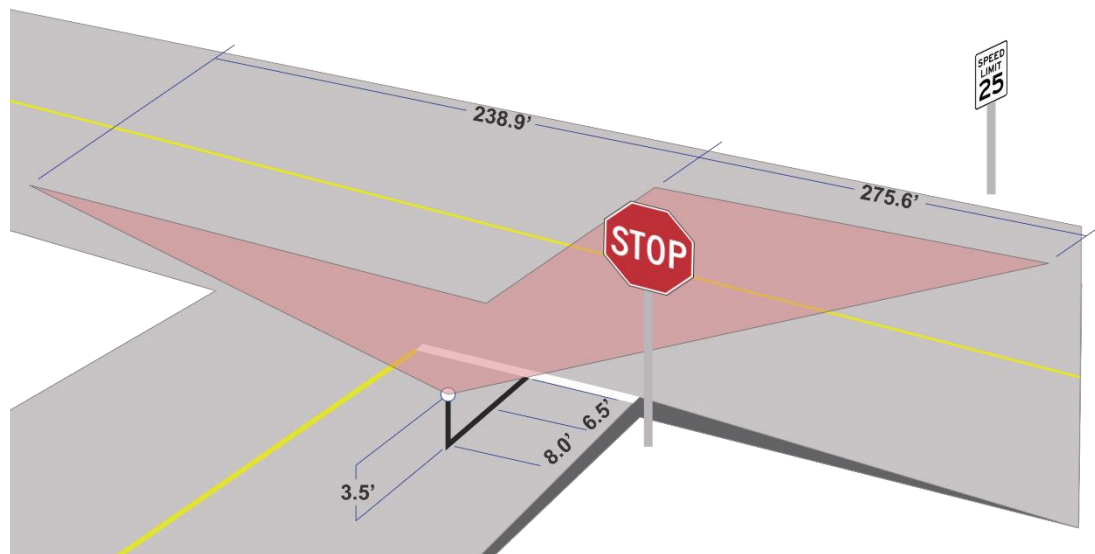


Figure 6. Intersection Sight Distance Requirements at Strawberry Lane/Country Ridge Drive.

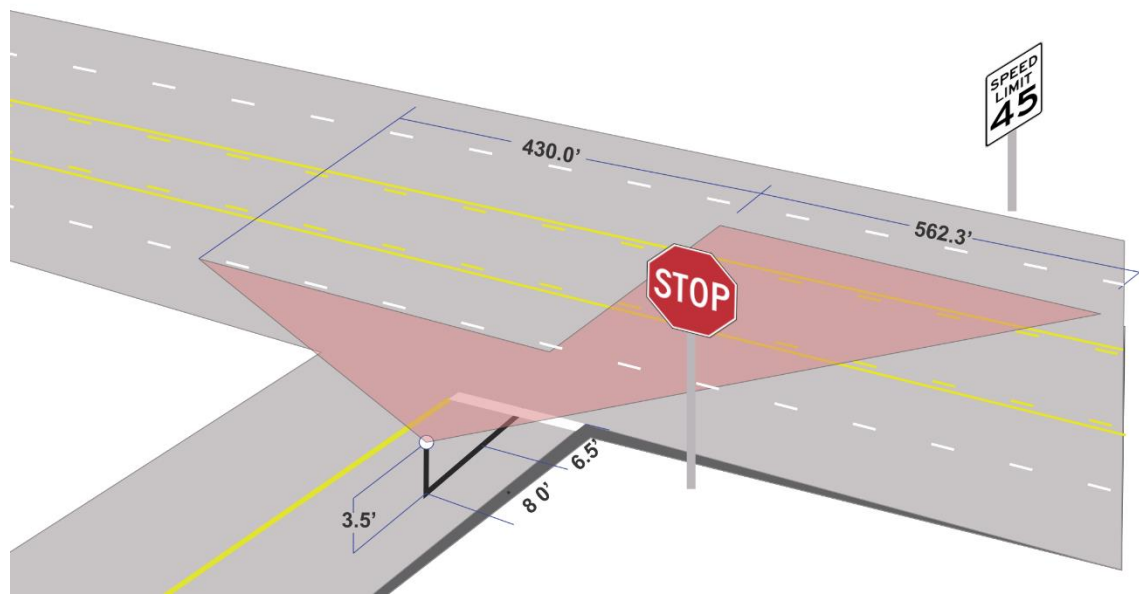


Figure 7. Intersection Sight Distance Requirements at Country Ridge Drive/Keene Road.

The proposed development provides an extension of Strawberry Lane through previously designed and approved intersections; there were no constraints identified along this route that would require mitigation.

Operational Analysis

Traffic operations analysis were prepared using Synchro analysis software and implementing the Highway Capacity Manual 6th Edition operations methods for stop-controlled and signalized intersections. All traffic operations within this report reflect peak fifteen-minute conditions. The City of Richland's *Comprehensive Plan Supporting Materials* identifies the City's operational requirements for intersections as Level of Service (LOS) "D" or better. Any intersection with LOS "E" or "F" is considered deficient.

2021 Existing Traffic Conditions

Traffic counts were collected at the study intersections on Wednesday, December 8, 2021. The counts were conducted at the Queensgate Drive/Keene Road intersection during the weekday a.m. peak period from 7:00 to 9:00 a.m. and during the weekday p.m. peak period from 4:00 to 6:00 p.m. The previous traffic study prepared on November 4, 2020 for this development identified the potential need for a traffic signal at the Country Ridge Drive/Keene Road intersection. To evaluate signal warrants in this report and conduct the intersection analysis, 16-hour turning movement counts were collected at the Country Ridge Drive/Keene Road intersection from 4:00 a.m. to 8:00 p.m.

The traffic distribution over the 16-hour count period at the Country Ridge Road/Keene Road intersection is shown in Figure 8 in 15-minute increments. As shown in the figure, there are two sharp peaks starting at 7:30 a.m. and 8:45 a.m. while the p.m. peak is sustained for a longer period from approximately 3:15 to 5:00 p.m.

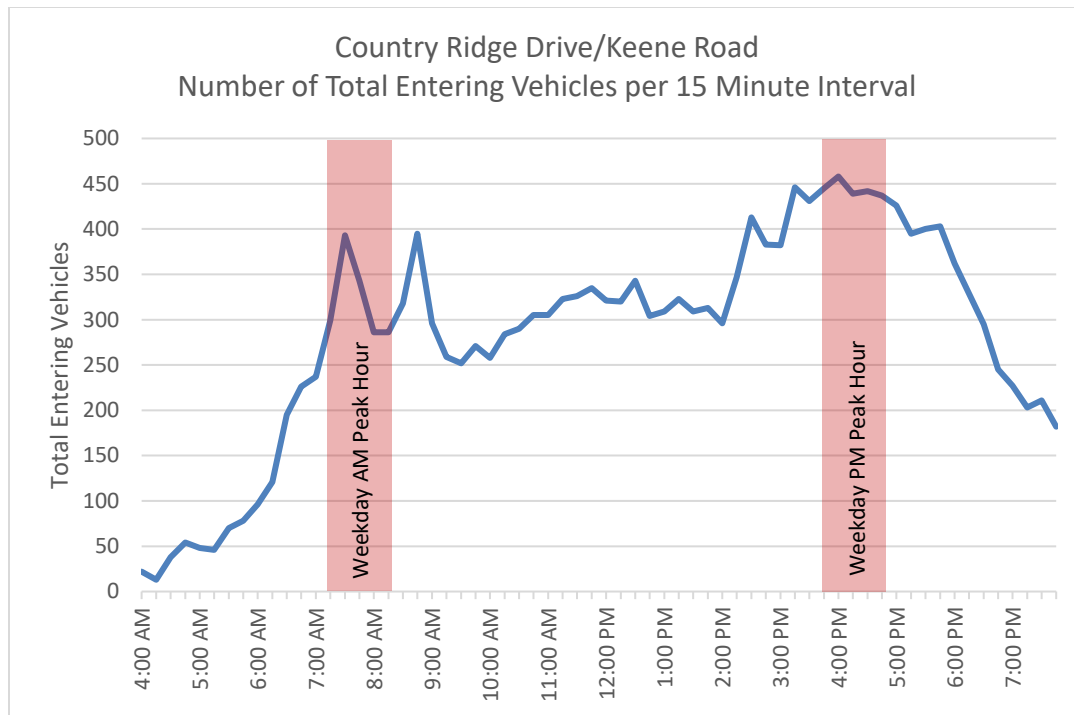


Figure 8. Country Ridge Drive/Keene Road Traffic Volumes

A review of the traffic counts at both study intersections shows that the weekday a.m. peak hour generally occurs between 7:15 and 8:15 a.m. and the p.m. peak hour generally occurs between 4:00 and 5:00 p.m. These volumes were compared to the base turning movement volumes evaluated in the 2020 traffic impact analysis and are shown in Table 4.

Table 4. Volume Comparison

	2020 Estimated Traffic Volumes from 2020 TIA	2021 Turning Movement Counts 12/8/21	% Change in TEV
Country Ridge Drive/Keene Road			
Weekday AM Peak Hour	TEV: 1,179 vehicles	TEV: 1,321 vehicles	+12.0%
Weekday PM Peak Hour	TEV: 1,780 vehicles	TEV: 1,784 vehicles	+0.2%
Queensgate Drive/Keene Road			
Weekday AM Peak Hour	TEV: 2,097 vehicles	TEV: 2,147 vehicles	+2.4%
Weekday PM Peak Hour	TEV: 3,050 vehicles	TEV: 2,881 vehicles	-5.5%

TEV: Total Entering Volume

The 2020 traffic impact analysis had estimated turning movement volumes at the Country Ridge Drive/Keene Road intersection by collecting 2020 turning movement counts and applying 27% and 20% growth rates to the weekday a.m. and p.m. peak hour, respectively. The growth adjustment factor was determined from tube counts on Keene Road. Turning movement counts at the Queensgate Drive/Keene Road intersection were estimated by growing 2019 turning movement counts with an annual 1.5% growth rate.

As shown in Table 4, the turning movement counts collected on December 8, 2021 are higher than the 2020 estimated counts used in the previous analysis for each intersection and peak hour except for the Queensgate Drive/Keene Road intersection during the weekday p.m. peak hour. The most notable difference is the southbound volumes which totaled 1,109 vehicles in the previous study and are 883 vehicles today. A review of available traffic volume information on Queensgate Drive from the City's GIS system shows that the average daily traffic volume decreased between 2016 and 2018 from 21,298 vehicles per day to 20,873 vehicles per day. Unfortunately, no other ADT data is available for comparison to show if this is a continuing trend.

The December traffic counts may reflect the continued impact of the COVID-19 pandemic. WSDOT has been measuring the effects of COVID-19 on traffic volumes throughout the state highway system and comparing them to 2019 baseline conditions. Figure 9 shows the percent change in traffic volumes on SR 240 at Columbia Park Trail for the month of December in 2021. As shown in the figure, the volumes continue to be below the baseline 2019 traffic volumes for most of the month. The peak shown in the graph on Wednesday, December 23, 2021 is misleading as it is being compared to Wednesday, December 25, 2019. Similarly, the drop shown on the graph on December 25, 2021 is being compared to December 28, 2019.

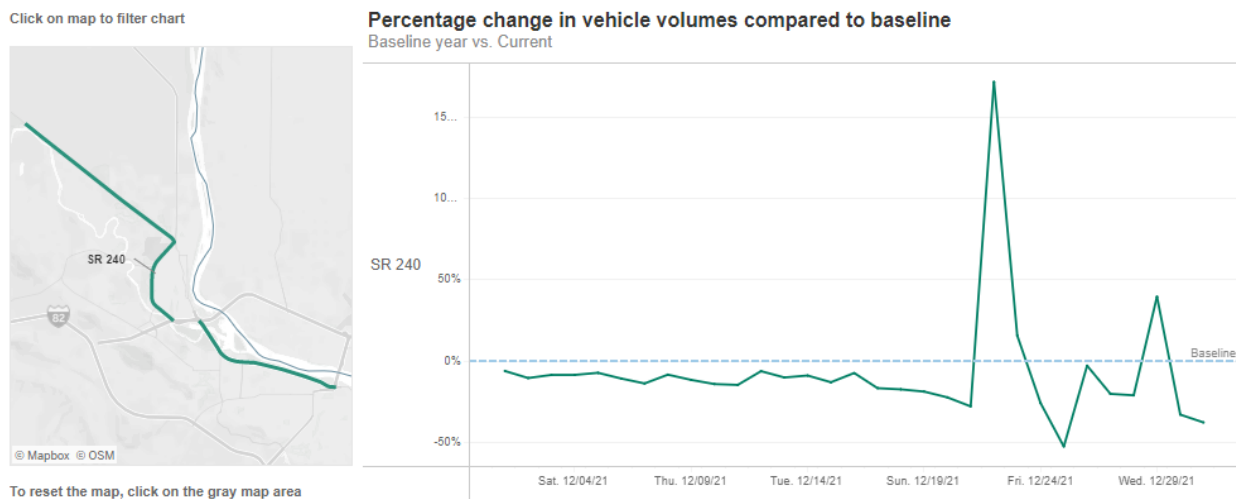


Figure 9. Volume Trend on SR 240 at Columbia Park Trail (anomalies reflect Christmas holiday)

Source: wsdot.wa.gov/about/covid-19-transportation-report/dashboard/highway

Given the continued impacts of the pandemic on traffic volumes it would be appropriate to adjust the counts from December 8, 2021 to reflect typical volumes in the area. The traffic volumes recorded on SR 240 at Columbia Park Trail on Wednesday, December 8th were found to be 9-percent less than those recorded on Wednesday, December 11, 2019. To account for the reduced travel, traffic volumes at the study intersections were increased by 9-percent to reflect typical pre-COVID conditions, though it remains unknown if telework trends will continue into the future. Figure 10 depicts the adjusted base 2021 traffic volumes used in the analysis.

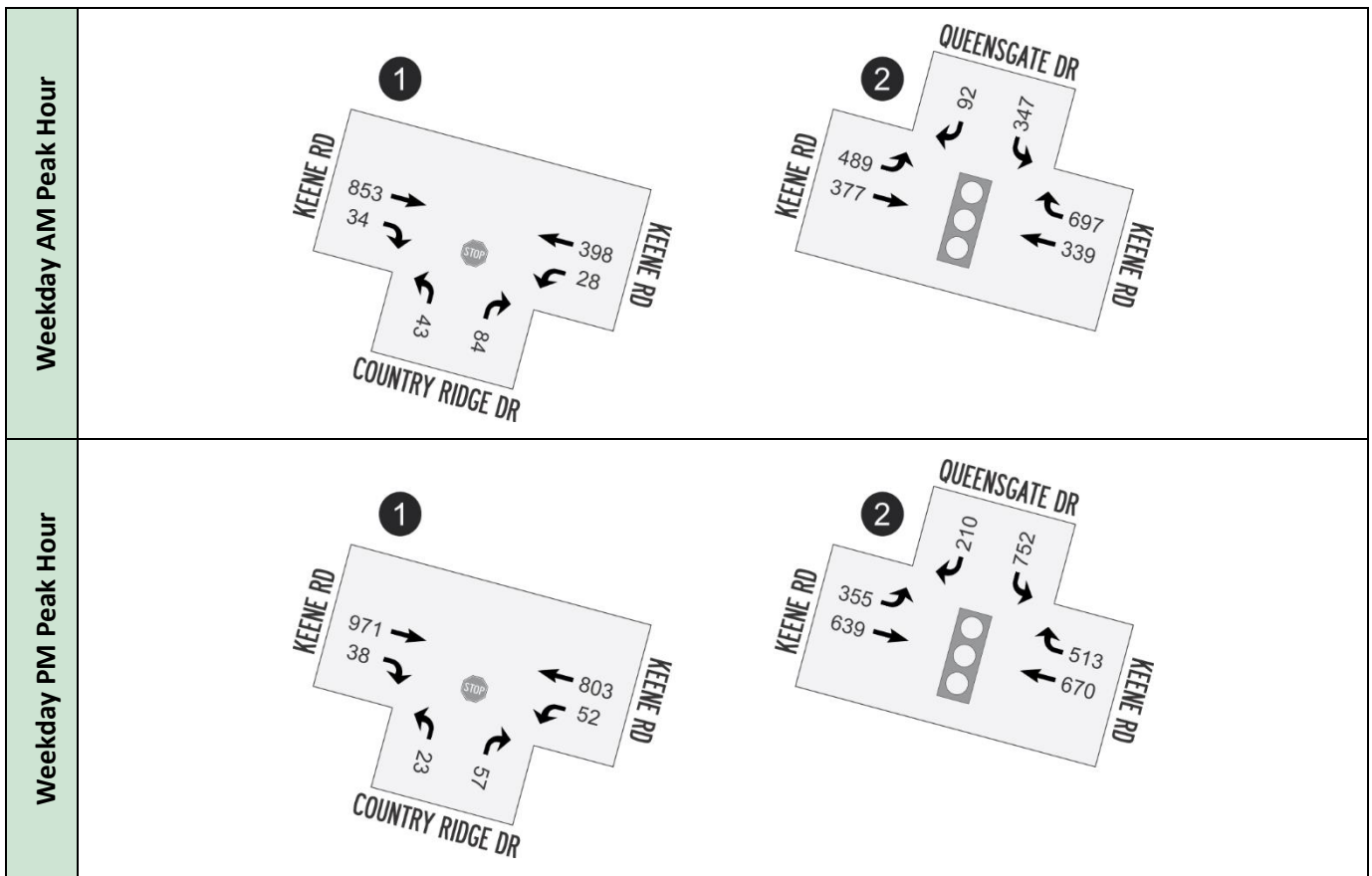


Figure 10. 2021 Adjusted Traffic Volumes.

Table 5 summarizes the existing operations at the study intersections. As shown in the table, both study intersections currently meet the City's operation standards.

Table 5. Summary of Existing Operations Analysis

Intersection	Operation Standard	Weekday AM Peak Hour			Weekday PM Peak Hour			Acceptable?
		LOS	Delay	v/c	LOS	Delay	v/c	
1: Country Ridge Dr/ Keene Rd	LOS D	NB LR: LOS D	NB LR: 34.7	NB LR: 0.57	NB LR: LOS D	NB LR: 28.8	NB LR: 0.36	Yes
2: Queensgate Dr/ Keene Rd	LOS D	LOS C	22.4	0.94	LOS C	24.1	0.75	Yes

LOS: Level of Service; Delay: Critical Movement Delay; v/c: Volume-to-Capacity Ratio

NB: Northbound; L: Left-turn; R: Right-turn

Year 2025 'No-Build' Traffic Forecasts

This analysis identifies how the area transportation system will operate in the build-out year of the proposed subdivision without the project. This includes a 1.5-percent annual growth rate to account for area development that is likely to occur within the next five years. This scenario typically includes trips from approved, in-process developments. There are two developments that have been identified within the study area: Queensgate Drive Mixed-Use Development and Badger Mountain South.

- The Queensgate Drive Mixed-Use Development is in the preliminary stages, and it is our understanding that an application has not yet been submitted. If and when this is built, our understanding is that Queensgate Drive will be extended south, and a new Lariat Lane connection may be connected to Queensgate Drive. This would provide an alternate route for some of the existing trips utilizing the Country Ridge Drive/Keene Road intersection. As discussed with City staff, this development is not included in the buildout year analysis but is reviewed in the horizon year traffic analysis to help understand the operations at the Country Ridge Drive/Keene Road intersection.
- The Badger Mountain South master planned area includes 1,480 acres of residential, business, and community activities located south of the site. A review of the City's maps shows that the area is only partially built out. Until the Queensgate Drive connection is complete, most trips are assumed to use I-82 and surrounding area roadways. Thus, no additional traffic was estimated on Keene Road or Queensgate Drive for the build-out year analysis. The incremental increases on the study roadways are expected to be captured within the 1.5-percent annual growth rate.

Figure 11 depicts the resulting traffic volumes and Table 6 includes the traffic operations. As shown in Table 6, the Country Ridge Drive/Keene Road intersection is expected to operate with increasing delays during the weekday a.m. peak hour with a Level of Service 'E'. City standards are expected to be met at this intersection during the weekday p.m. peak hour. The table also shows that the Queensgate Drive/Keene Road intersection will operate at acceptable levels of service, but over capacity during the weekday a.m. peak hour. This overall intersection v/c ratio is reported from the *HCM 2000* report in Synchro (*HCM 6th Edition* does not provide an overall v/c ratio) and includes the westbound right-turn movement. The delay calculation from the *HCM, 6th Edition* does not include the westbound right-turn movement and is more representative of the actual operations at this intersection. With the exception of yielding to pedestrians, the westbound right-turn lane is essentially a free movement that turns into its own lane.

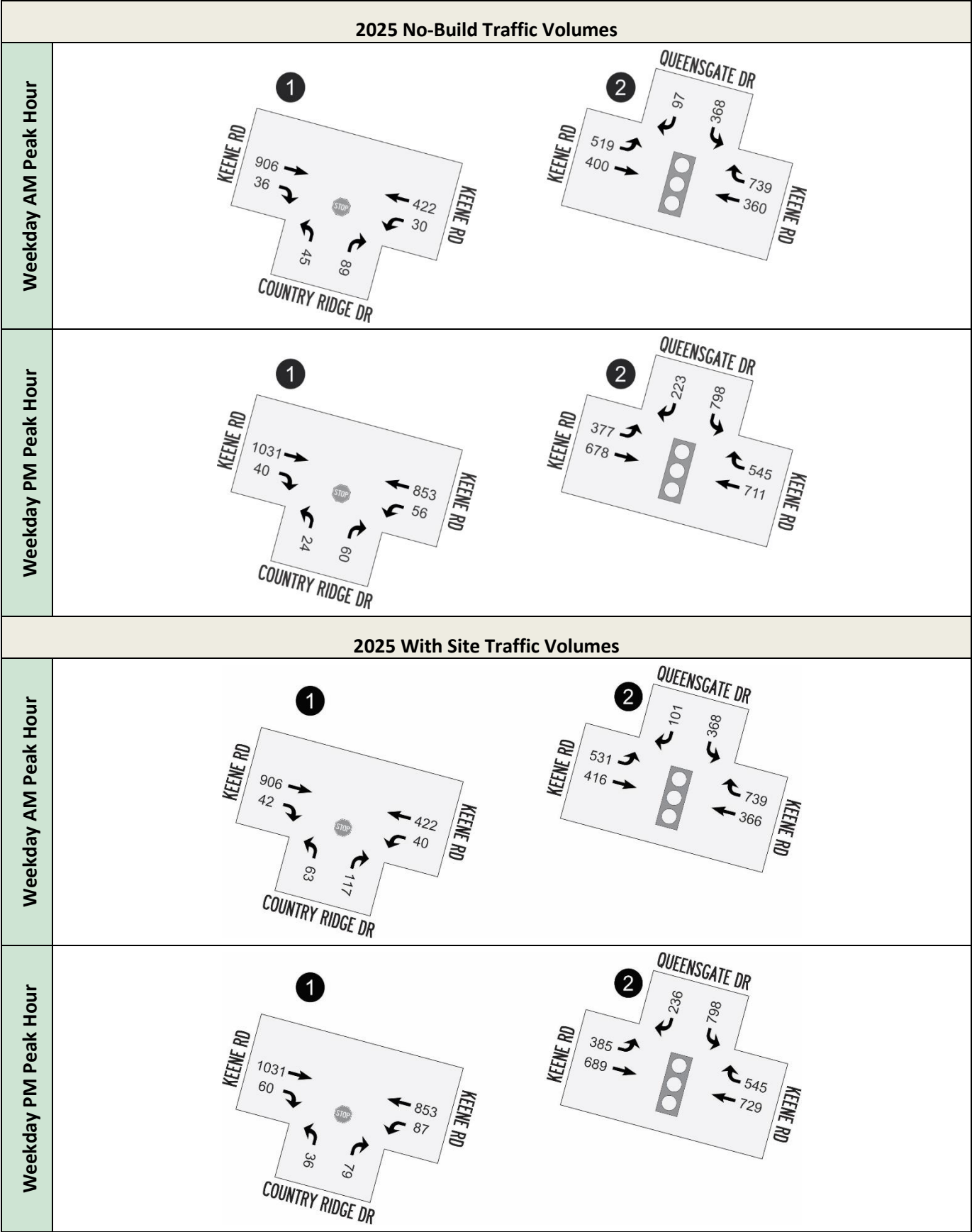


Figure 11. 2025 Forecast Traffic Volumes.

Year 2025 'With Site' Conditions

This analysis includes area growth and adds estimated trips from the proposed development. As part of development, the City has requested that Country Ridge Drive be restriped to a three-lane section between Foxtrot Lane and Keene Road to provide separate northbound left-turn and right-turn lanes. This is assumed to be in place in the 'With Site' analysis. The resulting volumes are also shown in Figure 11 and operation analysis of 'With Site' conditions are also summarized in Table 6. As shown in the table, the northbound left-turn movement at the Country Ridge Drive/Keene Road intersection is expected to exceed the City's standard during the weekday a.m. and p.m. peak hours, although adequate capacity is available for this movement. The Queensgate Drive/Keene Road intersection is expected to continue to operate at Level of Service 'C' during the weekday a.m. and p.m. peak hours. As was discussed before, the v/c ratio shown in the table during the weekday a.m. peak hour is not a good representation of the operations since it includes the volume for the westbound right-turn movement.

Year 2030 Planning Analysis

Analysis of conditions five years beyond build-out were also assessed to assist with long-range planning efforts. The future scenario was conducted for the background (no-build) conditions and the 'With Site' conditions.

There are numerous challenges with estimating future volumes in the surrounding area due to the planned Queensgate Drive extension and recent area projects. It is our understanding that there are multiple efforts underway to estimate the future volumes in the area. In addition to the City's efforts, PBS Engineering and Environmental, Inc. as part of their work for the nearby Queensgate Drive Mixed-Use Development, has developed future volumes based on the 2045 model forecasts, forecast Badger Mountain South volumes, and projected Queensgate Drive Mixed-Use development. At the direction of city staff, the analysis within this report relies on the traffic forecasts from PBS. As these volumes include the Queensgate Drive Mixed-Use Development, which is still in preliminary stages, these volumes are a conservative projection.

The 2040 p.m. peak hour volumes developed by PBS were compared to the 2025 'No Build' volumes in this report. It was observed that with the proposed developments and area growth, traffic volumes are estimated to increase approximately 3-percent per year on Keene Road west of Queensgate Drive, 1.3-percent per year on Keene Road east of Queensgate Drive, and 3.5-percent per year on Queensgate Drive north of Keene Road. In addition, these volumes assume the extension of Queensgate Drive south to serve the Queensgate Drive Mixed-Use Development and connection to Queensgate Drive at Shockley Road. These volume trends were used to develop 2030 'No Build' traffic volumes, which are shown in Figure 12.

Preliminary information from City staff suggests that the Queensgate Drive/Keene Road will be expanded in the future with dual eastbound left-turn lanes, an eastbound right-turn lane, dual northbound left-turn lanes, dual northbound through lanes, and the addition of a southbound through lane. The results of the analysis with the assumed lane configurations are summarized in Table 6.



2030 No-Build Traffic Volumes	
Weekday AM Peak Hour	
Weekday PM Peak Hour	
Weekday AM Peak Hour	
Weekday PM Peak Hour	

Figure 12. 2030 Forecast Traffic Volumes.

Table 6. Summary of Intersection Operations Analysis

Intersection	Operation Standard	Weekday AM Peak Hour			Weekday PM Peak Hour			Acceptable?
		LOS	Delay	v/c	LOS	Delay	v/c	
2025 No Build Traffic Conditions								
1: Country Ridge Dr/ Keene Rd	LOS D	NB LR: LOS E	NB LR: 45.0	NB LR: 0.66	NB LR: LOS D	NB LR: 34.4	NB LR: 0.42	No
2: Queensgate Dr/ Keene Rd	LOS D	LOS C	24.8	1.01	LOS C	26.0	0.79	Yes
2025 With Site Traffic Conditions								
1: Country Ridge Dr/ Keene Rd	LOS D	NB L: LOS F NB R: LOS C	NB L: 83.2 NB R: 15.8	NB L: 0.66 NB R: 0.29	NB L: LOS F NB R: LOS B	NB L: 101.5 NB R: 14.1	NB L: 0.52 NB R: 0.17	No
2: Queensgate Dr/ Keene Rd	LOS D	LOS C	25.6	1.02	LOS C	26.6	0.80	Yes
2030 No Build Traffic Conditions								
1: Country Ridge Dr/ Keene Rd	LOS D	NB LR: LOS F	NB LR: 101.0	NB LR: 0.93	NB LR: LOS F	NB LR: 60.9	NB LR: 0.62	No
2: Queensgate Dr/ Keene Rd	LOS D	LOS C	21.6	0.91	LOS C	29.2	0.79	Yes
2030 With Site Traffic Conditions								
1: Country Ridge Dr/ Keene Rd	LOS D	NB L: LOS F NB R: LOS C	NB L: >150 NB R: 18.1	NB L: 0.96 NB R: 0.35	NB L: LOS F NB R: LOS C	NB L: >150 NB R: 15.8	NB L: 0.82 NB R: 0.21	No
2: Queensgate Dr/ Keene Rd	LOS D	LOS C	21.6	0.91	LOS C	29.8	0.80	Yes

LOS: Level of Service; Delay: Critical Movement Delay; v/c: Volume-to-Capacity Ratio

NB: Northbound; L: Left-turn; R: Right-turn

Year 2030 'With Site' Conditions

As with the 2025 'With Site' volumes, the 2030 'With Site' volumes were developed by adding the site-generated trips to the 2030 forecast volumes. The resulting volumes are shown in Figure 12 and operations analysis results are summarized in Table 6. This analysis assumes full improvements at the Queensgate Drive/Keene Road intersection and a two-lane approach on Country Ridge Drive at Keene Road. Although the Queensgate Drive connection is assumed to be complete between Keene Road and Shockley Road, no connection is assumed between Lariat Lane and Queensgate Drive. As shown in Table 6, the Queensgate Drive/Keene Road intersection is expected to meet City standards while the Country Ridge Drive/Keene Road intersection is expected to experience long delays for the northbound left-turn movement.

Country Ridge Drive/Keene Road

The Country Ridge Drive/Keene Road intersection is expected to experience long delays for the northbound left-turn movement regardless of whether separate right-turn and left-turn lanes are provided. By 2030, this movement is expected to be approaching capacity during the weekday a.m. peak hour with 95th percentile queues of 8 vehicles in the 'No-Build' scenario and 6 vehicles in the 'With Site' scenario with addition of separate right-turn and left-turn lanes.

With the Queensgate Drive Mixed-Use development and resulting extension of Queensgate Drive south, Lariat Lane may be extended from the Country Ridge subdivision to Queensgate Drive providing an alternate route to exit the neighborhood at a signalized intersection. Currently all vehicles accessing the Country Ridge subdivision and the proposed Ladera subdivision are limited to one access at the unsignalized Country Ridge Drive/Keene Road intersection. Figure 13 shows the approximate alignment of a potential Lariat Lane connection, which is a relatively circuitous route for most Country Ridge subdivision residents. However, given the long delays and potential queues during the weekday a.m. peak hour it is expected that while only a small number of residents may reroute to this connection during the off-peak, many would reroute during peak conditions (particularly those turning left).

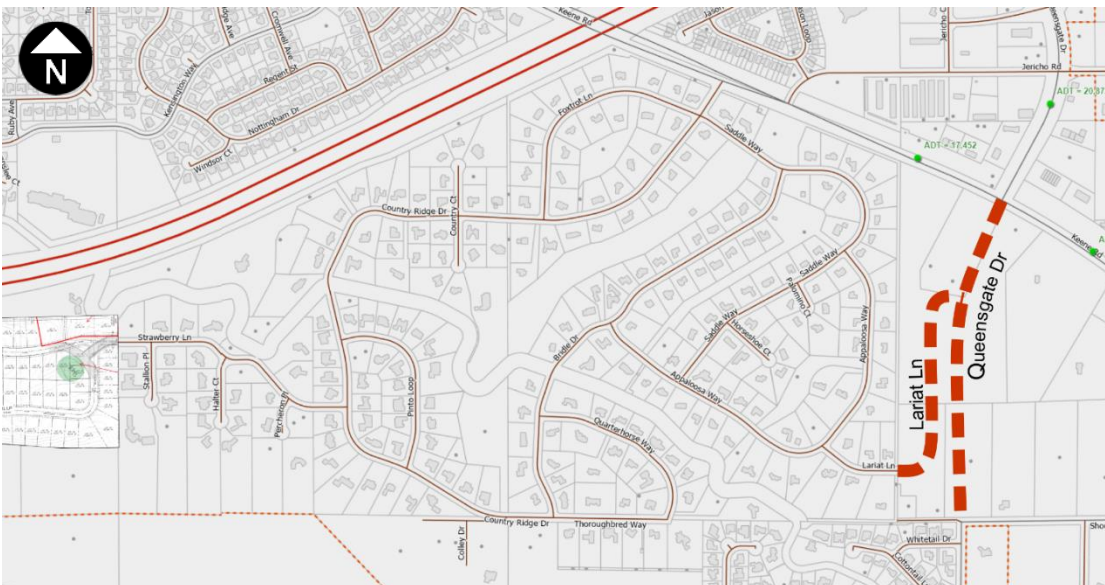


Figure 13. Potential Lariat Lane Connection to Queensgate Drive.

Scoping discussions with city staff provided direction on the percent of vehicles expected to reroute to a potential new Lariat Lane connection. These numbers were relatively low given the out of direction travel required by most vehicles to utilize the alternate access and resulted in minimal impact to operations. In the future 2030 conditions with the proposed Ladera subdivision, the operations for the northbound left-turn improved to a v/c ratio of 0.85 during the weekday a.m. peak hour. Although the level of service was still expected to be at LOS 'F', the 95th percentile queue reduced to 5 vehicles during the weekday a.m. peak hour.

Based on the long queues and high delays, the estimated 66 northbound left-turning vehicles in 2030 during the weekday a.m. peak hour may reroute more than 7.5-percent (estimated percent from city staff) to the Lariat Lane connection. For comparison purposes, if 50-percent of northbound left-turning vehicles rerouted to the Queensgate Drive intersection, the northbound left-turn lane at Country Ridge Drive would still operate at Level of Service 'F' but would have a v/c ratio of 0.48 and a 95th percentile queue of 2 vehicles during the weekday a.m. peak hour. Regardless of the number of rerouted trips, the northbound left-turn will not be able to achieve a Level of Service 'D' and will not meet City standards based on the future forecast volumes. The previous Traffic Impact Study for this site recommended a traffic signal to address future deficiencies.

MUTCD SIGNAL WARRANTS

Traffic signal warrants are the criteria identified within the Manual on Uniform Traffic Control Devices that describe the minimum conditions under which a traffic signal should be further considered. There are nine separate warrant criteria as listed below:

1. Warrant 1, Eight-Hour Vehicular Volume
2. Warrant 2, Four-Hour Vehicular Volume
3. Warrant 3, Peak Hour
4. Warrant 4, Pedestrian Volume
5. Warrant 5, School Crossing
6. Warrant 6, Coordinated Signal System
7. Warrant 7, Crash Experience
8. Warrant 8, Roadway Network
9. Warrant 9, Intersection Near a Grade Crossing

Within this study, volume-based MUTCD Signal Warrants #1, #2, and #3 were reviewed at the Country Ridge Drive/Keene Road intersection using the 16-hour turning movement counts and year 2025 'With Site' volumes. This analysis was conducted assuming the Queensgate Drive extension and Lariat Lane connection were not complete to provide a worst-case volume scenario as all vehicles from the proposed development and Country Ridge subdivision will continue to utilize the Country Ridge Drive/Keene Road intersection.

The signal warrants were reviewed for two scenarios: one with Country Ridge Road as a single-lane approach and one with Country Ridge Road with separate right-turn and left-turn lanes. With separate lanes the low-delay right turn volumes may be omitted from the warrant analysis as outlined in the MUTCD, and without this volume signal warrants are not met with or without the development. If the right-turn volumes are included (as would necessarily be the case with a single lane approach) the MUTCD volume-based signal warrants are met. Table 7 summarizes the findings of this analysis.

Table 7. Summary of MUTCD Signal Warrant Review, Country Ridge Drive/Keene Road

Volume-Based Warrant Summary, 2025 Total Traffic Conditions				
Warrant No.	Description	Warrant Factor	Analyzed as Single-Lane Approach	Analyzed with Separate Left-Turn and Right-Turn Lanes*
Warrant 1:	Eight-Hour Vehicular Volume	70%	Meets Warrant	Warrants Not Met
Warrant 2:	Four-Hour Vehicular Volume	70%	Meets Warrant	Warrants Not Met
Warrant 3:	Peak Hour	70%	Meets Warrant	Warrants Not Met

*Analysis excludes all northbound right-turns as this movement has its own lane and operates with low delays per MUTCD guidance.

Intersection Volume Profile

The 16-hour traffic counts were reviewed to identify the eight highest hours at the Country Ridge Drive/Keene Road intersection with the projected build-out of the proposed development. The intersection volume profile is displayed in Figure 14. As shown in the figure, the peak volumes on Country Ridge Road do not coincide with the peak volumes on Keene Road. To ensure the analysis captured the peaking characteristics of Country Ridge Drive, the eleven highest hours were reviewed. After the 11th hour, the volumes on Country Ridge Drive are significantly less.

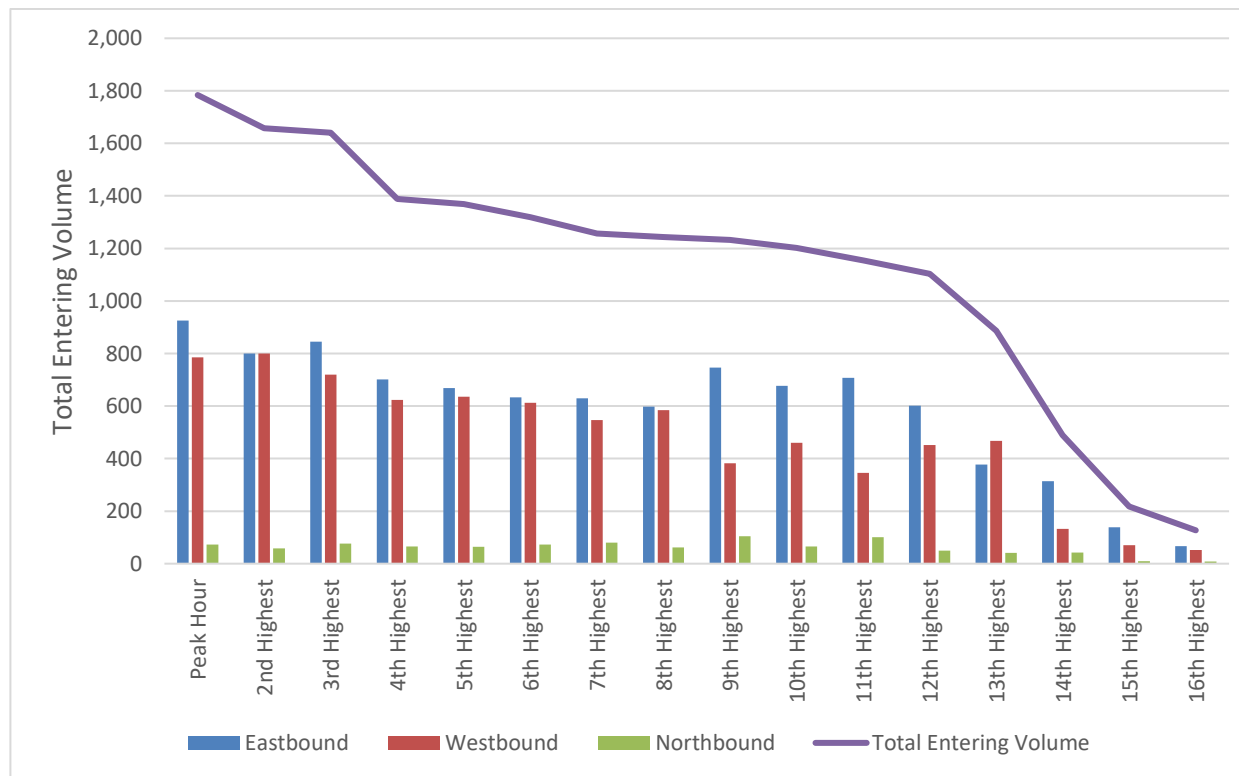


Figure 14. Country Ridge Drive/Keene Road 16-Hour Traffic Volumes.

The future 2025 weekday p.m. peak hour 'With Site' traffic volumes shown in Figure 11 were factored maintaining these existing volume profiles, which reflect the existing residential uses on Country Ridge

Drive. Table 8 summarizes the existing volumes on each of the approaches that was then used to factor the projected year 2025 traffic volumes for the Signal Warrant Analysis.

Table 8. Existing December 2021 Traffic Volume Profile (unadjusted for COVID impacts)

Hour	Keene Rd Eastbound	Keene Rd Westbound	Country Ridge Dr Northbound	Total Entering Volume
Peak Hour (3:45 to 4:45 p.m.)	926	785	73	1,784
2 nd Highest (4:45 to 5:45 p.m.)	800	800	58	1,658
3 rd Highest (2:45 to 3:45 p.m.)	845	720	76	1,641
4 th Highest (5:45 to 6:45 p.m.)	701	623	65	1,389
5 th Highest (1:45 to 2:45 p.m.)	669	636	64	1,369
6 th Highest (11:45 to 12:45 p.m.)	633	613	73	1,319
7 th Highest (10:45 to 11:45 a.m.)	630	547	80	1,257
8 th Highest (12:45 to 1:45 p.m.)	598	584	62	1,244
9 th Highest (7:45 to 8:45 a.m.)	747	382	104	1,233
10 th Highest (8:45 to 9:45 a.m.)	677	460	65	1,202
11 th Highest (6:45 to 7:45 a.m.)	708	346	101	1,155

Table 9 illustrates the resulting eleven highest hourly volumes with the proposed development project.

Table 9. Forecast Year 2025 Hourly Volume Profile (No Queensgate Connection)

Hour	Keene Rd Eastbound	Keene Rd Westbound	Country Ridge Dr Northbound Left-Turn	Country Ridge Dr Northbound Right-Turn	Country Ridge Dr Total Northbound
Peak Hour	1,091	939	36	79	115
2 nd Highest	943	957	29	62	91
3 rd Highest	996	861	51	70	121
4 th Highest	826	745	39	64	103
5 th Highest	788	761	38	64	102
6 th Highest	746	733	29	85	114
7 th Highest	742	654	34	91	125
8 th Highest	705	699	31	67	98
9 th Highest	880	457	70	96	166
10 th Highest	798	550	31	71	102
11 th Highest	834	414	72	90	162

As was noted earlier, the peak hours on Keene Road and Country Ridge Drive do not necessarily coincide. The volumes on Keene Road are high enough during all the study hours to meet warrant thresholds. It is the volumes on Country Ridge Drive that will determine whether the intersection meets the various warrants. To simplify the review process, the volumes in Table 9 were further sorted from highest to

lowest for the northbound approach on Country Ridge Drive and separately for the northbound left-turn movement on Country Ridge Drive. These are shown in Tables 10 and 11, respectively.

Table 10. Forecast Year 2025 Hourly Volume Profile Sorted by Country Ridge Drive Total Approach

Hour by TEV	Keene Rd Eastbound	Keene Rd Westbound	Country Ridge Dr Total Northbound
9 th Highest	880	457	166
11 th Highest	834	414	162
7 th Highest	742	654	125
3 rd Highest	996	861	121
Peak Hour	1091	939	115
6 th Highest	746	733	114
4 th Highest	826	745	103
5 th Highest	788	761	102
10 th Highest	798	550	102
8 th Highest	705	699	98
2 nd Highest	943	957	91

Table 11. Forecast Year 2025 Hourly Volume Profile Sorted by Country Ridge Drive Northbound Left-Turn

Hour by TEV	Keene Rd Eastbound	Keene Rd Westbound	Country Ridge Dr Northbound Left-Turn	Country Ridge Dr Northbound Right-Turn
11 th Highest	834	414	72	90
9 th Highest	880	457	70	96
3 rd Highest	996	861	51	70
4 th Highest	826	745	39	64
5 th Highest	788	761	38	64
Peak Hour	1091	939	36	79
7 th Highest	742	654	34	91
10 th Highest	798	550	31	71
8 th Highest	705	699	31	67
6 th Highest	746	733	29	85
2 nd Highest	943	957	29	62

MUTCD Signal Warrant #1: Eight-Hour Vehicular Volume

This warrant considers locations where a large volume of intersecting traffic is the principal reason to consider signalization. This signal warrant can be met based on a combination of the major street and minor street volumes, or based on the interruption of continuous traffic (Condition B) where the major street traffic is so heavy that side-street approaches cannot enter or cross the highway.

Single-Lane Approach

Where there is a single lane approach on the minor street as Country Ridge Drive has today, the total volume of the approach is used in the analysis. Figure 15 illustrates the volume criteria for this Warrant; the 70 percent column is applicable as the posted speed exceeds 40 miles per hour.

A review of Figure 15 and the volumes in Table 10 show that “Condition A” thresholds are met during six hours of the day, which does not meet the required eight-hour vehicular volume. The “Condition B” thresholds are met. Both the major street threshold of 630 vehicles and minor street threshold of 53 vehicles are met for the highest 11 hours at the intersection.

Table 4C-1. Warrant 1, Eight-Hour Vehicular Volume

Condition A—Minimum Vehicular Volume

Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor-street approach (one direction only)			
Major Street	Minor Street	100% ^a	80% ^b	70% ^c	56% ^d	100% ^a	80% ^b	70% ^c	56% ^d
1	1	500	400	350	280	150	120	105	84
2 or more	1	600	480	420	336	150	120	105	84
2 or more	2 or more	600	480	420	336	200	160	140	112
1	2 or more	500	400	350	280	200	160	140	112

Condition B—Interruption of Continuous Traffic

Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor-street approach (one direction only)			
Major Street	Minor Street	100% ^a	80% ^b	70% ^c	56% ^d	100% ^a	80% ^b	70% ^c	56% ^d
1	1	750	600	525	420	75	60	53	42
2 or more	1	900	720	630	504	75	60	53	42
2 or more	2 or more	900	720	630	504	100	80	70	56
1	2 or more	750	600	525	420	100	80	70	56

^a Basic minimum hourly volume

^b Used for combination of Conditions A and B after adequate trial of other remedial measures

^c May be used when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000

^d May be used for combination of Conditions A and B after adequate trial of other remedial measures when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000

Figure 15. MUTCD Signal Warrant #1 Criteria (applicable thresholds highlighted in red.)

Two-Lane Approach

Engineering judgement is required where the minor street approach includes separate turn lanes, such as being proposed with the Country Ridge Drive approach. The MUTCD indicates the following:

The site-specific traffic characteristics should dictate whether an approach is considered as one lane or two lanes. For example, for an approach with one lane for through and right-turning traffic plus a left-turn lane, if engineering judgment indicates that it should be considered a one-lane approach because the traffic using the left-turn lane is minor, the total traffic volume approaching the intersection should be applied against the signal warrants as a one-lane approach. The approach should be considered two lanes if approximately half of the traffic on the approach turns left and the left-turn lane is of sufficient length to accommodate all left-turn vehicles.

Similar engineering judgment and rationale should be applied to a street approach with one through/left-turn lane plus a right-turn lane. In this case, the degree of conflict of minor-street right-turn traffic with traffic on the major street should be considered. Thus, right-turn traffic should not be included in the minor-street volume if the movement enters the major street with minimal conflict. The approach should be evaluated as a one-lane approach with only the traffic volume in the through/left-turn lane considered.

In this case, the second scenario was considered to be most applicable as the right-turn movement does not share a lane with a through movement nor is it impacted by the traffic volume on the westbound approach. Since the right-turn lane is expected to operate with low delays and under capacity in 2025 it should be analyzed as a single-lane approach with only the left-turn volume included in the warrant analysis.

Comparing Table 11 with Figure 15 shows that “Condition A” warrant thresholds are not met during any of the study hours. While the major street traffic volumes easily exceed the volume threshold during this time period, the northbound left-turning movement volume does not meet the 105-vehicle threshold for any of the eight hours. The “Condition B” thresholds are also not met. Again, the major street volumes on Keene Road easily exceed the volume thresholds, but only two hours meet the minor street threshold volume of 53 vehicles.

MUTCD Signal Warrant #2: Four-Hour Vehicular Volume

The four-hour vehicle volume warrants are intended to be applied where the volume of intersecting traffic is the principal reason to consider installing a traffic control signal.

Single-Lane Approach

Figure 16 illustrates the warrant criteria from the MUTCD with the four hours with the highest volumes on the northbound approach. This reflects the analysis of a single-lane approach. As shown in the figure, the highest four hours meet the volume criteria for Signal Warrant #2.

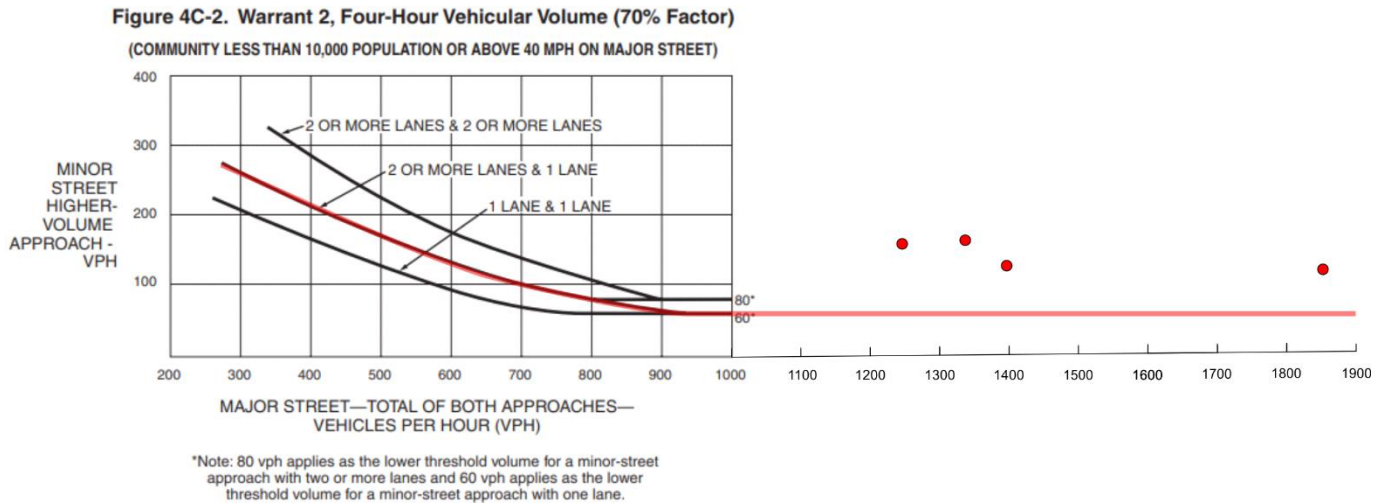


Figure 16. MUTCD Signal Warrant #2: Single-Lane Approach

Two-Lane Approach

Figure 17 illustrate the warrant criteria from the MUTCD with the four hours with the highest northbound left-turning volume. As shown in the figure, the volume criteria are only met for two hours.

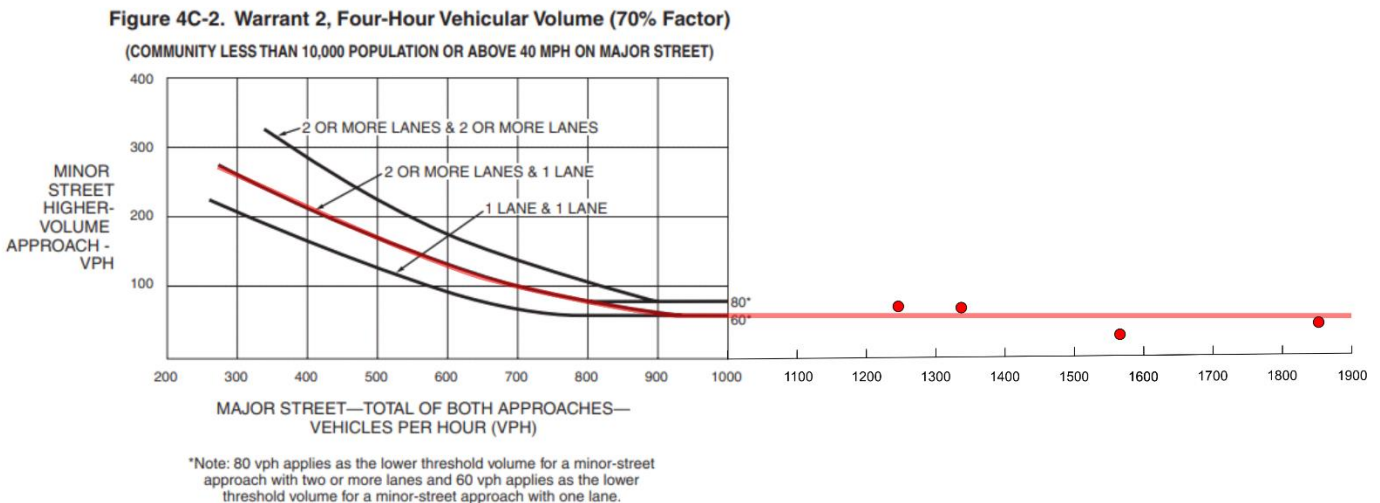


Figure 17. MUTCD Signal Warrant #2: Two-Lane Approach

MUTCD Signal Warrant #3: Peak-Hour Vehicular Volume

The Peak Hour signal warrant is intended for use at a location where traffic conditions are such that for a minimum of 1 hour of an average day, the minor-street traffic suffers undue delay when entering or crossing the major street.

Single-Lane Approach

Figure 18 illustrates the applicable 70% warrant criteria with the peak hour volume from a single-lane approach on Country Ridge Drive. As shown in the figure, the hour with the highest northbound volume meets the volume threshold for the peak-hour vehicular volume signal warrant.

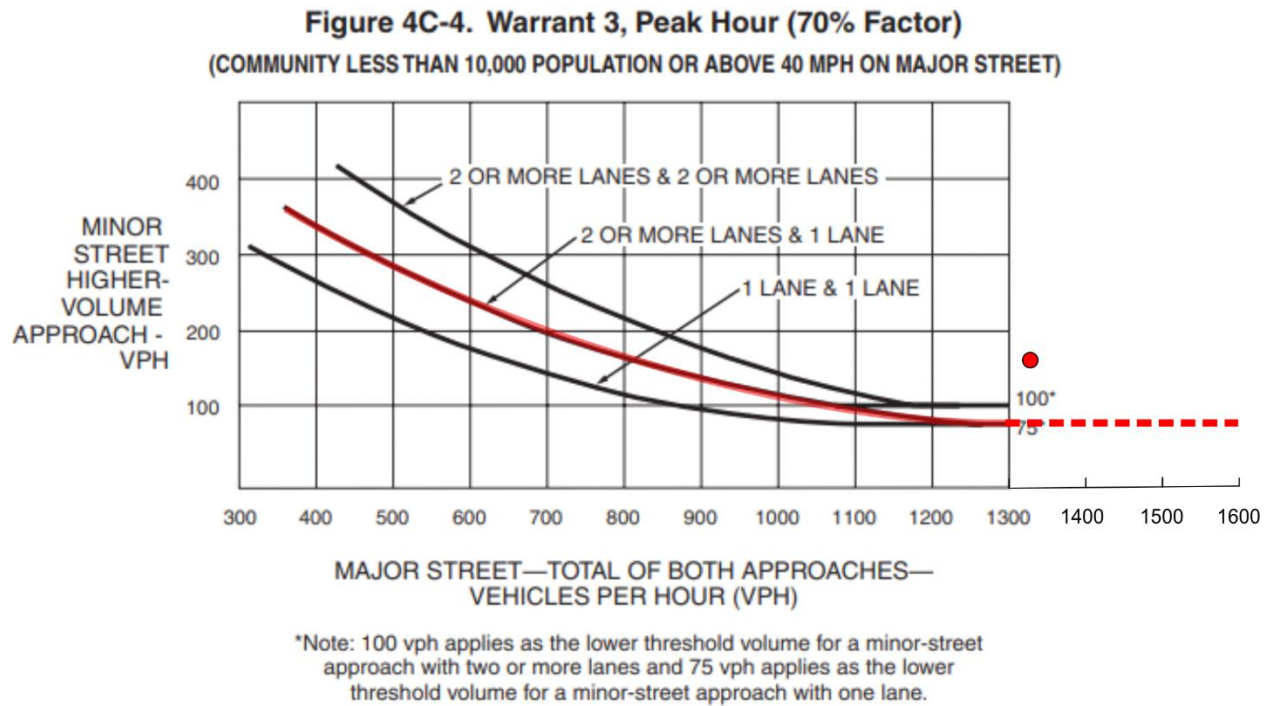


Figure 18. MUTCD Signal Warrant #3

Two-Lane Approach

Figure 19 illustrates the applicable 70% warrant criteria. As shown in the figure, the hour with the highest northbound left-turn volume does not meet the volume threshold for the peak-hour vehicular volume signal warrant.

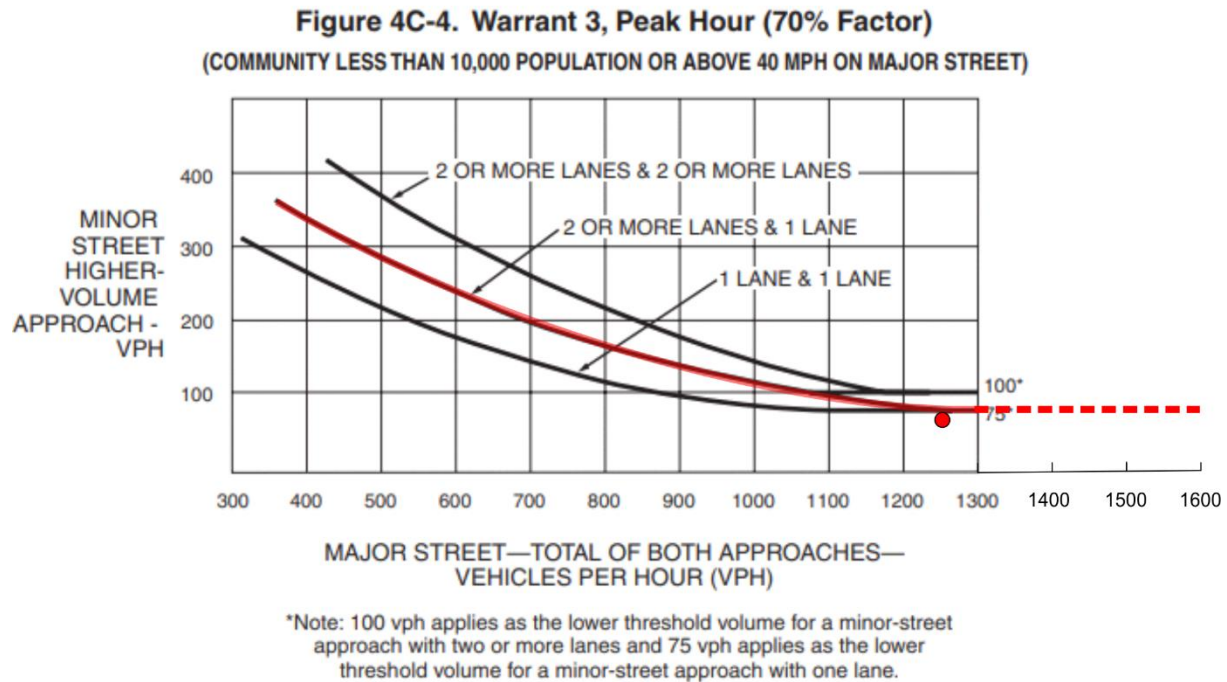


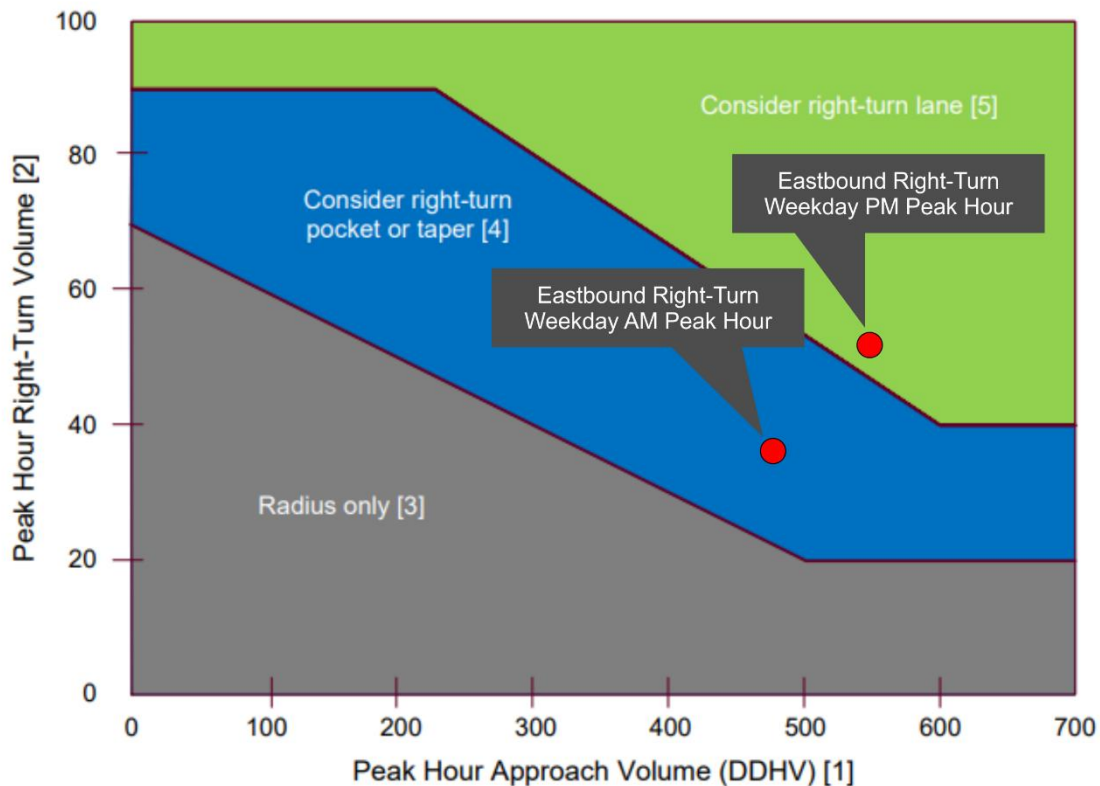
Figure 19. MUTCD Signal Warrant #3 (excludes all right-turns)

RIGHT-TURN LANE CRITERIA

The purpose of a right-turn lane is to improve safety and capacity of a roadway by reducing the speed differential between through vehicles and decelerating vehicles. Within an urban environment, facility design considerations should include the increased pedestrian crossing distance, higher resultant through speeds, and right-of-way/streetscape impacts. Right turn lanes were reviewed based on the criteria within WSDOT Design Manual Chapter 1310. For roadways with a posted speed of 45 mph or above, right-turn deceleration lanes are recommended based on Exhibit 1310-19, which is shown in Figure 20.

As shown in the figure, the weekday a.m. and p.m. peak hour volumes support the need for a separate right-turn lane or taper from Keene Road to Country Ridge Drive. This analysis assumes that the Country Ridge Drive/Keene Road intersection remains unsignalized. For a signalized intersection, the WSDOT guidelines state that “For signalized intersections, use a traffic signal analysis to determine whether a right-turn lane is needed and what the length is.”

Exhibit 1310-19 Right-Turn Lane Guidelines



Notes:

- [1] For two-lane highways, use the peak hour DDHV (through + right-turn).
For multilane, highways (posted speed 45 mph or above), use the right-lane peak hour approach volume (through + right-turn).
- [2] When all three of the following conditions are met, reduce the right-turn DDHV by 20:
 - The posted speed is 45 mph or below
 - The right-turn volume is greater than 40 VPH
 - The peak hour approach volume (DDHV) is less than 300 VPH
- [3] For right-turn corner design, see Exhibit 1310-6.
- [4] For right-turn pocket or taper design, see Exhibit 1310-20.
- [5] For right-turn lane design, see Exhibit 1310-21.

Figure 20. Right-Turn Lane Criteria at Country Ridge Drive/Keene Road Intersection – 2025 With Site Traffic Volumes.

PEDESTRIAN CROSSING REVIEW

A regional trail is located on the north side of Keene Road with no pedestrian connection to the Country Ridge subdivision and the proposed development. If a traffic signal is not installed at the Country Ridge Drive/Keene Road intersection, a crossing treatment should be considered to serve the crossing demand as the nearest crossing is at the Queensgate Drive/Keene Road intersection approximately 2,000 feet east.

The 16-hour turning movement counts at the Country Ridge Drive/Keene Road intersection also collected information on the number of pedestrian and bicyclist crossings, which are shown in Figure 21. Twenty-

one pedestrians and bicyclists were observed crossing Keene Road at Country Ridge Drive over the count period, five of these occurred during the weekday a.m. peak hour and four occurred during the weekday p.m. peak hour. These numbers are not very high overall, which could be attributed to winter conditions, high speeds on Keene Road, and a wide crossing. It is expected that if a crossing were to be provided, the numbers would increase, particularly during warmer weather. Some limited additional pedestrian crossing demands could also occur with the proposed development.

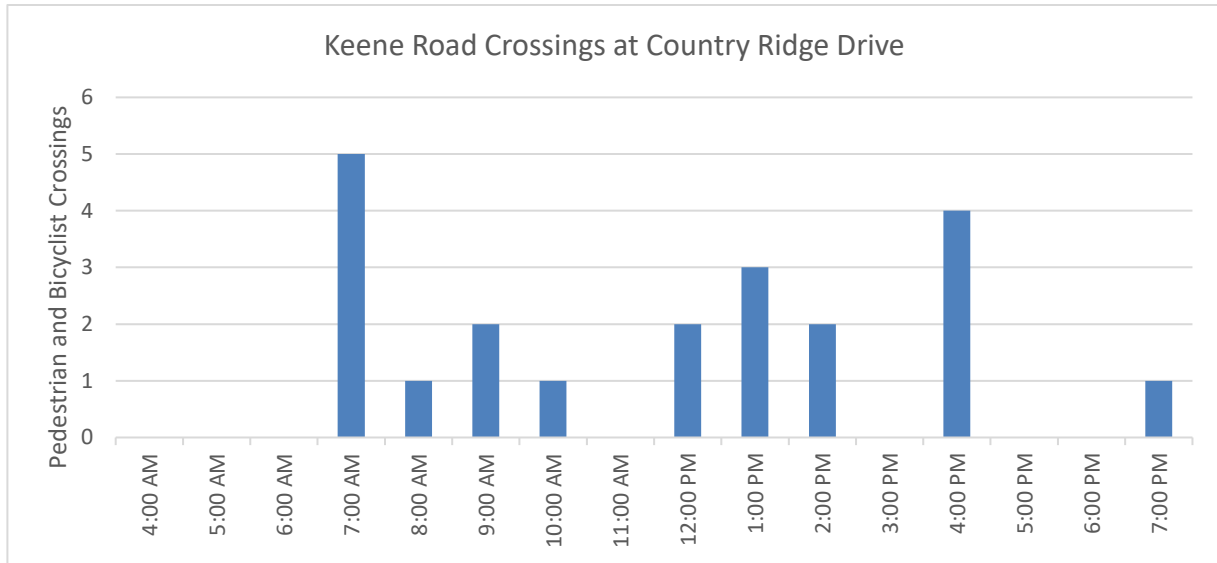


Figure 21. Country Ridge Drive/Keene Road Pedestrian and Bicyclist Crossing

Table 11 from the *Safety Effects of Marked Versus Unmarked Crosswalks at Uncontrolled Locations Final Report and Recommended Guidelines* (FHWA Publication Number HRT-04-100, September 2005) provides recommendations on how to treat uncontrolled pedestrian crossings based on the cross-section, posted speed, and traffic volume. As shown in Figure 22, based on the estimated Average Daily Traffic (ADT) on Keene Road, posted speed of 45 mph, and cross-section, marked crosswalks alone would be insufficient on Keene Road.

Table 11. Recommendations for installing marked crosswalks and other needed pedestrian improvements at uncontrolled locations.*

Roadway Type (Number of Travel Lanes and Median Type)	Vehicle ADT ≤ 9,000			Vehicle ADT >9,000 to 12,000			Vehicle ADT >12,000–15,000			Vehicle ADT > 15,000		
	Speed Limit**											
	≤ 48.3 km/h (30 mi/h)	56.4 km/h (35 mi/h)	64.4 km/h (40 mi/h)	≤ 48.3 km/h (30 mi/h)	56.4 km/h (35 mi/h)	64.4 km/h (40 mi/h)	≤ 48.3 km/h (30 mi/h)	56.4 km/h (35 mi/h)	64.4 km/h (40 mi/h)	≤ 48.3 km/h (30 mi/h)	56.4 km/h (35 mi/h)	64.4 km/h (40 mi/h)
Two lanes	C	C	P	C	C	P	C	C	N	C	P	N
Three lanes	C	C	P	C	P	P	P	P	N	P	N	N
Multilane (four or more lanes) with raised median***	C	C	P	C	P	N	P	P	N	N	N	N
Multilane (four or more lanes) without raised median	C	P	N	P	P	N	N	N	N	N	N	N

* These guidelines include intersection and midblock locations with no traffic signals or stop signs on the approach to the crossing. They do not apply to school crossings. A two-way center turn lane is not considered a median. Crosswalks should not be installed at locations that could present an increased safety risk to pedestrians, such as where there is poor sight distance, complex or confusing designs, a substantial volume of heavy trucks, or other dangers, without first providing adequate design features and/or traffic control devices. Adding crosswalks alone will not make crossings safer, nor will they necessarily result in more vehicles stopping for pedestrians. Whether or not marked crosswalks are installed, it is important to consider other pedestrian facility enhancements (e.g., raised median, traffic signal, roadway narrowing, enhanced overhead lighting, traffic-calming measures, curb extensions), as needed, to improve the safety of the crossing. These are general recommendations; good engineering judgment should be used in individual cases for deciding where to install crosswalks.

** Where the speed limit exceeds 64.4 km/h (40 mi/h), marked crosswalks alone should not be used at unsignalized locations.

*** The raised median or crossing island must be at least 1.2 m (4 ft) wide and 1.8 m (6 ft) long to serve adequately as a refuge area for pedestrians, in accordance with MUTCD and American Association of State Highway and Transportation Officials (AASHTO) guidelines.

C = Candidate sites for marked crosswalks. Marked crosswalks must be installed carefully and selectively. Before installing new marked crosswalks, an engineering study is needed to determine whether the location is suitable for a marked crosswalk. For an engineering study, a site review may be sufficient at some locations, while a more in-depth study of pedestrian volume, vehicle speed, sight distance, vehicle mix, and other factors may be needed at other sites. It is recommended that a minimum utilization of 20 pedestrian crossings per peak hour (or 15 or more elderly and/or child pedestrians) be confirmed at a location before placing a high priority on the installation of a marked crosswalk alone.

P = Possible increase in pedestrian crash risk may occur if crosswalks are added without other pedestrian facility enhancements. These locations should be closely monitored and enhanced with other pedestrian crossing improvements, if necessary, before adding a marked crosswalk.

N = Marked crosswalks alone are insufficient, since pedestrian crash risk may be increased by providing marked crosswalks alone. Consider using other treatments, such as traffic-calming treatments, traffic signals with pedestrian signals where warranted, or other substantial crossing improvement to improve crossing safety for pedestrians.

Figure 22. Table 11 from “Safety Effects of Marked Versus Unmarked Crosswalks at Uncontrolled Locations Final Report and Recommended Guidelines.”

If the intersection remained unsignalized, one option for a crossing treatment is the installation of Pedestrian Hybrid Beacons along with use of the median space for a two-stage crossing maneuver. The MUTCD provides guidance on when Pedestrian Hybrid Beacons would be an appropriate crossing treatment based on vehicle and pedestrian volume, speed, and crossing distance. As shown in Figure 23, the pedestrian volume does not warrant the installation of a Pedestrian Hybrid Beacon based on the December 2021 traffic counts, but again, these volumes do not include the proposed subdivision or increased trail access that occurs during the summer. If the intersection were to remain unsignalized, some form of enhanced crossing (such as a rapid rectangular flashing beacon) would be recommended, with the specific treatment coordinated with City staff. However, if the intersection were signalized an enhanced crossing would be provided as part of a standard traffic signal installation, which would necessarily include pedestrian pushbuttons and pedestrian displays.

Figure 4F-2. Guidelines for the Installation of Pedestrian Hybrid Beacons on High-Speed Roadways

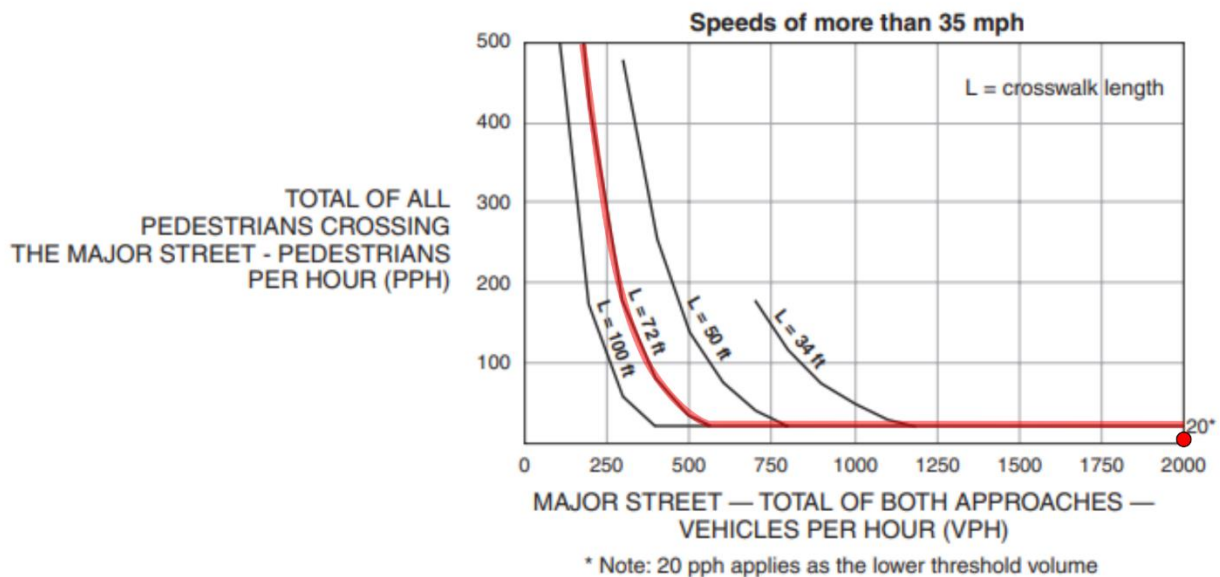


Figure 23. MUTCD Guidance on the Installation of Hybrid Beacons (existing pedestrian volume shown).

MITIGATED TRAFFIC OPERATIONS

This study has identified three main deficiencies or needs at the Country Ridge Drive/Keene Road intersection:

- High delays are projected in the future for the northbound movement regardless of site development
- Future volumes warrant an eastbound right-turn lane if the intersection remains unsignalized
- Lack of pedestrian and bicyclist connectivity between Country Ridge Drive and the Keene Road trail

One option to address some of these needs would be to keep this intersection unsignalized, but add an eastbound right-turn lane, a separate northbound left-turn lane on Country Ridge Drive, and a pedestrian refuge in the existing raised median on Keene Road (with the option of installing some form of pedestrian signal or beacon). During peak hours, this intersection may by default operate more as a right-in/right-out/left-in intersection. During off-peak periods it would still allow a left-out movement for residents.

Another option would be to install a traffic signal at this intersection. This would address the delays for the northbound movement and provide a controlled crossing for pedestrians between Country Ridge Drive and the regional trail on the north side of Keene Road. Conversely, it can also increase delays particularly during non-peak hours and can increase the frequency of crashes. If installed, this traffic signal should be coordinated with the Queensgate Drive/Keene Road intersection to ensure efficient operations on Keene Road. Table 12 summarizes the 2025 operations at the study intersections if a traffic signal is installed at the Country Ridge Drive/Keene Road intersection with no lane additions. The operations results reflect the existing single shared northbound lane on Country Ridge Drive; additional lanes such as

separate northbound left-turn and an eastbound right-turn lane the south leg would exhibit improved operations and would better support throughput on Keene Road.

Table 12. Summary of 2025 Operations with a Traffic Signal at Country Ridge Drive

Intersection	Operation Standard	Weekday AM Peak Hour			Weekday PM Peak Hour			Acceptable?
		LOS	Delay	v/c	LOS	Delay	v/c	
1: Country Ridge Dr/ Keene Rd	LOS D	A	8.3	0.43	A	4.3	0.39	Yes
2: Queensgate Dr/ Keene Rd	LOS D	C	26.4	1.01	C	24.9	0.80	Yes

NEIGHBORHOOD IMPACTS

The City's draft *Traffic Impact Study Requirements* indicate that any development generating over 250 new trips per day on an existing local street needs to evaluate the impacts on neighborhood livability. As the proposed Ladera Subdivision is expected to generate 841 new weekday daily trips on Strawberry Lane and Country Ridge Drive, this requirement applies to this study. Based on the existing traffic counts, Country Ridge Drive near Keene Road currently serves about 167 peak hour trips, or an Average Daily Traffic Volume of about 1,670 vehicles, increasing this volume to 2,511 vehicles.

As discussed earlier in the report, Strawberry Lane and Country Ridge Drive are both local, two-lane roads. Although sidewalks or shoulder are provided throughout, there are no sidewalks on Country Ridge Drive at Keene Road. To improve the walkability between the neighborhood and this regional roadway, sidewalks will be installed between Keene Road and Foxtrot Lane/Saddle Way as part of development. In addition, any type of improvement to the pedestrian crossing at Keene Road/Country Ridge Drive would substantially benefit the overall neighborhood and improve access to the regional trail system.

The design of the local streets within the surrounding neighborhood already include curvature, a narrow travel lane, and designated areas for pedestrian and cyclist use. Any traffic calming strategies should be focused at intersections, and particularly toward those situated closer to Keene Road where the traffic volume will be highest. A recommended traffic calming strategy would include a raised speed table at both Foxtrot Lane connections with Country Ridge Drive.

FINDINGS AND RECOMMENDATIONS

The Transportation Impact Analysis prepared for the proposed Ladera Subdivision provides the following findings:

- The proposed development is consistent with the City's zoning map designation for this land.
- The 82-unit single-family subdivision is expected to generate 841 new daily trips of which 62 trips are expected during the weekday a.m. peak hour and 82 trips will be generated during the weekday p.m. peak hour.
- The main access will be through the extension of Strawberry Lane into the site, with Country Ridge Drive from Keene Road serving as the primary access route.
- As part of development, the Ladera Subdivision will improve Country Ridge Drive between Keene Road and Foxtrot Lane to a three-lane section with separate northbound right- and left-turn lanes and extension of sidewalks to Keene Road.

- There were no sight distance constraints identified along the Country Ridge Drive access route to Keene Road.
- The Queensgate Drive/Keene Road intersections meets City operation standards today and is expected to continue to meet LOS D standards in 2025 with the site. The 2030 conditions with the potential lane improvements and Queensgate Drive extension are also expected to meet City standards during the weekday a.m. and p.m. peak hours.
- The Country Ridge Drive/Keene Road intersection meets City standards today during the weekday a.m. and p.m. peak hours. The northbound movement is expected to exceed the City's standards and operate with high delays in 2025 with or without the site. By 2030, the vehicle demand on the northbound approach is expected to operate near capacity.
- The Country Ridge Drive/Keene Road intersection meets MUTCD Signal Warrants #1, #2, and #3 depending on how it is analyzed (including or excluding right-turns). A traffic signal would address the long delays expected at this intersection and would provide a controlled pedestrian crossing on Keene Road between the residential area and the regional trail on the north side of Keene Road. It is recommended that signalization occur if alternate street connections to the planned Queensgate Drive extension are not developed.
- If the Country Ridge Drive/Keene Road intersection were signalized, the configuration would facilitate pedestrian crossings to the existing multiuse trail system on the north side of the intersection, it would address high existing turning delays, and add missing sidewalks. These improvements address current needs and should be partially credited toward any system development fees.
- The eastbound right-turn movement at the Country Ridge Drive/Keene Road intersection meets the criteria for the installation of a right-turn taper or deceleration lane if the intersection remains unsignalized. This improvement is unnecessary with signalization, and the wider road would conflict with pedestrian crossings to the trail system. Accordingly, if signalization occurs its installation is not recommended.

Thank you for the opportunity to provide this transportation study in support of the Ladera Subdivision. Please let me know if you have any questions on this analysis at (503) 997-4473 or via email at joe@transightconsulting.com.

Attachments:

- Traffic Count Worksheets
- Existing Conditions LOS Worksheets
- Year 2025 No-Build LOS Worksheets
- Year 2025 With Project LOS Worksheets
- Year 2030 No-Build LOS Worksheets
- Year 2030 With Project LOS Worksheets



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Location: 2 Country Ridge Dr & Keene Rd AM

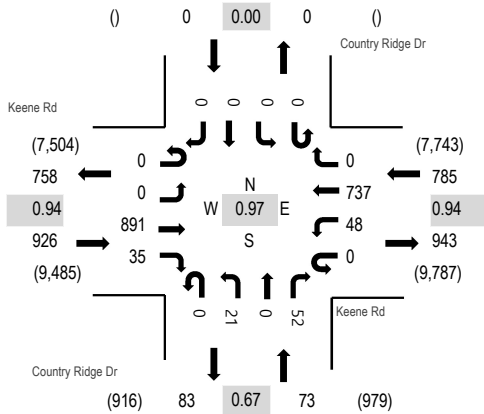
Date: Wednesday, December 8, 2021

Peak Hour: 03:45 PM - 04:45 PM

Peak 15-Minutes: 04:00 PM - 04:15 PM

Peak Hour

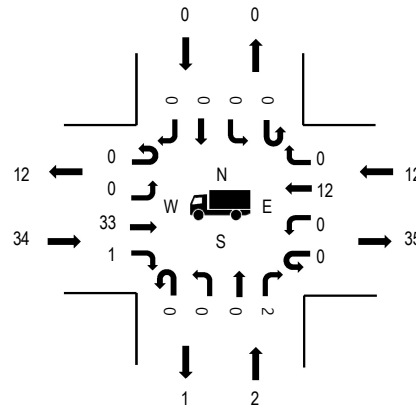
Motorized Vehicles



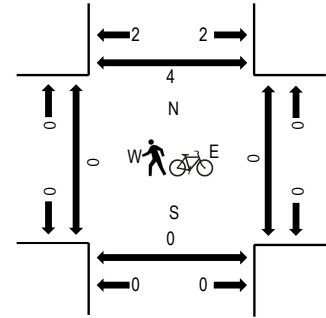
Note: Total study counts contained in parentheses.

	HV%	PHF
EB	3.7%	0.94
WB	1.5%	0.94
NB	2.7%	0.67
SB	0.0%	0.00
All	2.7%	0.97

Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



Traffic Counts - Motorized Vehicles

Interval Start Time	Keene Rd Eastbound				Keene Rd Westbound				Country Ridge Dr Northbound				Country Ridge Dr Southbound				Total	Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right		
4:00 AM	0	0	9	0	0	0	13	0	0	0	0	0	0	0	0	0	22	127
4:15 AM	0	0	8	0	0	0	4	0	0	1	0	0	0	0	0	0	13	153
4:30 AM	0	0	20	0	0	0	14	0	0	2	0	2	0	0	0	0	38	186
4:45 AM	0	0	30	0	0	0	21	0	0	3	0	0	0	0	0	0	54	218
5:00 AM	0	0	28	1	0	0	18	0	0	1	0	0	0	0	0	0	48	242
5:15 AM	0	0	29	0	0	0	17	0	0	0	0	0	0	0	0	0	46	290
5:30 AM	0	0	50	0	0	0	14	0	0	2	0	4	0	0	0	0	70	365
5:45 AM	0	0	48	0	0	1	23	0	1	0	0	5	0	0	0	0	78	490
6:00 AM	0	0	65	1	0	0	26	0	0	2	0	2	0	0	0	0	96	638
6:15 AM	0	0	77	1	0	1	29	0	0	4	0	9	0	0	0	0	121	779
6:30 AM	0	0	119	3	1	3	49	0	0	3	0	17	0	0	0	0	195	957
6:45 AM	0	0	160	1	0	1	54	0	0	5	0	5	0	0	0	0	226	1,155
7:00 AM	0	0	150	3	0	7	60	0	0	9	0	8	0	0	0	0	237	1,272
7:15 AM	0	0	166	6	0	4	92	0	0	11	0	20	0	0	0	0	299	1,321
7:30 AM	0	0	217	5	0	4	124	0	0	17	0	26	0	0	0	0	393	1,308
7:45 AM	0	0	237	12	0	3	70	0	0	5	0	16	0	0	0	0	343	1,233
8:00 AM	0	0	163	8	0	15	79	0	0	6	0	15	0	0	0	0	286	1,285
8:15 AM	0	0	151	3	0	6	98	0	0	14	0	14	0	0	0	0	286	1,295
8:30 AM	0	0	157	16	0	6	105	0	0	16	0	18	0	0	0	0	318	1,268
8:45 AM	0	0	213	3	0	10	145	0	0	3	0	21	0	0	0	0	395	1,202
9:00 AM	0	0	144	5	0	9	115	0	0	7	0	16	0	0	0	0	296	1,078
9:15 AM	0	0	141	3	0	8	95	0	0	6	0	6	0	0	0	0	259	1,040
9:30 AM	0	0	164	4	0	5	73	0	0	2	0	4	0	0	0	0	252	1,065
9:45 AM	0	0	143	3	0	6	106	0	0	2	0	11	0	0	0	0	271	1,103
10:00 AM	0	0	146	4	0	10	88	0	0	2	0	8	0	0	0	0	258	1,137
10:15 AM	0	0	143	2	0	5	119	0	0	8	0	7	0	0	0	0	284	1,184
10:30 AM	0	0	157	4	0	8	110	0	0	3	0	8	0	0	0	0	290	1,223

10:45 AM	1	0	147	2	0	12	120	0	0	6	0	17	0	0	0	0	305	1,259
11:00 AM	0	0	152	7	0	10	111	0	0	5	0	20	0	0	0	0	305	1,289
11:15 AM	1	0	147	8	0	9	141	0	0	4	0	13	0	0	0	0	323	1,305
11:30 AM	0	0	163	4	0	8	136	0	0	5	0	10	0	0	0	0	326	1,302
11:45 AM	0	0	150	4	0	9	152	0	0	2	0	18	0	0	0	0	335	1,319
12:00 PM	0	0	155	5	0	10	139	0	0	2	0	10	0	0	0	0	321	1,288
12:15 PM	0	0	161	2	0	14	126	0	0	6	0	11	0	0	0	0	320	1,276
12:30 PM	0	0	152	4	0	11	152	0	0	7	0	17	0	0	0	0	343	1,279
12:45 PM	0	0	154	4	0	10	115	0	0	7	0	14	0	0	0	0	304	1,245
1:00 PM	1	0	152	3	0	9	132	0	0	2	0	10	0	0	0	0	309	1,254
1:15 PM	0	0	130	9	0	10	156	0	0	7	0	11	0	0	0	0	323	1,241
1:30 PM	0	0	141	5	0	11	141	0	0	2	0	9	0	0	0	0	309	1,265
1:45 PM	0	0	157	9	0	10	119	0	0	6	0	12	0	0	0	0	313	1,369
2:00 PM	0	0	138	3	0	12	133	0	0	7	0	3	0	0	0	0	296	1,439
2:15 PM	0	0	141	6	0	11	167	0	0	6	0	16	0	0	0	0	347	1,525
2:30 PM	0	0	198	17	0	16	168	0	0	3	0	11	0	0	0	0	413	1,624
2:45 PM	1	0	177	15	0	20	150	0	0	8	0	12	0	0	0	0	383	1,642
3:00 PM	0	0	165	10	0	10	172	0	0	13	0	12	0	0	0	0	382	1,704
3:15 PM	0	0	209	14	0	21	188	0	0	3	0	11	0	0	0	0	446	1,780
3:30 PM	0	0	245	10	0	18	141	0	0	6	0	11	0	0	0	0	431	1,773
3:45 PM	0	0	223	11	0	15	171	0	0	9	0	16	0	0	0	0	445	1,784
4:00 PM	0	0	229	9	0	14	186	0	0	5	0	15	0	0	0	0	458	1,776
4:15 PM	0	0	222	5	0	10	186	0	0	2	0	14	0	0	0	0	439	1,744
4:30 PM	0	0	217	10	0	9	194	0	0	5	0	7	0	0	0	0	442	1,700
4:45 PM	0	0	194	10	0	17	204	0	0	4	0	8	0	0	0	0	437	1,658
5:00 PM	0	0	185	10	0	22	191	0	0	3	0	15	0	0	0	0	426	1,624
5:15 PM	0	0	184	12	0	14	171	0	0	6	0	8	0	0	0	0	395	1,560
5:30 PM	0	0	197	8	0	16	165	0	0	4	0	10	0	0	0	0	400	1,494
5:45 PM	0	0	191	3	0	15	176	0	0	3	0	15	0	0	0	0	403	1,389
6:00 PM	0	0	178	7	0	14	146	0	0	9	0	8	0	0	0	0	362	1,231
6:15 PM	0	0	165	11	0	10	130	0	0	5	0	8	0	0	0	0	329	1,096
6:30 PM	0	0	140	6	0	14	118	0	0	6	0	11	0	0	0	0	295	970
6:45 PM	0	0	98	5	0	12	112	0	0	7	0	11	0	0	0	0	245	886
7:00 PM	0	0	92	7	0	8	110	0	0	3	0	7	0	0	0	0	227	823
7:15 PM	0	0	94	2	0	6	95	0	0	5	0	1	0	0	0	0	203	
7:30 PM	0	0	77	2	0	7	118	0	0	3	0	4	0	0	0	0	211	
7:45 PM	0	0	75	4	0	8	85	0	0	2	0	8	0	0	0	0	182	
Count Total	4	0	9,130	351	1	564	7,178	0	1	322	0	656	0	0	0	0	18,207	
Peak Hour	0	0	891	35	0	48	737	0	0	21	0	52	0	0	0	0	1,784	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles in Crosswalk

Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
4:00 AM	0	0	0	0	0	4:00 AM	0	0	0	0	0	4:00 AM	0	0	0	0	0
4:15 AM	0	0	1	0	1	4:15 AM	0	0	0	0	0	4:15 AM	0	0	0	0	0
4:30 AM	0	0	0	0	0	4:30 AM	0	0	0	0	0	4:30 AM	0	0	0	0	0
4:45 AM	0	0	0	0	0	4:45 AM	0	0	0	0	0	4:45 AM	0	0	0	0	0
5:00 AM	0	0	0	0	0	5:00 AM	0	0	0	0	0	5:00 AM	0	0	0	0	0
5:15 AM	0	0	0	0	0	5:15 AM	0	0	0	0	0	5:15 AM	0	0	0	0	0
5:30 AM	0	0	0	0	0	5:30 AM	0	0	0	0	0	5:30 AM	0	0	0	0	0
5:45 AM	0	0	0	0	0	5:45 AM	0	0	0	0	0	5:45 AM	0	0	0	0	0
6:00 AM	1	0	2	0	3	6:00 AM	0	0	0	0	0	6:00 AM	0	0	0	0	0
6:15 AM	1	0	0	0	1	6:15 AM	0	0	0	0	0	6:15 AM	0	0	0	0	0
6:30 AM	6	1	1	0	8	6:30 AM	0	0	0	0	0	6:30 AM	0	0	0	0	0
6:45 AM	3	0	2	0	5	6:45 AM	0	0	0	0	0	6:45 AM	0	0	0	0	0
7:00 AM	2	1	6	0	9	7:00 AM	0	0	0	0	0	7:00 AM	0	0	0	1	1
7:15 AM	4	2	5	0	11	7:15 AM	0	0	0	0	0	7:15 AM	0	1	0	1	2
7:30 AM	2	0	5	0	7	7:30 AM	0	0	0	0	0	7:30 AM	0	0	0	1	1
7:45 AM	6	1	2	0	9	7:45 AM	0	0	0	0	0	7:45 AM	0	0	0	1	1
8:00 AM	7	1	6	0	14	8:00 AM	0	0	0	0	0	8:00 AM	0	0	0	0	0
8:15 AM	8	2	7	0	17	8:15 AM	0	0	0	0	0	8:15 AM	0	0	0	0	0

8:30 AM	6	0	6	0	12	8:30 AM	0	0	0	0	0	8:30 AM	0	0	0	1	1
8:45 AM	6	0	15	0	21	8:45 AM	0	0	0	0	0	8:45 AM	0	0	0	0	0
9:00 AM	4	0	6	0	10	9:00 AM	0	0	0	0	0	9:00 AM	0	0	0	1	1
9:15 AM	9	1	6	0	16	9:15 AM	0	0	0	0	0	9:15 AM	0	0	0	1	1
9:30 AM	4	1	2	0	7	9:30 AM	0	0	0	0	0	9:30 AM	0	0	0	0	0
9:45 AM	7	0	5	0	12	9:45 AM	0	0	0	0	0	9:45 AM	0	0	0	0	0
10:00 AM	6	0	3	0	9	10:00 AM	0	0	0	0	0	10:00 AM	0	0	0	0	0
10:15 AM	6	2	4	0	12	10:15 AM	0	0	0	0	0	10:15 AM	0	0	0	0	0
10:30 AM	5	1	5	0	11	10:30 AM	0	0	0	0	0	10:30 AM	0	0	0	1	1
10:45 AM	8	0	5	0	13	10:45 AM	0	0	0	0	0	10:45 AM	0	0	0	0	0
11:00 AM	8	1	5	0	14	11:00 AM	0	0	0	0	0	11:00 AM	0	0	0	0	0
11:15 AM	7	0	3	0	10	11:15 AM	0	0	0	0	0	11:15 AM	0	0	0	0	0
11:30 AM	5	0	2	0	7	11:30 AM	0	0	0	0	0	11:30 AM	0	0	0	0	0
11:45 AM	6	0	5	0	11	11:45 AM	0	0	0	0	0	11:45 AM	0	0	0	0	0
12:00 PM	3	0	5	0	8	12:00 PM	0	0	0	0	0	12:00 PM	0	0	0	0	0
12:15 PM	3	0	2	0	5	12:15 PM	0	0	0	0	0	12:15 PM	0	0	0	1	1
12:30 PM	4	2	0	0	6	12:30 PM	0	0	0	0	0	12:30 PM	0	0	0	1	1
12:45 PM	7	0	3	0	10	12:45 PM	0	0	0	0	0	12:45 PM	0	0	0	0	0
1:00 PM	6	1	2	0	9	1:00 PM	0	0	0	0	0	1:00 PM	0	0	0	0	0
1:15 PM	4	2	4	0	10	1:15 PM	0	0	0	0	0	1:15 PM	0	0	0	0	0
1:30 PM	4	0	3	0	7	1:30 PM	0	0	0	0	0	1:30 PM	0	0	0	3	3
1:45 PM	3	0	3	0	6	1:45 PM	0	0	0	0	0	1:45 PM	0	0	0	0	0
2:00 PM	10	0	2	0	12	2:00 PM	0	0	0	0	0	2:00 PM	0	0	0	0	0
2:15 PM	10	0	3	0	13	2:15 PM	0	0	0	0	0	2:15 PM	0	0	0	1	1
2:30 PM	14	1	4	0	19	2:30 PM	0	0	0	0	0	2:30 PM	0	0	0	1	1
2:45 PM	5	2	6	0	13	2:45 PM	0	0	0	0	0	2:45 PM	0	0	0	0	0
3:00 PM	4	1	5	0	10	3:00 PM	0	0	0	0	0	3:00 PM	0	0	0	0	0
3:15 PM	8	1	5	0	14	3:15 PM	1	0	0	0	1	3:15 PM	0	0	0	0	0
3:30 PM	8	1	2	0	11	3:30 PM	0	0	0	0	0	3:30 PM	0	0	0	0	0
3:45 PM	10	2	3	0	15	3:45 PM	0	0	0	0	0	3:45 PM	0	0	0	0	0
4:00 PM	10	0	4	0	14	4:00 PM	0	0	0	0	0	4:00 PM	0	0	0	2	2
4:15 PM	9	0	3	0	12	4:15 PM	0	0	2	0	2	4:15 PM	0	0	0	1	1
4:30 PM	5	0	2	0	7	4:30 PM	0	0	0	0	0	4:30 PM	0	0	0	1	1
4:45 PM	5	0	1	0	6	4:45 PM	0	0	0	0	0	4:45 PM	0	0	0	0	0
5:00 PM	4	0	2	0	6	5:00 PM	0	0	0	0	0	5:00 PM	0	0	0	0	0
5:15 PM	2	0	2	0	4	5:15 PM	0	0	0	0	0	5:15 PM	0	0	0	0	0
5:30 PM	3	0	2	0	5	5:30 PM	0	0	0	0	0	5:30 PM	0	0	0	0	0
5:45 PM	3	0	2	0	5	5:45 PM	0	0	0	0	0	5:45 PM	0	0	0	0	0
6:00 PM	2	0	0	0	2	6:00 PM	0	0	0	0	0	6:00 PM	0	0	0	0	0
6:15 PM	1	0	1	0	2	6:15 PM	0	0	0	0	0	6:15 PM	0	0	0	0	0
6:30 PM	2	0	0	0	2	6:30 PM	0	0	0	0	0	6:30 PM	0	0	0	0	0
6:45 PM	2	1	1	0	4	6:45 PM	0	0	0	0	0	6:45 PM	0	0	0	0	0
7:00 PM	1	0	1	0	2	7:00 PM	0	0	0	0	0	7:00 PM	0	0	0	0	0
7:15 PM	1	0	0	0	1	7:15 PM	0	0	0	0	0	7:15 PM	0	0	0	0	0
7:30 PM	1	0	1	0	2	7:30 PM	0	0	0	0	0	7:30 PM	0	0	0	1	1
7:45 PM	1	0	1	0	2	7:45 PM	0	0	0	0	0	7:45 PM	0	0	0	0	0
Count Total	282	28	184	0	494	Count Total	1	0	2	0	3	Count Total	0	1	0	20	21
Peak Hour	34	2	12	0	48	Peak Hour	0	0	2	0	2	Peak Hour	0	0	0	4	4



ALL TRAFFIC DATA SERVICES

(303) 216-2439

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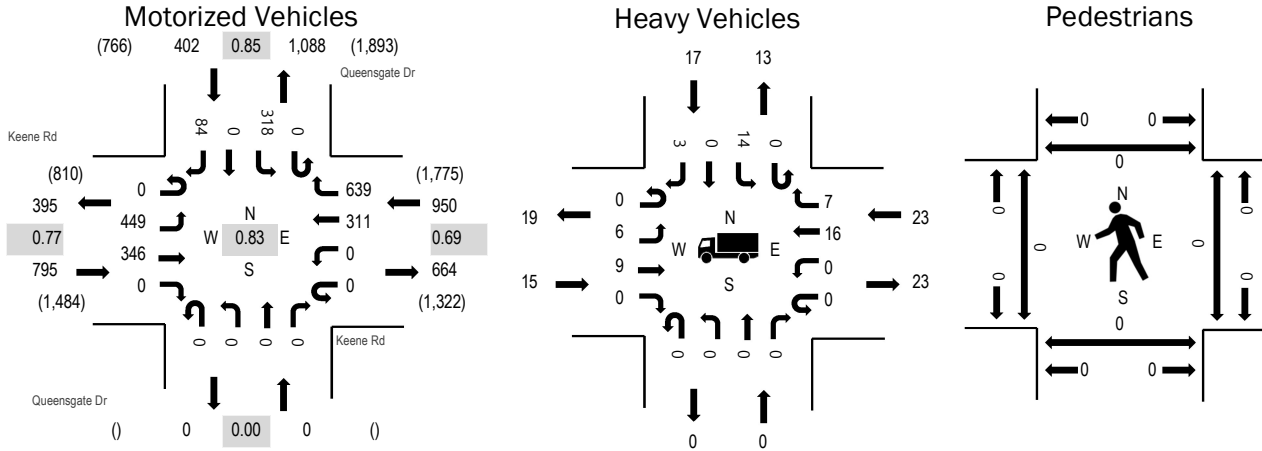
Location: 1 Queensgate Dr & Keene Rd AM

Date: Wednesday, December 8, 2021

Peak Hour: 07:20 AM - 08:20 AM

Peak 15-Minutes: 07:35 AM - 07:50 AM

Peak Hour



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	1.9%	0.77
WB	2.4%	0.69
NB	0.0%	0.00
SB	4.2%	0.85
All	2.6%	0.83

Traffic Counts - Motorized Vehicles

Interval Start Time	Keene Rd Eastbound				Keene Rd Westbound				Queensgate Dr Northbound				Queensgate Dr Southbound				Total	Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right		
7:00 AM	0	25	18	0	0	0	14	29	0	0	0	0	0	14	0	2	102	2,006
7:05 AM	0	27	28	0	0	0	21	40	0	0	0	0	0	20	0	5	141	2,080
7:10 AM	0	30	13	0	0	0	16	43	0	0	0	0	0	15	0	3	120	2,115
7:15 AM	0	27	24	0	0	0	22	51	0	0	0	0	0	10	0	3	137	2,135
7:20 AM	0	33	19	0	0	0	30	41	0	0	0	0	0	12	0	8	143	2,147
7:25 AM	0	33	29	0	0	0	20	57	0	0	0	0	0	20	0	6	165	2,133
7:30 AM	0	30	20	0	0	0	29	70	0	0	0	0	0	13	0	8	170	2,133
7:35 AM	0	51	26	0	0	0	43	91	0	0	0	0	0	19	0	6	236	2,116
7:40 AM	0	51	34	0	0	0	35	86	0	0	0	0	0	19	0	6	231	2,041
7:45 AM	0	40	28	0	0	0	23	59	0	0	0	0	0	26	0	6	182	1,979
7:50 AM	0	59	49	0	0	0	23	61	0	0	0	0	0	22	0	4	218	1,988
7:55 AM	0	34	29	0	0	0	15	40	0	0	0	0	0	37	0	6	161	1,961
8:00 AM	0	30	38	0	0	0	11	39	0	0	0	0	0	50	0	8	176	2,019
8:05 AM	0	30	36	0	0	0	24	41	0	0	0	0	0	33	0	12	176	
8:10 AM	0	27	17	0	0	0	33	26	0	0	0	0	0	31	0	6	140	
8:15 AM	0	31	21	0	0	0	25	28	0	0	0	0	0	36	0	8	149	
8:20 AM	0	22	30	0	0	0	21	30	0	0	0	0	0	21	0	5	129	
8:25 AM	0	25	22	0	0	0	30	39	0	0	0	0	0	41	0	8	165	
8:30 AM	0	25	46	0	0	0	26	35	0	0	0	0	0	17	0	4	153	
8:35 AM	0	22	33	0	0	0	26	46	0	0	0	0	0	28	0	6	161	
8:40 AM	0	26	27	0	0	0	38	45	0	0	0	0	0	25	0	8	169	
8:45 AM	0	29	37	0	0	0	40	49	0	0	0	0	0	29	0	7	191	
8:50 AM	0	37	39	0	0	0	38	38	0	0	0	0	0	32	0	7	191	
8:55 AM	0	28	49	0	0	0	51	37	0	0	0	0	0	40	0	14	219	
Count Total	0	772	712	0	0	0	654	1,121	0	0	0	0	0	610	0	156	4,025	
Peak Hour	0	449	346	0	0	0	311	639	0	0	0	0	0	318	0	84	2,147	

Location: 1 Queensgate Dr & Keene Rd AM

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles on Crosswalk

Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
7:00 AM	0	0	2	3	5	7:00 AM	0	0	0	0	0	7:00 AM	0	0	0	0	0
7:05 AM	2	0	2	2	6	7:05 AM	0	0	0	0	0	7:05 AM	0	0	0	0	0
7:10 AM	0	0	4	1	5	7:10 AM	0	0	0	0	0	7:10 AM	0	0	0	1	1
7:15 AM	0	0	1	0	1	7:15 AM	0	0	0	0	0	7:15 AM	0	0	0	0	0
7:20 AM	1	0	5	1	7	7:20 AM	0	0	0	0	0	7:20 AM	0	0	0	0	0
7:25 AM	3	0	1	1	5	7:25 AM	0	0	0	0	0	7:25 AM	0	0	0	0	0
7:30 AM	0	0	3	1	4	7:30 AM	0	0	0	0	0	7:30 AM	0	0	0	0	0
7:35 AM	0	0	2	0	2	7:35 AM	0	0	0	0	0	7:35 AM	0	0	0	0	0
7:40 AM	1	0	0	2	3	7:40 AM	0	0	0	0	0	7:40 AM	0	0	0	0	0
7:45 AM	1	0	2	1	4	7:45 AM	0	0	0	0	0	7:45 AM	0	0	0	0	0
7:50 AM	1	0	0	2	3	7:50 AM	0	0	0	0	0	7:50 AM	0	0	0	0	0
7:55 AM	1	0	0	0	1	7:55 AM	0	0	0	0	0	7:55 AM	0	0	0	0	0
8:00 AM	1	0	1	5	7	8:00 AM	0	0	0	0	0	8:00 AM	0	0	0	0	0
8:05 AM	3	0	2	0	5	8:05 AM	0	0	0	0	0	8:05 AM	0	0	0	0	0
8:10 AM	2	0	1	2	5	8:10 AM	0	0	0	0	0	8:10 AM	0	0	0	0	0
8:15 AM	1	0	6	2	9	8:15 AM	0	0	0	0	0	8:15 AM	0	0	0	0	0
8:20 AM	1	0	2	2	5	8:20 AM	0	0	0	0	0	8:20 AM	0	0	0	0	0
8:25 AM	1	0	1	3	5	8:25 AM	0	0	0	0	0	8:25 AM	0	0	0	0	0
8:30 AM	4	0	5	3	12	8:30 AM	0	0	0	0	0	8:30 AM	0	0	0	0	0
8:35 AM	1	0	0	4	5	8:35 AM	0	0	0	0	0	8:35 AM	0	0	0	0	0
8:40 AM	3	0	6	2	11	8:40 AM	0	0	0	0	0	8:40 AM	0	0	0	0	0
8:45 AM	0	0	2	2	4	8:45 AM	0	0	0	0	0	8:45 AM	0	0	0	0	0
8:50 AM	3	0	5	3	11	8:50 AM	0	0	0	0	0	8:50 AM	0	0	0	0	0
8:55 AM	2	0	7	1	10	8:55 AM	0	0	0	0	0	8:55 AM	0	0	0	0	0
Count Total	32	0	60	43	135	Count Total	0	0	0	0	0	Count Total	0	0	0	1	1
Peak Hour	15	0	23	17	55	Peak Hour	0	0	0	0	0	Peak Hour	0	0	0	0	0



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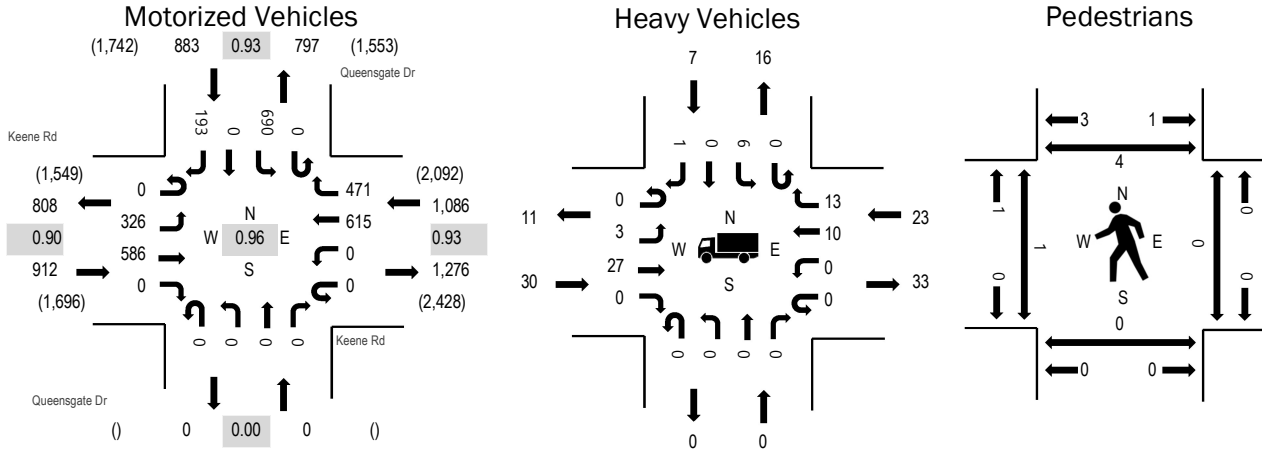
Location: 1 Queensgate Dr & Keene Rd PM

Date: Wednesday, December 8, 2021

Peak Hour: 04:00 PM - 05:00 PM

Peak 15-Minutes: 04:40 PM - 04:55 PM

Peak Hour



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	3.3%	0.90
WB	2.1%	0.93
NB	0.0%	0.00
SB	0.8%	0.93
All	2.1%	0.96

Traffic Counts - Motorized Vehicles

Interval Start Time	Keene Rd Eastbound				Keene Rd Westbound				Queensgate Dr Northbound				Queensgate Dr Southbound				Total	Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right		
4:00 PM	0	37	56	0	0	0	52	25	0	0	0	0	0	60	0	10	240	2,881
4:05 PM	0	22	53	0	0	0	51	46	0	0	0	0	0	43	0	16	231	2,868
4:10 PM	0	25	61	0	0	0	57	35	0	0	0	0	0	60	0	19	257	2,870
4:15 PM	0	21	69	0	0	0	35	39	0	0	0	0	0	57	0	18	239	2,848
4:20 PM	0	25	50	0	0	0	56	38	0	0	0	0	0	50	0	18	237	2,853
4:25 PM	0	29	40	0	0	0	49	43	0	0	0	0	0	59	0	16	236	2,853
4:30 PM	0	26	42	0	0	0	42	41	0	0	0	0	0	54	0	13	218	2,829
4:35 PM	0	34	45	0	0	0	50	40	0	0	0	0	0	63	0	22	254	2,806
4:40 PM	0	29	44	0	0	0	52	40	0	0	0	0	0	50	0	17	232	2,769
4:45 PM	0	23	42	0	0	0	65	43	0	0	0	0	0	72	0	16	261	2,753
4:50 PM	0	33	47	0	0	0	48	44	0	0	0	0	0	67	0	18	257	2,725
4:55 PM	0	22	37	0	0	0	58	37	0	0	0	0	0	55	0	10	219	2,656
5:00 PM	0	18	48	0	0	0	31	49	0	0	0	0	0	65	0	16	227	2,649
5:05 PM	0	17	37	0	0	0	48	42	0	0	0	0	0	69	0	20	233	
5:10 PM	0	21	37	0	0	0	57	39	0	0	0	0	0	52	0	29	235	
5:15 PM	0	26	62	0	0	0	50	33	0	0	0	0	0	56	0	17	244	
5:20 PM	0	31	43	0	0	0	40	46	0	0	0	0	0	61	0	16	237	
5:25 PM	0	19	26	0	0	0	43	50	0	0	0	0	0	64	0	10	212	
5:30 PM	0	17	29	0	0	0	46	34	0	0	0	0	0	59	0	10	195	
5:35 PM	0	20	48	0	0	0	47	38	0	0	0	0	0	46	0	18	217	
5:40 PM	0	32	39	0	0	0	36	43	0	0	0	0	0	47	0	19	216	
5:45 PM	0	27	36	0	0	0	53	39	0	0	0	0	0	59	0	19	233	
5:50 PM	0	30	45	0	0	0	31	28	0	0	0	0	0	41	0	13	188	
5:55 PM	0	26	50	0	0	0	52	31	0	0	0	0	0	33	0	20	212	
Count Total	0	610	1,086	0	0	0	1,149	943	0	0	0	0	0	1,342	0	400	5,530	
Peak Hour	0	326	586	0	0	0	615	471	0	0	0	0	0	690	0	193	2,881	

Location: 1 Queensgate Dr & Keene Rd PM

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles on Crosswalk

Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
4:00 PM	4	0	4	1	9	4:00 PM	0	0	0	0	0	4:00 PM	0	0	0	0	0
4:05 PM	4	0	5	0	9	4:05 PM	0	0	0	0	0	4:05 PM	0	0	0	1	1
4:10 PM	1	0	1	0	2	4:10 PM	0	0	0	0	0	4:10 PM	0	0	0	0	0
4:15 PM	4	0	3	1	8	4:15 PM	0	0	0	0	0	4:15 PM	0	0	0	0	0
4:20 PM	6	0	1	0	7	4:20 PM	0	0	0	0	0	4:20 PM	0	0	0	0	0
4:25 PM	2	0	1	1	4	4:25 PM	0	0	0	0	0	4:25 PM	0	0	0	1	1
4:30 PM	2	0	1	1	4	4:30 PM	0	0	0	0	0	4:30 PM	1	0	0	1	2
4:35 PM	3	0	1	0	4	4:35 PM	0	0	0	0	0	4:35 PM	0	0	0	0	0
4:40 PM	1	0	3	0	4	4:40 PM	0	0	0	0	0	4:40 PM	0	0	0	1	1
4:45 PM	0	0	2	2	4	4:45 PM	0	0	0	0	0	4:45 PM	0	0	0	0	0
4:50 PM	2	0	0	0	2	4:50 PM	0	0	0	0	0	4:50 PM	0	0	0	3	3
4:55 PM	1	0	1	1	3	4:55 PM	0	0	0	0	0	4:55 PM	0	0	0	0	0
5:00 PM	1	0	2	0	3	5:00 PM	0	0	0	0	0	5:00 PM	0	0	0	0	0
5:05 PM	3	0	0	0	3	5:05 PM	0	0	0	0	0	5:05 PM	0	0	0	0	0
5:10 PM	0	0	0	0	0	5:10 PM	0	0	0	0	0	5:10 PM	0	0	0	0	0
5:15 PM	1	0	2	0	3	5:15 PM	0	0	0	0	0	5:15 PM	0	0	0	0	0
5:20 PM	2	0	3	0	5	5:20 PM	0	0	0	0	0	5:20 PM	0	0	0	0	0
5:25 PM	0	0	1	0	1	5:25 PM	0	0	0	0	0	5:25 PM	0	0	0	0	0
5:30 PM	1	0	1	1	3	5:30 PM	0	0	0	0	0	5:30 PM	0	0	0	0	0
5:35 PM	3	0	0	0	3	5:35 PM	0	0	0	0	0	5:35 PM	1	0	0	1	2
5:40 PM	0	0	2	0	2	5:40 PM	0	0	0	0	0	5:40 PM	0	0	0	0	0
5:45 PM	0	0	1	0	1	5:45 PM	0	0	0	0	0	5:45 PM	0	0	0	0	0
5:50 PM	0	0	0	0	0	5:50 PM	0	0	0	0	0	5:50 PM	0	0	0	0	0
5:55 PM	0	0	1	1	2	5:55 PM	0	0	0	0	0	5:55 PM	0	0	0	0	0
Count Total	41	0	36	9	86	Count Total	0	0	0	0	0	Count Total	2	0	0	8	10
Peak Hour	30	0	23	7	60	Peak Hour	0	0	0	0	0	Peak Hour	1	0	0	7	8

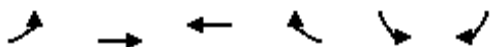
Intersection						
Int Delay, s/veh	3.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↘	↑↑	↘	
Traffic Vol, veh/h	853	34	28	398	43	84
Future Vol, veh/h	853	34	28	398	43	84
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	90	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1015	40	33	474	51	100
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1055	0	1338	528
Stage 1	-	-	-	-	1035	-
Stage 2	-	-	-	-	303	-
Critical Hdwy	-	-	4.1	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	668	-	147	500
Stage 1	-	-	-	-	308	-
Stage 2	-	-	-	-	729	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	668	-	140	500
Mov Cap-2 Maneuver	-	-	-	-	140	-
Stage 1	-	-	-	-	308	-
Stage 2	-	-	-	-	693	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.7		34.7	
HCM LOS	D					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	267	-	-	668	-	
HCM Lane V/C Ratio	0.566	-	-	0.05	-	
HCM Control Delay (s)	34.7	-	-	10.7	-	
HCM Lane LOS	D	-	-	B	-	
HCM 95th %tile Q(veh)	3.2	-	-	0.2	-	

HCM Signalized Intersection Capacity Analysis

2: Keene Rd & Queensgate Dr

Ladera Subdivision

01/24/2022



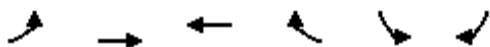
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	489	377	339	697	347	92
Future Volume (vph)	489	377	339	697	347	92
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	0.95	1.00	0.97	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1787	3505	3438	1599	3367	1553
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1787	3505	3438	1599	3367	1553
Peak-hour factor, PHF	0.83	0.83	0.83	0.83	0.83	0.83
Adj. Flow (vph)	589	454	408	840	418	111
RTOR Reduction (vph)	0	0	0	288	0	56
Lane Group Flow (vph)	589	454	408	552	418	55
Heavy Vehicles (%)	1%	3%	5%	1%	4%	4%
Turn Type	Prot	NA	NA	Perm	Prot	pm+ov
Protected Phases	7	4	8		5	7
Permitted Phases				8		5
Actuated Green, G (s)	27.0	57.0	26.0	26.0	12.6	39.6
Effective Green, g (s)	27.0	59.0	28.0	28.0	12.6	39.6
Actuated g/C Ratio	0.34	0.74	0.35	0.35	0.16	0.50
Clearance Time (s)	4.0	6.0	6.0	6.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	606	2597	1209	562	532	850
v/s Ratio Prot	c0.33	0.13	0.12		c0.12	0.02
v/s Ratio Perm				c0.35		0.01
v/c Ratio	0.97	0.17	0.34	0.98	0.79	0.06
Uniform Delay, d1	25.9	3.1	19.0	25.6	32.2	10.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	29.4	0.0	0.2	33.3	7.5	0.0
Delay (s)	55.3	3.1	19.1	58.9	39.7	10.4
Level of Service	E	A	B	E	D	B
Approach Delay (s)		32.6	45.9		33.6	
Approach LOS		C	D		C	
Intersection Summary						
HCM 2000 Control Delay			38.7		HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio			0.94			
Actuated Cycle Length (s)			79.6		Sum of lost time (s)	12.0
Intersection Capacity Utilization			76.9%		ICU Level of Service	D
Analysis Period (min)			15			
c Critical Lane Group						

HCM 6th Signalized Intersection Summary

2: Keene Rd & Queensgate Dr

Ladera Subdivision

01/24/2022



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations							
Traffic Volume (veh/h)	489	377	339	697	347	92	
Future Volume (veh/h)	489	377	339	697	347	92	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1885	1856	1826	1885	1841	1841	
Adj Flow Rate, veh/h	589	454	408	0	418	111	
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	
Percent Heavy Veh, %	1	3	5	1	4	4	
Cap, veh/h	641	2492	900		588	827	
Arrive On Green	0.36	0.71	0.26	0.00	0.17	0.17	
Sat Flow, veh/h	1795	3618	3561	1598	3401	1560	
Grp Volume(v), veh/h	589	454	408	0	418	111	
Grp Sat Flow(s),veh/h/ln	1795	1763	1735	1598	1700	1560	
Q Serve(g_s), s	20.9	2.9	6.6	0.0	7.7	0.0	
Cycle Q Clear(g_c), s	20.9	2.9	6.6	0.0	7.7	0.0	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	641	2492	900		588	827	
V/C Ratio(X)	0.92	0.18	0.45		0.71	0.13	
Avail Cap(c_a), veh/h	728	3126	1460		664	862	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00	
Uniform Delay (d), s/veh	20.5	3.3	20.7	0.0	26.0	7.9	
Incr Delay (d2), s/veh	15.5	0.0	0.4	0.0	3.1	0.1	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	10.6	0.7	2.5	0.0	3.2	2.1	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	36.0	3.3	21.0	0.0	29.0	8.0	
LnGrp LOS	D	A	C		C	A	
Approach Vol, veh/h		1043	408	A	529		
Approach Delay, s/veh		21.8	21.0		24.6		
Approach LOS		C	C		C		
Timer - Assigned Phs		2		4		7	8
Phs Duration (G+Y+Rc), s		15.5		51.0		29.8	21.3
Change Period (Y+Rc), s		4.0		6.0		6.0	* 6
Max Green Setting (Gmax), s		13.0		57.0		27.0	* 26
Max Q Clear Time (g_c+I1), s		9.7		4.9		22.9	8.6
Green Ext Time (p_c), s		1.8		12.7		0.9	6.7

Intersection Summary

HCM 6th Ctrl Delay	22.4
HCM 6th LOS	C

Notes

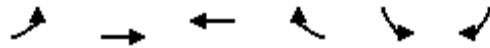
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Intersection						
Int Delay, s/veh	1.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↑	↑↑	↑	
Traffic Vol, veh/h	971	38	52	803	23	57
Future Vol, veh/h	971	38	52	803	23	57
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	90	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1001	39	54	828	24	59
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	1040	0	1543	520
Stage 1	-	-	-	-	1021	-
Stage 2	-	-	-	-	522	-
Critical Hdwy	-	-	4.1	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	676	-	108	506
Stage 1	-	-	-	-	313	-
Stage 2	-	-	-	-	566	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	676	-	99	506
Mov Cap-2 Maneuver	-	-	-	-	99	-
Stage 1	-	-	-	-	313	-
Stage 2	-	-	-	-	521	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.7		28.8	
HCM LOS					D	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	232	-	-	676	-	
HCM Lane V/C Ratio	0.355	-	-	0.079	-	
HCM Control Delay (s)	28.8	-	-	10.8	-	
HCM Lane LOS	D	-	-	B	-	
HCM 95th %tile Q(veh)	1.5	-	-	0.3	-	

Queues
2: Keene Rd & Queensgate Dr

Ladera Subdivision
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Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	370	666	698	534	783	219
v/c Ratio	0.88	0.30	0.57	0.60	0.89	0.27
Control Delay	51.9	6.5	22.0	5.1	40.9	6.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.9	6.5	22.0	5.1	40.9	6.9
Queue Length 50th (ft)	165	63	136	0	181	32
Queue Length 95th (ft)	#311	88	189	62	#281	65
Internal Link Dist (ft)		1984	463		553	
Turn Bay Length (ft)	200			130	195	195
Base Capacity (vph)	431	2213	1233	885	883	824
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.86	0.30	0.57	0.60	0.89	0.27

Intersection Summary

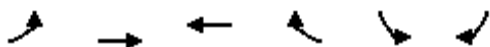
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis

2: Keene Rd & Queensgate Dr

Ladera Subdivision

01/24/2022



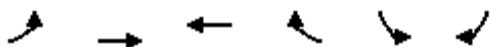
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	355	639	670	513	752	210
Future Volume (vph)	355	639	670	513	752	210
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	0.95	1.00	0.97	1.00
Frpb, ped/bikes	1.00	1.00	1.00	0.98	1.00	0.99
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1787	3438	3539	1542	3467	1589
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1787	3438	3539	1542	3467	1589
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	370	666	698	534	783	219
RTOR Reduction (vph)	0	0	0	348	0	37
Lane Group Flow (vph)	370	666	698	186	783	182
Confl. Peds. (#/hr)	4			4		1
Heavy Vehicles (%)	1%	5%	2%	3%	1%	1%
Turn Type	Prot	NA	NA	Perm	Prot	pm+ov
Protected Phases	7	4	8		5	7
Permitted Phases				8		5
Actuated Green, G (s)	17.6	45.6	24.0	24.0	19.0	36.6
Effective Green, g (s)	17.6	47.6	26.0	26.0	19.0	36.6
Actuated g/C Ratio	0.24	0.64	0.35	0.35	0.25	0.49
Clearance Time (s)	4.0	6.0	6.0	6.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	421	2193	1233	537	883	864
v/s Ratio Prot	c0.21	0.19	c0.20		c0.23	0.05
v/s Ratio Perm				0.12		0.07
v/c Ratio	0.88	0.30	0.57	0.35	0.89	0.21
Uniform Delay, d1	27.5	6.1	19.7	18.0	26.8	10.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	18.4	0.1	0.6	0.4	10.7	0.1
Delay (s)	45.8	6.1	20.3	18.4	37.4	10.9
Level of Service	D	A	C	B	D	B
Approach Delay (s)		20.3	19.5		31.6	
Approach LOS		C	B		C	
Intersection Summary						
HCM 2000 Control Delay			23.5		HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio			0.75			
Actuated Cycle Length (s)			74.6		Sum of lost time (s)	12.0
Intersection Capacity Utilization			69.6%		ICU Level of Service	C
Analysis Period (min)			15			
c Critical Lane Group						

HCM 6th Signalized Intersection Summary

2: Keene Rd & Queensgate Dr

Ladera Subdivision

01/24/2022



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations							
Traffic Volume (veh/h)	355	639	670	513	752	210	
Future Volume (veh/h)	355	639	670	513	752	210	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1885	1826	1870	1856	1885	1885	
Adj Flow Rate, veh/h	370	666	698	0	783	219	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	
Percent Heavy Veh, %	1	5	2	3	1	1	
Cap, veh/h	413	2186	1127		903	782	
Arrive On Green	0.23	0.63	0.32	0.00	0.26	0.26	
Sat Flow, veh/h	1795	3561	3647	1572	3483	1598	
Grp Volume(v), veh/h	370	666	698	0	783	219	
Grp Sat Flow(s),veh/h/ln	1795	1735	1777	1572	1742	1598	
Q Serve(g_s), s	14.5	6.4	12.1	0.0	15.5	0.0	
Cycle Q Clear(g_c), s	14.5	6.4	12.1	0.0	15.5	0.0	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	413	2186	1127		903	782	
V/C Ratio(X)	0.90	0.30	0.62		0.87	0.28	
Avail Cap(c_a), veh/h	446	2300	1276		914	787	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00	
Uniform Delay (d), s/veh	27.0	6.1	21.0	0.0	25.6	10.9	
Incr Delay (d2), s/veh	19.3	0.1	0.8	0.0	8.8	0.2	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	8.1	1.9	4.8	0.0	7.2	0.0	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	46.3	6.2	21.8	0.0	34.4	11.1	
LnGrp LOS	D	A	C		C	B	
Approach Vol, veh/h		1036	698	A	1002		
Approach Delay, s/veh		20.5	21.8		29.3		
Approach LOS		C	C		C		
Timer - Assigned Phs		2		4		7	8
Phs Duration (G+Y+Rc), s		22.8		49.6		22.7	27.0
Change Period (Y+Rc), s		4.0		6.0		6.0	* 6
Max Green Setting (Gmax), s		19.0		46.0		18.0	* 24
Max Q Clear Time (g_c+I1), s		17.5		8.4		16.5	14.1
Green Ext Time (p_c), s		1.2		17.4		0.2	6.9

Intersection Summary

HCM 6th Ctrl Delay	24.1
HCM 6th LOS	C

Notes

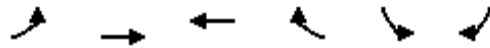
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Intersection						
Int Delay, s/veh	4.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↖	↑↑	↘	
Traffic Vol, veh/h	906	36	30	422	45	89
Future Vol, veh/h	906	36	30	422	45	89
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	90	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1079	43	36	502	54	106
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	1122	0	1424	561
Stage 1	-	-	-	-	1101	-
Stage 2	-	-	-	-	323	-
Critical Hdwy	-	-	4.1	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	630	-	129	476
Stage 1	-	-	-	-	284	-
Stage 2	-	-	-	-	712	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	630	-	122	476
Mov Cap-2 Maneuver	-	-	-	-	122	-
Stage 1	-	-	-	-	284	-
Stage 2	-	-	-	-	671	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.7		45	
HCM LOS					E	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	241	-	-	630	-	
HCM Lane V/C Ratio	0.662	-	-	0.057	-	
HCM Control Delay (s)	45	-	-	11.1	-	
HCM Lane LOS	E	-	-	B	-	
HCM 95th %tile Q(veh)	4.2	-	-	0.2	-	

Queues
2: Keene Rd & Queensgate Dr

Ladera Subdivision
01/24/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	625	482	434	890	443	117
v/c Ratio	0.98	0.18	0.34	1.06	0.91	0.13
Control Delay	62.6	3.0	21.6	64.7	63.1	2.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.6	3.0	21.6	64.7	63.1	2.4
Queue Length 50th (ft)	347	30	92	~402	129	0
Queue Length 95th (ft)	#499	38	119	#531	#188	19
Internal Link Dist (ft)		1984	463		553	
Turn Bay Length (ft)	200			130	195	195
Base Capacity (vph)	635	2687	1260	842	486	898
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.98	0.18	0.34	1.06	0.91	0.13

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

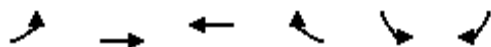
Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis

2: Keene Rd & Queensgate Dr

Ladera Subdivision

01/24/2022



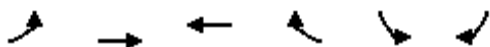
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	519	400	360	739	368	97
Future Volume (vph)	519	400	360	739	368	97
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	0.95	1.00	0.97	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1787	3505	3438	1599	3367	1553
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1787	3505	3438	1599	3367	1553
Peak-hour factor, PHF	0.83	0.83	0.83	0.83	0.83	0.83
Adj. Flow (vph)	625	482	434	890	443	117
RTOR Reduction (vph)	0	0	0	256	0	59
Lane Group Flow (vph)	625	482	434	634	443	59
Heavy Vehicles (%)	1%	3%	5%	1%	4%	4%
Turn Type	Prot	NA	NA	Perm	Prot	pm+ov
Protected Phases	7	4	8		5	7
Permitted Phases				8		5
Actuated Green, G (s)	32.0	67.0	31.0	31.0	13.0	45.0
Effective Green, g (s)	32.0	69.0	33.0	33.0	13.0	45.0
Actuated g/C Ratio	0.36	0.77	0.37	0.37	0.14	0.50
Clearance Time (s)	4.0	6.0	6.0	6.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	635	2687	1260	586	486	845
v/s Ratio Prot	c0.35	0.14	0.13		c0.13	0.02
v/s Ratio Perm				c0.40		0.01
v/c Ratio	0.98	0.18	0.34	1.08	0.91	0.07
Uniform Delay, d1	28.8	2.8	20.7	28.5	37.9	11.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	31.5	0.0	0.2	61.3	21.3	0.0
Delay (s)	60.2	2.9	20.8	89.8	59.2	11.7
Level of Service	E	A	C	F	E	B
Approach Delay (s)		35.3	67.2		49.3	
Approach LOS		D	E		D	
Intersection Summary						
HCM 2000 Control Delay			52.0		HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio			1.01			
Actuated Cycle Length (s)			90.0		Sum of lost time (s)	12.0
Intersection Capacity Utilization			81.2%		ICU Level of Service	D
Analysis Period (min)			15			
c Critical Lane Group						

HCM 6th Signalized Intersection Summary

2: Keene Rd & Queensgate Dr

Ladera Subdivision

01/24/2022



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations							
Traffic Volume (veh/h)	519	400	360	739	368	97	
Future Volume (veh/h)	519	400	360	739	368	97	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1885	1856	1826	1885	1841	1841	
Adj Flow Rate, veh/h	625	482	434	0	443	117	
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	
Percent Heavy Veh, %	1	3	5	1	4	4	
Cap, veh/h	675	2558	931		565	846	
Arrive On Green	0.38	0.73	0.27	0.00	0.17	0.17	
Sat Flow, veh/h	1795	3618	3561	1598	3401	1560	
Grp Volume(v), veh/h	625	482	434	0	443	117	
Grp Sat Flow(s),veh/h/ln	1795	1763	1735	1598	1700	1560	
Q Serve(g_s), s	24.6	3.2	7.7	0.0	9.2	0.0	
Cycle Q Clear(g_c), s	24.6	3.2	7.7	0.0	9.2	0.0	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	675	2558	931		565	846	
V/C Ratio(X)	0.93	0.19	0.47		0.78	0.14	
Avail Cap(c_a), veh/h	778	3292	1549		598	861	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00	
Uniform Delay (d), s/veh	22.1	3.2	22.6	0.0	29.5	8.4	
Incr Delay (d2), s/veh	15.6	0.0	0.4	0.0	6.4	0.1	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	12.5	0.8	3.1	0.0	4.1	2.4	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	37.7	3.3	23.0	0.0	36.0	8.4	
LnGrp LOS	D	A	C		D	A	
Approach Vol, veh/h		1107	434	A	560		
Approach Delay, s/veh		22.7	23.0		30.2		
Approach LOS		C	C		C		
Timer - Assigned Phs		2		4		7	8
Phs Duration (G+Y+Rc), s		16.3		57.6		33.8	23.8
Change Period (Y+Rc), s		4.0		6.0		6.0	* 6
Max Green Setting (Gmax), s		13.0		67.0		32.0	* 31
Max Q Clear Time (g_c+I1), s		11.2		5.2		26.6	9.7
Green Ext Time (p_c), s		1.0		14.2		1.2	8.1

Intersection Summary

HCM 6th Ctrl Delay	24.8
HCM 6th LOS	C

Notes

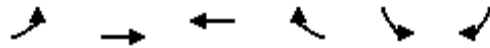
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Intersection						
Int Delay, s/veh	1.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↘	↑↑	↘	
Traffic Vol, veh/h	1031	40	56	853	24	60
Future Vol, veh/h	1031	40	56	853	24	60
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	90	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1063	41	58	879	25	62
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	1104	0	1640	552
Stage 1	-	-	-	-	1084	-
Stage 2	-	-	-	-	556	-
Critical Hdwy	-	-	4.1	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	640	-	93	483
Stage 1	-	-	-	-	290	-
Stage 2	-	-	-	-	544	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	640	-	85	483
Mov Cap-2 Maneuver	-	-	-	-	85	-
Stage 1	-	-	-	-	290	-
Stage 2	-	-	-	-	494	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.7		34.4	
HCM LOS					D	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	207	-	-	640	-	
HCM Lane V/C Ratio	0.418	-	-	0.09	-	
HCM Control Delay (s)	34.4	-	-	11.2	-	
HCM Lane LOS	D	-	-	B	-	
HCM 95th %tile Q(veh)	1.9	-	-	0.3	-	

Queues
2: Keene Rd & Queensgate Dr

Ladera Subdivision
01/24/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	393	706	741	568	831	232
v/c Ratio	0.90	0.33	0.64	0.64	0.87	0.27
Control Delay	54.8	7.6	26.0	5.8	38.9	7.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.8	7.6	26.0	5.8	38.9	7.6
Queue Length 50th (ft)	189	77	164	0	203	40
Queue Length 95th (ft)	#346	106	223	71	#303	76
Internal Link Dist (ft)		1984	463		553	
Turn Bay Length (ft)	200			130	195	195
Base Capacity (vph)	449	2161	1157	886	959	862
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.88	0.33	0.64	0.64	0.87	0.27

Intersection Summary

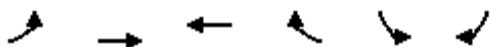
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis

2: Keene Rd & Queensgate Dr

Ladera Subdivision

01/24/2022



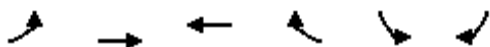
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	377	678	711	545	798	223
Future Volume (vph)	377	678	711	545	798	223
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	0.95	1.00	0.97	1.00
Frpb, ped/bikes	1.00	1.00	1.00	0.98	1.00	0.99
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1787	3438	3539	1541	3467	1588
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1787	3438	3539	1541	3467	1588
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	393	706	741	568	831	232
RTOR Reduction (vph)	0	0	0	382	0	23
Lane Group Flow (vph)	393	706	741	186	831	209
Confl. Peds. (#/hr)	4			4		1
Heavy Vehicles (%)	1%	5%	2%	3%	1%	1%
Turn Type	Prot	NA	NA	Perm	Prot	pm+ov
Protected Phases	7	4	8		5	7
Permitted Phases				8		5
Actuated Green, G (s)	19.5	47.5	24.0	24.0	22.0	41.5
Effective Green, g (s)	19.5	49.5	26.0	26.0	22.0	41.5
Actuated g/C Ratio	0.25	0.62	0.33	0.33	0.28	0.52
Clearance Time (s)	4.0	6.0	6.0	6.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	438	2140	1157	503	959	908
v/s Ratio Prot	c0.22	0.21	c0.21		c0.24	0.06
v/s Ratio Perm				0.12		0.08
v/c Ratio	0.90	0.33	0.64	0.37	0.87	0.23
Uniform Delay, d1	29.0	7.1	22.8	20.5	27.4	10.3
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	20.5	0.1	1.2	0.5	8.3	0.1
Delay (s)	49.5	7.2	24.0	20.9	35.7	10.4
Level of Service	D	A	C	C	D	B
Approach Delay (s)		22.3	22.7		30.2	
Approach LOS		C	C		C	
Intersection Summary						
HCM 2000 Control Delay			24.9		HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio			0.79			
Actuated Cycle Length (s)			79.5		Sum of lost time (s)	12.0
Intersection Capacity Utilization			73.3%		ICU Level of Service	D
Analysis Period (min)			15			
c Critical Lane Group						

HCM 6th Signalized Intersection Summary

2: Keene Rd & Queensgate Dr

Ladera Subdivision

01/24/2022



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations							
Traffic Volume (veh/h)	377	678	711	545	798	223	
Future Volume (veh/h)	377	678	711	545	798	223	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1885	1826	1870	1856	1885	1885	
Adj Flow Rate, veh/h	393	706	741	0	831	232	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	
Percent Heavy Veh, %	1	5	2	3	1	1	
Cap, veh/h	432	2159	1086		961	825	
Arrive On Green	0.24	0.62	0.31	0.00	0.28	0.28	
Sat Flow, veh/h	1795	3561	3647	1572	3483	1598	
Grp Volume(v), veh/h	393	706	741	0	831	232	
Grp Sat Flow(s),veh/h/ln	1795	1735	1777	1572	1742	1598	
Q Serve(g_s), s	16.7	7.6	14.4	0.0	17.9	0.0	
Cycle Q Clear(g_c), s	16.7	7.6	14.4	0.0	17.9	0.0	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	432	2159	1086		961	825	
V/C Ratio(X)	0.91	0.33	0.68		0.86	0.28	
Avail Cap(c_a), veh/h	456	2205	1174		974	831	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00	
Uniform Delay (d), s/veh	29.0	7.0	24.0	0.0	27.1	10.8	
Incr Delay (d2), s/veh	21.5	0.1	1.5	0.0	8.1	0.2	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	9.5	2.4	6.0	0.0	8.2	5.1	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	50.5	7.1	25.4	0.0	35.2	10.9	
LnGrp LOS	D	A	C		D	B	
Approach Vol, veh/h		1099	741	A	1063		
Approach Delay, s/veh		22.6	25.4		29.9		
Approach LOS		C	C		C		
Timer - Assigned Phs		2		4		7	8
Phs Duration (G+Y+Rc), s		25.7		53.0		24.9	28.0
Change Period (Y+Rc), s		4.0		6.0		6.0	* 6
Max Green Setting (Gmax), s		22.0		48.0		20.0	* 24
Max Q Clear Time (g_c+I1), s		19.9		9.6		18.7	16.4
Green Ext Time (p_c), s		1.8		18.7		0.2	5.7

Intersection Summary

HCM 6th Ctrl Delay	26.0
HCM 6th LOS	C

Notes

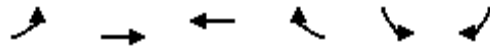
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Intersection						
Int Delay, s/veh	4.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↖	↑↑	↖	↖
Traffic Vol, veh/h	906	42	40	422	63	117
Future Vol, veh/h	906	42	40	422	63	117
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	90	-	125	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1079	50	48	502	75	139
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1129	0	1451	565
Stage 1	-	-	-	-	1104	-
Stage 2	-	-	-	-	347	-
Critical Hdwy	-	-	4.1	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	626	-	124	473
Stage 1	-	-	-	-	283	-
Stage 2	-	-	-	-	693	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	626	-	114	473
Mov Cap-2 Maneuver	-	-	-	-	114	-
Stage 1	-	-	-	-	283	-
Stage 2	-	-	-	-	640	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		1		39.4	
HCM LOS	E					
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	114	473	-	-	626	-
HCM Lane V/C Ratio	0.658	0.294	-	-	0.076	-
HCM Control Delay (s)	83.2	15.8	-	-	11.2	-
HCM Lane LOS	F	C	-	-	B	-
HCM 95th %tile Q(veh)	3.4	1.2	-	-	0.2	-

Queues
2: Keene Rd & Queensgate Dr

Ladera Subdivision
05/30/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	640	501	441	890	443	122
v/c Ratio	1.01	0.19	0.35	1.06	0.91	0.14
Control Delay	68.4	3.0	21.7	66.1	63.1	2.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.4	3.0	21.7	66.1	63.1	2.4
Queue Length 50th (ft)	~365	32	94	~405	129	0
Queue Length 95th (ft)	#516	40	121	#535	#188	19
Internal Link Dist (ft)		1984	463		553	
Turn Bay Length (ft)	200			130	195	195
Base Capacity (vph)	635	2687	1260	839	486	901
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.01	0.19	0.35	1.06	0.91	0.14

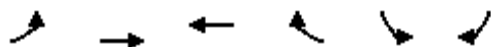
Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis

2: Keene Rd & Queensgate Dr

Ladera Subdivision
05/30/2022

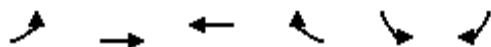


Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	531	416	366	739	368	101
Future Volume (vph)	531	416	366	739	368	101
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	0.95	1.00	0.97	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1787	3505	3438	1599	3367	1553
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1787	3505	3438	1599	3367	1553
Peak-hour factor, PHF	0.83	0.83	0.83	0.83	0.83	0.83
Adj. Flow (vph)	640	501	441	890	443	122
RTOR Reduction (vph)	0	0	0	253	0	61
Lane Group Flow (vph)	640	501	441	637	443	61
Heavy Vehicles (%)	1%	3%	5%	1%	4%	4%
Turn Type	Prot	NA	NA	Perm	Prot	pm+ov
Protected Phases	7	4	8		5	7
Permitted Phases				8		5
Actuated Green, G (s)	32.0	67.0	31.0	31.0	13.0	45.0
Effective Green, g (s)	32.0	69.0	33.0	33.0	13.0	45.0
Actuated g/C Ratio	0.36	0.77	0.37	0.37	0.14	0.50
Clearance Time (s)	4.0	6.0	6.0	6.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	635	2687	1260	586	486	845
v/s Ratio Prot	c0.36	0.14	0.13		c0.13	0.03
v/s Ratio Perm				c0.40		0.01
v/c Ratio	1.01	0.19	0.35	1.09	0.91	0.07
Uniform Delay, d1	29.0	2.9	20.7	28.5	37.9	11.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	37.7	0.0	0.2	62.8	21.3	0.0
Delay (s)	66.7	2.9	20.9	91.3	59.2	11.7
Level of Service	E	A	C	F	E	B
Approach Delay (s)		38.7	68.0		49.0	
Approach LOS		D	E		D	
Intersection Summary						
HCM 2000 Control Delay			53.4		HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio			1.02			
Actuated Cycle Length (s)			90.0		Sum of lost time (s)	12.0
Intersection Capacity Utilization			81.8%		ICU Level of Service	D
Analysis Period (min)			15			
c Critical Lane Group						

HCM 6th Signalized Intersection Summary

2: Keene Rd & Queensgate Dr

Ladera Subdivision
05/30/2022



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	531	416	366	739	368	101
Future Volume (veh/h)	531	416	366	739	368	101
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1885	1856	1826	1885	1841	1841
Adj Flow Rate, veh/h	640	501	441	0	443	122
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	1	3	5	1	4	4
Cap, veh/h	686	2573	929		558	852
Arrive On Green	0.38	0.73	0.27	0.00	0.16	0.16
Sat Flow, veh/h	1795	3618	3561	1598	3401	1560
Grp Volume(v), veh/h	640	501	441	0	443	122
Grp Sat Flow(s), veh/h/ln	1795	1763	1735	1598	1700	1560
Q Serve(g_s), s	25.8	3.4	8.0	0.0	9.4	0.0
Cycle Q Clear(g_c), s	25.8	3.4	8.0	0.0	9.4	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	686	2573	929		558	852
V/C Ratio(X)	0.93	0.19	0.47		0.79	0.14
Avail Cap(c_a), veh/h	762	3228	1519		587	865
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	22.3	3.2	23.1	0.0	30.3	8.4
Incr Delay (d2), s/veh	17.3	0.0	0.4	0.0	7.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.3	0.8	3.2	0.0	4.3	2.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	39.7	3.2	23.5	0.0	37.4	8.5
LnGrp LOS	D	A	C		D	A
Approach Vol, veh/h		1141	441	A	565	
Approach Delay, s/veh		23.7	23.5		31.1	
Approach LOS		C	C		C	
Timer - Assigned Phs		2		4		7 8
Phs Duration (G+Y+Rc), s		16.4		59.0		34.8 24.2
Change Period (Y+Rc), s		4.0		6.0		6.0 * 6
Max Green Setting (Gmax), s		13.0		67.0		32.0 * 31
Max Q Clear Time (g_c+I1), s		11.4		5.4		27.8 10.0
Green Ext Time (p_c), s		0.9		14.9		1.0 8.2

Intersection Summary

HCM 6th Ctrl Delay	25.6
HCM 6th LOS	C

Notes

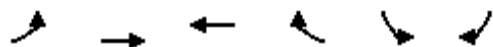
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Intersection						
Int Delay, s/veh	2.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↘	↑↑	↘	↘
Traffic Vol, veh/h	1031	60	87	853	36	79
Future Vol, veh/h	1031	60	87	853	36	79
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	90	-	125	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1063	62	90	879	37	81
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	1125	0	1714	563
Stage 1	-	-	-	-	1094	-
Stage 2	-	-	-	-	620	-
Critical Hdwy	-	-	4.1	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	628	-	83	475
Stage 1	-	-	-	-	287	-
Stage 2	-	-	-	-	504	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	628	-	71	475
Mov Cap-2 Maneuver	-	-	-	-	71	-
Stage 1	-	-	-	-	287	-
Stage 2	-	-	-	-	432	-
Approach	EB	WB		NB		
HCM Control Delay, s	0	1.1		41.5		
HCM LOS	E					
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	71	475	-	-	628	-
HCM Lane V/C Ratio	0.523	0.171	-	-	0.143	-
HCM Control Delay (s)	101.5	14.1	-	-	11.7	-
HCM Lane LOS	F	B	-	-	B	-
HCM 95th %tile Q(veh)	2.2	0.6	-	-	0.5	-

Queues
2: Keene Rd & Queensgate Dr

Ladera Subdivision
05/30/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	401	718	759	568	831	246
v/c Ratio	0.91	0.34	0.66	0.64	0.87	0.29
Control Delay	56.7	7.7	26.4	5.8	39.1	7.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.7	7.7	26.4	5.8	39.1	7.9
Queue Length 50th (ft)	194	79	169	0	203	45
Queue Length 95th (ft)	#356	109	230	71	#303	82
Internal Link Dist (ft)		1984	463		553	
Turn Bay Length (ft)	200			130	195	195
Base Capacity (vph)	448	2157	1155	885	957	858
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.90	0.33	0.66	0.64	0.87	0.29

Intersection Summary

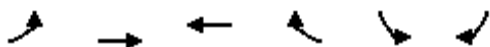
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis

2: Keene Rd & Queensgate Dr

Ladera Subdivision

05/30/2022

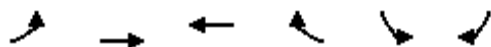


Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	385	689	729	545	798	236
Future Volume (vph)	385	689	729	545	798	236
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	0.95	1.00	0.97	1.00
Frpb, ped/bikes	1.00	1.00	1.00	0.98	1.00	0.99
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1787	3438	3539	1541	3467	1588
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1787	3438	3539	1541	3467	1588
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	401	718	759	568	831	246
RTOR Reduction (vph)	0	0	0	383	0	22
Lane Group Flow (vph)	401	718	759	185	831	224
Confl. Peds. (#/hr)	4			4		1
Heavy Vehicles (%)	1%	5%	2%	3%	1%	1%
Turn Type	Prot	NA	NA	Perm	Prot	pm+ov
Protected Phases	7	4	8		5	7
Permitted Phases				8		5
Actuated Green, G (s)	19.7	47.7	24.0	24.0	22.0	41.7
Effective Green, g (s)	19.7	49.7	26.0	26.0	22.0	41.7
Actuated g/C Ratio	0.25	0.62	0.33	0.33	0.28	0.52
Clearance Time (s)	4.0	6.0	6.0	6.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	441	2143	1154	502	957	910
v/s Ratio Prot	c0.22	0.21	c0.21		c0.24	0.06
v/s Ratio Perm				0.12		0.08
v/c Ratio	0.91	0.34	0.66	0.37	0.87	0.25
Uniform Delay, d1	29.1	7.1	23.0	20.6	27.5	10.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	22.2	0.1	1.4	0.5	8.4	0.1
Delay (s)	51.4	7.2	24.4	21.0	35.9	10.5
Level of Service	D	A	C	C	D	B
Approach Delay (s)		23.1	23.0		30.1	
Approach LOS		C	C		C	
Intersection Summary						
HCM 2000 Control Delay			25.2		HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio			0.80			
Actuated Cycle Length (s)			79.7		Sum of lost time (s)	12.0
Intersection Capacity Utilization			74.2%		ICU Level of Service	D
Analysis Period (min)			15			
c Critical Lane Group						

HCM 6th Signalized Intersection Summary

2: Keene Rd & Queensgate Dr

Ladera Subdivision
05/30/2022



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations							
Traffic Volume (veh/h)	385	689	729	545	798	236	
Future Volume (veh/h)	385	689	729	545	798	236	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1885	1826	1870	1856	1885	1885	
Adj Flow Rate, veh/h	401	718	759	0	831	246	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	
Percent Heavy Veh, %	1	5	2	3	1	1	
Cap, veh/h	438	2170	1087		953	827	
Arrive On Green	0.24	0.63	0.31	0.00	0.27	0.27	
Sat Flow, veh/h	1795	3561	3647	1572	3483	1598	
Grp Volume(v), veh/h	401	718	759	0	831	246	
Grp Sat Flow(s),veh/h/ln	1795	1735	1777	1572	1742	1598	
Q Serve(g_s), s	17.3	7.8	15.0	0.0	18.1	0.0	
Cycle Q Clear(g_c), s	17.3	7.8	15.0	0.0	18.1	0.0	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	438	2170	1087		953	827	
V/C Ratio(X)	0.92	0.33	0.70		0.87	0.30	
Avail Cap(c_a), veh/h	452	2184	1163		965	832	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00	
Uniform Delay (d), s/veh	29.2	7.0	24.3	0.0	27.5	10.9	
Incr Delay (d2), s/veh	22.8	0.1	1.7	0.0	8.7	0.2	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	9.9	2.5	6.3	0.0	8.3	0.0	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	52.1	7.1	26.0	0.0	36.2	11.1	
LnGrp LOS	D	A	C		D	B	
Approach Vol, veh/h		1119	759	A	1077		
Approach Delay, s/veh		23.2	26.0		30.5		
Approach LOS		C	C		C		
Timer - Assigned Phs		2		4		7	8
Phs Duration (G+Y+Rc), s		25.7		53.7		25.4	28.3
Change Period (Y+Rc), s		4.0		6.0		6.0	* 6
Max Green Setting (Gmax), s		22.0		48.0		20.0	* 24
Max Q Clear Time (g_c+I1), s		20.1		9.8		19.3	17.0
Green Ext Time (p_c), s		1.7		19.0		0.1	5.3

Intersection Summary

HCM 6th Ctrl Delay	26.6
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Intersection						
Int Delay, s/veh	8.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↖	↑↑	↘	
Traffic Vol, veh/h	1042	39	32	485	49	96
Future Vol, veh/h	1042	39	32	485	49	96
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	90	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1240	46	38	577	58	114
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	1286	0	1628	643
Stage 1	-	-	-	-	1263	-
Stage 2	-	-	-	-	365	-
Critical Hdwy	-	-	4.1	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	546	-	95	421
Stage 1	-	-	-	-	233	-
Stage 2	-	-	-	-	679	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	546	-	88	421
Mov Cap-2 Maneuver	-	-	-	-	88	-
Stage 1	-	-	-	-	233	-
Stage 2	-	-	-	-	631	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.7		101	
HCM LOS					F	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	185	-	-	546	-	
HCM Lane V/C Ratio	0.933	-	-	0.07	-	
HCM Control Delay (s)	101	-	-	12.1	-	
HCM Lane LOS	F	-	-	B	-	
HCM 95th %tile Q(veh)	7.3	-	-	0.2	-	

Queues

2: Queensgate Dr & Keene Rd

Ladera Subdivision

01/26/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	700	524	57	23	452	947	72	110	452	99	120
v/c Ratio	0.87	0.35	0.08	0.19	0.70	0.93	0.07	0.33	0.44	0.45	0.20
Control Delay	46.0	18.7	0.4	44.5	39.2	30.5	26.1	34.5	26.8	43.0	2.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.0	18.7	0.4	44.5	39.2	30.5	26.1	34.5	26.8	43.0	2.9
Queue Length 50th (ft)	193	91	0	12	123	344	15	25	104	52	0
Queue Length 95th (ft)	#276	148	0	35	162	#579	31	47	143	92	13
Internal Link Dist (ft)	1984			463			244			553	
Turn Bay Length (ft)	200		125	100		130	195		195		195
Base Capacity (vph)	806	1506	759	118	778	1013	981	769	1024	577	593
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.87	0.35	0.08	0.19	0.58	0.93	0.07	0.14	0.44	0.17	0.20

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis

2: Queensgate Dr & Keene Rd

Ladera Subdivision

01/26/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	581	435	47	19	375	786	60	76	15	375	82	100
Future Volume (vph)	581	435	47	19	375	786	60	76	15	375	82	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	0.97	0.95		0.97	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.98		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3467	3505	1615	1805	3438	1599	3502	3521		3367	1900	1553
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3467	3505	1615	1805	3438	1599	3502	3521		3367	1900	1553
Peak-hour factor, PHF	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Adj. Flow (vph)	700	524	57	23	452	947	72	92	18	452	99	120
RTOR Reduction (vph)	0	0	34	0	0	155	0	17	0	0	0	82
Lane Group Flow (vph)	700	524	23	23	452	792	72	93	0	452	99	38
Heavy Vehicles (%)	1%	3%	0%	0%	5%	1%	0%	0%	0%	4%	0%	4%
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA		Prot	NA	pm+ov
Protected Phases	1	6		5	2	7	3	8		7	4	1
Permitted Phases			6			2						4
Actuated Green, G (s)	19.7	36.4	36.4	2.0	18.7	44.5	23.8	6.3		25.8	8.3	28.0
Effective Green, g (s)	19.7	36.4	36.4	2.0	18.7	44.5	23.8	6.3		25.8	8.3	28.0
Actuated g/C Ratio	0.22	0.41	0.41	0.02	0.21	0.50	0.27	0.07		0.29	0.09	0.32
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	771	1441	664	40	726	885	941	250		981	178	491
v/s Ratio Prot	c0.20	0.15		0.01	0.13	c0.26	0.02	c0.03		0.13	0.05	0.02
v/s Ratio Perm			0.01			0.23						0.01
v/c Ratio	0.91	0.36	0.04	0.57	0.62	0.89	0.08	0.37		0.46	0.56	0.08
Uniform Delay, d1	33.5	18.0	15.6	42.8	31.7	19.9	24.1	39.2		25.7	38.3	21.2
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	14.4	0.2	0.0	18.4	1.7	11.5	0.0	0.9		0.3	3.7	0.1
Delay (s)	47.9	18.2	15.6	61.3	33.4	31.4	24.2	40.2		26.0	42.1	21.3
Level of Service	D	B	B	E	C	C	C	D		C	D	C
Approach Delay (s)		34.3			32.5			33.8			27.5	
Approach LOS		C			C			C			C	
Intersection Summary												
HCM 2000 Control Delay			32.3			HCM 2000 Level of Service				C		
HCM 2000 Volume to Capacity ratio			0.91									
Actuated Cycle Length (s)			88.5			Sum of lost time (s)			18.0			
Intersection Capacity Utilization			80.7%			ICU Level of Service			D			
Analysis Period (min)			15									
c Critical Lane Group												

HCM 6th Signalized Intersection Summary

2: Queensgate Dr & Keene Rd

Ladera Subdivision

01/26/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	581	435	47	19	375	786	60	76	15	375	82	100
Future Volume (veh/h)	581	435	47	19	375	786	60	76	15	375	82	100
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1885	1856	1900	1900	1826	1885	1900	1900	1900	1841	1900	1841
Adj Flow Rate, veh/h	700	524	57	23	452	0	72	92	18	452	99	120
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	1	3	0	0	5	1	0	0	0	4	0	4
Cap, veh/h	863	1247	569	150	654		592	250	48	622	184	538
Arrive On Green	0.25	0.35	0.35	0.08	0.19	0.00	0.17	0.08	0.08	0.18	0.10	0.10
Sat Flow, veh/h	3483	3526	1610	1810	3469	1598	3510	3025	577	3401	1900	1560
Grp Volume(v), veh/h	700	524	57	23	452	0	72	54	56	452	99	120
Grp Sat Flow(s),veh/h/ln	1742	1763	1610	1810	1735	1598	1755	1805	1796	1700	1900	1560
Q Serve(g_s), s	11.4	6.8	0.7	0.7	7.3	0.0	1.1	1.7	1.8	7.6	3.0	1.3
Cycle Q Clear(g_c), s	11.4	6.8	0.7	0.7	7.3	0.0	1.1	1.7	1.8	7.6	3.0	1.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.32	1.00		1.00
Lane Grp Cap(c), veh/h	863	1247	569	150	654		592	149	148	622	184	538
V/C Ratio(X)	0.81	0.42	0.10	0.15	0.69		0.12	0.36	0.38	0.73	0.54	0.22
Avail Cap(c_a), veh/h	1124	1926	880	165	1091		1046	538	535	1436	802	1045
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.4	14.8	3.4	25.7	22.9	0.0	21.3	26.2	26.2	23.3	26.0	4.2
Incr Delay (d2), s/veh	3.5	0.2	0.1	0.5	1.3	0.0	0.1	1.5	1.6	1.6	2.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	2.5	0.5	0.3	2.9	0.0	0.4	0.8	0.8	3.0	1.4	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.9	15.0	3.5	26.2	24.2	0.0	21.4	27.7	27.8	24.9	28.4	4.4
LnGrp LOS	C	B	A	C	C		C	C	C	C	C	A
Approach Vol, veh/h	1281			475			182			671		
Approach Delay, s/veh	19.9			24.3			25.2			21.7		
Approach LOS	B			C			C			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	19.5	15.9	14.7	10.4	9.5	25.9	15.6	9.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	19.5	19.0	18.0	25.5	5.5	33.0	25.5	18.0				
Max Q Clear Time (g_c+I1), s	13.4	9.3	3.1	5.0	2.7	8.8	9.6	3.8				
Green Ext Time (p_c), s	1.5	2.1	0.1	0.9	0.0	3.9	1.5	0.4				

Intersection Summary

HCM 6th Ctrl Delay	21.6
HCM 6th LOS	C

Notes

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Intersection						
Int Delay, s/veh	2.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↘	↑↑	↘	
Traffic Vol, veh/h	1186	44	60	981	26	65
Future Vol, veh/h	1186	44	60	981	26	65
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	90	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1223	45	62	1011	27	67
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1268	0	1876	634
Stage 1	-	-	-	-	1246	-
Stage 2	-	-	-	-	630	-
Critical Hdwy	-	-	4.1	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	555	-	65	427
Stage 1	-	-	-	-	238	-
Stage 2	-	-	-	-	498	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	555	-	58	427
Mov Cap-2 Maneuver	-	-	-	-	58	-
Stage 1	-	-	-	-	238	-
Stage 2	-	-	-	-	442	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.7		60.9	
HCM LOS					F	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	152	-	-	555	-	
HCM Lane V/C Ratio	0.617	-	-	0.111	-	
HCM Control Delay (s)	60.9	-	-	12.3	-	
HCM Lane LOS	F	-	-	B	-	
HCM 95th %tile Q(veh)	3.3	-	-	0.4	-	

Queues

2: Queensgate Dr & Keene Rd

Ladera Subdivision

01/25/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	429	757	80	31	777	593	83	129	854	140	256
v/c Ratio	0.85	0.54	0.11	0.27	0.86	0.59	0.09	0.35	0.89	0.54	0.42
Control Delay	51.4	20.9	1.7	42.7	40.4	5.8	25.4	30.2	41.2	39.3	3.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.4	20.9	1.7	42.7	40.4	5.8	25.4	30.2	41.2	39.3	3.7
Queue Length 50th (ft)	109	132	0	15	194	41	16	26	209	66	0
Queue Length 95th (ft)	#192	235	12	43	#304	116	36	52	#328	117	23
Internal Link Dist (ft)	1984			463			244			553	
Turn Bay Length (ft)	200		125	100		130	195		195		195
Base Capacity (vph)	503	1407	736	113	900	1013	940	810	960	526	610
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.85	0.54	0.11	0.27	0.86	0.59	0.09	0.16	0.89	0.27	0.42

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis

2: Queensgate Dr & Keene Rd

Ladera Subdivision

01/25/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	412	727	77	30	746	569	80	102	22	820	134	246
Future Volume (vph)	412	727	77	30	746	569	80	102	22	820	134	246
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	0.97	0.95		0.97	1.00	1.00
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	0.99	1.00	1.00		1.00	1.00	0.99
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.97		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3467	3438	1615	1805	3539	1554	3502	3513		3467	1900	1589
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3467	3438	1615	1805	3539	1554	3502	3513		3467	1900	1589
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	429	757	80	31	777	593	83	106	23	854	140	256
RTOR Reduction (vph)	0	0	49	0	0	183	0	21	0	0	0	191
Lane Group Flow (vph)	429	757	31	31	777	410	83	108	0	854	140	65
Confl. Peds. (#/hr)	4					4	1					1
Heavy Vehicles (%)	1%	5%	0%	0%	2%	3%	0%	0%	0%	1%	0%	1%
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA		Prot	NA	pm+ov
Protected Phases	1	6		5	2	7	3	8		7	4	1
Permitted Phases			6			2						4
Actuated Green, G (s)	11.6	32.7	32.7	2.0	23.1	45.2	21.2	8.7		22.1	9.6	21.2
Effective Green, g (s)	11.6	32.7	32.7	2.0	23.1	45.2	21.2	8.7		22.1	9.6	21.2
Actuated g/C Ratio	0.14	0.39	0.39	0.02	0.28	0.54	0.25	0.10		0.26	0.11	0.25
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	481	1346	632	43	979	924	889	366		917	218	403
v/s Ratio Prot	c0.12	0.22		0.02	c0.22	0.12	0.02	c0.03		c0.25	0.07	0.02
v/s Ratio Perm			0.02			0.15						0.02
v/c Ratio	0.89	0.56	0.05	0.72	0.79	0.44	0.09	0.30		0.93	0.64	0.16
Uniform Delay, d1	35.3	19.8	15.8	40.5	28.0	11.6	23.8	34.6		30.0	35.3	24.2
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	18.4	0.5	0.0	45.2	4.5	0.3	0.0	0.5		15.7	6.3	0.2
Delay (s)	53.8	20.4	15.8	85.6	32.5	11.9	23.9	35.0		45.6	41.6	24.4
Level of Service	D	C	B	F	C	B	C	D		D	D	C
Approach Delay (s)		31.4			24.9			30.7			40.8	
Approach LOS		C			C			C			D	
Intersection Summary												
HCM 2000 Control Delay			32.0									
HCM 2000 Volume to Capacity ratio			0.79									
Actuated Cycle Length (s)			83.5									
Intersection Capacity Utilization			74.9%									
Analysis Period (min)			15									
c Critical Lane Group												

HCM 6th Signalized Intersection Summary

2: Queensgate Dr & Keene Rd

Ladera Subdivision

01/25/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	412	727	77	30	746	569	80	102	22	820	134	246
Future Volume (veh/h)	412	727	77	30	746	569	80	102	22	820	134	246
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1885	1826	1900	1900	1870	1856	1900	1900	1900	1885	1900	1885
Adj Flow Rate, veh/h	429	757	80	31	777	0	83	106	23	854	140	256
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	1	5	0	0	2	3	0	0	0	1	0	1
Cap, veh/h	519	1168	540	123	909		807	216	46	965	228	429
Arrive On Green	0.15	0.34	0.34	0.07	0.26	0.00	0.23	0.07	0.07	0.28	0.12	0.12
Sat Flow, veh/h	3483	3469	1604	1810	3554	1572	3510	2964	625	3483	1900	1594
Grp Volume(v), veh/h	429	757	80	31	777	0	83	63	66	854	140	256
Grp Sat Flow(s),veh/h/ln	1742	1735	1604	1810	1777	1572	1755	1805	1784	1742	1900	1594
Q Serve(g_s), s	8.8	13.6	1.2	1.2	15.3	0.0	1.4	2.5	2.6	17.2	5.1	4.5
Cycle Q Clear(g_c), s	8.8	13.6	1.2	1.2	15.3	0.0	1.4	2.5	2.6	17.2	5.1	4.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.35	1.00		1.00
Lane Grp Cap(c), veh/h	519	1168	540	123	909		807	131	130	965	228	429
V/C Ratio(X)	0.83	0.65	0.15	0.25	0.85		0.10	0.48	0.51	0.89	0.62	0.60
Avail Cap(c_a), veh/h	551	1272	588	123	984		862	443	438	1050	573	718
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.3	20.6	3.7	32.4	26.0	0.0	22.3	32.7	32.7	25.4	30.7	8.1
Incr Delay (d2), s/veh	9.6	1.0	0.1	1.1	7.0	0.0	0.1	2.7	3.0	8.7	2.7	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	5.3	0.9	0.5	7.0	0.0	0.6	1.2	1.2	7.9	2.4	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.9	21.7	3.8	33.5	33.0	0.0	22.3	35.4	35.8	34.1	33.4	9.4
LnGrp LOS	D	C	A	C	C		C	D	D	C	C	A
Approach Vol, veh/h	1266			808			212			1250		
Approach Delay, s/veh	26.7			33.1			30.4			29.0		
Approach LOS	C			C			C			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.4	23.3	21.4	13.3	9.5	29.2	24.8	9.8				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	11.6	20.3	18.0	22.1	5.0	26.9	22.1	18.0				
Max Q Clear Time (g_c+I1), s	10.8	17.3	3.4	7.1	3.2	15.6	19.2	4.6				
Green Ext Time (p_c), s	0.2	1.5	0.2	1.5	0.0	4.2	1.1	0.5				

Intersection Summary

HCM 6th Ctrl Delay	29.2
HCM 6th LOS	C

Notes

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Intersection						
Int Delay, s/veh	8.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↱		↱	↑↑	↱	↱
Traffic Vol, veh/h	1042	45	42	485	67	124
Future Vol, veh/h	1042	45	42	485	67	124
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	90	-	125	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1240	54	50	577	80	148
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1294	0	1656	647
Stage 1	-	-	-	-	1267	-
Stage 2	-	-	-	-	389	-
Critical Hdwy	-	-	4.1	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	542	-	91	418
Stage 1	-	-	-	-	232	-
Stage 2	-	-	-	-	660	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	542	-	83	418
Mov Cap-2 Maneuver	-	-	-	-	83	-
Stage 1	-	-	-	-	232	-
Stage 2	-	-	-	-	599	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		1		73.8	
HCM LOS	F					
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	83	418	-	-	542	-
HCM Lane V/C Ratio	0.961	0.353	-	-	0.092	-
HCM Control Delay (s)	176.8	18.2	-	-	12.3	-
HCM Lane LOS	F	C	-	-	B	-
HCM 95th %tile Q(veh)	5.3	1.6	-	-	0.3	-

Queues

2: Queensgate Dr & Keene Rd

Ladera Subdivision

05/30/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	714	543	57	23	459	947	72	110	452	99	125
v/c Ratio	0.86	0.36	0.07	0.20	0.72	0.95	0.07	0.33	0.45	0.45	0.21
Control Delay	44.4	18.7	0.4	44.6	40.3	32.9	26.4	34.6	27.2	43.1	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.4	18.7	0.4	44.6	40.3	32.9	26.4	34.6	27.2	43.1	2.8
Queue Length 50th (ft)	198	95	0	12	126	358	15	25	106	52	0
Queue Length 95th (ft)	#275	153	0	35	166	#589	31	47	144	92	13
Internal Link Dist (ft)	1984			463			244			553	
Turn Bay Length (ft)	200		125	100		130	195		195		195
Base Capacity (vph)	833	1525	768	117	749	1001	966	764	1008	569	608
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.86	0.36	0.07	0.20	0.61	0.95	0.07	0.14	0.45	0.17	0.21

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis

2: Queensgate Dr & Keene Rd

Ladera Subdivision

05/30/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	593	451	47	19	381	786	60	76	15	375	82	104
Future Volume (vph)	593	451	47	19	381	786	60	76	15	375	82	104
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	0.97	0.95		0.97	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.98		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3467	3505	1615	1805	3438	1599	3502	3521		3367	1900	1553
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3467	3505	1615	1805	3438	1599	3502	3521		3367	1900	1553
Peak-hour factor, PHF	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Adj. Flow (vph)	714	543	57	23	459	947	72	92	18	452	99	125
RTOR Reduction (vph)	0	0	33	0	0	154	0	17	0	0	0	85
Lane Group Flow (vph)	714	543	24	23	459	793	72	93	0	452	99	40
Heavy Vehicles (%)	1%	3%	0%	0%	5%	1%	0%	0%	0%	4%	0%	4%
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA		Prot	NA	pm+ov
Protected Phases	1	6		5	2	7	3	8		7	4	1
Permitted Phases			6			2						4
Actuated Green, G (s)	20.5	37.1	37.1	2.1	18.7	44.2	23.5	6.3		25.5	8.3	28.8
Effective Green, g (s)	20.5	37.1	37.1	2.1	18.7	44.2	23.5	6.3		25.5	8.3	28.8
Actuated g/C Ratio	0.23	0.42	0.42	0.02	0.21	0.50	0.26	0.07		0.29	0.09	0.32
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	798	1461	673	42	722	874	924	249		964	177	502
v/s Ratio Prot	c0.21	0.15		0.01	0.13	c0.26	0.02	c0.03		0.13	0.05	0.02
v/s Ratio Perm			0.01			0.24						0.01
v/c Ratio	0.89	0.37	0.04	0.55	0.64	0.91	0.08	0.37		0.47	0.56	0.08
Uniform Delay, d1	33.2	17.9	15.4	43.0	32.0	20.5	24.6	39.5		26.2	38.6	20.9
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	12.5	0.2	0.0	13.8	1.8	13.0	0.0	0.9		0.4	3.8	0.1
Delay (s)	45.7	18.1	15.4	56.8	33.9	33.5	24.6	40.4		26.5	42.4	21.0
Level of Service	D	B	B	E	C	C	C	D		C	D	C
Approach Delay (s)		33.0			34.0			34.2			27.8	
Approach LOS		C			C			C			C	
Intersection Summary												
HCM 2000 Control Delay			32.5			HCM 2000 Level of Service				C		
HCM 2000 Volume to Capacity ratio			0.91									
Actuated Cycle Length (s)			89.0			Sum of lost time (s)				18.0		
Intersection Capacity Utilization			81.0%			ICU Level of Service				D		
Analysis Period (min)			15									
c Critical Lane Group												

HCM 6th Signalized Intersection Summary

2: Queensgate Dr & Keene Rd

Ladera Subdivision

05/30/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	593	451	47	19	381	786	60	76	15	375	82	104
Future Volume (veh/h)	593	451	47	19	381	786	60	76	15	375	82	104
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1856	1900	1900	1826	1885	1900	1900	1900	1841	1900	1841
Adj Flow Rate, veh/h	714	543	57	23	459	0	72	92	18	452	99	125
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	1	3	0	0	5	1	0	0	0	4	0	4
Cap, veh/h	879	1267	579	148	655		588	247	47	620	184	545
Arrive On Green	0.25	0.36	0.36	0.08	0.19	0.00	0.17	0.08	0.08	0.18	0.10	0.10
Sat Flow, veh/h	3483	3526	1610	1810	3469	1598	3510	3025	577	3401	1900	1560
Grp Volume(v), veh/h	714	543	57	23	459	0	72	54	56	452	99	125
Grp Sat Flow(s), veh/h/ln	1742	1763	1610	1810	1735	1598	1755	1805	1796	1700	1900	1560
Q Serve(g_s), s	11.8	7.1	0.7	0.7	7.6	0.0	1.1	1.7	1.8	7.7	3.0	1.4
Cycle Q Clear(g_c), s	11.8	7.1	0.7	0.7	7.6	0.0	1.1	1.7	1.8	7.7	3.0	1.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.32	1.00		1.00
Lane Grp Cap(c), veh/h	879	1267	579	148	655		588	148	147	620	184	545
V/C Ratio(X)	0.81	0.43	0.10	0.16	0.70		0.12	0.37	0.38	0.73	0.54	0.23
Avail Cap(c_a), veh/h	1158	1916	875	163	1045		1034	532	529	1409	787	1040
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.5	14.8	3.4	26.1	23.2	0.0	21.6	26.5	26.6	23.6	26.3	4.2
Incr Delay (d2), s/veh	3.4	0.2	0.1	0.5	1.4	0.0	0.1	1.5	1.6	1.7	2.5	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.8	2.6	0.5	0.3	3.0	0.0	0.4	0.8	0.8	3.0	1.4	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.9	15.0	3.4	26.6	24.5	0.0	21.7	28.1	28.2	25.2	28.7	4.4
LnGrp LOS	C	B	A	C	C		C	C	C	C	C	A
Approach Vol, veh/h		1314			482	A		182			676	
Approach Delay, s/veh		19.9			24.6			25.6			21.9	
Approach LOS		B			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	19.9	16.0	14.7	10.4	9.5	26.5	15.6	9.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	20.3	18.4	18.0	25.3	5.5	33.2	25.3	18.0				
Max Q Clear Time (g_c+l1), s	13.8	9.6	3.1	5.0	2.7	9.1	9.7	3.8				
Green Ext Time (p_c), s	1.6	2.0	0.1	0.9	0.0	4.0	1.5	0.4				
Intersection Summary												
HCM 6th Ctrl Delay			21.6									
HCM 6th LOS			C									
Notes												
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.												

Intersection						
Int Delay, s/veh	4.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↱		↱	↑↑	↱	↱
Traffic Vol, veh/h	1186	64	91	981	38	84
Future Vol, veh/h	1186	64	91	981	38	84
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	90	-	125	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1223	66	94	1011	39	87
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1289	0	1950	645
Stage 1	-	-	-	-	1256	-
Stage 2	-	-	-	-	694	-
Critical Hdwy	-	-	4.1	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	545	-	58	420
Stage 1	-	-	-	-	235	-
Stage 2	-	-	-	-	462	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	545	-	48	420
Mov Cap-2 Maneuver	-	-	-	-	48	-
Stage 1	-	-	-	-	235	-
Stage 2	-	-	-	-	383	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		1.1		76.2	
HCM LOS	F					
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	48	420	-	-	545	-
HCM Lane V/C Ratio	0.816	0.206	-	-	0.172	-
HCM Control Delay (s)	209.7	15.8	-	-	13	-
HCM Lane LOS	F	C	-	-	B	-
HCM 95th %tile Q(veh)	3.3	0.8	-	-	0.6	-

Queues

2: Queensgate Dr & Keene Rd

Ladera Subdivision

05/30/2022

											
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	438	769	80	31	796	593	83	129	854	140	270
v/c Ratio	0.87	0.55	0.11	0.27	0.88	0.59	0.09	0.35	0.89	0.54	0.44
Control Delay	53.4	21.1	1.7	42.7	42.3	5.8	25.4	30.2	41.2	39.3	3.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.4	21.1	1.7	42.7	42.3	5.8	25.4	30.2	41.2	39.3	3.7
Queue Length 50th (ft)	111	135	0	15	201	41	16	26	209	66	0
Queue Length 95th (ft)	#197	240	12	43	#316	116	36	52	#328	117	24
Internal Link Dist (ft)	1984			463			244			553	
Turn Bay Length (ft)	200		125	100		130	195		195		195
Base Capacity (vph)	503	1407	736	113	900	1013	940	810	960	526	620
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.87	0.55	0.11	0.27	0.88	0.59	0.09	0.16	0.89	0.27	0.44

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis

2: Queensgate Dr & Keene Rd

Ladera Subdivision

05/30/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	420	738	77	30	764	569	80	102	22	820	134	259
Future Volume (vph)	420	738	77	30	764	569	80	102	22	820	134	259
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	0.97	0.95		0.97	1.00	1.00
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	0.99	1.00	1.00		1.00	1.00	0.99
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.97		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3467	3438	1615	1805	3539	1554	3502	3513		3467	1900	1589
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3467	3438	1615	1805	3539	1554	3502	3513		3467	1900	1589
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	438	769	80	31	796	593	83	106	23	854	140	270
RTOR Reduction (vph)	0	0	49	0	0	183	0	21	0	0	0	201
Lane Group Flow (vph)	438	769	31	31	796	410	83	108	0	854	140	69
Confl. Peds. (#/hr)	4					4	1					1
Heavy Vehicles (%)	1%	5%	0%	0%	2%	3%	0%	0%	0%	1%	0%	1%
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA		Prot	NA	pm+ov
Protected Phases	1	6		5	2	7	3	8		7	4	1
Permitted Phases			6			2						4
Actuated Green, G (s)	11.6	32.7	32.7	2.0	23.1	45.2	21.2	8.7		22.1	9.6	21.2
Effective Green, g (s)	11.6	32.7	32.7	2.0	23.1	45.2	21.2	8.7		22.1	9.6	21.2
Actuated g/C Ratio	0.14	0.39	0.39	0.02	0.28	0.54	0.25	0.10		0.26	0.11	0.25
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	481	1346	632	43	979	924	889	366		917	218	403
v/s Ratio Prot	c0.13	0.22		0.02	c0.22	0.12	0.02	c0.03		c0.25	0.07	0.02
v/s Ratio Perm			0.02			0.15						0.02
v/c Ratio	0.91	0.57	0.05	0.72	0.81	0.44	0.09	0.30		0.93	0.64	0.17
Uniform Delay, d1	35.4	19.9	15.8	40.5	28.2	11.6	23.8	34.6		30.0	35.3	24.3
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	21.3	0.6	0.0	45.2	5.2	0.3	0.0	0.5		15.7	6.3	0.2
Delay (s)	56.8	20.5	15.8	85.6	33.4	11.9	23.9	35.0		45.6	41.6	24.5
Level of Service	E	C	B	F	C	B	C	D		D	D	C
Approach Delay (s)		32.5			25.6			30.7			40.7	
Approach LOS		C			C			C			D	
Intersection Summary												
HCM 2000 Control Delay			32.5									C
HCM 2000 Volume to Capacity ratio			0.80									
Actuated Cycle Length (s)			83.5									18.0
Intersection Capacity Utilization			75.7%									D
Analysis Period (min)			15									
c Critical Lane Group												

HCM 6th Signalized Intersection Summary

2: Queensgate Dr & Keene Rd

Ladera Subdivision

05/30/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	420	738	77	30	764	569	80	102	22	820	134	259
Future Volume (veh/h)	420	738	77	30	764	569	80	102	22	820	134	259
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1885	1826	1900	1900	1870	1856	1900	1900	1900	1885	1900	1885
Adj Flow Rate, veh/h	438	769	80	31	796	0	83	106	23	854	140	270
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	1	5	0	0	2	3	0	0	0	1	0	1
Cap, veh/h	525	1184	547	122	917		802	215	45	961	228	432
Arrive On Green	0.15	0.34	0.34	0.07	0.26	0.00	0.23	0.07	0.07	0.28	0.12	0.12
Sat Flow, veh/h	3483	3469	1605	1810	3554	1572	3510	2964	625	3483	1900	1594
Grp Volume(v), veh/h	438	769	80	31	796	0	83	63	66	854	140	270
Grp Sat Flow(s),veh/h/ln	1742	1735	1605	1810	1777	1572	1755	1805	1784	1742	1900	1594
Q Serve(g_s), s	9.1	13.9	1.2	1.2	15.9	0.0	1.4	2.5	2.6	17.4	5.2	4.8
Cycle Q Clear(g_c), s	9.1	13.9	1.2	1.2	15.9	0.0	1.4	2.5	2.6	17.4	5.2	4.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.35	1.00		1.00
Lane Grp Cap(c), veh/h	525	1184	547	122	917		802	131	129	961	228	432
V/C Ratio(X)	0.83	0.65	0.15	0.25	0.87		0.10	0.48	0.51	0.89	0.61	0.63
Avail Cap(c_a), veh/h	545	1259	582	122	973		853	438	433	1039	567	716
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.6	20.7	3.7	32.8	26.3	0.0	22.6	33.0	33.1	25.7	31.0	8.3
Incr Delay (d2), s/veh	10.5	1.1	0.1	1.1	8.1	0.0	0.1	2.8	3.1	9.1	2.7	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	5.5	0.9	0.6	7.4	0.0	0.6	1.2	1.2	8.0	2.5	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.1	21.8	3.8	33.9	34.4	0.0	22.6	35.8	36.2	34.8	33.7	9.8
LnGrp LOS	D	C	A	C	C		C	D	D	C	C	A
Approach Vol, veh/h	1287			827			A			212		
Approach Delay, s/veh	27.2			34.4			30.8			29.3		
Approach LOS	C			C			C			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.7	23.6	21.4	13.4	9.5	29.8	25.0	9.9				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	11.6	20.3	18.0	22.1	5.0	26.9	22.1	18.0				
Max Q Clear Time (g_c+I1), s	11.1	17.9	3.4	7.2	3.2	15.9	19.4	4.6				
Green Ext Time (p_c), s	0.1	1.3	0.2	1.5	0.0	4.2	1.0	0.5				
Intersection Summary												
HCM 6th Ctrl Delay	29.8											
HCM 6th LOS	C											



Exhibit 7

Public Notice & Affidavits



CITY OF RICHLAND NOTICE OF APPLICATION, PUBLIC HEARING AND OPTIONAL DNS (S2022-102 & EA2022-115)

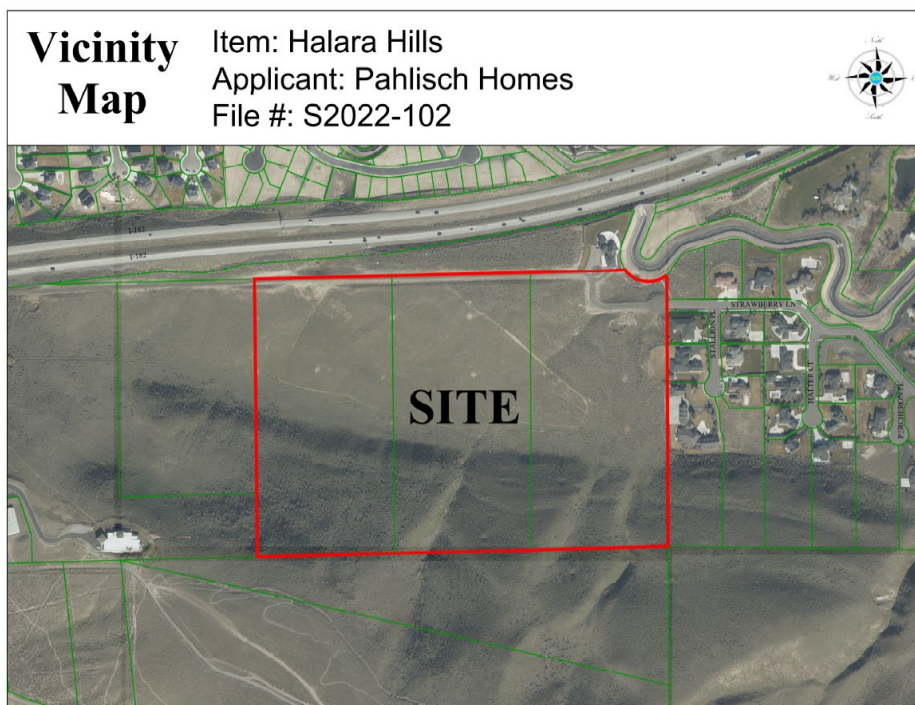
Notice is hereby given that Pahlisch Homes has filed an application for an 82-lot single-family residential subdivision named the Preliminary Plat of Halara Hills. The site is located at the eastern terminus of Strawberry Ln, and includes parcel numbers 120984000004000, 120984000003000, and 120984000002000. The plat proposes an average lot size of 15,962 square feet.

The Richland Hearings Examiner will conduct a virtual public hearing and review of the application at 6:00 p.m., Thursday, September 15, 2022. All interested parties are invited to participate in the virtual public hearing by visiting the City of Richland website (www.ci.richland.wa.us).

Environmental Review: The proposal is subject to environmental review. The City of Richland is lead agency for the proposal under the State Environmental Policy Act (SEPA) and has reviewed the proposed project for probable adverse environmental impacts and expects to issue a determination of non-significance (DNS) for this project. The optional DNS process in WAC 197-11-355 is being used. This may be your only opportunity to comment on the environmental impacts of the proposed development. The environmental checklist and related file information are available to the public and can be viewed at www.ci.richland.wa.us.

Any person desiring to express their views or to be notified of any decisions pertaining to this application should notify Mike Stevens, Planning Manager, 625 Swift Boulevard, MS-35, Richland, WA 99352. Comments may emailed to mstevens@ci.richland.wa.us. The deadline for written comments is 6:00 p.m., Wednesday, September 14th. However, written comments must be received no later than 5:00 p.m. on Wednesday, September 7, 2022 to be incorporated into the staff report. Comments received after that time will be entered into the record during the hearing.

The application will be reviewed in accordance with the regulations in RMC Title 19 Development Regulations Administration and Title 24 Plats and Subdivisions. Appeal procedures of decisions related to the above referenced application are set forth in RMC Chapter 19.70. Contact the Richland Planning Division at the above referenced address with questions related to the available appeal process.



AFFIDAVIT OF MAILING

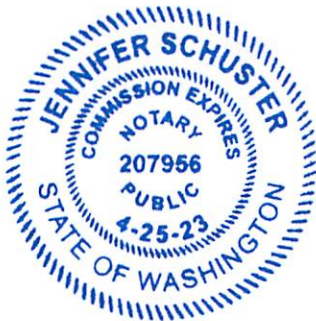
STATE OF WASHINGTON)
) ss.
COUNTY OF BENTON)

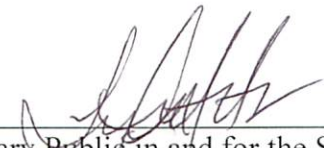
COMES NOW, Kevin Damrell, who, being first duly sworn upon oath deposes and says:

1. I am an employee in the Planning Division of the Development Services Department for the City of Richland.
2. On the 18th day of August, 2022, I mailed a copy of the attached NOTICE OF APPLICATION, PUBLIC HEARING, and OPTIONAL DNS (S2022-102 & EA2022-115) to the attached list of individuals via regular USPS on the date indicated above. The Richland Hearing Examiner will conduct a virtual public hearing and review of the application on Thursday, September 15, 2022.


Signed: Kevin Damrell

SIGNED AND SWORN to before me this 18th day of August, 2022 by Kevin Damrell.




Notary Public in and for the State of Washington,


Print Name
Residing at 625 Swift Blvd Richland
My appointment expires: 4-25-2023



CITY OF RICHLAND NOTICE OF APPLICATION, PUBLIC HEARING AND OPTIONAL DNS (S2022-102 & EA2022-115)

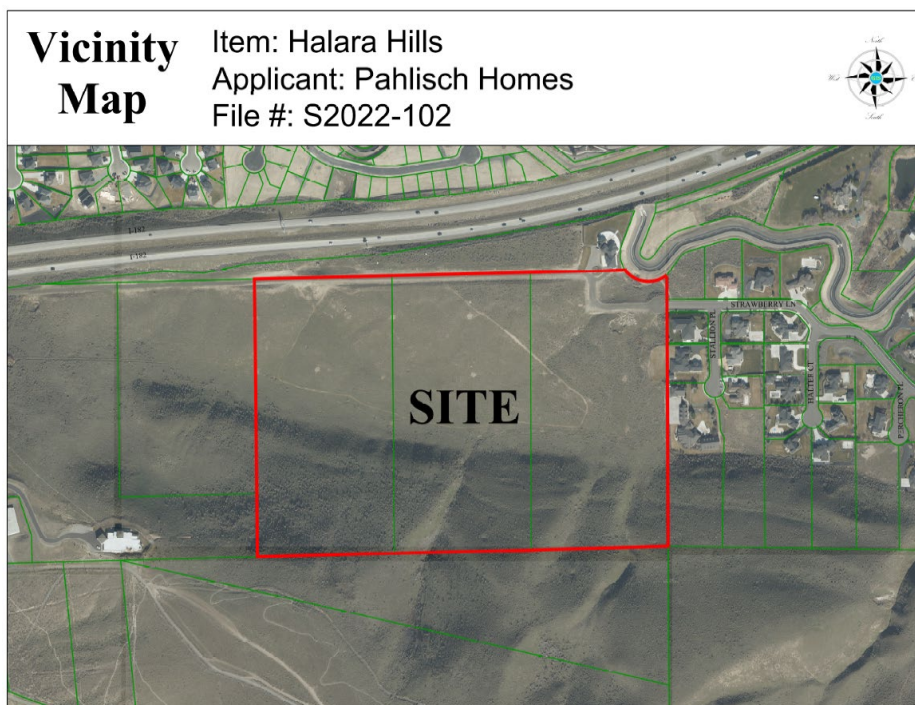
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HEDGES BJORN
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RICHLAND, WA 99352

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1105 STALLION PL

RICHLAND, WA 99352

GUERRERO LISA DEANN & LEE SAMUEL
3756 STRAWBERRY LN

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TRUSTEE STEVE TATRO SUNDANCE CAPITAL
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148 COUNTRY WAY

WALLA WALLA, WA 99362

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890 GEO WASH WAY
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HATFIELD CHAD L & AMY S
1133 STALLION PL

RICHLAND, WA 99352

CLEARY III EUGENE J & HEATHER PARIS
1126 STALLION PL

RICHLAND, WA 99352

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RICHLAND, WA 99352

AFFIDAVIT OF POSTING

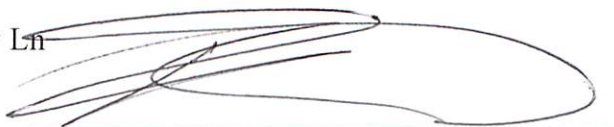
STATE OF WASHINGTON)
) ss.
COUNTY OF BENTON)

COMES NOW, **Kevin Damrell**, who, being first duly sworn upon oath deposes and says:

1. I am an employee in the Planning Division of the Development Services Department for the City of Richland.

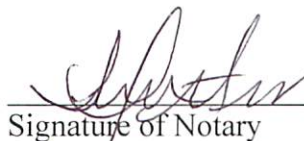
2. On the 19th day of August, 2022, I posted the attached NOTICE OF PUBLIC HEARING, File Number S2022-102 (Preliminary Plat of Halara Hills) in the following location:

The eastern terminus of Strawberry Ln

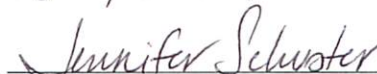


Signed: Kevin Damrell

SIGNED AND SWORN to before me this 19th day of August, 2022, by Kevin Damrell.



Signature of Notary



Printed Name

Notary Public in and for the State of Washington,

Residing in 625 Swift Blvd, Richland

My appointment expires: 4-25-23





Beaufort Gazette
Belleville News-Democrat
Bellingham Herald
Bradenton Herald
Centre Daily Times
Charlotte Observer
Columbus Ledger-Enquirer
Fresno Bee

The Herald - Rock Hill
Herald Sun - Durham
Idaho Statesman
Island Packet
Kansas City Star
Lexington Herald-Leader
Merced Sun-Star
Miami Herald

el Nuevo Herald - Miami
Modesto Bee
Raleigh News & Observer
The Olympian
Sacramento Bee
Fort Worth Star-Telegram
The State - Columbia
Sun Herald - Biloxi

Sun News - Myrtle Beach
The News Tribune Tacoma
The Telegraph - Macon
San Luis Obispo Tribune
Tri-City Herald
Wichita Eagle

AFFIDAVIT OF PUBLICATION

Account #	Order Number	Identification	Order PO	Amount	Cols	Depth
36823	307647	Print Legal Ad - IPL0086634	D2586000 4401 HE PHN	\$180.13	1	73 L

Attention: Jennifer Anderson

CITY OF RICHLAND/LEGALS
625 SWIFT BLVD. MS-05
RICHLAND, WA 99352

CITY OF RICHLAND NOTICE OF APPLICATION AND PUBLIC HEARING AND OPTIONAL DNS

Notice is hereby given that Pahlisch Homes has filed an application for an 82-lot single-family residential subdivision named the Preliminary Plat of Halara Hills. The plat proposes an average lot size of 15,962 square feet.

Proposal: Develop an 82-lot single-family residential subdivision.

Location: The site is located at the eastern terminus of Strawberry Lane, and includes parcel numbers 120984000004000, 120984000003000, and 120984000002000.

Public Hearing: The Richland Hearing Examiner will conduct a public hearing and review of the application on **Thursday, September 15, 2022 at 6:00 p.m.** in the Richland City Hall Chambers, 625 Swift Boulevard. All interested parties are invited to attend and present testimony at the public hearing or visit the City of Richland's website at www.ci.richland.wa.us and join via Zoom. Copies of the complete application packet, SEPA Checklist and related materials can be obtained by visiting the City of Richland website (www.ci.richland.wa.us).

Environmental Review: The proposal is subject to environmental review. The City of Richland is lead agency for the proposal under the State Environmental Policy Act (SEPA) and has reviewed the proposed project for probable adverse environmental impacts and expects to issue a determination of non-significance (DNS) for this project. The optional DNS process in WAC 197-11-355 is being used. This may be your only opportunity to comment on the environmental impacts of the proposed development. The environmental checklist and related file information are available to the public and can be viewed at www.ci.richland.wa.us.

Public Comment: Any person desiring to express their views or to be notified of any decisions pertaining to this application should notify Mike Stevens, Planning Manager, 625 Swift Boulevard, MS-35, Richland, WA 99352. Comments may also be emailed to mstevens@ci.richland.wa.us. Written comments should be received no later than 5:00 p.m. on Wednesday, September 7, 2022, to be incorporated into the staff report. Comments received after that date will be entered into the record at the hearing. Written comments will not be accepted after 6:00 p.m. on Wednesday, September 14, 2022; however, verbal comments may be presented during the public hearing.

Published: Sunday, August 21, 2022
IPL0086634
Aug 21 2022

COUNTY OF BENTON)

SS

STATE OF WASHINGTON)

Stephanie Hatcher, being duly sworn, deposes and says, I am the Legals Clerk of The Tri-City Herald, a daily newspaper. That said newspaper is a local newspaper and has been approved as a legal newspaper by order of the superior court in the county in which it is published and it is now and has been for more than six months prior to the date of the publications hereinafter referred to, published continually as a daily newspaper in Benton County, Washington. That the attached is a true copy as it was printed in the regular and entire issue of the Tri-City Herald and not in a supplement thereof, ran 1 time(s) commencing on 08/21/2022, and ending on 08/21/2022 and that said newspaper was regularly distributed to its subscribers during all of this period.

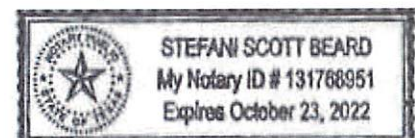
Stephanie Hatcher

(Signature of Legals Clerk)

Sworn to and subscribed before me this 26th day of August in the year of 2022

Stefani Beard

Notary Public in and for the state of Texas, residing in Dallas County



Extra charge for lost or duplicate affidavits.
Legal document please do not destroy!



Exhibit 8

Environmental Checklist and SEPA DNS

5. Amended State Environmental Policy Act (SEPA)

SEPA ENVIRONMENTAL CHECKLIST

UPDATED 2016

Purpose of checklist:

Governmental agencies use 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 reports. Complete and accurate answers to these questions often avoid delays with the SEPA process as well as later in the decision-making process.

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 agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

Instructions for Lead Agencies:

Please adjust the format of this template as needed. Additional information may be necessary to evaluate the existing environment, all interrelated aspects of the proposal and an analysis of adverse impacts. The checklist is considered the first but not necessarily the only source of information needed to make an adequate threshold determination. Once a threshold determination is made, the lead agency is responsible for the completeness and accuracy of the checklist and other supporting documents.

Use of checklist for nonproject proposals:

For nonproject proposals (such as ordinances, regulations, plans and programs), complete the applicable parts of sections A and B plus the [SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS \(part D\)](#). Please completely answer all questions that apply and note that the words "project," "applicant," and "property or site" should be read as "proposal," "proponent," and "affected geographic area," respectively. The lead agency may exclude (for non-projects) questions in Part B - Environmental Elements –that do not contribute meaningfully to the analysis of the proposal.

A. Background

1. Name of proposed project, if applicable:

~~**Country Ridge Subdivision**~~
Halara Hills

2. Name of applicant:

~~**Knutzen Engineering**~~
Pahlisch Homes, Inc.

3. Address and phone number of applicant and contact person:

~~**Nathan Machiela, 5401 Ridgeline Dr. #160, Kennewick, WA 99338, 509-222-0959**~~

Applicant:

**Pahlisch Homes, Inc.
210 SW Wilson Avenue, Suite 100
Bend, OR 97702
Jerry Jones
(542) 385-6762
jerry@pahlisch.com**

Contact:

**AKS Engineering & Forestry
Joey Shearer
2777 NW Lolo Drive, Suite 150
Bend, OR 97703
(541) 317-8419
andreottim@aks-eng.com**

4. Date checklist prepared:

~~**November 6th, 2020**~~
May 2022

5. Agency requesting checklist:

City of Richland

6. Proposed timing or schedule (including phasing, if applicable):

~~**Preliminary Plat 1/2021, Construction 6/2021-12/2023**~~

The Applicant proposes to begin construction once all required permits are obtained in late summer or early fall of 2022. The project is proposed to be constructed in two phases, with the east half of the development constructed in 2022 and the west half constructed in 2023. Full build out is anticipated to be completed by 2024 but is subject to change based on economic demand.

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

**Homes will be constructed on the proposed lots in the future.
No additional development is anticipated beyond home construction.**

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

A geotechnical report has been completed and a hydrology report will be prepared to address stormwater management. A critical area report is included with the geotechnical report and habitat report is being prepared.

A new critical areas report and mitigation plan and new traffic impact analysis are included with the new application. This State Environmental Policy Act (SEPA) checklist is included in the environmental information prepared.

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.

None known of.

10. List any government approvals or permits that will be needed for your proposal, if known.

Grading and Utility permit; Construction Stormwater General Permit (DOE). A right of way permit will be required to connect to Strawberry Lane.

Preliminary Plat Approval

SEPA Determination

Habitat Permit

Final Plat Approval

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.)

~~This project proposes to subdivide three parcels totaling approximately 60 acres into 106 lots. The project will include construction of roadway, grading, utility improvements including water, irrigation, power, cable, gas and telephone to each lot and storm water disposal design for the run-off generated by the on-site improvements.~~

This project proposes to subdivide three parcels totaling ±59.29 acres into 82 lots with three large open space tracts for the protection and mitigation of critical areas on site. The project will include construction of roadway, grading, utility improvements including water, sewer, irrigation, power, cable, gas and telephone to each lot and storm water disposal design for the run-off generated by the on-site improvements.

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.

The project is located in Richland Washington with Benton County parcel numbers 120984000004000, 120984000003000, and 120984000002000. The general location is just south of I-182 and west of Strawberry Lane.

B. Environmental Elements

1. Earth

- a. General description of the site:

(Circle one): Flat, rolling, **hilly**, steep slopes, mountainous, other ____

The site has rolling hilly terrain with steep slopes along the southern portion the site. The site slopes from the south boundary to north in the southern half of the site and then in all directions for the northern half, with the general low point of the site in the northeast corner.

- b. What is the steepest slope on the site (approximate percent slope)?

Approximately 23 acres of the southern portion of the site is located in a steep slope critical area. ~~The steepest slope here is approximately 40%. The northern portion of the site (where development will occur) can be described as the "low-lying area" which has maximum slopes of approximately 5%.~~

The steepest slopes on site are near 80 percent. The slopes are along the south site boundary and will be located in the future protected open spaces tracts away from the development.

- c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any agricultural land of long-term commercial significance and whether the proposal results in removing any of these soils.
The soil is classified as silt (ML) per the geotechnical report completed October of 2020 by PBS Engineering.
- d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.
No.
According to the Geotechnical Engineering Report completed by PBS, there are landslide deposits on Badger Mountain $\pm 3,000$ feet southeast of the site.
- 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.
The project site will be graded to allow for a more gradual slope change and to prepare for proposed roads. There will be approximately 192,000 CY of cut/fill which will balance on-site. Approximately 33.3 acres will be affected by the grading proposed for this project.
The subject site will be graded for the construction of internal roadways and preparation of lots for home construction. There will be approximately 180,000 cubic yards of cut and 180,000 cubic yards of fill over ± 35.8 acres of the site. Fill material will be from on-site sources.
- f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.
Erosion could occur on this site but will be minimized through implementation of BMP's during construction, including silt fencing, construction entrance, ground cover, waddles, site watering for dust control, catch basin inserts and protection. All stormwater run off will be contained and managed on site.
- g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?
Approximately 22% of the site will be impervious surfaces.
There will be ± 11 acres of impervious surface, totaling ± 18.6 percent of the site.
- h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:
Standard erosion control methods will be used, such as catch basin protection (witches hats), silt fencing, and stabilized construction entrances. Dust during construction will be controlled by the use of a water truck as necessary.

2. Air

- 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.
During construction, minor amounts of dust and exhaust from equipment activity may occur. The completed project will have vehicular traffic which will contribute to vehicle emissions.
Construction equipment and vehicles will generate dust and particulate emissions during the construction period for proposed site improvements. Resident, visitor, delivery, mail delivery, solid waste, and recycling vehicles will generate particulate emissions in the long term. Other potential emission sources include small power tools including, but not limited to, small gas-powered equipment used for site and landscape maintenance. The quantities of those emissions are unknown.

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

None known.

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

Dust control measures will be implemented in accordance with recommendations by the Department of Ecology and the Benton County Clean Air Authority. Measures include but are not limited to watering, lowering speed, limit of construction vehicles, and reducing the amount of dust-generating activities on windy days.

Emission control measures for vehicles and equipment are regulated under the ECY and U.S. Environmental Protection Agency (EPA). It is anticipated that all vehicles and equipment will be in compliance with these regulations.

3. Water

- 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.

No water bodies in the immediate vicinity. The Yakima River is approximately 1.7 miles northeast of the property.

- 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.

No.

No water bodies exist on or within 200 feet of the site.

- 3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.

N/A.

No fill or dredge material will be placed or removed from any surface water for wetlands.

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

No.

No surface water withdrawals or diversions will be required.

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

No.

The site is not within a 100-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.

No.

No waste materials will be discharged to surface waters.

- 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.

No, city water will be available at the site.

- 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.

N/A.

No waste material will be discharge into the ground. The proposed project will provide sewer laterals for each lot, connecting to the public sanitary sewer system.

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? Will this water flow into other waters? If so, describe.

~~The new impervious area on site will generate stormwater runoff. The stormwater system will consist of surface and/or subsurface infiltration.~~

The proposed development will generate stormwater runoff from the roads, sidewalks, driveways, and homes. This stormwater runoff will be collected on site with catch basins and conveyed to a stormwater pond in the northeast corner of the site. Stormwater will be detained and treated in the stormwater pond prior infiltrating on site. There is also existing stormwater runoff the flows to the site from Badger Mountain. This stormwater will be collected at the rear of the lots south of Redtail Loop and routed to the stormwater pond for detention and infiltration. Infiltration will occur as recommended in the geotechnical engineering report.

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

Waste materials could not enter ground waters because the vadose zone layer is adequate to preclude contamination of ground water.

- 3) Does the proposal alter or otherwise affect drainage patterns in the vicinity of the site? If so, describe.

~~The drainage patterns will be altered within the project boundaries by constructing roads and grading the lots and directed drainage different than the natural pattern. The drainage collected through catch basins will be routed to infiltration trenches or ponds to mimic the natural drainage patterns as close as possible. The runoff coming from Badger Mountain will be collected and infiltrated at the southern boundary.~~

The drainage patterns will be altered on site. Drainage for the surrounding properties will not be altered. Stormwater runoff will be collected on site with catch basins and conveyed to a stormwater pond in the northeast corner of the site. Stormwater will be detained and treated in the stormwater pond prior infiltrating on site. There is also existing stormwater runoff the flow to the site from Badger Mountain. This stormwater will be collected at the rear of the lots south of Redtail Loop and routed to the stormwater pond for detention and infiltration. Infiltration will occur as recommended in the geotechnical engineering report.

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

Runoff generated from impervious surfaces will either infiltrate into underlying soils or flow to on-site collection systems. Stormwater disposal will be designed by a licensed engineer and submitted for review to the City of Richland.

4. Plants

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

_____ deciduous tree: alder, maple, aspen, other:

_____ evergreen tree: fir, cedar, pine, other

X_____ shrubs

X_____ grass

_____ pasture

_____ crop or grain

_____ wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other:

_____ water plants: water lily, eelgrass, milfoil, other

_____ other types of vegetation:

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

Shrubs and grass will be removed with grading/construction of the public roads. Grading will be completed according to the Geotech report. The steep slopes area to the south will remain natural vegetation.

All vegetation within the development area will be removed. The natural vegetation in the southern portion of the site will remain and will be placed in protected open space tracts.

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

None per the Washington Department of Fish and Wildlife. The area is however in a shrub-steppe priority habitat per the WDFW PHS on the web mapper.

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

~~***Native plants and trees will be planted in landscaped areas. Each lot will be landscaped in compliance with City of Richland Code. 23 acres on the southern portion of the site will be maintained in the native condition. We will be working with the Department of Fish and Wildlife to preserve the shrub-steppe habitat.***~~

The southern portion of the site will be placed in protected open space tracts to protect shrub-steppe habitat. Selected spot seeding with native plants will occur in the shrub-steppe habitat to help improved the habitat that is being protected. Landscaping will be provided on future home lots, meeting the requirements of City of Richland Code Chapter 23. Native plantings could potentially be used, but will be select by the future homeowner.

e. List all noxious weeds and invasive species known to be on or near the site.

The site is covered with cheatgrass which is known to be an invasive species.

5. Animals

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.

Examples include:

birds: hawk, heron, eagle, **songbirds**, other:

mammals: deer, bear, elk, beaver, other: **ground squirrels**

fish: bass, salmon, trout, herring, shellfish, other _____

b. List any threatened and endangered species known to be on or near the site.

None per the Washington Department of Fish and Wildlife.

According to the Washington State Department of Fish (WDFW) and Wildlife PHS web

mapping, no species identified as threatened or endangered are known to be on the site. However, WDFW does identify the potential presence of the Townsend's Ground Squirrel on site, which is listed as a candidate for listing in Washington State as endangered, threatened, or sensitive. AKS natural resources biologists completed a site visit on January 22, 2022 and determined that the Townsend's Ground Squirrel is likely not present on the site where development will occur.

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

Yes, the Columbia Basin is part of a migration route for a number of fowl.

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

~~***The southern 23 acres of the site will be undisturbed to preserve wildlife.***~~

The southern ±23.38 of the subject site will be placed in protected open space tracts to protect shrub-steppe habitat immediately adjacent to the Badger Mountain Centennial Preserve.

- e. List any invasive animal species known to be on or near the site.

None known per the Washington Department of Fish and Wildlife.

6. Energy and Natural Resources

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

~~***Electrical will be used for lighting and all appliances. Homes will be heated with either natural gas or electricity.***~~

Electricity or natural gas is available and the site and will be used to meet the energy needs of the completed project.

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

No.

The proposed project will not affect the potential use of solar energy by adjacent properties.

- 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:

The proposed structures will meet current building codes and energy efficient standards of Washington State.

7. Environmental Health

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

~~***No.***~~

Environmental health hazards are limited to standard risks associated with the construction and occupancy of the development.

- 1) Describe any known or possible contamination at the site from present or past uses.

None known.

- 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.

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.
Diesel fuel will likely be used/stored on-site for construction vehicles. No hazardous chemicals will be stored on the completed project.

4) Describe special emergency services that might be required.
The site will use typical emergency services provided through the City of Richland.

5) Proposed measures to reduce or control environmental health hazards, if any:
None at this time.
As no impacts are anticipated, no such measures are proposed. However, the Applicant and contractor will comply with applicable code and best management practices.

b. Noise

1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?
The noise level in the area is not perceived to have any adverse effect on the project. Noise is mainly generated by vehicle traffic on surrounding streets and I-182.

2) What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site.
Short term: Construction noises.
Long term: Traffic noise from residents.
Other long term noise sources include deliver vehicles, solid waste/recycling vehicles, and small power tools including, but not limited to, small gas-powered equipment used for site and landscape maintenance.

3) Proposed measures to reduce or control noise impacts, if any:
Noise impacts from construction activities and ongoing operations are expected to be minimal without significant effects on the surrounding area. All operations will be conducted in a manner compliant with City of Richland code and Washington state Maximum Environmental Noise Levels (Chapter 173-60-040 WAC).

8. Land and Shoreline Use

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.
Currently the proposed property is vacant land and zoned Single Family Residential R-1-12. Properties to the west are residential and zoned similarly. The proposal is not expected to affect the nearby or adjacent properties' land use. Property to the south is Badger Mountain and is used for recreational purposes.
The proposed project will create three protected open space tracts along the south portion of the site. This will provide an open space buffer between the existing Badger Mountain Centennial Preserve and the development.

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?
No.

The subject site is not known to have been used as working farmlands or forest lands in the

recent past. Therefore, no land will be converted.

- 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:

No.

The proposal is not anticipated to affect or be affected by surrounding working farm or forest land activities.

- c. Describe any structures on the site.

None.

The site is currently vacant with no existing structures on site.

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

No.

The site is currently vacant with no existing structures on site.

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

Single Family Residential R-1-12

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

Low Density Residential.

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

N/A

The property is not within a shoreline master program designation.

- h. Has any part of the site been classified as a critical area by the city or county? If so, specify.

Yes, the southern portion of the site is designated as a steep slopes critical area by the City of Richland. ~~The site is also located in a shrub-steppe priority habitat.~~

The site also has shrub-steppe habitat located in the northeast corner of the site and along the southern portion of the site on the steep slopes.

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

Approximately ~~300~~ 286 people will reside in the completed project assuming an average family size of 3 people per house/lot.

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

None.

The site is currently vacant.

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

~~None.~~

As the site is currently vacant, no impacts are proposed with this application. Therefore, no measures are proposed.

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

The project will be permitted through the local jurisdictions in accordance with all applicable zoning ordinances.

- m. Proposed measures to reduce or control impacts to agricultural and forest lands of long-term commercial significance, if any:

None.

The project will be permitted through the local jurisdictions in accordance with all applicable zoning ordinances.

9. Housing

- a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.
~~106 single family units of middle income housing will be provided.~~
The proposed project is for the platting of 82 single-family residential lots. The lots will provide for 82 middle-income single-family units.
- b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.
None.
The site is currently vacant.
- c. Proposed measures to reduce or control housing impacts, if any:
None needed.
No impacts are proposed with this application. Therefore, no measures are proposed.

10. Aesthetics

- a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?
~~Approximately 30'.~~
Structure heights have not been determined at this time. All future structure will not exceed the maximum allowed building height of 30 feet for the main building and 16 feet for accessory buildings per RMC 23.18.040.
- b. What views in the immediate vicinity would be altered or obstructed?
Views of the nearby hills would be partly obstructed for existing nearby home owners.
- c. Proposed measures to reduce or control aesthetic impacts, if any:
All materials and required landscaping will be in accordance with local ordinances. The southern portion of the site will remain undeveloped.
The southern portion will be placed in protected open space tracts to protect the natural environment.

11. Light and Glare

- a. What type of light or glare will the proposal produce? What time of day would it mainly occur?
There will be street and house lighting during the dark hours of the day.
- b. Could light or glare from the finished project be a safety hazard or interfere with views?
No.
Light or glare from the completed project is not anticipated to become a safety hazard or interfere with views.
- c. What existing off-site sources of light or glare may affect your proposal?
None known of.
- d. Proposed measures to reduce or control light and glare impacts, if any:
All outdoor lighting will be in conformance with the City of Richland code requirements.

Outdoor lighting will be shielded per City of Richland Municipal Code.

Additionally, rear yards along the protected open space tracts will utilize dark sky lighting practices.

12. Recreation

- a. What designated and informal recreational opportunities are in the immediate vicinity?

Badger mountain is just south which has great trails for hiking/mountain biking. Candy Mountain Trail is west of Dallas Road.

- b. Would the proposed project displace any existing recreational uses? If so, describe

No.

- c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:

~~None needed.~~

No impacts are anticipated, so no measures are necessary. However, as part of the development, three protected open space tracts will be created along the south boundary of the site, abutting the Badger Mountain Centennial Preserve. The Applicant proposed to provide funding for the Friends of Badger Mountain to construction additional trail connections within the proposed tracts. A small neighborhood park will also be constructed for the development.

13. Historic and cultural preservation

- 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? If so, specifically describe.

No.

The site is vacant and there are no known buildings located near the site that are over 45 years old or known to be eligible for listing in any preservation registers.

- 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.

The site is listed as being an area of interest for the Confederated Tribes of the Warm Springs however no features or evidence of Indian occupation has been found.

- 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.

The Department of Archaeology and Historic Preservation WISAARD mapping system was used.

- 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.

Upon any discovery of potential or known archaeological resources at the subject property prior to or during future on-site construction, the developer, contractor, and/or any other parties involved in construction shall immediately cease all on-site construction, and shall act to protect the potential or known historical and cultural resources area from outside intrusion, and shall notify, within a maximum period of twenty-four hours from the time of discovery, the City of Richland Community Development Department of said discovery.

14. Transportation

- 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.
The site will be directly accessed from Strawberry Lane to the east of the site.
- 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?
The site is not currently served by public transit. The nearest transit stop is located approximately 0.65 miles northeast across I-182 at Keene Rd and Duportail St.
- c. How many additional parking spaces would the completed project or non-project proposal have? How many would the project or proposal eliminate?
On-street parking would be provided. No parking spaces would be eliminated. In addition to on-street parking, each residential lot will be provided with a minimum of two driveway spaces and two garage 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).
Yes, the project includes construction of roads and sidewalks throughout the subdivision.
- e. Will the project or proposal use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.
No.
The project will not use or occur in the immediate vicinity of water, rail, or air transportation.
- 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?
~~***Approximately 1,040 average weekday trips will be generated per the traffic impact analysis that was prepared by PBS Engineering in November of 2020. ITE land use code 210 was used for the analysis.***~~
A Transportation Impact Analysis (TIA) was completed by Transight Consulting in January 2022. According to the TIA, the proposed 82 lot development will generate 841 average daily trips, with 62 a.m. peak hour trips and 82 p.m. peak hour trips. ITE land use codes 210 was used for the analysis. It is not known how many of the trips would be trucks.
- 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.
No.
The project will not interfere with, affect, or be affected by the movement of agricultural or forest products.
- h. Proposed measures to reduce or control transportation impacts, if any:
None at this time.
No impacts requiring mitigation were identified in the TIA. The application will be reviewed by the City to determine if any mitigation measures are required. All applicable impact fees will be paid.

15. Public Services

- a. Would the project result in an increased need for public services (for example: fire protection, police protection, public transit, health care, schools, other)? If so, generally describe.
Yes, the subdivision will require public services such as fire and police protection. The new residents will utilize public transit, health care, and schools.
- b. Proposed measures to reduce or control direct impacts on public services, if any.
The completed project will provide additional tax revenue for the City and will pay impact fees for development.

16. Utilities

- a. Circle utilities currently available at the site:
electricity, natural gas, water, refuse service, telephone, sanitary sewer septic system, other _____
- b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.
Electricity- City of Richland Energy Services
Natural Gas- Cascade Natural Gas
Sewer- City of Richland
Water- City of Richland
Telephone- Ziply Fiber
Internet- Charter Communications

The proposed application will run 8-inch sanitary sewer mains in Lamont Street and Redtail Loop to serve the development. Each lot will be provided with a sanitary sewer lateral connection to the proposed mains. The proposed sewer mains will connect to the existing sanitary sewer manholes that will be located in the proposed Strawberry Lane extension and proposed Lamont Street. Both manholes are located near the proposed intersection of Strawberry Lane and Lamont Street.

The proposed application will run a 12-inch water main to the west site boundary in Lamon Street and an 8-inch water main will be looped through Retail Loop. Water service will be extended to each lot from the two proposed water mains.

Natural gas, electricity, telephone, and internet will be extend into the site from Strawberry land and run in the public utility easement at the front of each lot to provide service.

C. Signature

Under the penalty of perjury, 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: Michael Andreotti

Position and Agency/Organization: Land Use Planner

Date Submitted: 05/27/2022



File No. EA2022-115

CITY OF RICHLAND
Determination of Non-Significance

Description of Proposal: Development of an 82-lot single-family subdivision named the Preliminary Plat of Halara Hills

Proponent: Pahlisch Homes
Attn: Jerry Jones
210 SW Wilson Ave.
Bend OR, 97701

Location of Proposal: The site is located at the eastern terminus of Strawberry Ln, and includes parcel numbers 120984000004000, 120984000003000, and 120984000002000, Richland Washington.

Lead Agency: City of Richland

The lead agency for this proposal has determined that it does not have a probable significant adverse impact on the environment. An environmental impact statement (EIS) is not required under RCW 43.21C.030(2)(c). This decision was made after review of a completed environmental checklist and other information on file with the lead agency. This information is available to the public on request.

() There is no comment for the DNS.

() This DNS is issued under WAC 197-11-340(2); the lead agency will not act on this proposal for fourteen days from the date of issuance.

(X) This DNS is issued after using the optional DNS process in WAC 197-11-355. There is no further comment period on the DNS.

Responsible Official: Mike Stevens

Position/Title: Planning Manager

Address: 625 Swift Blvd., MS #35, Richland, WA 99352

Date: September 8, 2022

Signature 



Exhibit 9

Agency Comments



**City of Richland
Development Services**

625 Swift Blvd. MS-35
Richland, WA 99352
☎ (509) 942-7794
📠 (509) 942-7764

DATE: August 30, 2022
TO: Mike Stevens, Planning Manager
REVIEW BY: Nichole Westphal, Permit Technician II
PROJECT NAME: S2022-102 – Preliminary Plat of Halara Hills

1. Street names will be reviewed when construction drawings are submitted to the Public Works Department. When construction drawings are submitted, please include two (2) street name options for each of the new street segments and the City will review to determine acceptable street names.
2. Addressing brackets [] are needed on all lots and tracts.



Allyson Brooks Ph.D., Director
State Historic Preservation Officer

February 8, 2021

Shane O'Neill
Senior Planner
City of Richland
625 Swift Blvd., MS-35
Richland, WA 99352

In future correspondence please refer to:
Project Tracking Code: 2021-02-00718
Property: City of Richland_Ladera Subdivision Project (S2020-103)
Re: Survey Requested

Dear Shane O'Neill:

Thank you for contacting the Washington State Historic Preservation Officer (SHPO) and Department of Archaeology and Historic Preservation (DAHP) and providing documentation regarding the above referenced project. The proposed project is located at the foot of Badger Mountain, a landform with significance to several Tribes, including the Yakama Nation. The scale of construction activities associated with this project may be destructive to any archaeological or cultural resources present. Identification during construction is not a recommended detection method because inadvertent discoveries often result in costly construction delays and damage to the resource. Therefore, we recommend a professional archaeological survey of the project area be conducted prior to ground disturbing activities. We also recommend consultation with the concerned Tribes' cultural committees and staff regarding cultural resource issues.

These comments are based on the information available at the time of this review and on behalf of the SHPO in conformance with Washington State law. Should additional information become available, our assessment may be revised.

Thank you for the opportunity to comment on this project and we look forward to receiving the survey report. Please ensure that the DAHP Project Number (a.k.a. Project Tracking Code) is shared with any hired cultural resource consultants and is attached to any communications or submitted reports. Should you have any questions, please feel free to contact me.

Sincerely,

Sydney Hanson
Transportation Archaeologist
(360) 280-7563
Sydney.Hanson@dahp.wa.gov





**STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY**

Central Region Office

1250 West Alder St., Union Gap, WA 98903-0009 • 509-575-2490

September 2, 2022

Mike Stevens
City of Richland
625 Swift Blvd.
Richland, WA 99352

RE: 202204187, S2022-102, EA2022-115

Dear Mike Stevens,

Thank you for the opportunity to comment during the Optional Determination of Non Significance process for the Halara Hills. We have reviewed the documents and have the following comments.

WATER RESOURCES

If you plan to use water for dust suppression at your project site, be sure that you have a legal right. In Washington State, prospective water users must obtain authorization from the Department of Ecology before diverting surface water or withdrawing ground water, with one exception. Ground water withdrawals of up to 5,000 gallons per day used for single or group domestic supply, up to 5,000 gallons per day used for industrial purposes, stock watering, and for the irrigation of up to one-half acre of non-commercial lawn and garden are exempt from the permitting process. Water use under the RCW 90.44.050 exemption establishes a water right that is subject to the same privileges, restrictions, laws and regulations as a water right permit or certificate obtained directly from Ecology. Temporary permits may be obtainable in a short time-period. The concern of Water Resources is for existing water rights. In some instances, water may need to be obtained from a different area and hauled in or from an existing water right holder.

If you have any questions or would like to respond to these Water Resources comments, please contact **Christopher Kossik** at (509) 379-1826 or email at christopher.kossik@ecy.wa.gov.

Sincerely,

Lucila Cornejo

Lucila Cornejo
SEPA Coordinator
Central Regional Office
(509) 208-4590
crosepacoordinator@ecy.wa.gov

Stevens, Mike

From: Pena, Michael
Sent: Tuesday, August 23, 2022 8:21 AM
To: Stevens, Mike
Subject: RE: S2022-102 & EA2022-115 Preliminary Plat of Halara Hills

ES has no comments regarding this project. Things look good so far.



Mike Peña
Engineering Tech 4
625 Swift Blvd. | Richland, WA 99352
(509) 942-7412

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From: Stevens, Mike <mstevens@CI.RICHLAND.WA.US>
Sent: Thursday, August 18, 2022 3:29 PM
To: Acevedo, Mizael <macevedo@CI.RICHLAND.WA.US>; Ashley Garza <agarza3605@gmail.com>; Ashley Morton <AshleyMorton@ctuir.org>; Badger Mountain Irrigation District <bmidmanager@badgermountainirrigation.com>; Benton PUD, Broadband <osp@noanet.net>; Benton PUD, Electrical <engservice@bentonpud.org>; Bill Barlow <bbarlow@bft.org>; Buechler, Ken <KBuechler@CI.RICHLAND.WA.US>; Carrie Thompson <carrie.thompson@bnsf.com>; Casey Barney, Yakama Nation <Casey_Barney@Yakama.com>; Catherine Dickson <catherinedickson@ctuir.org>; Clark Posey <clark.posey@co.benton.wa.us>; Corrine Camuso, Yakama Nation <Corrine_Camuso@Yakama.com>; Hamilton, Craig <C.Hamilton@bces.wa.gov>; DAHP SEPA Reviews <sepa@dahp.wa.gov>; DAlessandro, Carlo <cdalessandro@CI.RICHLAND.WA.US>; Damrell, Kevin <kdamrell@CI.RICHLAND.WA.US>; Darrick Dietrich <darrick@basindisposal.com>; Davis, Deanna <d.davis@bces.wa.gov>; Deborah Rodgers <dxrogers@bpa.gov>; Deskins, John <jdeskins@CI.RICHLAND.WA.US>; Doan, Charles <cdoan@CI.RICHLAND.WA.US>; Eric Mendenhall <emendenhall@westrichland.org>; FormerOrchards@ecy.wa.gov; gis@co.benton.wa.us; Greg Wendt <greg.wendt@co.benton.wa.us>; Gwen Clear <gcle461@ecy.wa.gov>; Hill, Kelly <khill@CI.RICHLAND.WA.US>; Jason McShane <jmcshane@kid.org>; Jessica Lally, Yakama Nation <Jessica_Lally@Yakama.com>; John Lyle <john.lyle@bentoncleanair.org>; Jordon, Joshua <jojordon@CI.RICHLAND.WA.US>; Joseph Cottrell <jecottrell@bpa.gov>; Junior Campos <junior.campos@charter.com>; Katherine Cichy <katherine.cichy@ziply.com>; Kelly Cooper <kelly.cooper@doh.wa.gov>; Kevin Knodel <kevin.knodel@rsd.edu>; Kevin Sliger <KSliger@bft.org>; KID Development <development@kid.org>; KID Webmaster <webmaster@kid.org>; M. Deklyne <mjdeklyne@bpa.gov>; Map BCES <map@bces.wa.gov>; Mattheus, Pamela <pmattheus@CI.RICHLAND.WA.US>; Michael Tovey <michael.tovey@ziply.com>; Noah Lee <noah.lee@bentoncleanair.org>; Noah Oliver, Yakama Nation <Noah_Oliver@Yakama.com>; Paul Gonseth <gonsetp@wsdot.wa.gov>; Reathaford, Jason <JReathaford@CI.RICHLAND.WA.US>; Review Team <reviewteam@commerce.wa.gov>; Richard Krasner <richard.krasner@rsd.edu>; USPS Richland Postmaster <99352RichlandWA-Postmaster@usps.gov>; Rick Dawson <rickd@bfhd.wa.gov>; Robin Priddy <robin.priddy@bentoncleanair.org>; Sarah Gates <s.gates@bces.wa.gov>; Schiessl, Joe <JSchiessl@CI.RICHLAND.WA.US>; SEPA Center <sepacenter@dnr.wa.gov>; SEPA Register <separegister@ecy.wa.gov>; SEPA Unit <sepaunit@ecy.wa.gov>; Seth DeFoe <SDeFoe@kid.org>; South Central Region Planning <scplanning@wsdot.wa.gov>; T.S. "Max" Platts <PlattsT@wsdot.wa.gov>; Tyutyunnik, Ruvim <rtutyunnik@CI.RICHLAND.WA.US>; WA Dept of Fish & Wildlife <lopezlj@dfw.wa.gov>; WA Dept of Fish & Wildlife <rittemwr@dfw.wa.gov>; WDFW <R3Planning@dfw.wa.gov>; Westphal, Nichole <nwestphal@ci.richland.wa.us>; Whittier, John <jwhittier@CI.RICHLAND.WA.US>; William Simpson <william.simpson@commerce.wa.gov>
Subject: S2022-102 & EA2022-115 Preliminary Plat of Halara Hills

Attention!

The City of Richland has received an application for the Preliminary Plat of Halara Hills (previously referred to as the Preliminary Plat of Ladera). Due to the size of the application packet I am unable to attach the application packet to this email. However, the link below will direct you to the City's website where you will be able to review the application materials. Please review and submit any comments you may have back to me by 5:00 PM, Wednesday, September 7, 2022.

The City of Richland is lead agency for the proposal under the State Environmental Policy Act (SEPA) and has reviewed the proposed project for probable adverse environmental impacts and expects to issue a determination of non-significance (DNS) for this project. The optional DNS process in WAC 197-11-355 is being used. This may be your only opportunity to comment on the environmental impacts of the proposed development.

LINK: [Halara Hills](#)



Mike Stevens
Planning Manager
625 Swift Blvd., MS-35 | Richland, WA 99352
(509) 942-7596

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2015 South Ely Street
Kennewick, WA 99337
Phone 509-586-9111
FAX 509-586-7663
www.kid.org

August 24, 2022

Mike Stevens, Planning Manager
City of Richland – Development Services
625 Swift Blvd., MS-35
Richland, WA 99352

Subject: EA2022-115 – Preliminary Plat of Halara Hills Comments

Dear Mr. Stevens:

The Kennewick Irrigation District has received your Notice of Application and SEPA submitted by Pahlisch Homes for the preliminary plat of Halara Hills. This project is generally located at the east terminus of Strawberry Ln in Richland, WA. The parcel numbers are 1-2098-400-0004-000, 1-2098-400-0003-000 and 1-2098-400-0002-000.

1. This Parcel is partially within the Kennewick Irrigation District (KID) boundaries but is not considered irrigable lands; therefore, the Kennewick Irrigation District does not assess them.
2. Please note that permanent structures are not allowed within irrigation easements.
3. Please protect all KID infrastructure.
4. Stormwater systems for the project shall be designed to retain, at minimum, a 100-year storm event above the Badger East Lateral Canal and minimize the introduction of water into the soils up-gradient of the canal.

If you have any questions regarding these comments, please contact me at the address/phone number listed below.

Sincerely,

Daniel Tissell, P.E.
Assistant Engineering Manager

cc: LB\correspondence\File: [20-9-28]
Applicant via mail – Pahlisch Homes, Jerry Jones, 210 SW Wilson Avenue, Bend, OR 99701



2015 South Ely Street
Kennewick, WA 99337
Customer Service 509-586-9111
Business 509-586-6012
FAX 509-586-7663
www.kid.org

September 6, 2022

Mike Stevens, Planning Manager
City of Richland – Development Services
625 Swift Blvd., MS-35
Richland, WA 99352

Subject: Review Comments – S2022-102 Preliminary Plat of Halara Hills (FKA Ladera)

Dear Mr. Stevens,

This letter provides Kennewick Irrigation District (KID) review comments on S2022-102, Preliminary Plat of Halara Hills, submitted by Pahlisch Homes, 210 SW Wilson Ave, Bend, OR 97701 (“Applicant”¹). The application proposes 82 lots on three parcels totaling approximately 60-acres. The properties are generally located at the intersection of Strawberry Ln. and Stallion Place in Richland, WA in the Southeast Quarter of Section 20, Township 9 North, Range 28 East, W.M. and includes the following parcels:

- 1-2098-400-0002-000 (20.00 acres-**outside District boundaries**)
- 1-2098-400-0003-000 (20.00 **non-irrigable** acres)
- 1-2098-400-0004-000 (20.00 **non-irrigable** acres)

Two parcels comprising the proposed preliminary plat are classified as non-irrigable lands, and the third parcel is located outside the boundaries of the District. Accordingly, KID provides the following comments to be included as required conditions of approval by the legislative authority under RCW 58.17.310(2):

- 1) *The plat shall include the following irrigation easements consistent with KID requirements:*
 - a. *On all lots within the plat, dedicate to KID an irrigation easement 10 feet in width, or five (5) feet in width if adjacent to a utility easement, located along the road frontage or access easements of each lot. An irrigation easement may be included within the ‘sidewalk and utility’ easement if one is proposed, denoting the easement as a “Sidewalk, Utility, and Irrigation Easement.”*

¹ Reference to the “Applicant” throughout this comment letter shall refer to the property owner and/or developer of the proposed plat.

In addition, pursuant to RCW 58.17.310 (1), KID would like to inform the City of the following information regarding the effect of the proposed preliminary plat upon the structural integrity (including lateral support) of KID's facilities, other risk exposures, and the safety of the public and irrigation district, and related conditions of approval that KID deems to be necessary as a result:

2) Conditions Related to Design, Grading and Construction:

- a. Pursuant to RCW 58.17.310 (1), the KID would like to inform the City of Richland that failure to mitigate the introduction of excessive water into the soils above the canal may result in a canal embankment breach or failure. Should an embankment breach occur near this development, there is potential for public safety to be at risk. Slope stability issues could potentially result in a canal embankment breach and subsequent loss of life and property.
- b. There exists KID Right-of-Way (ROW) along the Northeast property line. The Applicant must show this ROW on the preliminary plat. A copy of the ROW maps are available upon request. The proximity of the proposed residential development to the KID ROW increases the risk of harm to KID facilities and exposes residents to risk of injury. In order to mitigate these risks, the KID requires the following:
 - i. At the time of final plat, Applicant shall either: (1) deed to KID a tract of land that fully contains the KID ROW, subject to the Applicant and KID entering a license agreement under which the Applicant agrees to construct and maintain fencing, or, (2) place the KID ROW into separate tracts, convey such tracts to a homeowner's association or similar entity responsible for constructing and maintaining fencing and landscaping, subject to an easement benefitting KID with terms acceptable to KID.
 - ii. No permanent structures within the KID ROW.
 - iii. A note on the face of the plat that states: "No grading may be performed or any permanent structure built within Kennewick Irrigation District right of way without an approved permit from KID, when applicable."
 - iv. For each phase of the project, include a note on the face of the Final Plat stating as follows: "This property is located within the boundaries of the Kennewick Irrigation District and in the immediate vicinity of irrigation infrastructure. Please refer to www.kid.org for further information."
- c. The project must include the following design feature:
 - i. Stormwater systems for the project shall be designed to retain, at minimum, a 100-year storm event above the Badger East Lateral Canal and to minimize the introduction of water into the soils up-gradient of the canal.
 - ii. KID review and approval of all stormwater plans are required prior to pre-plat approval.
- d. Applicant must submit, for engineering review and approval by KID, engineering plans detailing construction/grading for each phase of the project above KID easements and ROWs.

- 3) For each phase of the project, KID review and approval of grading and construction plans is required to allow KID to assure all reasonable measures to protect any easements and ROWs. Such review and approval will be coordinated as part of the City's review and Final Plat approval process.
- 4) The Applicant shall include the potential failure of KID system components in its public offering statement for the plat pursuant to RCW 58.19.055(1)(r), which requires a public offering statement to include "[a] list of any physical hazards known to the developer which particularly affect the development or the immediate vicinity in which the developer is located and which are not readily ascertainable by the purchaser."
- 5) The Applicant shall post signs in appropriate areas with KID's easements and ROW's identifying KID's facilities (with locations and design approved by KID).
- 6) The Applicant shall provide fencing for the protection of KID facilities, which shall include but not be limited to adjacent KID ROW, with fencing locations and design approved by KID.

Finally, KID requests the following additional conditions of final plat approval:

- 7) The Review and Inspection fees in place at the time of each review request must be paid. At the time of application the review fees are as follows:
 - a. A Preliminary Plat review fee of **\$175.00** which must be paid prior to scheduling for final plat approval at a KID Board meeting for the first phase.
 - b. Final Plat review fee for each phase of **\$125.00**.
- 8) Please include the following irrigation title block on future final plat phases related to the proposed preliminary plat:

I HEREBY CERTIFY THAT THE PROPERTY DESCRIBED HEREON IS LOCATED WITHIN THE BOUNDARIES OF THE KENNEWICK IRRIGATION DISTRICT BUT THAT THIS PROPERTY IS NOT CLASSIFIED AS IRRIGABLE LAND AND IS NOT ENTITLED TO IRRIGATION WATER UNDER THE EXISTING OPERATING RULES AND REGULATIONS OF THIS DISTRICT. I FURTHER CERTIFY THAT THE IRRIGATION EASEMENTS SHOWN ON THIS FINAL PLAT ARE ADEQUATE TO SERVE ALL LOTS SHOWN HEREON PER THE REQUIREMENTS OF RCW 58.17.310.

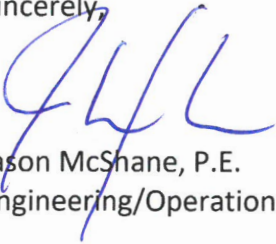
- 9) All subdivisions of land are required to be approved by the KID Board of Directors during a KID Board Meeting. KID Board Meetings are regularly scheduled on the first and third Tuesdays of each month. All conditions must be completed prior to submittal to KID for final approval. The submittal for final approval must be received by KID a minimum of two weeks prior to a regularly scheduled Board Meeting in order to be considered at that meeting.

KID reserves the following rights regarding future review of the plat:

- 10) KID reserves the right to review and comment on the Applicant's covenants, conditions, and restrictions to evaluate whether they should include any terms regarding protection of KID system components after construction and fencing requirements.

Please provide notice to KID of any public meeting or hearing where this project will be an agenda item. If you have any questions regarding these comments, please contact me at the address/phone number listed below.

Sincerely,



Jason McShane, P.E.
Engineering/Operations Manager

**CITY OF RICHLAND
PUBLIC WORKS ENGINEERING
DEVELOPMENT COMMENTS**

DATE: September 6, 2022

TO: MIKE STEVENS, PLANNING MANAGER

PLAT REVIEW BY: JASON REATHAFORD, ENGINEERING TECH 4
JOHN DESKINS, TRAFFIC ENGINEER
CARLO D'ALESSANDRO, TRANSPORTATION & DEV. MANAGER
PETE ROGALSKY, PUBLIC WORKS DIRECTOR

PROJECT NAME: HALARA SUBDIVISION (S2022-102)

PROJECT LOCATION: WEST OF THE PLAT OF COUNTRY ESTATES

The Public Works Engineering Division has reviewed the preliminary plat received in this office on August 18 for the above referenced property and has the following conditions.

Pre-Plat Specific Conditions:

1. The preliminary plat is not showing any phase lines. Phasing is not required but if the project is to be phased during construction phasing lines need to be shown on the pre-plat map.
2. The street names as provided on the preliminary plat map are not approved or vested at this time. Approval of proposed street names occurs during the construction phase of the project.

General Conditions:

1. All final, approved plans for public improvements shall be submitted prior to pre-con on a 24" x 36" hardcopy format and also electronically in .dwg format compatible with the City's standard CAD software. Addendums are not allowed, all information shall be supplied in full size (and electronic) format. Electronic copies of the construction plans are required prior to the pre-con meeting along with the multiple sets of paper drawings. When construction of the public infrastructure has been substantially completed, the applicant shall provide paper and electronic record drawings in accordance with the City's "Record Drawing Requirements". The electronic record drawings shall be submitted in an AutoCAD format compatible with the City's standard CAD software. The final record drawings shall be submitted and approved by the City before the final punchlist inspection will be performed. All final punchlist items shall be completed or financially guaranteed prior to recording of the final plat.
2. A copy of the construction drawings shall be submitted for review to the appropriate jurisdictions by the developer and his engineer. All required comments / conditions from all appropriate reviewing jurisdictions (e.g.: Benton County, any appropriate irrigation districts, other utilities, etc.) shall be incorporated into one comprehensive set of drawings and resubmitted (if necessary) for final permit review and issuance. Any and all necessary permits that may be required by jurisdictional entities outside of the City of Richland shall be the responsibility of the developer to obtain.
3. Any work within the public right-of-way or easements or involving public infrastructure will require the applicant to obtain a right-of-way construction permit prior to beginning work, per RMC Chapter 12.08. The applicant shall pay a plan review fee based on a cost-per-sheet of engineering infrastructure plans. This public infrastructure plan review fee shall apply each time a project is

submitted for review. This fee will be different for commercial projects versus subdivision projects. Please visit the Public Works Private Development page on the City's webpage to find the current per-sheet fee. A permit fee in the amount equal to 3% of the construction costs of the work within the right-of-way or easement will be collected at the time the construction permit is issued. A stamped, itemized Engineers estimate (Opinion of probable cost) and a copy of the material submittals shall be submitted along with the approved plan submittal.

4. Public utility infrastructure located on private property will require recording of a City standard form easement prior to acceptance of the infrastructure and release of the final plat. The City requires preparation of the easement legal description by the developer two weeks prior to the scheduled date of plat acceptance. Once received, the City will prepare the easement document and provide it to the developer. The developer shall record the easement at the Benton County Assessor and return a recorded original document to the City prior to application for final plat acceptance.
5. A pre-construction conference will be required prior to the start of any work within the public right-of-way or easement. Contact the Public Works Engineering Division at 942-7500 to schedule a pre-construction conference.
6. All plan sheets involving construction of public infrastructure shall have the stamp of a current Washington State licensed professional engineer.
7. Any and all necessary permits that may be required by jurisdictional entities outside of the City of Richland shall be the responsibility of the developer to obtain.
8. A copy of the preliminary plat shall be supplied to the Post Office and all locations of future mailbox clusters approved prior to final platting.

Design Standards:

9. Public improvement design shall follow the following general format:
 - A. All materials and workmanship shall be in conformance with the latest revision of the City of Richland Standard Specifications and Details, Public Infrastructure Design Guidelines and the current edition of the State of Washington Standard Specifications for Road, Bridge, and Municipal Construction. Please confirm that you have the latest set of standard specs and details by visiting the City's web page.
 - B. Fire hydrant location shall be reviewed and approved by the City Fire Marshal.
 - C. All utilities shall be extended to the adjacent property (properties) at the time of construction.
 - D. The minimum centerline finish grade shall be no less than 0.30% and the maximum centerline finish grade shall be no more than 10.0% for local streets. 12% can be allowed for local streets for short distances.
 - E. The minimum centerline radius for local streets shall be 100-feet.
 - F. Final design of the public improvements shall be approved at the time of the City's issuance of a Right-of-way Construction Permit for the proposed construction.
 - G. All public improvements shall comply with the State of Washington and City of Richland requirements, standards and codes.
 - H. The contractor shall be responsible for any and all public infrastructure construction deficiencies for a period of one year from the date of the letter of acceptance by the City of Richland.
10. If the project will be built in phases the applicant shall submit a master plan for the sanitary sewer, domestic water, storm drainage, electrical, street lighting and irrigation system for the entire project prior to submitting plans for the first phase to assure constructability of the entire project. This includes the location and size of any storm retention ponds that may be required to handle runoff.

11. If the City Fire Marshal requires a secondary emergency vehicle access, it shall be included in the construction plan set and be designed to the following standards:
- A. 2-inches compacted gravel, minimum (temp. SEVAs only).
 - B. 2% cross-slope, maximum.
 - C. 5% slope, maximum. Any access road steeper than 5% shall be paved or be approved by the Fire Marshal.
 - D. Be 20-feet in width.
 - E. Have radii that are accommodating with those needed for City Fire apparatus.

Secondary emergency vehicles accesses (SEVA's) shall be 20-feet wide, as noted. Longer secondary accesses can be built to 12-feet wide with the approval of the City of Richland Fire Marshal, however turn-outs are required at a spacing acceptable to the Fire Dept. Temporary SEVA's shall be constructed with 2-inches of compacted gravel, at a minimum. Permanent SEVA's shall be paved with 2-inches of asphalt over 4-inches of gravel, at a minimum.

12. **SURVEY MONUMENT DESTRUCTION:**

All permanent survey monuments existing on the project site shall be protected. If any monuments are destroyed by the proposed construction the applicant shall retain a professional land surveyor to replace the monuments and file a copy of the record survey with the City.

- A. No survey monument shall be removed or destroyed (*the physical disturbance or covering of a monument such that the survey point is no longer visible or readily accessible*) before a permit is obtained from the Department of Natural Resources (DNR). (WAC 332-120-030(2) and RCW 58.09.130).
- B. Any person, corporation, association, department, or subdivision of the state, county or municipality responsible for an activity that may cause a survey monument to be removed or destroyed shall be responsible for ensuring that the original survey point is perpetuated. (WAC 332-120-030(2)).
- C. Survey monuments are those monuments marking local control points, geodetic control points, and land boundary survey corners. (WAC 332-120-030(3)).

When a monument must be removed during an activity that might disturb or destroy it, a licensed Engineer or Land Surveyor must complete, sign, seal and file a permit with the DNR.

It shall be the responsibility of the designing Engineer to identify the affected monuments on the project plans and include a construction note directing them to the DNR permit.

Traffic & Streets:

13. The "Halara Hills" preliminary plat is subject to RMC 12.03, the City's traffic impact fee program.
14. The developer shall install both a traffic signal at the intersection of Keene Road and Country Ridge Drive, and also new sidewalk along both sides of Country Ridge Drive between Keene Road and Foxtrot Lane as recommended by the traffic impact analysis dated May 30, 2022. The latter improvement shall include curbs, gutters, sidewalks, storm drainage and street light improvements meeting City standards, a re-stripe of the roadway section to provide two outbound lanes, and pedestrian connectivity to the trail on the north side of Keene Road. The scope of the required intersection improvements will also include a 100-foot long right-turn taper on Keene Road for eastbound traffic. The traffic signal shall include fiber optic connectivity to the City's fiber optic network. The described improvements shall be developed as a single project and shall be designed and installed no later than the phase that constructs the 50th lot.
15. Both "Redtail Loop" and "Lamont Street" have straight road segments that are approximately 1,500-feet long. This is likely to induce travel speeds that exceed the speed thresholds of

Resolution No. 28-11, which is 35 miles per hour. Each street should be mitigated with two speed humps each to help control speeds to levels under the threshold of Resolution 28-11.

16. Sidewalks shall be installed along all public right-of-way frontages that building lots do not front on during construction of those phases (e.g., storm drainage ponds, parks, HOA tracts, etc.).
17. The developer and his engineer shall demonstrate on the construction plans that all future driveway entrances, sidewalks and pedestrian ramps will meet City and ADA requirements.
18. All pedestrian ramps, driveway entrances and sidewalks shall be designed to current City standard details and A.D.A. standards. Adequate right-of-way shall be provided at corners to allow for at least 1-foot of ROW behind the ped. ramp landing. Crosswalks between pedestrian ramps shall be designed to City standards. Crosswalks at stop-controlled intersections shall have cross-slopes less than 2%. Crosswalks crossing thru-streets shall have cross-slopes less than 5%. The road profiles shall be designed to accommodate this.
19. The vision-clearance triangle needs to be shown on all corner lots on both the construction plans and the final plat document, in accordance with RMC Chapter 12.11.020. If the intersection is in a curve, it will have to be evaluated per AASHTO guidelines. This information may need to be designed by the engineer of record and supplied to the surveyor of record for inclusion into the final plat document.
20. Per current city standards, any roads narrower than 34-feet shall have parking restricted on one side, and any roads 27-feet or narrower shall have parking restricted on both sides. Street signs indicating restricted parking shall be installed prior to final platting at the developer's expense. The restricted parking areas shall be indicated on the construction plans and the final plat. All signage will be installed by the developer prior to final platting.

Domestic Water:

21. The proposed preliminary plat is located within the "Tapteal 3" water pressure zone. The closest Tapteal 3 watermain is located in Strawberry Lane. It shall be the responsibility of the developer to extend a watermain to and through this property to serve domestic water at the time of plat construction. This water main shall be sized to adequately supply domestic water and fire flows to the proposed development and for future development to the west.
22. This development is located at the far west end of the Tapteal 3 pressure zone. The City desires that a secondary source of supply be established from Dallas Road for system reliability and resiliency. The developer shall cooperate with the City in efforts to complete this connection.
23. In accordance with municipal code, domestic water mains shall be extended to the adjoining properties adjacent to the preliminary plat.
24. The developer will be required to demonstrate that all phases are capable of delivering adequate fire flows prior to construction plans being accepted for review. This may require looping of the watermain from off-site locations, or oversizing of the main where needed.
25. There is an existing watermain on this property that may need to be rerouted so it will be within the proposed roadway alignment.
26. The fire hydrant layout shall be approved by the City Fire Marshal.
27. In accordance with Richland Municipal Code Chapter 18.16.080, an irrigation source and distribution system, entirely separate from the City's domestic water system, shall be provided for

this development. *Construction plans will not be accepted for review until adequate and viable proof of an irrigation source is made available by the developer.* The designing Engineer shall submit plans for the proposed irrigation system to the Irrigation District with jurisdiction over the property at the same time that they are submitted to the City for construction review. Plans shall be reviewed and accepted by said irrigation district prior to issuance of a Right-of-Way permit by the City. Easements shall be provided on the final plat for this system where needed.

Sanitary Sewer:

28. A 10-foot wide exclusive sanitary sewer easement shall be provided for any sewer main that is outside of the public Right-of-Way. Wider easements are required for mains that are buried deeper than 10-feet. If any manholes are located outside of the public Right-of-Way, maintenance truck access to said structure may be required.

Storm Water:

29. All construction projects that don't meet the exemption requirements outlined in Richland Municipal Code, Section 16.06 shall comply with the requirements of the Washington State Department of Ecology issued Eastern Washington NPDES Phase II Municipal Stormwater Permit. The Developer shall be responsible for compliance with the permit conditions. All construction activities subject to this title shall be required to comply with the standards and requirements set forth in the Stormwater Management Manual for Eastern Washington (SWMMEW) and prepare a Stormwater Site Plan. In addition, a Stormwater Pollution Prevention Plan (SWPPP) or submission of a completed erosivity waiver certification is required at the time of plan submittal. The City has adopted revised standards affecting the construction of new stormwater facilities in order to comply with conditions of its NPDES General Stormwater Permit program. This project, and each phase thereof, shall comply with the requirements of the City's stormwater program in place at the time each phase is engineered. The project will require detailed erosion control plans.
30. All public storm drainage systems shall have their flow rate and storage capacity designed by a professional engineer following the core elements defined in the latest editions of the Stormwater Management Manual for Eastern Washington, the current Richland municipal codes, the Phase II Municipal Stormwater Permit, and the City's "Public Infrastructure Construction Plan Requirements and Design Guidelines". The storm water calculations shall be stamped by a professional engineer and shall include a profile of the storm system showing the hydraulic grade line. The calculations should include an accurate delineation of the contributing drainage area to accurately size the stormwater facilities. Passing the storm water downhill to an existing storm system will require an analysis of the downstream storm system to determine its capability of accepting the storm water without being overwhelmed. The applicant's design shall provide runoff protection to downstream property owners.
31. If any existing storm drainage or ground water seepage drains onto the proposed site, said storm drainage shall be considered an existing condition, and it shall be the responsibility of the property developer to design a system to contain or treat and release the off-site storm drainage.
32. If there are any natural drainage ways across the proposed pre-plat, the engineered construction plans shall address it in accordance with Richland Municipal code 24.16.170 ("Easements-watercourses").
33. Natural runoff channels ("gulleys") located uphill from this preliminary plat need to be taken into consideration when designing the storm drainage system for this plat. Storm water running off the hill should be intercepted and put into the on-site storm drainage system and/or conveyed through the project to a pre-existing drainage channel. The storm drainage system for this development, both its conveyance and retention / infiltration components, shall be designed to

effectively manage runoff from upstream properties that can be anticipated to convey stormwater onto this property because of a pre-development runoff condition. Additionally, as this property is upslope of developed properties the stormwater system shall include provisions for possible discharge of runoff onto downslope properties from storms in excess of the design storm as described above. Those provisions may be required to include off-site downslope conveyance facilities and/or flowage easements allowing for the conveyance of stormwater to and across downslope properties.

34. The amount of post-development storm runoff from the proposed site shall be in compliance with RMC Chapter 16.06.
35. Any proposed storm drainage retention facilities constructed as part of the proposed preliminary plat shall not adversely affect neighboring properties.
36. Prior to or concurrent with the submittal of the first phase the developer shall provide a Geotechnical report including the percolation rate of the soils in the area of any storm retention ponds. If the project constructs a storm retention pond then the engineer will need to demonstrate that the pond will drain itself within 72 hours after the end of a storm event, and not have standing water in it longer than that. Engineering solutions are available for retention ponds that do not percolate within 72 hours.
37. The parcel occupied by the stormwater basin shall be identified as a separate parcel or tract on the final plat and shall be dedicated to the City stormwater utility. The design of the basin shall include access features meeting the city's needs for maintenance.
38. The developer shall consider the long-term appearance of the storm basin, particularly if it will occupy a prominent location in the development. The City's typical storm pond maintenance practices consist of semi-annual vegetation trimming and silt and debris removal. If the pond location is deemed by City staff as being in a prominent location the developer shall design and install fencing and/or landscaping to mitigate the pond's visible character for the surrounding properties. If the City requires this type of treatment to the pond site the developer may propose landscaping treatments consistent with the development and establish maintenance responsibilities to remain with the development. These maintenance responsibilities shall be noted on the final plat. Basins designed as detention and evaporative basins need to include plantings that will tolerate or thrive in standing water. Planting designs for areas not routinely exposed to water shall include plants that will thrive without irrigation unless the developer intends to maintain an irrigated pond site. At a minimum the landscaping plan should be consistent with the City's intended maintenance standard as described above.
39. The developer shall be responsible for landscaping the storm pond and for its maintenance and the plantings through the one-year infrastructure warranty period. At 11 months after the final acceptance date the developer shall clean the storm system and basin of all accumulated oil, sediment, and debris. After this maintenance is completed and inspected the City will begin routine maintenance of the system and basin. The developer shall replace any plantings that have failed to survive the warranty period. The developer shall also perform trimmings required to control weeds in excess of 18-inches in height for the 12-months following the date of final plat acceptance.

Final Platting Requirements:

40. When the construction is substantially complete a paper set of "record drawings" shall be prepared by a licensed surveyor and include all changes and deviations. Please reference the Public Works document "RECORD DRAWING REQUIREMENTS & PROCEDURES" for a complete description of the record drawing process. All final punchlist items shall be completed or financially guaranteed prior to recording of the final plat.

41. Public utility infrastructure located on private property will require recording of a City standard form easement prior to acceptance of the infrastructure and release of a certificate of occupancy. The City requires preparation of the easement legal description by the developer two weeks prior to the scheduled date of final acceptance. Off-site ("third party") easements or right-of-ways for City infrastructure are the responsibility of the developer to obtain. Once received, the City will prepare the easement document and provide it to the developer. The developer shall record the easement at the Benton County Assessor and return a recorded original document to the City prior to application for final occupancy.
42. Any off-site easements or permits necessary for this project shall be obtained and secured by the applicant and supplied to the City at the time of plat construction and prior to final plat acceptance by the City.
43. Ten-foot wide public utility easements will be required on the final plat along both sides of all Right-of-Ways within the proposed plat.
44. The vision-clearance triangle needs to be shown on all corner lots on the final plat document, in accordance with RMC Chapter 12.11.020. If the intersection is in a curve, it will have to be evaluated per AASHTO guidelines. This information may need to be designed by the engineer of record and supplied to the surveyor of record for inclusion into the final plat document.
45. Street signs indicating restricted parking shall be installed prior to final platting at the developers expense. The restricted parking areas shall be indicated on the final plats.
46. All landscaped areas within the plat that are in the public Right of Way shall be the responsibility of the homeowners to maintain.
47. A one-foot "No access easement" will be required along the north side of the "Lamont" Street right of way. Lamont is proposed to be a single-frontage street and access is only allowed on one side.
48. The intended use and ownership of all tracts within the plat shall be noted on the final plat.
49. Property with an unpaid L.I.D. assessment towards it must be paid in full or segregated per Richland Municipal Code 3.12.095.

Stevens, Mike

From: Buechler, Ken
Sent: Wednesday, September 7, 2022 4:42 PM
To: Stevens, Mike
Subject: Halara Review Comments

Mike,

There was a couple typo's in my last submittal for the Halara review. It is fine "as-is" if you already put everything together, but if not here is a corrected version.

Mike,

The Fire Marshal's Office does not recommend approval of the preliminary plat for Halara. The comments provided with the Preliminary Plat for Halara states: *The hearing examiner raised questions about the Secondary Emergency Vehicle Access (SEVA) and that it **can be** addressed after the Preliminary Plat, but before the Final Plat.* The developer has not provided a viable option to the Fire Marshal's Office. The SEVA requirement is very specific in the International Fire Code and Commentary. The earlier rejection by this office for the Ladara project SEVA Proposal was reviewed by the President of the Washington State Fire Marshal Association and stated our stance was correct as related to the code requirements. The new Halara Preliminary Plat submitted for review does not address the SEVA. We feel that by moving forward without answers to the SEVA requirement will put the City in a position to be pressure into approving a less than desirable approach later into the project. The Hearing Examiner's comments were "**can be**" and not "**shall be**". For these reasons we feel it is best to resolve the SEVA issue before approval of the Preliminary Plat as submitted.



Kenneth L Buechler

Fire Marshal

625 Swift Blvd., MS-16 | Richland, WA 99352

(509) 942-7556

(509) 578-9321

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September 6, 2022

City of Richland
625 Swift Boulevard, MS-35
Richland, WA 99352

Attn: Mike Stevens, Planning Manager

Re: S2022-102 & EA2022-115, Preliminary Plat of Halara Hills
I-182 milepost 1.5 Rt.

We have reviewed the proposed subdivision and have the following comments.

- The subject property is adjacent to Interstate 182 (I-182), a fully controlled limited access facility with a posted speed limit of 70 miles per hour. WSDOT has acquired all access rights to I-182; direct access is prohibited.
- I-182 is an existing facility and the proponent and future residents should be aware they are proposing residential development in an area with existing traffic noise. They should also expect traffic noise to continue to grow into the future. It is the developer's responsibility to dampen or deflect any traffic noise for this development.
- Any proposed lighting must be directed down towards the site and away from I-182.
- Any stormwater or surface runoff generated by this project must be retained and treated on site. Any discharge of water into I-182 right-of-way will require a department-approved utility permit.

Thank you for the opportunity to review and comment on this proposal. If you have any questions regarding this letter, please contact Jacob Prilucik at (509) 577-1635.

Sincerely,

Paul Gonseth, P.E.
Region Planning Engineer

PG: jjp/mnk

cc: SR 182, File #2022-011
Larry Wilhelm, Area 3 Maintenance Superintendent

Stevens, Mike

From: Cichy, Katherine <katherine.cichy@ziply.com>
Sent: Wednesday, September 7, 2022 4:17 PM
To: Stevens, Mike
Subject: RE: S2022-102 & EA2022-115 Preliminary Plat of Halara Hills

Mike,

Ziply does not have any comments.

Thank you,

Katherine Cichy
OSP Engineer
509-410-5035
katherine.cichy@ziply.com



From: Stevens, Mike <mstevens@CI.RICHLAND.WA.US>
Sent: Thursday, August 18, 2022 3:29 PM
To: Acevedo, Mizaël <macevedo@CI.RICHLAND.WA.US>; Ashley Garza <agarza3605@gmail.com>; Ashley Morton <AshleyMorton@ctuir.org>; Badger Mountain Irrigation District <bmidmanager@badgermountainirrigation.com>; Benton PUD, Broadband <osp@noanet.net>; Benton PUD, Electrical <engservice@bentonpud.org>; Bill Barlow <bbarlow@bft.org>; Buechler, Ken <KBuechler@CI.RICHLAND.WA.US>; Carrie Thompson <carrie.thompson@bnsf.com>; Casey Barney, Yakama Nation <Casey_Barney@Yakama.com>; Catherine Dickson <catherinedickson@ctuir.org>; Clark Posey <clark.posey@co.benton.wa.us>; Corrine Camuso, Yakama Nation <Corrine_Camuso@Yakama.com>; Hamilton, Craig <C.Hamilton@bces.wa.gov>; DAHP SEPA Reviews <sepa@dahp.wa.gov>; DAlessandro, Carlo <cdalessandro@CI.RICHLAND.WA.US>; Damrell, Kevin <kdamrell@CI.RICHLAND.WA.US>; Darrick Dietrich <darrick@basindisposal.com>; Davis, Deanna <d.davis@bces.wa.gov>; Deborah Rodgers <dxrogers@bpa.gov>; Deskins, John <jdeskins@CI.RICHLAND.WA.US>; Doan, Charles <cdoan@CI.RICHLAND.WA.US>; Eric Mendenhall <emendenhall@westrichland.org>; FormerOrchards@ecy.wa.gov; gis@co.benton.wa.us; Greg Wendt <greg.wendt@co.benton.wa.us>; Gwen Clear <gcle461@ecy.wa.gov>; Hill, Kelly <khill@CI.RICHLAND.WA.US>; Jason McShane <jmcsbane@kid.org>; Jessica Lally, Yakama Nation <Jessica_Lally@Yakama.com>; John Lyle <john.lyle@bentoncleanair.org>; Jordon, Joshua <jojordon@CI.RICHLAND.WA.US>; Joseph Cottrell <jecottrell@bpa.gov>; Junior Campos <junior.campos@charter.com>; Cichy, Katherine <katherine.cichy@ziply.com>; Kelly Cooper <kelly.cooper@doh.wa.gov>; Kevin Knodel <kevin.knodel@rsd.edu>; Kevin Sliger <KSliger@bft.org>; KID Development <development@kid.org>; KID Webmaster <webmaster@kid.org>; M. Deklyne <mjdekyne@bpa.gov>; Map BCES <map@bces.wa.gov>; Mattheus, Pamela <pmattheus@CI.RICHLAND.WA.US>; Tovey, Michael <michael.tovey@ziply.com>; Noah Lee <noah.lee@bentoncleanair.org>; Noah Oliver, Yakama Nation <Noah_Oliver@Yakama.com>; Paul Gonseth <gonsetp@wsdot.wa.gov>; ReathaFord, Jason <JReathaFord@CI.RICHLAND.WA.US>; Review Team <reviewteam@commerce.wa.gov>; Richard Krasner <richard.krasner@rsd.edu>; USPS Richland Postmaster <99352RichlandWA-Postmaster@usps.gov>; Rick Dawson <rickd@bfhd.wa.gov>; Robin Priddy <robin.priddy@bentoncleanair.org>; Sarah Gates <s.gates@bces.wa.gov>; Schiessl, Joe <JSchiessl@CI.RICHLAND.WA.US>; SEPA Center <sepacenter@dnr.wa.gov>; SEPA Register <separegister@ecy.wa.gov>; SEPA Unit <sepaunit@ecy.wa.gov>; Seth DeFoe <SDeFoe@kid.org>; South Central Region Planning <scplanning@wsdot.wa.gov>; T.S. "Max" Platts <PlattsT@wsdot.wa.gov>; Tyutyunnik, Ruvim

<rtutyunnik@CI.RICHLAND.WA.US>; WA Dept of Fish & Wildlife <lopezlal@dfw.wa.gov>; WA Dept of Fish & Wildlife <rittemwr@dfw.wa.gov>; WDFW <R3Planning@dfw.wa.gov>; Westphal, Nichole <nwestphal@ci.richland.wa.us>; Whittier, John <jwhittier@CI.RICHLAND.WA.US>; William Simpson <william.simpson@commerce.wa.gov>
Subject: S2022-102 & EA2022-115 Preliminary Plat of Halara Hills

WARNING: External email. Please verify sender before opening attachments or clicking on links.

Attention!

The City of Richland has received an application for the Preliminary Plat of Halara Hills (previously referred to as the Preliminary Plat of Ladera). Due to the size of the application packet I am unable to attach the application packet to this email. However, the link below will direct you to the City's website where you will be able to review the application materials. Please review and submit any comments you may have back to me by 5:00 PM, Wednesday, September 7, 2022.

The City of Richland is lead agency for the proposal under the State Environmental Policy Act (SEPA) and has reviewed the proposed project for probable adverse environmental impacts and expects to issue a determination of non-significance (DNS) for this project. The optional DNS process in WAC 197-11-355 is being used. This may be your only opportunity to comment on the environmental impacts of the proposed development.

LINK: [Halara Hills](#)



Mike Stevens
Planning Manager
625 Swift Blvd., MS-35 | Richland, WA 99352
(509) 942-7596

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Exhibit 10

Public Comments

My wife and I vehemently oppose the proposed Palisch development.

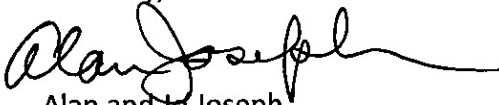
We have lived in upper Country Ridge for 25 years and are intimately familiar with the community's strength and weaknesses, as well as its attractive pastoral setting. We also understand the interest the City of Richland may have in expanding its tax base through the approval of a multi-home development in our community.

First, the existing proposal by Palisch will irrevocably diminish and destroy our bucolic community through increased traffic at the Country Ridge/Keene Road interchange. As there are no sidewalks in most of our community, the increased traffic will endanger adults, children, and pets who walk the roadways at all times, every day. The common interchange onto Keene is already a traffic hazard, where many accidents have already occurred. It is risky, to put it mildly, when currently entering or exiting our community. This overused chokepoint is the only ingress and egress for fire, EMS, and police services. To accommodate the Palish development, the interchange would need to be reconfigured with dual lanes for ingress and egress on Country Ridge Drive, dedicated turn lanes in both directions on Keene, a pedestrian overpass to the north-end walkway, and a traffic light. Moreover, a new interchange (at Palisch expense) onto Dallas Road should be mandatory for any future development. To add an enormous number of new homesteads into our community is a dangerous proposition for the health, safety, and security of our current community without these modifications.

Secondly, the establishment of these multiple new homesteads on mobile home sized lots is inconsistent with zoning with the surrounding development. It will nearly double our population with much lower value homes, adjacent to multi-million dollar estates, which are located on properties sometimes in excess of several acres. Property values for existing homes will decline, as the City of Richland continues to raise our property taxes. Lot size and home square footage for the Palisch proposal should at the very least be consistent with the adjacent development and similar to the rest of our communities. The City of Richland could realize as much property value income from a similar development as would the establishment of many lower value homes, without the adverse effects on our existing homeowners.

For these reasons, we are disgusted and concerned with yet another attempt by Palisch to foist this proposal upon our community. Please ensure the integrity, safety, and value of our rustic community by declining their application.

Sincerely,

A handwritten signature in black ink, appearing to read "Alan Joseph", with a long, sweeping horizontal line extending to the right.

Alan and Jo Joseph
2614 Thoroughbred Way
Richland, WA 99352

September 6, 2022

City of Richland
c/o Mike Stevens, Michael Alvarez,
Terry Christensen, Jhoanna Jones,
Sandra Kent, Theresa Richardson,
Ryan Lukson, Shane VanDyke,
Jon Amundson

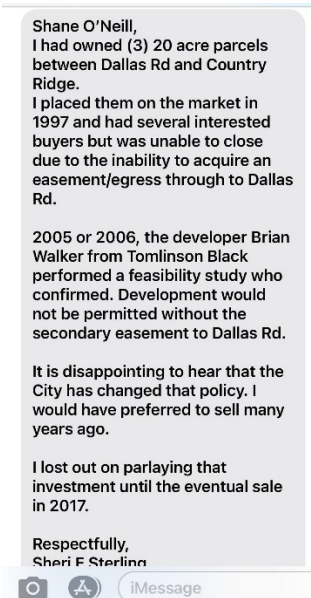
To Mr. Hearing Examiner and the City of Richland;

I write to STRONGLY oppose the planned development of “Halara Hills,” formerly called “Ladera” for largely the same reasons as last year. SAFETY. How can our city, whose mission includes, “...**safeguarding the public** and property, **enhancing** the community's favorable **quality of life**, **protecting Richland's natural environment**, and sustaining a healthy, growing economy,” sign off on this proposal? It seems you are only interested in the last phrase of your mission statement; i.e. “growing economy.” Meanwhile, it’s perfectly okay to leave almost 250 homes susceptible to catastrophic events, destroy wildlife habitat, and impair the CURRENT residents’ quality of life.

Country Ridge Drive is a LOCAL STREET. In reviewing the Washington State Department’s “Guideline for Amending Functional Classification in Washington State,” (https://wsdot.wa.gov/mapsdata/travel/hpms/pdf/GuidelinesForAmendingFunctionalClassification_WS_DOT.pdf) it is very apparent that we are already over capacity on our streets, and the Halara property almost ON ITS OWN would be over capacity for local street volume. Simply reclassifying Country Ridge Dr and Strawberry Ln as minor collectors to see if it works out is irresponsible without first addressing the safety aspects of a minor collector road. It would be the exception when compared to the other minor collector roads in the area; i.e., Kensington. Adding the Halara traffic to the current numbers puts Country Ridge Dr in the major collector category for use. However, it could never be adjusted to a major collector road due to the many driveways, and again, lack of sidewalks and space for shoulders and turning lanes. In the pamphlet it specifically says to question what the “PRIMARY PURPOSE” is of the road. Country Ridge Dr does provide both accessibility and mobility, but primarily **accessibility** as it has MANY homes close to the street with driveways connecting to the street. There is no way to consolidate the driveways (between Country Ridge Dr and Strawberry Ln, there are 69 driveways connected).

Until Halara (and before that, Ladera) was approved by the city, there were existing promises and agreements (and the safety and traffic hazards that led to the promises) between the city and Country Ridge HOAs. We have identified at least five individuals who have tried to purchase the 60 acres over the past ten to fifteen years and ALL were told they HAD to punch through to Dallas Rd and put a barrier at the end of Strawberry Ln. Those individuals were proposing lot sizes ranging from ½ acre to 5 acres and all told the same thing. A resident at the end of Strawberry Ln was told he would eventually be closed off of Strawberry if/when homes were built above him. The plan was ALWAYS to connect that land to Dallas Rd, NOT using Country Ridge roads. That can be the only explanation for it being zoned R-12 and not SAG as the rest of the neighborhood is zoned. We have also heard from a couple of the older HOAs that they were promised there would be no more homes added at the end of Strawberry Ln. The

only thing that has changed in the intervening years is staff at the city. The safety concerns are still there. I brought this up in last year's letter and do so again to demonstrate that this issue was previously decided by the government and nothing has changed that should have allowed this application to proceed. Please see this attached text from the previous owner of these parcels, Sheri Sterling:



I have to ask—WHY PAHLISCH? Why a builder who isn't local and has no vested interest in our community, aside from making money? This is a builder whose homes in our community have foundation issues, due to not following timelines for soil compression. I know people who have lived in Pahlisch homes both locally, and in Bend, swearing, "Never again. They look pretty, but everything breaks." I know subs in our area who quit working for them because they asked them to do "shoddy work." This company does not care about its future buyers. As a potential future neighbor, I am advocating for a better builder. The city didn't have to sign off on this and SHOULDN'T have signed off due to the issues mentioned above, yet they did. Why?

After reviewing the 2017 comprehensive plan, particularly the input from the community involvement group, I am completely awestruck that we are even here talking about this at all. Specific issues brought up in that group are found on pages 9-14

(<https://www.ci.richland.wa.us/home/showdocument?id=7466>):

Under "Land Use"

"...Implement and enforce sane hillside regulation for new homes/communities."

"Control, project and predict growth. Facilitate but do not promote growth."

Under "Housing and Neighborhood"

"Appropriate residential zoning...maintain zoning for low density."

Under "Open Space and Natural Areas"

"Identify, maintain, preserve, protect, and restore natural resources..."

"Quality of life includes preservation of open space; balance growth with open space; maximize the amount of new open space..."

"Protect critical areas and wildlife corridor..."

Under “**Public Participation/Communication**”

“No decision should be made without public input; anticipate who will complain and work with them...”

****“RESIDENTS ARE MORE IMPORTANT THAN TOURISTS AND DEVELOPERS.” ****

Under “**Sustainability**”

“Maintain and improve livability in neighborhoods”

Under “**School**”

“Small classes at school” (Side note: White Bluffs Elementary—the zoned school for this development is already over capacity. Where are we going to put these children?)

Under “**Public Safety**”

“Maintain and improve safe neighborhoods”

Under “**Growth**”

“Quality of life and balance growth (open space)”

“Planning for growth to reduce sprawl”

Under “**Public Involvement**”

“Improve accountability, communication, and response”

“Solicit public involvement”

“Government to serve public”

Under “**Land Use and Growth**”

“Hillside development regulations”

We’ve been told by a leader in our community that the public works director has already invested time and money in this project, requesting easements for gas, sewer, and electrical. Clearly, the city WANTS this project to happen and is willing to do whatever it takes to push it through without regard to citizens welfare or safety. Because of this reason, I am **begging the hearing examiner to reject this proposal at least until the city has explicitly defined and worked out a SEVA WITH our feedback**. This cannot be determined at a later, undefined date, without any feedback. I do not trust our city to represent our interests at this time. As many have mentioned, our roads are unsafe AS IS. There will absolutely be accidents, injuries, and heaven forbid a death should this be approved. At all hours of the day and into the night, there are people and animals walking along the road. Our neighborhood is already overbuilt and Country Ridge Drive already over capacity.

Here is a picture of the “walkways” along Country Ridge Dr. Whether garbage day, delivery times, bus stops, or visitors, these lanes are OFTEN blocked. I regularly have to veer over to avoid obstacles in the roadway. I am also attaching a picture of when Country Ridge Dr was completely blocked off altogether as the city (I presume) repaired or added a line of some sort. I had to go all the way around the neighborhood to get out. Finally, I am attaching pictures after a snowfall. These streets are very dangerous in the winter. I try to avoid leaving my home if at all possible, but usually it is not.





This neighborhood was NOT designed to be a tract home, parceled area. I'm sorry for the city, because I'm sure they're trying to maximize their taxable income, but it's already here and this is what it is. PLEASE protect us. PLEASE deny this application and make explicit a SEVA must be worked out with the residents—not the “old boys’ club.” This has not been thought through, which is why listening to the public is absolutely necessary. Listen to this community. I want Richland to live up to its history and reputation as being a strong, value-based community. Please protect us and our city's future by denying this application.

Thank you for your time and consideration.

Respectfully,

Amy Hatfield

1133 Stallion Pl

Richland

Stevens, Mike

From: Angela Grover <anggrover@gmail.com>
Sent: Wednesday, September 7, 2022 4:53 PM
To: Stevens, Mike
Subject: Halara Hills proposed development comment

I would like to submit a couple comments for the upcoming meeting on September 15, 2022, for the proposed Halara Hills development in Country Ridge Subdivision. I would ask that the hearing examiner not allow the proposal to go forward. My concern is that they have asked that the proposal go forward without meeting the requirement to have a separate entrance to the new homes and that this be done at a later date and the increase of traffic on Country Ridge that this will cause. It is far too great a risk to the families already living in this area and the possible new incoming ones that a separate entrance and exit are not provided in the occurrence of a fire emergency. I am also concerned if there is only one exit and entrance that traffic will be congested and the speeding that occurs down the hill will only increase. This is of great concern to me as I live at the bottom entrance of the hill and I have children that take the bus to school and cross the road. It is not always easy to see incoming vehicles and especially difficult for those cars to stop in the winter slick roads. I hope that you will take this into account along with all the other concerns that have been sent to you from our neighbors.

Thank you,
A. Grover
1111 Country Ridge

Stevens, Mike

From: Barbara Norris <bjnorris66@hotmail.com>
Sent: Wednesday, September 7, 2022 12:05 PM
To: Stevens, Mike
Cc: Kathy Kinion; 'amysuehatfield@gmail.com'; ntr@owt.com
Subject: Strong Opposition to Halara Hills Application

Good Morning Mr. Stevens,

I reside in Upper Country Ridge, and I just learned of a proposal by Pahlisch Homes to squeeze some .367 acre lots into the Country Ridge Estates section of Country Ridge beyond Strawberry Lane.

I vociferously object to the re-submitted rezoning application from Pahlisch Homes for the now "renamed" Halara Hills" development. Previous application was named Ladera, which was denied.

The reason for my objection is the same as before. Too many houses, smaller lots, devaluation of existing larger homes and importantly only one access road out of the neighborhood.

Which, at this point, works well with the existing number of houses and residents. As of right now, the only backup I see on turning either left or right onto Keene, is up the hill past Saddle and Foxtrot whilst waiting for a vehicle to turn left onto Keene Road.

Adding an additional 82 houses, with corresponding minimum 3 vehicles per household, devalues the entire Country Ridge neighborhoods and is a major accident waiting to happen.

Additionally, when the City of Richland widened Keene Road, they redesigned the ingress into Country Ridge Drive from the west.

Whereas the School Busses were able to turn in without crossing the middle line now they are dangerously close to vehicles waiting to turn left onto Keene. The turn-in radius being too sharp

I have resided in Upper Country Ridge for 28 years, and after my husband died 22 years ago, the main reason for staying in the house was the safety of the area, single access no through traffic, and spacious properties.

I find this renamed, new application equally unacceptable as it will severely damage the value of existing residences, not to mention traffic back up at of an additional of, at a minimum, 210 vehicles a day from a single outlet half of which will try to turn left onto the four lane Keene Road,.

While I understand the City's desire for additional revenue, I think we need to make development commensurate with the surroundings, aka lot size, home size, type of residences, street access....and safety.

Country Ridge has been and hopefully will continue to be one of the premier residential communities in the Tri-Cities....our property taxes reflect that.

Mixing our traditional Country Ridge type of home with small lot, higher density is not, in my opinion, equitable or fair to the longtime residents of CR. These concerns are present with this Halara Hills proposal ... massive traffic flow into CR....with limited ingress/egress available. and major devaluation of property.

I vociferous object to this application rezoning to high-density development.

Sincerely,

Mrs. R.M. Norris, Jr.
2652 Quarterhorse Way
Richland, WA

Sent from [Mail](#) for Windows

To: City of Richland
Mike Stevens

From: Ben & Devi Petersen
1201 Bridle Dr
Richland, WA

9/7/2022

Mr Steven,

My wife and I are opposed to the development, generally known as the Palisch development near Country Ridge, as proposed. Our primary opposition is to the additional traffic being forced onto Keene Rd from Country Ridge Rd. Related, and no less important, is the idea of postponing specific considerations for emergency related ingress / egress from the combined populations of Country Ridge and surrounds, including the proposed subdivision, to a later point in the approval process where there is no public input. It is our understanding that the City of Richland has no ready easement from the proposed subdivision to Dallas Road which is the only apparent road available to offload traffic from the area in question. This circumstance must not lead to an opaque process of approval without public input.

Last, while improved from the previous proposal, the proposed development is still considerably more dense than the adjacent neighborhoods. It is our belief this will have an unfair, negative impact on our property value.

Sincerely,

A handwritten signature in dark ink, appearing to read 'Ben Petersen', with a long horizontal stroke extending to the right.

Ben Petersen

Stevens, Mike

From: Ben Gmail <bennipper11@gmail.com>
Sent: Wednesday, September 7, 2022 3:57 PM
To: Stevens, Mike
Subject: Halara Hills Development

Hi Mike,

I recently became aware of a new proposed development inside Country Ridge named "Halara Hills." As a homeowner in the Country Ridge neighborhood, I would love to provide the City with our family's concerns regarding this development. Our chief concerns relate to the lack of infrastructure to support the dramatic increase in traffic throughout the neighborhood.

First, the entrance into Country Ridge does not have sidewalks. Many families, including ours, walk throughout the neighborhood to access public transportation and neighborhood amenities (playground and pool). The intersection of Country Ridge Dr and Saddle Way would need to be completely reconfigured to provide safe passage for all walking pedestrians.

Second, I am deeply concerned that the addition of 80+ homes into the neighborhood will create significant issues for emergency vehicles and evacuation routes. Considering there is a single entry/exit point into Country Ridge, there is already a lack of adequate evac routes in the event of a fire. Adding 80+ homesites without punching a new road that connects to an arterial would create catastrophic conditions in the event of a fire on or around Badger Mountain. These catastrophic conditions would likely yield avoidable loss of life and/or property.

I hope that the City remains committed to growing in a safe and thoughtful manner.

Thank you,

Benjamin Nipper
2633 Quarterhorse Way
Richland, WA 99352

Date: August 29, 2022

Attn: City of Richland, WA
Mike Stevens, Planning Manager
625 Swift Boulevard, MS-35
Richland, WA 99352
mstevens@ci.richland.wa.us

Re: Public Comment for S2022-102 & EA2022-115

Dear Mr. Stevens,

In response to the notice of application for the above-referenced project, please accept this as public comment, with respect to the Halara Hills project.

In the traffic study portion of the proposal (page 4 of the study, page 247 of the packet), it correctly identifies Country Ridge Drive as a “Local Street”.

According to the City’s Ordinance No. 34-20, the City “deliberately discourages” directing traffic from multiple developments through a Local Street. The Halara Hills project will direct 100% of the estimated traffic onto Country Ridge Drive. As per the traffic study (page 34 of the study, page 277 of the packet), traffic will be increased from 1,670 vehicles per day to 2,511 vehicles per day, or, 250% over the City Ordinance maximum for a Local Street.

12.02.070 Local streets.

All streets or parts of streets owned by the City and not designated as principal arterials, minor arterials, major collector streets or minor collector streets are classified and designated as local streets. Local streets provide direct access from abutting property to the arterial and collector street system. They are typically of limited length ~~an internal subdivision road~~ and service to through traffic across multiple developments is deliberately discouraged. Typical ADT is generally less than 1,000 vehicles per day.

Passage 10/20/2020

3

Ordinance No. 34-20

The traffic study describes Country Ridge Drive as having space for walking and/or biking, along with on-street parking (page 4 of the traffic study, page 248 of the packet). Although this may be adequate on Strawberry Lane, it is not adequate on Country Ridge Drive. The City of Richland has been struggling with stormwater run-off, from the already existing development, resulting in much of the Country Ridge Drive shoulders being converted into run-off swales and basins. As a result, much of the on-street parking has been eliminated.

Striped lanes for pedestrians and bicyclists do exist, until on-street parking is needed.



Pedestrian/bicycle lanes are obstructed by vehicles on a daily basis

Prior to the construction of the Halara Hills project, Country Ridge Drive should be improved to meet City Standard minimums. With a combined ADT of 2,511 vehicles per day, as per existing City Ordinance, Country Ridge Drive would need to meet “Major Collector Street” design standards.

Secondly, as per the traffic study (page 4 of the traffic study, page 247 of the packet) a secondary emergency access will not be provided. According to City requirements:

If the City Fire Marshal requires a secondary emergency vehicle access, it shall be included in the construction plan set and be designed to the following standards: A. 2-inches compacted gravel, minimum (temp. SEVA only). B. 2% cross-slope, maximum. C. 5% slope, maximum. Any access road steeper than 5% shall be paved or be approved by the Fire Marshal. D. Be 20-feet in width. E. Have radii that are accommodating with those needed for City Fire apparatus. Secondary emergency vehicles accesses (SEVA's) shall be 20-feet wide, as noted. Longer secondary accesses can be built to 12-feet wide with the approval of the City of Richland Fire Marshal, however turn-outs are required at a spacing acceptable to the Fire Dept. Temporary SEVA's shall be constructed with 2-inches of compacted gravel, at a minimum. Permanent SEVA's shall be paved with 2-inches of asphalt over 4-inches of gravel, at a minimum.

The Halara Hills project only discusses “potential” future solutions to find a secondary emergency vehicle access. The Halara Hills project, originally Ladera, has had several years to find a solution to this. After so many unsuccessful years, this may be an impossibility for Halara Hills to accomplish, or, are motivated to accomplish. With several fires adjacent to Country Ridge along I-182 this summer, an emergency route is very obviously necessary. I request this must be satisfied before final plat approval (discussed as an option on page 3 of the application, page 159 of the packet).

Thank you for the opportunity and your time to listen to these concerns.

Regards,

Bjorn Hedges, P.E.
1237 Country Ridge Drive, Richland, WA 99352, (509) 396-6505

Stevens, Mike

From: Bill <bill540@charter.net>
Sent: Wednesday, September 7, 2022 3:10 PM
To: Stevens, Mike
Subject: Land-use proposal

Mr. Stevens,

I am a resident of Richland and Country Ridge Hts.

I am voicing my oposition to the pending land-use proposal without additional access roads to the new homes.

This proposal would put undue stress on the current traffic on the existing streets .

I believe there is not only a safety issue ... but also an environmental issue with the proposal.

Please let me know what I can do to communicate additionally with the planning of additional lots/parcels in the Country Ridge area..

Bill Leonard

Stevens, Mike

From: Blitz Krieg <chrisbrayton52@gmail.com>
Sent: Monday, September 5, 2022 10:06 PM
To: Stevens, Mike
Cc: Blitz Krieg
Subject: Environmental and Wildlife Protection Concerns Regarding Proposed Development of Halara Hills

Dear Mr. Stevens,

Wildlife at Country Ridge near Stallion Place has many quails, chukars, snakes, mice, pygmy rabbits, coyotes, and many other beautiful animals. These animals would be pushed further out of their natural habitat if Halara Hills is approved by the City of Richland to proceed. These animals and vegetation are a part of the beauty of Badger Mountain. Increased housing on the mountain takes away the beauty of the mountain, not to mention the homes of these wonderful animals.

For example, and as taken from www.wdfw.wa.gov regarding pygmy rabbits, this website states: "The population of Columbia Basin pygmy rabbit in Washington is extremely small and is designated as a Distinct Population Segment for protection under the U.S. Endangered Species Act. Conservation threats to the Columbian Basin pygmy rabbit include loss and degradation of shrubsteppe primarily due to conversion and fragmentation of this habitat to cropland and development."

These rabbits have been observed living in Badger Mountain South just a few hundred feet from the proposed development and they are protected under the U.S. Endangered Species Act!

With regard to the overall picture, please consider how this would impact the environment, its animals and their ecosystems, as well as the vegetation (and its many varieties of plants, shrubs and wildflowers). These animals have no voice and we, as a community, must be responsible and preserve nature for many to enjoy for years to come.

As a resident of the Country Ridge neighborhood and citizen of Richland, Washington, I would ask the City of Richland deny this development of Halara Hills.

Thank you,

Stevens, Mike

From: Bob & Janet <rcjlturpen@gmail.com>
Sent: Tuesday, September 6, 2022 3:50 PM
To: Stevens, Mike
Subject: Halara Hills access

We highly object to the Halara Hills proposal to use Strawberry Lane to exit and enter from Keene Rd. They need to provide access to Dallas Rd for their development. Our roads in Country are maxed out now. We do not have sidewalks or curbs and therefore the streets see a lot of foot traffic and vehicles park along the side. This makes it dangerous for both cars and pedestrians. Country Ridge Drive is already a busy street. There is often congestion trying to turn left onto Saddle Way as the approach is short and cars speed down to Keene Rd. As you are turning left often a car pops into view as there is a low part of the road just before the intersection.

Please do not approve their request.

Robert & Janet Turpen
2606 Saddle Way
Richland, WA

Stevens, Mike

From: Brad Norman. <bnorman3@hotmail.com>
Sent: Wednesday, September 7, 2022 3:31 PM
To: Stevens, Mike
Subject: Fwd: Opposition to land use S2022-102 Halara Hills Plat

>> Good day Mr Stevens,

>>

>> This email is to oppose the proposed land development by Pahlisch Homes at the west side of Country Estates. Considerations should be given for the overall impact of the project related to safety and security of current neighboring residents as well as impacts to the environment. See below for discussion points.

>>

>> First off this is not the first time that a developer has wanted to build a housing development in this location. When we purchased our home in Country Heights and worked with our neighbors, the developers, and the City of Richland planning department, we had discussions with the previous city engineer that the current communities established in the area (i.e., Country Ridge, Country Heights, and County Estate) had maximized the single road access point limitations. We were informed that if any future development was to be allowed in the location now proposed as Plat of Halara Hills, that access to such location would be required off Dallas Road. Which is scheduled to be upgraded here shortly.

>>

>> As we understand this determination took consideration for the current communities road designs, lack of established sidewalks, housing and population density, and a single point evacuation route, among others. These are all still valid and very real safety and security concerns today for the current community residents. The addition of the proposed large subdivision and corresponding increase in vehicle traffic noise generation will significantly increase safety and security risks to the current residents who enjoy walking and playing in the communities today. And to say that the secondary means of access (SEVA) will be determined at a later date. That is a lot of promise that never has to be acted on. Even based on how they worded the future tie in on the west side of this project. Still a huge safety concern for the current residents. This looks like a big shell game on how they say safety will be met.

>>

>> The City of Richland owes the current residents of Country Ridge, Country Heights, and Country Estates a mitigation plan to address safety and security issues that will result from a decision to approve the current proposed Plat of Halara Hills development. In addition to the considerations of the previous city engineer, as described above, the City needs to consider impacts of winter driving conditions and snow accumulations that are not currently adequately maintained by the City. In winter conditions the main Country Ridge Drive road is often reduced to a single lane as a result of delays in the City plowing the roadways.

>>

>> The proposed new development will also greatly increase the traffic at the intersection of Country Ridge Drive and Keene Road and create a very dangerous situation for people trying to enter or exit Country Ridge Drive. Their response of putting a traffic light in might solve that issue but brings about other issues. But they still have not addressed the road in getting from the proposed light to the development and how the impact of safety will be mitigated.

>>

>> We have lived in this neighborhood for over 14 years and have seen the newer developments go in along with individual houses. There is no statement of only MINOR DUST DURING CONSTRUCTION that can ever be met. Yes, that does affect the environment on how you are now changing the contours of the ground (changes the normal flow path of water) as well as displacing birds and animals from their nesting and foraging grounds in their natural habitat.

>>

>> In summary we feel that this development should not be fast tracked with all the permitting and study process that still need to happen along with the supposed SEVA route. We also feel that the current level of safety and security and the environment will not be met with the addition of the new development.

>> Please feel free to call me 430-5626 Brad

>>

>> Brad and Dottie Norman 1151 Pinto Loop

>>

>> Sent from my iPad

Stevens, Mike

From: Brent <petersonbrent34@hotmail.com>
Sent: Tuesday, September 6, 2022 9:38 PM
To: Stevens, Mike
Cc: Krystal Peterson
Subject: Comments about the application for subdivision named Preliminary Plat of Halara Hills

Mike,

I am a resident of the Country Ridge Home Owners Association, residing at 1150 Bridle Drive, and I'd like to express my concerns regarding the application for the 82-lot single-family residential subdivision named the Preliminary Plat of Halara Hills.

My first concern is that this proposed development is inconsistent with the average lot size of the neighborhood. Even though the city may consider this a low/medium density development based on today's definition, it still doesn't meet the approximate 1-acre lot sizes that this neighborhood was founded on. If the proposed development would be of similar 1-acre lot sizes to match the existing neighborhood, I'd be more supportive of the development.

The second concern I have is the increased traffic volume that would accompany such a large development. This would result in a larger traffic count along one route since there is only one entrance and exit into the Country Ridge neighborhood. This increased traffic would also likely necessitate the addition of a traffic light at the intersection of Country Ridge Drive and Keene Road, which is not desired.

My suggestion is to only consider this proposed subdivision if the average lot size is revised to a size of 1-acre per lot (average), which would allow development of the land to a low-density application while limiting the number of at risk residents with only 1 means of entrance/exit to the Country Ridge neighborhood. This may result in a need to add a traffic light at Keene Road but that could be considered after a traffic study is conducted at a later time. The city would benefit from the additional tax revenue but the Developer's plan will need to be adjusted to be a compromised win for all stakeholders.

The primary pushback I see would be from the Developer who is trying to maximize profit at the expense of existing home owners safety by cramming in a bunch of homes at the back of an existing super-low density neighborhood. Imposing an average 1-acre lot size hits a middle ground for most and gets this issue off of dead center.

Thanks for considering my comments and I hope the middle ground is selected here since the current plan just doesn't make a whole lot of sense on many fronts.

Brent Peterson (Resident)
1150 Bridle Drive

Date: September 7, 2022
To: City of Richland Planning Department
From: Brian Cable
Subject: Proposed 82-lot
Residential Subdivision
Named Halara Hills

Introduction

My family purchased a home on Strawberry Lane in 2015 and I am submitting this to raise significant concerns regarding the proposed development and the process the City is utilizing.

This proposal is a slight rework of the prior Ladera proposal that was denied by the Hearing Examiner despite being green-lighted by the City. This is clearly an attempt to slightly tweak a few things and repackage it, but for the reasons outlined below, I am requesting that you deny this application.

It was brought to my attention that Pete Rogalski and his team have already installed all the city services for this development and are intent on approving a development of this size in order to recoup its investments. As such, the City is not unbiased in its decision making on this development. It is telling that Pahlisch is taking the position that the SEVA does not need to be resolved now and will instead be resolved at a later date, which was most likely something they concocted with the City's input. They say that is allowed by 'applicable law' but do not cite the applicable law. It is clear why they are doing this, it is because they have no viable SEVA available to them and are hopeful you will move their application forward and allow the City to approve a SEVA that is deficient but will be done as an exception approved by the fire marshal. I have spoken to the landowner that owns the property directly West to the development, which any compliant SEVA would have to pass over, and he has made it very clear he will not grant one to Pahlisch at a later date under any circumstance (they have already approached him multiple times). The only other option is the windy narrow gravel road along the canal that even with substantial improvements and turnarounds (that I don't believe there is space to put in) would not be compliant. Because there is no viable SEVA and the only viable SEVA would have to run over a landowner's property who has clearly said he will not grant it, this application should be denied. Do not allow the City and this developer to come up with a SEVA on their own. Neither has the interest and safety of our neighborhood in mind, and the City is clearly biased and intent on getting this development approved.

I am also concerned that the City is expecting to issue a determination of non-significance on this project and has utilized the abbreviated process under WAC 197-11-355,

which only benefits the developer and the City but is not in the best interest of the community. In light of the issues highlighted below, there is no way a DNS should be issued and significant additional environmental, geo-tech, traffic, safety and other reviews and changes to the proposed development need to occur before it moves forward.

Additionally, the City has acknowledged an agreement with the Country Ridge community that prevents it from approving the proposal as submitted (as discussed further below). This was raised during the Ladera public comment hearing and when the Hearing Examiner asked Mike Stevens about it, Mike was not honest and did not admit what he had told me in a telephone conversation and what many neighbors have confirmed to be true. I recognize that this is a matter between the City and our neighborhood, but this prior agreement is worth discussing since it demonstrates that the City realized our neighborhood was already over capacity and it would be a safety risk to have any more homes utilizing our roads.

Discussion

(1) City of Richland Agreement with Country Ridge HOA's and its Homeowners Regarding Future Development of this Property.

When we purchased our house in 2015, I inquired about the possible development of the land at the end of Strawberry Lane as the house we were buying resides on that street. We were told that the City of Richland has agreed that any development of that land would require a separate entrance be put in from Dallas Road and that access to Strawberry would be blocked. So, I was particularly troubled when I received a copy of the notice that indicated the City was no longer honoring its agreement with our neighborhood.

On February 11, 2021, I called Mike Stevens, current manager of the planning department at the City, and explained to him that when we purchased our house, we did so in reliance on the City's agreement to not allow any new development to access Strawberry Lane and asked him why the City had changed its position. Mr. Stevens, to his credit, acknowledged that the prior planning manager had an "informal agreement" with the Country Ridge HOA's and its residents that it would require a Dallas road connection and no access to Strawberry Lane on any development of those parcels. I pointed out to Mr. Stevens that unilaterally reversing course on an agreement, which the City acknowledges exists, was really problematic for the City since a bunch of residents have relied on that in buying homes, improving properties, etc. Mr. Stevens agreed it was problematic.

As I walked around the Country Ridge neighborhood to let neighbors know about this proposed development, many residents raised this same concern without me mentioning it. It is clear this was a well-known agreement with the City and our neighborhood is rightfully upset about the City's complete disregard of that commitment.

Also, several neighbors said they had previously approached the City regarding development of the Halara parcels and were all told that if they did so, they would be

required to put a road in to Dallas and could not use Strawberry Lane. Also, some of them were told they would not be allowed to divide the 20-acre parcels at all, so they would be able to put 3 houses in but were still required to put a road in to Dallas and to block access to Strawberry Lane. But somehow a 82-house development is fine now, and no separate access is required. It certainly raises the question as to why the City has allowed this particular developer to do something it had consistently denied to many others.

The question is why would the City make this agreement with Country Ridge? When you look at our current roads and the number of households our roads serve, restricting any further development at the end of Strawberry Lane makes perfect sense. There are significant public safety concerns here, none of which can be adequately addressed with streetlights, sidewalks, and other street improvements, so the City recognized the only option would be to require a separate connection to Dallas Road.

Sounds like a well thought out decision by the City that took into account the health and safety of the Country Ridge residents that currently has around 250 houses that are all served by a singular road, that is classified as a local street, to enter and exit our neighborhood. Fast forward to 2021 (Ladera) and to the current application in 2022 and it would appear that in the interest of development fee and tax revenue, and to the benefit of one particular developer, the City is proposing to reverse its prior commitment even if that means it puts the health and safety of our neighborhood at risk.

I am also deeply troubled by the City's dishonesty on this issue. It is unfortunate that it is always current city residents versus the City in these proposed developments. Our neighborhood spent countless hours and hired and spent money on an outside attorney to protect our interests and to hold the City and developer accountable to the City's own code on the Ladera proposal. It is embarrassing that the City continues to push through clearly deficient development packages and puts its citizens in the position to correct their incompetence or indifference, in addition to being flat out dishonest throughout the process.

(2) City of Richland Comprehensive Plan.

I appreciate that the comprehensive plan is a guiding document and that we must look to the zoning and other code requirements to fill in any gaps, but there are some overarching principles in the comprehensive plan that the City is ignoring.

Goal 1 of the Transportation Element (page 43-44) provides that you must plan new street segments and consider modifying existing streets to provide comfortable and **safe** elements for bicyclists, pedestrians and transit users. It goes on to provide that you must plan and implement transportation systems and improvements that meet the needs of all **areas and residents**. The Halara development decreases safety of pedestrians (many of which are children and bicyclists) and does not meet the needs of all areas and residents.

Goal 1 of the Housing Element (page 39) provides that you must promote and provide incentives (such as zoning/rezoning) , revised regulations and provisions of infrastructure) for infill development and redevelopment, **while respecting the character and scale of the existing neighborhood**. Every prior development of Country Ridge has respected the character and scale of our neighborhood, which is lots of open space and large 1/2 acre to 2 plus acre sized lots. The Halara development is putting houses on less than 1/4 acre lots and contains zero open space besides the hillside it cannot build on. The City should require any proposed development to be consistent with the character and scale of Country Ridge.

(3) Preliminary Plat Application, SEPA Checklist and Site Plan Review.

(a) Preliminary Plat Application.

In the Ladera application, Pahlisch proposed to preserve 32 acres of its development as part of the Badger preserve. That 32 acres was all on the steep 40 degree slope that was the unbuildable portion of the property. The current application proposes much of the same. Giving away and protecting property that has zero value to Pahlisch.

(b) SEPA Checklist.

The SEPA was adopted to require that agency decisions were made with a full understanding of the environmental impacts that could result from a development. The initial threshold step in this process is a determination by the City as to whether the impacts of this development are significant. The SEPA checklist is an initial source of information that is supposed to inform the City's decision on whether to require a full EIS.

The current application states that Pahlisch was using the Ladera SEPA and would issue an amended SEPA. I did not see that in the current packet, so I am leaving in place my comments from the SEVA submitted in the Ladera application.

The SEPA checklist submitted by Pahlisch is inaccurate and needs to be revised. Section 4 (c) and 5 (b) states that there are no threatened or endangered species known to be on or near the site. There are Townsend Ground Squirrels on the site and adjacent to it, as well as Jack Rabbits. One neighbor believes they have seen Pygmy Rabbits adjacent to the site. The site also contains shrub-steppe habitat on it, not just adjacent to it, but is disregarded by the developer because it has been noted as degraded. Shrub-steppe habitat cannot be ignored and removed without a full environmental review, even if it is degraded. Section 9 of the checklist states that there are no housing impacts from this development. Housing impacts need to take into account the compatibility of the development with the adjacent land uses. Here, Country Ridge has ample open space and large lots. Halara is proposing a dense development with no open space besides the unbuildable portion of its property. Section 10 states that views of the nearby hills would be partly obstructed for nearby homes, but this statement is inaccurate as well. The proposed development will tower above the homes situated near the southeast corner of the property and block all views and light from their houses. Section 14 states that the project will include

construction of roads and sidewalks in the development but makes no mention of the fact that it will be utilizing a local street that is far beyond capacity that will need major upgrades if this development is approved.

The City also lacks proper information regarding traffic impacts and further study needs to occur prior to making the threshold determination. The City should require that the SEPA checklist be resubmitted with corrections and issue a finding of significance.

(c) Site Plan Review.

No decision on the site plan should be made here until a proper environmental study and other items mentioned in this memo are completed. Under RMC 23.48.010, this project cannot meet the applicable development and performance standards and therefore must be denied.

One of the tests in this process is to determine if the project design is compatible with adjacent land uses. Here, as mentioned previously, Halara is proposing a dense development with virtually no open space that will utilize a local street that is far over capacity. There is no way to mitigate 1000 additional trips on Strawberry Lane and Country Ridge drive per weekday on local streets that are designed and built to serve less than 1000 trips per day. Our local streets already serve around 250 houses and have close to 2500 trips per day. So, this is not a case where we are a little over the limits that our streets were designed to handle and this development would increase the traffic by over 50%. This would push our local streets to over 3500 trips per day. Therefore, this proposal is not compatible with the adjacent use and fails this test.

The project must also be denied because the developer has yet to obtain a secondary access point for emergency services and they have not path to do so. It needs to get an easement from two adjacent landowners and has failed to do so. I confirmed this with one of the landowners as of September 7, 2022. The City has adopted the International Fire Code standard, as noted on its website (<https://www.ci.richland.wa.us/home/showpublisheddocument?id=594>), that states that a "residential development that is served by a single access road over six hundred (600) feet in length that serves more than sixteen (16) units and each lot is less than one acre in size, shall be provided with an approved SEVA [Secondary Emergency Vehicle Access]." The City cannot approve this unless this requirement is met and as stated above, there is no way to meet this requirement.

(4) Critical Area Issues.

There are numerous Critical Area issues that have not been properly addressed.

(a) Fish and Wildlife Area.

The Halara parcels should be designated as a fish and wildlife area under the Critical Area code. RMC 22.10.185 provides that fish and wildlife areas including the following:

- (1) Areas where state and federal designated endangered, threatened and sensitive species have primary association.
 - Neighbors believe Pygmy Rabbits live nearby.
- (2) State priority habitats and areas associated with state priority species.
 - On this property, there are signs of Townsend Squirrels and Jack Rabbits have been seen on the property and both reside adjacent to the property.
 - Shrub-steppe is located on the property being developed.
- (3) Badger Mountain Reserve-which is adjacent to the proposed development.

There is no question that this is a Fish and Wildlife area as defined above. As such, we are required to follow the rules associated with these areas. Fish and wildlife habitat conservation areas are intended to create a system of fish and wildlife habitat with connections between larger habitat blocks and open spaces, integrating open space corridors. Thus, Halara should be required to have large open spaces in the development, not just on the undevelopable hillside.

Additionally, fish and wildlife habitats are intended to limit the level of human activity; evaluate land uses that may negatively impact these areas; and establish buffer zones around these areas to separate incompatible uses from habitat areas.

Under RMC 22.10.220, fish and wildlife conservation area alteration requires that adverse impacts be mitigated to the extent feasible and reasonable. Mitigation includes the following listed in the preferred sequence: avoiding impact altogether by not taking certain actions; or minimizing impacts by limiting degree or magnitude of the action.

On the Halara parcels, there is shrub-steppe and priority species throughout the property and not just on the hillside they are setting aside as a conservation area. Pahlisch should be required to mitigate by having large buffer zones around the existing shrub- steppe habitat and spaced-out houses to limit the level of human activity and adverse impacts that come with denser development. This is consistent with the City's position it took on other proposed development of this property where the City told potential developers that they could not subdivide the property at all. The current plan to throw down some seeds to mitigate destroyed shrub-steppe is ridiculous and not a true mitigation.

(b) Geological Hazards.

RMC 22.10.240 provides the definition of a geo-hazard. This parcel is designated by the City as a geo-hazard and that is acknowledged by PBS in their geo report where it states that the sloped area is a "high geological hazard". The City of Richland map of the geological hazard area appears to show an area much bigger than identified by PBS.

RMC 22.10.250 states that the provisions relating to geo-hazards apply to

any activity within 200 feet of a geo-hazard area unless exempt. This includes excavating, disturbing soil, driving pilings or placing obstructions and construction of any structure which has an adverse effect on the geo-hazard area.

RMC 22.10.370 requires applicants to conduct a subsurface exploration suitable to the site and proposal to assess geotechnical geohydrological conditions. PBS's geo-tech report acknowledges that it was unable to test the hillside for slide risk because it wasn't accessible but based on other tests on other undisclosed areas on Badger done by others, PBS states there is a risk of a landslide.

The City, pursuant to RMC 22.10.290, has to determine the significant risks posed by the activity to life and property on and off the project site. The City may approve, conditionally approve, or deny any activity, as appropriate, based on the degree to which significant risks are posed to protect private property and to the health and safety of the community.

- (c) It would be irresponsible of the City to approve this development as proposed in light of the fact that we have one entrance and exit for what would be 350 plus homes in an area that poses a significant landslide and wildfire risk. We have had massive flooding and mudslides in our backyard on Strawberry Lane after some of the heavy rains we have had the last few years and we are a few hundred yards from Badger. Those heavy rains greatly increase the risk of landslide and as such, the City should require a significant set back of the homes from the base of the hill and require separate access to Dallas road. Some well- respected local geologists were cited in a recent article regarding the risk of landslide on Badger Mountain that the City should take note of:

https://www.nbcrighnow.com/kndu/badger- mountain-may-be-home-to-a-future- landslide/article_d8352e92-4141-11e9-92e8-f7f398a058b6.html

(5) Geo-Tech Report.

The geo-tech report states that slopes greater than 40 degrees exist throughout the hillside portion of the property. They never tested the hillside due to inaccessibility but have acknowledged the landslide risk and that site slopes could destabilize by cutting near the toe of the slope. The report did not discuss risks associated with heavy rainfall, but certainly rain like we have had the last few years and the massive flooding that occurred will undoubtedly destabilize the slopes and pose risk to the health and safety of the adjacent communities. Pahlisch should be required to undertake extensive geo-tech testing including of the sloped area (as long as the proper process is followed to access the property and not to damage existing shrub-steppe habitat which occurred during the first testing).

(6) Traffic Study

As noted in the traffic study, there have not been a significant number of

accidents at the Country Ridge/Keene intersection. But as also noted in the study, there are a ton of accidents at the Keene/Queensgate intersection. You can expect the same at Country Ridge and Keene if this development is approved. There are already too many lights near this intersection and I would fully expect impatient and frustrated drivers to rush through this intersection on yellow and reds and many accidents will occur.

Our local street was not designed for this much traffic. The study notes some sidewalks and a shoulder for bikes and that cars can park on the street, but that is all misleading. There really isn't enough space for bikes to ride safely on our neighborhood streets and Country Ridge Drive does not have sidewalks and kids are often walking in the shoulder on a windy road, with multiple driveways, occasional cars parked on the street further blocking visibility and causing oncoming traffic to have to veer into the other lane and multiple delivery vehicles causing similar issues. The streets are not designed for on street parking. Cars park partially in a drainage ditch and usually have 1/2-1/4 of the car into the street. Doubling or tripling traffic on Country Ridge Drive is a major safety hazard and should require the entirety of it be upgraded to the level needed to handle that much traffic.

The only viable option for this development is to have its sole access be to Dallas Road with Strawberry Lane blocked (but access could be provided for emergency vehicles). This is consistent with the City's prior acknowledged agreement with our HOA's and residents, which makes complete sense in light of the fact that our local streets are already over double their designed capacity. The City has mentioned that they might just reclassify our streets to a minor or major collector, this would be irresponsible and would ignore the guidelines relating to street capacity that are there to protect the community.

The City has also mentioned that they will likely require a streetlight be put in at the Country Ridge/Keene intersection, which would do nothing for the safety issues on the rest of the neighborhood. Additionally, putting a light in runs contrary to the position the City's public works director has taken recently in which he stated that the City would not put a light in at that intersection since it would disrupt the flow of traffic on Keene and lessen some of the major upgrades the City has done to this area to improve traffic flow. It is shocking to me that the City quickly reverses course on what appear to be reasoned decisions to accommodate whatever they want to do in that moment.

Bolstering the position of requiring sole access of this development on Dallas road (or denying the application all together) is that the City's Six Year Transportation Improvement Program already includes a major upgrade to Dallas Road. The City has approved upgrading Dallas Road from 2 lanes to 4 lanes and will include sidewalks, bike lanes and streetlights. This will be completed in the next two years. Dallas Road is designed to handle additional traffic, and this would remove the health of safety risk of allowing access through our neighborhood. Funneling all of the traffic from this new development to the Country Ridge/Keene intersection and including a light there makes zero sense, especially when you understand that Dallas Road is getting a major upgrade and pushing this traffic to Dallas Road would not require additional lights or interference with the traffic flow on an important and very busy section of

Keene Road.

Conclusion

There is no viable SEVA for this property and that alone justifies denying the application. The only viable SEVA would have to cross over the land of someone that has **definitively stated they will never grant Pahlisch a SEVA for this development**. If it is found that a SEVA is not required at this time, the City needs to issue a finding of significance and require additional environmental and related reviews before this project can move to the next stage. A major rework of the Preliminary Plat needs to be done to be consistent with the adjacent neighborhood, minimize the impact on the environment and to adjacent homeowners and mitigate the risk relating to landslides and flooding.

The City also should be required to honor its acknowledged agreement with the Country Ridge HOA's and its residents. I understand the hearing examiner is not in a position to enforce this agreement, but I ask that it be considered in light of why the City had this agreement with our neighborhood. The City's agreement was one that was based on smart, well-reasoned planning, recognizing that our local streets are way over capacity and adding additional houses to the Halara proposed development site would pose an un-mitigatable risk to the health and safety of our neighborhood. The City's agreement is well known in our neighborhood and was relied upon by many Country Ridge residents in making decisions to build or buy houses. This agreement by itself, without consideration of any of the other points in this memo, demonstrates that the City believes it is not safe to approve this development and therefore the application should be denied. Since the developer is required to get a fire road access easement to Dallas road, if they are ever able to obtain an easement for a future development, that easement should be changed to the sole access road to the proposed community and an easement to Strawberry can be given solely for secondary emergency vehicle access.

Unfortunately, we are in a position as a community that we need to advocate for ourselves as our City continually demonstrates its disinterest in making decisions that are in the best interest of its existing citizens. This is a poorly thought-out development that runs afoul of the City's own code, but because the City invested in the improvements for this development, it is now intent on pushing this through. We ask that the Hearing Examiner protect us from our own City and further ask that all safety issues, including the SEVA, be resolved now as we cannot trust the City to make the right decision at a later date.

Evacuation routes and emergency vehicle access are not something that should be disregarded by developers and the City anywhere; however, Country Ridge has overburdened streets and limited access. Increasing temperatures and increases to the wildland urban interface will increase the fire hazards. One recent fire on I82 resulted in a complete evacuation of a nearby neighborhood. We cannot ignore the additional stress that a large area of high-density housing presents for evacuation routes and emergency vehicle accessibility.

<https://www.yaktrinews.com/richland-brush-fire-blazes-i182-queensgate/>



In closing, I think the City of Richland statement of its Values and Mission are worth noting here:

Values

In 2001, the City of Richland began a journey toward becoming a values-based organization, with less reliance on policies and “rules.” To further this effort, municipal staff and City Council have embraced the values of teamwork, **integrity** and excellence. (Emphasis added).

- **Teamwork:** We will work together, demonstrating collaboration through **mutual reliability**, openness and flexibility to accomplish our goals. (Emphasis added).
- **Integrity:** We will demonstrate an uncompromising allegiance to the core values of **honesty**, respect for others, loyalty, **consistency, accountability** and sincerity. (Emphasis added).
- **Excellence:** We will deliver a superior level of commitment, responsiveness, performance and provision of services to all, with the attitude that everything is worth our best effort.

Mission Statement

The City of Richland is responsible for furnishing cost-effective services and well maintained facilities, **safeguarding the public and property**, enhancing the community’s favorable quality of life, **protecting Richland’s natural environment**, and sustaining a healthy, growing economy. (Emphasis added).

I expect the City to be held to its own values and mission.

BRC

Stevens, Mike

From: Brian Quinn <brianquinn601@gmail.com>
Sent: Monday, September 5, 2022 6:44 PM
To: Stevens, Mike
Cc: Brian Quinn
Subject: Halara Hills Development - Comments for Public Hearing

Hello,

Hope you are doing well. We do not support and oppose the Halara Hills (by ladera Hills Development) given the negative impacts the proposed development will have on natural habitat, traffic, and safety. We ask the City of Richland to disapprove of this proposal to prevent the degradation of safety, traffic and natural habitat.

The construction of the Halara Hills (Ladera) development will endanger and destroy the natural shrub steppe present in the area. This development is against the City of Richland's Comprehensive Plan which calls for promoting the protection shrub steppe habitat, conservation, and restoration of natural areas, shorelines, and critical areas as unique assets to the community, and provide public access for enjoyment of such facilities based on the ability of the resource to support the use. Do not allow the unnecessary destruction of natural habitat.

The construction of the Halara Hills (Ladera) development will endanger the lives of children, residents, visitors and pedestrians. There is only one entrance to the existing neighborhoods and the current level of residents and the corresponding traffic levels already maximize the level of safety and service offered by the current roads and intersections. There are no curbs to prevent vehicles from swerving and traveling onto property. There are no sidewalks which forces children, adults and pets to walk in the streets and intersections. There are many hills and hidden driveways in the existing neighborhood where it is difficult to see other drivers and pedestrians. Allowing the construction of Halara Hills (Ladera) development will increase vehicular and pedestrian traffic, and place pedestrians and drivers' lives in great danger. If the officials of the City of Richland allow the construction of the Halara Hills (Ladera) development, and pedestrian and vehicular accidents occur, officials will be held accountable as will the City.

The construction of the Halara Hills (Ladera) development will pose great danger to the lives and homes of the existing neighborhood given there is only one entrance to the existing neighborhood. There is no safe, efficient and effective (safe) secondary emergency vehicle access and no such SEVA that addresses the items above and below. In fire events there is not enough transportation system present for all existing homeowners to exit the neighborhood. There is not enough to allow fire fighters into the existing neighborhood while residents try to evacuate. Allowing the development will add more people to a strained road/street system endangering the lives of even more people. The development should not be built as noted above, and should not be allowed to use the existing streets given the points above. If the officials of the City of Richland allow the construction of the Halara Hills (Ladera) development, and fire incidents & loss of life occur, officials will be held accountable as will the City.

The lot sizes in the application call for homes that are much closer in proximity to one another and the spacing of homes would not be consistent with the adjoining neighborhood. Homes in closer proximity to one another would increase fire danger and have a much larger negative impact on natural habitat (more concentrated impact to natural areas). The close proximity of homes and the high number of lots is meant to tempt the officials of the City of Richland to take the bait, which is greater lot numbers means greater connection fees & higher city revenue, while officials would be neglecting their duties to protect the existing residents of the City of Richland and failing to protect Richland's natural habitat.

We are opposed to the Halara Hills (by ladera Hills Development) given the negative impacts the proposed development will have on safety, traffic and natural habitat. We ask the City of Richland to disapprove of the Halar Hills (Ladera)

development to prevent the destruction of safety and natural habitat. Do not endanger lives and do destroy natural habitat.

Sincerely,

Brian Quinn and Amy Sims
Residents at 2618 Horseshoe Court, Richland, WA 99352

Sept 7, 2022

My wife and I are strongly opposed to the proposed Palisch development.

My wife and I purchased our home in upper Country Ridge about one year ago. A primary factor in this choice was the neighborhood and its unique, large lots. We love it here and hope to raise our kids here over the coming decades.

We have two small children under four years old and my wife is due to have our third child in November. We take frequent walks as a family through the neighborhood and one of our primary concerns is the lack of sidewalks. We previously lived in Benton County (Sagebrush Rd) which also did not have sidewalks and decided it was too dangerous for our small children, causing us to move. Although not ideal, we reasoned that with the current limited flow of traffic in Country Ridge, we felt sufficiently safe for our kids. This proposal by Palisch would destroy our sense of safety and seriously jeopardize the safety of us, our children, pets, & neighbors.

We paid a premium to live in this neighborhood based on the oversized lots and homes. The establishment of these multiple new homesteads with small lots is inconsistent with zoning with the surrounding development and would erode the investment we made to live here. It will nearly double our population with much lower value homes, adjacent to multi-million dollar estates, which are located on properties sometimes in excess of several acres. Property values for existing homes will decline, as the City of Richland continues to raise our property taxes. Lot size and home square footage for the Palisch proposal should at the very least be consistent with the adjacent development and similar to the rest of our communities. The City of Richland could realize as much property value income from a similar development as would the establishment of many lower value homes, without the adverse effects on our existing homeowners.

For these reasons, we beg of you to reject this proposal by Palisch. Please ensure the integrity, safety, and value of our rustic community by declining their application.

Sincerely,

The image shows two handwritten signatures in black ink. The signature on the left is 'Brock Andersen' and the signature on the right is 'Darina Andersen'. Both are written in a cursive, flowing style.

Brock & Darina Andersen
2647 Quarterhorse Way
Richland, WA 99352

Stevens, Mike

From: Cameron Seidel <camseidel@yahoo.com>
Sent: Tuesday, September 6, 2022 9:46 PM
To: Stevens, Mike
Subject: Country Ridge Development on Strawberry Lane

Mr. Stevens,

I am aware of a plan to add over 80 new small lots to our neighborhood with NO additional/backup/emergency access to said new development. We are located right at the junction of the Country Ridge Drive and Strawberry Lane and I have to say that already we have high levels of traffic. I am concerned mainly about the significantly increased traffic on a road that is already maxed to capacity. I am very concerned that there is NO plan to add an emergency alternative for traffic to exit this area in case of emergency, fire or the like. Adding a traffic light at the entrance does nothing to fix this problem.

Additionally, service vehicles park on the side of the road and cause trouble with visibility for traffic on the curves adjacent to our home causing a major safety concern with the large increase in traffic associated with these new homes. This is very concerning to me as cars try to pass these service vehicles on our curves.

Please consider the safety of doing this. I have very serious concerns about this development and the negative impact it will have on our safety in our community. Our roads were NOT designed to handle this additional traffic. There MUST be another entrance other than Country Ridge Drive and Strawberry Lane if this new development should be considered.

Thank you for your consideration.

Cameron Seidel, OD

Mr. Stevens,

My name is Carli McGarrah. I live on Country Ridge Drive with my husband and two young children. I would like to express my concerns about the application for the Halara Hills subdivision.

First, I would like to remind you that the city's mission of "safeguarding the public and property..." is NOT being honored. This proposed Pahlsh development is dangerous!

My first safety concern is the traffic. Adding traffic for an additional 86 homes is careless. Country Ridge Drive cannot support daily traffic to and from these homes, let alone the construction rigs needed for such a large development. The winding streets do not have sidewalks and lack the space needed to support such a huge construction project. My children ride their bikes and walk to friends' houses along this road. The thought of a dump truck whizzing past my kids as they try to walk safely on an 18" shoulder margin makes me truly sick to my stomach.

The ability to access or exit the neighborhood in the case of an emergency is my second safety concern. I have lived in this area for my entire life and have seen Badger Mountain catch fire several times. When it catches fire, it spreads fast. My house currently sits on the back of badger, with our property touching the dry, cheat-grass covered mountain. In the event of a fire, our concern has always been getting water going on the back of our house before we evacuated. But now I am concerned that we will be unable to evacuate at all and that emergency crews will have difficulty saving our place. Adding these additional 86 homes will increase the amount of people accessing the ONE exit/entrance by 25 percent. This will create a dangerous bottleneck. Homeowners will be trying to get out as fire trucks try to get in! What a scary situation. The city is not keeping my family safe if this is a scenario that becomes a reality. A second emergency access location is critical.

I am also concerned about the sewage line. Occasionally it smells like sewage on Country Ridge Drive. We put in a pool last year and many of the contractors commented that "this neighborhood stinks". I didn't think much of it at the time, but it has me concerned. Is there a hidden problem? Is our current sewage line at capacity? These questions need to be answered before we add additional homes. It is not safe or sanitary to overload the current system.

If "safeguarding the public..." is the mission, please keep us safe and find another access to the Halara development and examine the waste removal system.

Lastly, I want to have a commitment from Pahlsh and the City that all of these promises in the application actually happen. The application references plans for a traffic light at the entrance, a park, and even walking trails on Badger. But, these are loosely written with very weak language. A good plan should be specific, and time-bound. It is important to me that Pahlsh and the city be held accountable for everything suggested in the plan.

Thanks for listening,
Carli McGarrah
1335 Country Ridge Drive

Stevens, Mike

From: Carrie Seay <carrieseay@yahoo.com>
Sent: Tuesday, September 6, 2022 10:52 PM
To: Stevens, Mike
Subject: Country Ridge

Hi, I live in the Country Ridge community. I am deeply concerned about a new development coming into our neighborhood . We only have one entrance and exit into our community that goes out to a busy road. The addition of the numerous houses will cause severe traffic congestion . Also, the safety of the members of our community will be at risk. Please take these into consideration.

Thank you for your time.

Carrie Seay

Sent from my iPhone

Chad L
Hatfield 1133
Stallion Pl
Richland, WA 99352
September 7, 2022

Mike Stevens
625 Swift Boulevard, MS-35
Richland, WA 99352
mstevens@ci.richland.wa.us
Re: Comment (S2022-102 & EA2022-115)

Introduction

My name is Chad Hatfield, and I reside with my family at the home abutting the southeast corner of the Halara Hills Preliminary Plat Application. I submitted a comment to oppose the Ladera plat application by the same developer for this same property last year and echo my request to deny the current application.

The developer noted that they met with the president, Max Schneider, of the Country Ridge HOA (which is actually just one HOA among many of neighborhood). Max asked for me to attend with him. The developer showed us the site plan, which appears similar to the one in the application. It contained some buffering along the boundaries with vegetation, a walking path, and place for a playset. These are all neighborly things to include; however, it was plainly stated that in general the existing neighborhood is most concerned about the amount of traffic generated down our local streets and the safety concerns of having no SEVA. It was shared with us that they were wanting to purchase access to Dallas Road and would close off Strawberry Lane except for use as a SEVA. Everyone agreed that would be a great solution to those problems. However, they informed us that their attempts to obtain access to Dallas Road had proved futile so far. No more discussions occurred. These same concerns remain. As these concerns remain, I request that the application be denied.

A. Lack of Secondary Emergency Vehicle Access (SEVA).

The prior application (Ladera) was in part denied due to not having a SEVA in place for a development of sufficient size to require one. The developer did not appeal this decision. Instead the developer submitted the current application with less lots but still significantly over the amount that requires a SEVA.

The city has incorporated International Fire Code section 503.1.2 into its fire marshal / fire prevention standards, which requires an approved secondary

emergency vehicle access (SEVA) road for a residential development that is served by a single access road over 600 feet in length that serves more than 16 units, and each lot is less than one acre in size (or serves more than 50 units and each lot is greater than one acre in size).

<<https://www.ci.richland.wa.us/home/showpublisheddocument?id=594>>.

In the present matter, if the application is approved, Strawberry Lane is the single access road (over 600 feet in length) that will serve the 82-lot residential development. Thus, a SEVA road is absolutely required, and it must be accounted for in the proposal.

<<https://www.ci.richland.wa.us/home/showpublisheddocument?id=596>>.

Additionally, the International Fire Code Section D 107.2 requires that the two fire apparatus access roads shall be placed a distance apart equal to not less than one-half of the length of the maximum overall diagonal dimension of the property or area to be served.

As the proposed application property is hemmed in between Badger Mountain and Interstate I-82, which neither can be moved, the only suitable SEVA is connection to Dallas Road. As noted previously, discussions to obtain the access needed to Dallas Road have faltered. The development team has at various times thrown out the possibility of using the gravel canal path as the SEVA. The canal path runs too close to Strawberry Lane to be considered, as it violates the mandatory requirements of IFC D 107.2 noted above. Additionally, the canal is a long, windy gravel path with many sharp turns. This path is wholly deficient in terms of safety and time efficiency.

In response to failing to have the required SEVA, the developer has requested a condition be placed that they will get the SEVA location approved by the city at a later time outside the realm of public comment or approval by Hearing Examiner. Such condition should not be allowed in such a critical issue that has already been deeply contested.

The proposed condition is inappropriate for the following reasons. First, nothing in the application demonstrates that a little more time will resolve the glaring issues. The developer claims that allowing the condition will provide the developer and the city adequate time to find the best location. Currently 18 months have passed since the last open meeting before the Hearing Examiner when the developer had stated in its application materials that it would get an easement to Dallas Road but actually had no success in obtaining it.

Second, issuing a DNS is inappropriate when there remains considerable concern that a condition can be met. The threshold determination should not be made until

the applicant has established that it can develop an adequate secondary access. If a threshold determination is made prior to that time, it should assume the worst case and acknowledge that without a secondary access, the impacts would be significant. See WAC 197-11-080(3)(if agency proceeds in the face of “uncertainty” a “worst case analysis” is required).

Third, the city should not be allowed to parcel out public involvement on certain issues. The city has elected to use the optional DNS method, which places the decision making in the hands of the hearing examiner. When the public has reached out to city officials, they are told that the decision is not in their hands but has been delegated to a hearing examiner. This is the process that has been chosen. During the prior application process, the overview of the hearing examiner was essential.

As just one illustration of the importance of the hearing examiner process, I am attaching an additional public comment that I had to submit after issuance of the prior staff report. (See addendum 1). In this situation the lead planner was contacted to discuss that the lot sizes and shapes were not consistent with Richland Municipal Code. The lead planner was not aware of any such provisions. The provisions were shown and discussed and it was determined that over twenty percent of the lots were out of compliance with code. A verbal assurance was obtained that this information would be presented in the staff report. The details of the discussion along with noted code infractions were sent to the lead planner via email. In the staff report to the hearing examiner, the planning department did not note the code violations and issued a statement that the proposed site plan was done to code and gave a recommendation to approve. Fortunately, the hearing examiner identified the numerous errors in lot sizes, shape, and calculations of sizes and denied the application. It is unknown why the planning department would not at least raise the concern or issues about these important issues to the decision maker.

For these reasons, I respectfully request that any such condition regarding the SEVA be denied. Please do not allow this important issue regarding public safety to avoid public comment and decision by Hearing Examiner.

B. Proposed Traffic Is Inconsistent with Local Streets

Strawberry Land and Country Ridge Drive are classified as local streets. The maximum ADT for local streets is 1,000 ADT. The proposed development on its own would produce more ADT than allowed by Strawberry Land and Country Ridge Drive. When combined with current traffic, the ADT would be multiple times the capacity of the current streets. This level of traffic would appropriately fit within a major collector street.

Country Ridge Drive is not reasonably consistent with a major collector street despite any mitigation. It is not a road with local streets connecting to it. It is lined with connections of private driveways. Along Country Ridge Drive and Strawberry Lane to the proposed site, there are 69 instances of driveways intersecting with these local streets. This number does not include cul-de-sacs or other roads, but actual driveway entrances where people would back out of pull into these local streets. Local Streets are noted to not be intended to be a thoroughfare to other developments. This is exactly what this proposed project would do—use local streets as a thoroughfare to the new development.

Country Ridge Drive has no sidewalks and narrow shoulders. Throughout the day garbage and recycling trucks (multiple days per week), delivery trucks, and USPS drivers stop their vehicles along the road and block one way of traffic. Vehicles must pass going in the incorrect lane. The street is also lined with groups of mailboxes and neighbors frequently cross the street all along Country Ridge Drive. All of these factors combined with pedestrian traffic and bicycles traveling along very narrow shoulders creates a safety hazard. Just this morning, the shoulders were lined with garbage cans and children walking to the bus stops had to walk into the street.

Neighbors attempt to be friendly and cautious, but the dangers will be multiplied exponentially by a fifty percent increase in traffic from the proposed development. Multiple cars will be stacked behind trucks creating line of sight issues around the many curves in the street. This will lead to accidents.

The engineer for the developer at the last hearing stated that a traffic light would be installed at the intersection of Keene and Country Ridge Drive. He explained that there would be increased wait times with the increased traffic and accidents and poor judgment are much more likely when people have to wait. The current application as did the prior application does nothing to address this increased risk from the entrance of the proposed development to the intersection with Keene.

No amount of mitigation can effectively transform these local streets in a SAG development into major collector streets. It is irresponsible. The developer has proposed a traffic light at the intersection with Keene again, but that in no way addresses the traffic and safety concerns along Country Ridge Drive and Strawberry Lane. This application should be denied.

C. Additional Concerns

SEPA

The State Environmental Policy Act (SEPA) was adopted to assure that agency decisions were made with the benefit of a full understanding of the environmental

impacts that could result from their decisions. The law is intended to assure that agency decisions are made by “deliberation, not default.” *Stempel v. Dept. of Water Resources*, 82 Wn.2d 109, 118 (1973).

The first step in the environmental review process mandated by SEPA is the threshold determination. The threshold determination is your agency’s initial assessment as to whether the probable impacts of the proposal are “significant.” If so, an EIS must be prepared.

Your agency cannot make the threshold determination unless it first obtains adequate information to assess the project’s probable impacts. “The agency must base its threshold determination on ‘information reasonably sufficient to evaluate the environmental impact of a proposal.’” *Spokane Cty. v. E. Washington Growth Mgmt. Hearings Bd.*, 176 Wn. App. 555, 579 (2013) (quoting WAC 197–11–335).

The environmental checklist is one source of information for you to consider when making your threshold determination. If the environmental checklist does not provide adequate information to make a threshold determination, the agency has an obligation to obtain additional information. “If information on significant adverse impacts essential to a reasoned choice among alternatives is not known, and the cost of obtaining it are not exorbitant, agencies shall obtain and include the information in their environmental documents.” WAC 197-11-080(1).

As part of a threshold determination process, the “lead agency may require field investigations or research by the applicant reasonably related to determining a proposal’s environmental impacts. WAC 197-11-335.” WAC 197-11-100(2). Your agency is obligated to seek out other sources of information as necessary to have a sufficient foundation for making the threshold determination. *See, e.g.*, WAC 197-11-330(1)(a)(ii).

In determining whether a project’s impacts are significant, your agency must take into account the project’s location. A project of a certain type may have insignificant impacts in one location, but might have significant impacts if located elsewhere. WAC 197-11-330(3)(a).

In the current application, the development will have a high-density wall of homes along the base of the southern mountain. This will have a negative effect on wildlife corridors. This was not sufficiently studied or developed.

The effect on shrub steppe was inappropriately addressed. Importantly, according to the developer’s own report the most significant areas of shrub steppe were delineated by a blue line. This line followed alongside the eastern borders of the property. This is exactly the location where the developer is proposing a flagpole

shared driveway in order to construct two homes on top of this most significant shrub steppe. These areas, which appear to be about 50 feet from eastern lot line, should be mandatory buffer zones barring any development or disruption of shrub steppe, including blocking sunlight to these areas.

The project does not require slope assessments or compactions studies on both the southern and the eastern ridges. This area is prone to runoffs and landslides.

Site Plan Issues.

One of the tests in the site plan review process is whether the project design is “compatible with adjacent land uses.” RMC 23.48.010. If the project cannot be conditioned to assure compatibility with adjacent land uses, it must be denied. *Id.* See also RMC 23.480.040. The proposed development is not compatible with the adjacent SAG neighborhood. In addition to the concerns above raised, the following are important considerations: (1) the proposal subdivides the lots into reduced sizes inconsistent with the neighborhood, contrary to Goal 1 of the Housing Element (page 39) to **respect the character and scale of the existing neighborhood**; (2) several lots are crammed into the southeast corner of the parcel, with irregular shapes that are strongly discouraged by the city codes, RMC 24.16.240 Lots – Shape, 24.16.250 Lots – Key (S2020-103 Preliminary Plat Application, page 4).

Construction mitigation plans

Normal uses of wind/dust prevention will not be satisfactory at this location. Strong winds blow along the mountain side into the existing neighborhood. During the White Bluffs neighborhood construction project across I-82 from this proposed development, I observed dust swirls that engulfed entire streets of houses. The houses were only barely visible. This was done presumptively in accordance with local practices. Unlike that project with new homes being constructed simultaneously, the excessive dust will disrupt current neighborhoods. Specific guidelines for speeds of wind when work can be performed should be outlined. Further, due to the serious conditions observed in the vicinity, it should be mandated that Phase 1 of any development begin on the western side of the three lots to ensure dust protocols are working before working closer to existing homes.

Conclusion

Out of concern for the safety and well-being of my neighbors, I request that this application be denied.

Thank you,

Chad Hatfield

Dear Mr. Hearing Examiner,

Re: Ladera Development – **Omission in the Staff Report that at least twenty (20) percent of the lots are in nonconformance with the municipal code design standards for lot shapes.**

I have previously submitted a detailed comment to the City of Richland's Planning Department. Therefore, I will limit this letter to address a code issue that was omitted from the Staff Report, namely lot shapes. As a matter of background, my property is located adjacent to southeast corner of the proposed Ladera Development. Lots 19, 20, 21, and 22 all are adjoining to my property. With Lot 23 tucked in with a shared driveway, these five lots form a wall to the west side of my home, which is the front of my home.

Over the course of several discussion with the assigned senior planner, Shane O'Neil, lot shape issues were discussed. Mr. O'Neal was unaware that lot shapes were addressed in the design standards code. I stated the width-to-depth ratios were non-conforming and he told me that the code had no such ratios and that I must be mistaken. I directed him to both my public comment with the code citation to key lots and to the Richland Municipal Code for lot shapes. After discovering these design standards code, he acknowledged that there were concerns with many of the lots. I asked if he would raise the concerns in his staff report to the Examiner. He replied that his role is limited and he cannot be partial. He cannot recommend how this should be treated. I asked for a firm commitment that he would include the issue in the Staff Report so that the Hearing Examiner would be made aware of the issue and make his own decision on it. He agreed that he would do so, but he could do so only in a "neutral" manner.

When the staff report was eventually made available (subsequent to the seven-day requirement set forth in Rule 3.05 of the Hearing Examiner's Rules of Procedure), it was found that this "neutral" approach was to completely omit the issue from the Staff Report and to claim that all design standards were met.

For this reason, I wish to bring to your attention the relevant design standards for lot shapes and how the proposed development is out of conformance with these standards.

Lot 22 is a key lot (more commonly known as a "flagpole" lot) and should not be allowed. RMC 24.16.250 Key lots shall be avoided where practicable. [Ord. 73 § 4.25]. 24.08.130 Lot, key defined. "Key lot" means the first lot to the rear of a corner lot, the front lot line of which is an approximate continuation of the side lot line of the corner lot. [Ord. 73 § 2.13].

Additionally, RMC 24.16.240 regarding lot shapes states that lots shall be as nearly rectangular as possible with side lot lines approximately at right angles or radial to street lines. Ordinarily, the ratio of width to depth shall be one to not more than two and one-fourth. [Ord. 73 § 4.24].

Lot 22 is clearly not in conformance in shape or ratio. As a key lot it **shall** be avoided where practicable. Here there are no practicable issues to the development that would require inclusion of this lot. The only purpose is to try and cram one extra lot into a corner. Doing so also puts it

out of conformance with the width-to-depth ratio. Most of the property is in the unbuildable space due to topography that would effectively make this lot under the minimum lot size for the zoning.

Additionally, the key lot shape will require the home to be built sideways to the road resulting in only a ten-foot setback to my property line and retaining wall. This creates a significant safety risk. This retaining wall is approximately 8-12 feet high and is within that distance of the walking path to my front door. My children play on the grass in front of that wall. Pictures have been sent to Mr. O'Neil and should be included in your materials. Mr. O'Neil had told me that he would come to the property and take pictures of the property and its location in relation to my property and wall. On the day the staff report was due, I called him and was informed he was still working on the report and had not taken the pictures. I then sent him a few pictures as he requested. These were also not included in the staff report.

For all of these reasons, Lot 22 should be removed from the development plans. Many of the other lots, which are not key lots, are also out of conformance.

Lot 21 does not depict the width of the lot at the street, but if the plat was drawn to scale, it would be about 50'. The depth is 164' and width 50', making the ratio 3.28, which is in far excess of the prescribed ratio of 2.25.

Lot 23 is also an odd shape, not at a right angle, and has a width of 210' to 82' wide, which is above the width-to-depth ratio.

Removing Lots 22 and 23 would allow Lot 20 to have a wider entrance and be rectangular. It would also allow Lot 24 to increase its width, as it's ratio is currently over 3.0.

The code requires rectangular lots and appropriate right angles and width to depth ratios as possible. It is possible to do so, just not with trying to squeeze in two extra lots (22 and 23) with a shared flagpole driveway.

Additionally, all lots on the southern border of the property along the mountain side are far out of compliance with the width-to-depth ratio. For example, Lot 44 has a 4.5 ratio--twice the allowable requirement. The result is that 25 lots are out of compliance with the design standards for lot shape.

There is no practical purpose for the narrow and deep running lots up the mountain side, except to manipulate the average lot size of the project and artificially increase the number of lots. Most of the land is noted as being unbuildable.

The developer has not met its burden to show that it has met the design standards required of this project. Further, the omission of even raising this issue in the Staff Report as well as several other important considerations has laid an undue burden on the public. As I noted previously, the Staff Report was not provided at least seven (7) calendar days before the hearing. It was provided at the end of the day Tuesday, giving us three days to make written comments. We

have not had adequate time to evaluate the materials and to address so many pertinent issues that were failed to be addressed.

The stated purpose of the Hearing Examiner's Rules of Procedure is "...to ensure that the essentials of due process; notice and opportunity to be heard, are an integral part of every hearing conducted..." Further, it is explained regarding these procedures that "The intent is to ensure [sic] that every hearing provides participants a fair opportunity to be heard." The City's untimely preparation of the Staff Report has negatively impacted the public's opportunity to fully participate.

Respectfully submitted,

Chad Hatfield – 1133 Stallion Place, Richland, WA 99352

Stevens, Mike

From: Chelsea Blair <blair080412@gmail.com>
Sent: Sunday, September 4, 2022 11:15 PM
To: Stevens, Mike
Subject: Pahlisch Halara Hills Protest

Dear Mr. Stevens,

My name is Chelsea Blair. I live at 1279 Country Ridge Dr, Richland WA 99352 with my husband, and 3 children 4 years old and under. We bought our home in Country Ridge to start our family in a quiet neighborhood where our children could ride their bikes and adventure in the neighborhood without fear of dangerous traffic. With the addition of the 'Halara' development at the end of Strawberry Lane, 82 additional families will be driving past our house every day. Construction vehicles for those 82 homes will be trundling by our driveway everyday for years. Large trucks full of deliveries for these new homes will come roaring by. Then the daily traffic of 82 families leaving for work, taking their children to school, going to the grocery store, the gym, coming home from work. Landscapers, and cleaning services, and home service providers for 82 homes will be speeding past my driveway every day. Putting my children at risk. Putting me at risk. Country Ridge Drive is dangerous. The majority of the road is narrow and has no side walks. With large curves and hills, it isn't safe. Delivery trucks and large landscaping vehicles stop regularly in the way of traffic to do their business. This forces traffic into the oncoming traffic lane. I personally have had many close calls with oncoming traffic trying to go around vehicles parked on the shoulder on curves. I have been uncomfortably close to pedestrians and bicyclists on the shoulder on the opposite side of these vehicles. Adding more traffic to this already treacherous road is dangerous.

Another big concern of mine is the single access to Country Ridge from Keene Road. I was witness to a rear end accident at the intersection of Keene Road and Country Ridge Drive this spring. A woman was rear ended immediately in front of the opening to Keene from Country Ridge. This completely blocked the entrance to the neighborhood. Her vehicle was disabled and she was blocking traffic on Keene behind her. I sat 3 cars back for 10-15 minutes while emergency response arrived. In this time there was no access in or out for the 250 homes in Country Ridge. Thankfully, this was a minor emergency and it was only 10-15 minutes of disruption. My children were late for school, I'm sure some people were late for work, but that's ok. As I sat in traffic, I imagined Badger Mountain catching on fire. The residents of Country Ridge are asked to evacuate. Driving under the pressure and anxiety of an evacuation, someone turns left at the wrong time and get t-boned. Traffic stops and the access to Country Ridge is cut off. No emergency vehicles can access Country Ridge Drive. This is not a far-fetched scenario. Adding an additional 82 homes in this neighborhood without additional emergency access is dangerous. There needs to be entrance/egress to Dallas Road if these new homes are built. Lastly, I just want to say I am disappointed in the City of Richland for allowing Pahlisch move forward with another plan so similar to their previous 'Ladera' development. Other than a small decrease in number of homes, I see NOTHING that remedied our concerns in April 2021. There has not been any additional environmental studies. The access to the neighborhood and the unsafe road conditions are still a major concern. An emergency scenario and lack of emergency access are still a major concern. Please take these concerns seriously as this is the safety of my family. My children deserve to grow up in a quiet neighborhood with safe streets that their parents planned. My oldest children are 4 year old twin girls. They will go to kindergarten in 2023. They deserve better than to wait for the bus on a busy road with construction vehicles rumbling past. They cannot learn to ride their bikes on this busy thoroughfare Pahlisch is proposing. Please don't let them do this.

Thank you for your time and consideration.

I look forward to the hearing on September 15th to discuss this matter further.

Thank you,
Chelsea Blair
1279 Country Ridge Drive

Richland, WA 99352

Stevens, Mike

From: Robbins, Chris <Chris.Robbins@cngc.com>
Sent: Wednesday, September 7, 2022 1:01 PM
To: Stevens, Mike
Subject: Halara Hills

Dear Mr. Stevens,

We appreciate the opportunity to comment on this topic. I am writing to express our opposition to the proposed Halara Hills development. Our main concern with this proposed development is the significant traffic impact on the section of Country Ridge between Keene Rd. and the canal. As noted in the application submitted on behalf of Pahlisch Homes, Inc., no sidewalks exist in this section of roadway. What should also be noted is that this section of roadway makes up a majority of distance that needs to be traveled through the neighborhood between Keene and the proposed development. We typically see vehicles and equipment (landscapers, delivery trucks, trailers, etc..) parked along this section of roadway that often encroach on the lanes of traffic. Of course, this routinely pushes vehicles traveling through into the middle or oncoming lanes of traffic. Unfortunately, with the lack of sidewalks this often pushes pedestrians walking through the neighborhood into those same lanes of traffic as well. This clearly creates a safety concern that is exacerbated by the significant increase in both vehicle and pedestrian traffic that this proposed development would create. For the same reasons Pahlisch is proposing sidewalks in their development, we would strongly encourage those sidewalks be required between Keene Rd and the canal as well. A secondary concern of ours is that the proposed lot sizes in this development are in sharp contrast to those of the existing developments in the Country Ridge area. The proposed development is clearly not in harmony with the existing Country Ridge neighborhoods. For those reasons we ask that the Halara Hills development, as proposed, be denied.

Chris and Mia Robbins
1341 Country Rdge Dr.
Richland, WA 99352

Stevens, Mike

From: chris brayton <chrisbrayton54@gmail.com>
Sent: Wednesday, September 7, 2022 3:05 PM
To: Stevens, Mike
Cc: chrisbrayton53@gmail.com
Subject: Environmental and Wildlife Protection Concerns Regarding Proposed Development of Halara Hills

Dear Mr. Stevens,

Wildlife at Country Ridge near Stallion Place has many quails, chukars, snakes, mice, pygmy rabbits, coyotes, and many other beautiful animals. These animals would be pushed further out of their natural habitat if Halara Hills is approved by the City of Richland to proceed. These animals and vegetation are a part of the beauty of Badger Mountain. Increased housing on the mountain takes away the beauty of the mountain, not to mention the homes of these wonderful animals.

For example, and as taken from www.wdfw.wa.gov regarding pygmy rabbits, this website states: "The population of Columbia Basin pygmy rabbit in Washington is extremely small and is designated as a Distinct Population Segment for protection under the U.S. Endangered Species Act. Conservation threats to the Columbian Basin pygmy rabbit include loss and degradation of shrubsteppe primarily due to conversion and fragmentation of this habitat to cropland and development."

These rabbits have been observed living in Badger Mountain South just a few hundred feet from the proposed development and they are protected under the U.S. Endangered Species Act!

With regard to the overall picture, please consider how this would impact the environment, its animals and their ecosystems, as well as the vegetation (and its many varieties of plants, shrubs and wildflowers). These animals have no voice and we, as a community, must be responsible and preserve nature for many to enjoy for years to come.

As a resident of the Country Ridge neighborhood and citizen of Richland, Washington, I would ask the City of Richland to deny this development of Halara Hills.

Thank you,

Christopher Brayton

Stevens, Mike

From: Clayton Romain <pentzer@icloud.com>
Sent: Sunday, September 4, 2022 5:37 PM
To: Stevens, Mike
Subject: Ladera Subdivision

I am a homeowner in the County Ridge development and view the appointment for a new subdivision adjacent to ours with alarm.

The traffic impact would be devastating. We do not have sidewalks in our development so we end up walking next to a busy street. Our road system is already at or above capacity. To add over 100 more homes on our streets is unacceptable. Our quality of life and our safety would be severely impacted

The size of proposed lots would severely impact our neighborhoods character, and I urge the city to force the developers to increase the lot size to 1/2 acre lots

I urge the city to force the developers to find their own access instead of utilizing our existing streets

Regards

Linda and Clay Romain
1114 Bridle Drive
Richland WA

Country Ridge Home Owners Association

PO Box 844, Richland, WA 99352



September 6, 2022

Mr. Mike Stevens, Planning Manager
City of Richland
625 Swift Blvd., MS-35
Richland, WA 99352

Dear Mr. Stevens,

We are writing on behalf of the residents of Country Ridge Homeowners Association regarding the application by Pahlisch Homes for an 82-lot subdivision named Halara Hills #S2022-102 which would be located to the west of our neighborhood.

After studying the Application Documents, we have significant concerns regarding the Traffic Impact Analysis. The entry into our development on Country Ridge Drive from Keene Road has been classified as a local street, as are the immediate cross streets Saddle Way and Foxtrot Lane. The traffic generated by our current homeowners and those living in homes above us in Country Heights and extending into Strawberry Lane, all ends up traveling in and out of our neighborhood via Country Ridge Drive. Vehicle travel by cars, trucks, buses, deliveries, etc. already maximize the safe use limits of our streets.

According to the TIA, the proposed additional 82 homes is expected to generate 841 more daily vehicle trips through our neighborhood. This exceeds the limits of safe travel in and out on Country Ridge Drive and creates increased safety risk to those in vehicles as well as pedestrians. As a consequence of this greater risk the quality of life in our neighborhood is diminished. The planned installation of a traffic light at the intersection of Country Ridge Drive and Keene Road can help manage the flow of traffic at this entrance and exit point, but does nothing to reduce the quantity of traffic and safety along the remainder of this residential street. In fact, the light holding back the increased traffic created by 82 more homes could lead to vehicle line ups that create greater risk at the intersection of Country Ridge Drive and Saddle Way and Foxtrot.

We also see that the new Development Application requests that the developers be allowed a delay in the identification of a SEVA road which had been stated as necessary by the previous Hearing Examiner. The current application states that "A potential future extension of Strawberry Lane to Dallas Road would provide this alternate (SEVA) access for the proposed development and the adjacent existing residential areas." We propose the opposite of this, that the Halara Hills development only be approved if a new independent street access to Dallas Road is created for the use of those new development homeowners and that access from Halara Hills to Strawberry Lane, and by extension Country Ridge Drive, only be used as a secondary emergency exit and access for emergency vehicles. This presents itself as the single best way to preserve the safety of our Country Ridge neighborhood streets.

Sincerely,

Country Ridge Homeowners Association Board Members

Stevens, Mike

From: Dara Porter <daraporter@gmail.com>
Sent: Tuesday, September 6, 2022 8:02 PM
To: Stevens, Mike
Subject: Country Ridge against adding neighborhood without adding additional entrance

Hello Mr. Stevens,

I can't help but feel frustrated that the members of our neighborhood have to tell the city once again that we are absolutely NOT ok with the idea of adding more houses to our neighborhood without putting in an additional entrance for the number of homes. It remains a safety issue in my mind. I have seen first hand the pile up of cars coming in and out of the neighborhood when there is an accident at the entrance to our housing development on Keene. This has happened quite a few times, both with ice and car accidents. I personally do not want anyone's family trapped without a way to get out should a fire spread within our homes and yards.

The neighborhood directly across Keene from our neighborhood has about 100 homes fewer than we do and they have an emergency exit. Probably a good thing since they just experienced a large fire right behind their homes just a few weeks ago. Why is there no plan for an emergency exit here if builders want to add houses to this area? Money cannot be the bottom line when people's lives could be at stake in an emergency.

Please take our home owner's views and opinions into consideration. Please focus on safety for residents.

Thank you,
Dara Porter

Stevens, Mike

From: Dave Banks <dbanks57@charter.net>
Sent: Wednesday, September 7, 2022 12:55 PM
To: Stevens, Mike
Subject: S2022-102 & EA2022-115 Halara Hills

Richland City Planning,

My wife and I have lived on the lower part of Country Ridge Drive (CRD) for the last 9 years. I have worked in the Power industry as a degreed Engineer for over 35 years. I am sending an email to Richland City Planning Department to express that we are strongly against the proposed subdivision (Halara) because of the following reasons.

This proposed subdivision will:

1. Double the traffic on the lower part CRD (between the KID canal and Foxtrot Lane) which will cause a lot more noise than we currently have and will greatly decrease the safety to pedestrians and bicycles that use CRD. The upper part of CRD (above the KID canal) will see a significant increase, most likely around 3-4 times when compared to current levels.
2. Affect Emergency Vehicle Access since there is only one exit out of CRS. In the Ladera Plat rejection document (S2020-103), Item 12 in the Finding of Facts section states an Secondary Emergency Vehicle Access (SEVA) is required for Final plat approval. The current proposal still has not addressed this issue and therefore the solution is unknown and can not be reviewed.

1. Noise and Safety concerns on CRD:

Based on our current observations, the majority of the vehicles on CRD travel around 35-50mph which exceeds the posted speed limit of 25 mph. CRD is a long downhill road (0.8 mile) with few turns which make it easy to speed on. If Halara is built, the road traffic on CRD will double or more on the lower section since you are doubling the homes that are currently using it. The upper section of CRD will see traffic increases many times more than the current levels. CRD does not have side walks or curbs; pedestrians walk along the side of the road which reduces their safety when vehicles speed down hill upto 50 mph.

Based on information in a document titled "Neighborhood Street Design Guidelines", November 2000, the survival rate for pedestrian in a traffic collision is 95% @ 20mph, 60% @ 30mph, and 10% @ 40mph. A lot of families and older residents walk along the residential roads, in addition to bicyclists.

The city is not following the Richland Comprehensive Plan (RCP), page 23, UD Goal 1, policy 3: Improve streetscape and connectivity for safe and pedestrian-friendly environments.

In addition, with the doubling of traffic and the high vehicle speed, CRD is turning from a residential road (speed limit 25mph) to a potential collector arterial road!

On page 34 of the traffic analysis in the Neighborhood Impacts section it states the following:

The City's draft Traffic Impact Study Requirements indicate that any development generating over 250 new trips per day on an existing local street needs to evaluate the impacts on neighborhood livability. As the proposed Ladera Subdivision is expected to generate 841 new weekday daily trips on Strawberry Lane and Country Ridge Drive, this requirement applies to this study. Based on the existing traffic counts, Country Ridge Drive near Keene Road currently serves about 167 peak hour trips, or an Average Daily Traffic Volume of about 1,670 vehicles, increasing this volume to 2,511 vehicles.

I did not see a comprehensive evaluation done on Neighborhood Livability in this analysis. I never saw a statement in this document that stated there are no sidewalks on Country Ridge Drive between the KID canal and Keene Road. There was no discussion about increased noise, increased risk to pedestrians on CRS with no sidewalks, traffic backing up into CRS and potentially blocking streets and driveways, and increased traffic in the morning when children are waiting for school buses.

To ensure the Halara does not degrade the Neighborhood Livability in CRD, a independent access road to Dallas Road is the most logical to solve this issue.

2. Secondary Emergency Vehilce Access (SEVA) is required for Final plat approval:

This current preliminary plat application for Halara still does not provide a potential SEVA. The best option was be for Halara have their own independent access through Dallas Road. The Strawberry lane to Halara should only be used for emergencies.

Based on the above information, we strongly oppose the proposed Halara subdivision.

Regards,
David and Mary Banks
1110 Country Ridge Dr

Sent from my iPhone

Stevens, Mike

From: Briana Butler <thebutlers@gmail.com>
Sent: Wednesday, September 7, 2022 4:18 PM
To: Stevens, Mike
Subject: Concerns for proposed development adjoining Country Ridge

As homeowners in the Country Ridge neighborhood and a resident specifically living on Country Ridge Drive, we have many concerns surrounding the proposed development adjacent to us.

There is currently an issue with traffic as there is only one entrance and exit to service all the homes already in existence. Turning into and out of the neighborhood is timely during busy hours and could be downright dangerous should there be the need for evacuation or emergency service vehicles accessing the neighborhood. We also live near a curve in the road that goes uphill and have witnessed driving that is a huge safety concern for people out walking or my own kids playing out as there are frequent delivery vehicles, construction vehicles, landscaping and service vehicles that must park partially in the street on a regular basis causing cars to pull into the other lane to pass. My own child has almost been hit while walking in the shoulder due to this situation of cars coming around a curve and out of their lane to go around parked vehicles. An increase in the amount of traffic will only add to this problem and increase the likelihood of cars passing vehicles in an unsafe manner.

We moved to this neighborhood because of the larger lots and zoning and feel the proposed development does not meet the standards or align with our neighborhood. We strongly oppose the proposed development as it stands and hope our concerns will be considered and addressed.

Sincerely,

David and Briana Butler

Stevens, Mike

From: David Bass <david.b.bass@gmail.com>
Sent: Wednesday, September 7, 2022 1:02 PM
To: Stevens, Mike
Subject: Regarding the proposed land use -- Halara Hills Development

To Whom It May Concern

My name is David Bass. I currently live, along with my wife and 3 (soon to be 4) children in the Country Ridge Estates. I have become aware of a proposal near our home to put in 80+ homes and to connect those houses to Country Ridge Dr, the only access to Keene road, and indeed, the only way in and out of Country Ridge Estates. I wanted to express some concerns I have about this proposal.

First, and foremost, traffic. There is already a large number of houses that use Country Ridge Drive as the sole means of entry and exit to and from the rest of Richland. I am unaware of exactly how many houses are already in the area, but I would imagine that adding 80+ more houses will make this sole artery in and out of the area congested, and perhaps even dangerous. Case in point, recently there was a fire near the Queensgate exit. I personally helped an elderly lady evacuate her home just on the other side of Keene Rd. I was grateful that the division she lived in ("Jason's Loop" I believe) was small and had multiple outlets, else evacuating could have been a disaster. If a severe fire were to hit our area, emergency crews, and residents, only have 1 way in and out. Adding more houses and families without providing a second way for residents and emergency crews to enter and exit would be untenable.

Second, our roads become icy in the winter. I'm sure this is no surprise to anyone who lives in Richland. But I AM surprised at the number of drivers I had to help on Country Ridge Dr get off the road or pushed onto a flatter ground. I am NOT proposing that the city do something about that, just that with added congestion comes higher risk of accidents, and with a subdivision placed HIGH above most of the current houses, I foresee a lot of accidents happening and causing severe congestion, unless there is an alternate way down the hill.

Lastly, my wife informed me that there is a proposal to add a traffic light on Keene and Country Ridge to alleviate traffic concerns. I do not believe that this will actually help with the issues I have mentioned already. I am not opposed to a traffic light, but in an emergency, or at times of congestion, a traffic light will not help.

To clarify, I am not opposed to the new subdivision. In fact, I am for it. BUT my concerns lie with the potential congestion, and possible dangers, of putting in a division without an alternative way for residents to access their homes. It would be irresponsible of the city, I feel, to not require another route to and from this new development, besides the proposed access via Country Ridge Dr.

Thank you for your time

David Bass
david.b.bass@gmail.com

Stevens, Mike

From: Denni <Insndrs@charter.net>
Sent: Wednesday, September 7, 2022 2:57 PM
To: Stevens, Mike
Subject: Pahlisch Homes Halara Hills Proposal

Attn: Mike Stevens, Planning Manager
RE: Halara Hills, File #:S2022-102

I am sending this email to express my safety concerns in regard to the Pahlisch Homes application to build Halara Hills.

Country Ridge currently has about 250 homes and only one access road, Country Ridge Drive. This one road is already overwhelmed with traffic, presenting a major safety concern. The proposed traffic light will have no effect on the number of vehicles entering and exiting Country Ridge. Without the inclusion of a secondary access road, the current proposal fails to address concerns already brought to the attention of Pahlisch Homes, illustrating a blatant disregard for the safety of current and potential residents.

Currently, in the event of an evacuation, about 250 households would be forced through one exit. Increasing the number of homes will only exacerbate an already dangerous situation. The issue of a second access road is imperative to the safety of the residents and cannot be delayed.

Thank you for your time and consideration,

D. Sanders

Stevens, Mike

From: Diana Marquez <dlbray06@gmail.com>
Sent: Monday, September 5, 2022 10:12 PM
To: Stevens, Mike
Cc: Diana Marquez
Subject: Traffic Concerns Regarding Proposed Development of Halara Hills

Dear Mr. Stevens,

The Country Ridge streets are at capacity. If Halara Hills is allowed to proceed, the safety of the residents is at risk because of increased traffic.

The streets will be more risky for children riding bikes or waiting for the bus, as well as people walking. The site proposed of 82 homes would bring along an additional 82+ vehicles driving on Country Ridge that is already at capacity. Traffic in Country Ridge often drives over the centerline to give children riding bikes alongside the road more room. At this time, the current traffic is already concerning!

If Halara Hills is approved, all residents (current Country Ridge and new residents) would be at risk everyday driving to work, school and pleasure. There would be an increase in larger vehicles during construction such as semi trucks delivering wood, cement trucks, and increased construction vehicles delivering construction supplies. Also, an increase in delivery vehicles is anticipated after construction such as UPS, mail, and Amazon deliveries to support the 82+ homes (this is in addition to the current volume of delivery vehicles where often times they double park blocking one full lane, as do school buses as there are not proper shoulder areas in the current design).

This increased traffic causes concern for when an emergency occurs, too. Evacuations of the Country Ridge area neighborhood, for example, a fast spreading fire due to high winds would be nearly impossible to escape because of the backed up evacuating traffic. Even in a typical emergency response, emergency vehicles may take a longer time to get to a residence and help the persons in need.

Safety of the residents should be a priority and overall concern of the City of Richland and its employees. Please consider this statement when making a decision about Halara Hills' development and how negatively it would impact the current safety of the area and put new residents at risk as well.

As tax paying citizens of this city and neighborhood, I request that you deny the development of Halara Hills.

Thank you,
Diana Marquez

Stevens, Mike

From: Diana Thomé <dkrthome@gmail.com>
Sent: Tuesday, September 6, 2022 8:14 PM
To: Stevens, Mike
Subject: Comments regarding Halara Hills Development

Mr. Stevens,

I am writing to express my concerns with the newly proposed development from Pahlish homes, Halara Hills.

As a resident of the Country Ridge neighborhood as well as a mother of school aged children, I have significant concerns regarding the increased traffic burden on Country Ridge Drive.

At present, the bus stop my children use for school is on Country Ridge Drive. The neighborhood park they routinely use requires crossing Country Ridge Drive without the benefit of traffic control signals or a crosswalk. Cars often travel at speeds greatly exceeding the speed limit, likely in excess of 45mph. The shoulders are narrow and there are no sidewalks to allow for safe pedestrian travel. The addition of over 80 homes would dramatically increase the traffic traveling on Country Ridge Drive, thus putting pedestrians of all ages in harms way.

I implore you to consider the safety of our children and other pedestrians in our neighborhood. Have the developers accounted for foot traffic or bus stop safety? At a minimum, the addition of sidewalks and crosswalks must be a part of this proposed development.

Our street (Foxtrot Lane) sits in a hill with stop signs to Country Ridge in both ends. It can be very difficult to see around blind corners due to the hills and curves in our neighborhood. A dramatic increase in car traffic would also dramatically increase the risk of collisions. Country Ridge Drive was not built to accommodate so many homes.

Further consideration should be given to emergency ingress and egress. In the event of a rapidly spread wildfire can hundreds of homes safely and rapidly evacuate on Country Ridge Drive? Would the sole ingress and egress allow first responders adequate access to prevent loss of life and property?

I would also like to call attention to the wild flora and fauna that make their home on Badger Mountain. Has a full environmental study been completed to evaluate the ecological strain from the proposed development?

Mr. Stevens, the city of Richland has a responsibility to its residents to provide adequate, safe, and well designed infrastructure. This proposed development puts my family's safety in jeopardy and threatens the wild habitat that we all enjoy at the base of Badger Mountain.

Thank you for your time and commitment to the citizens of Richland.

Respectfully,
Diana Thomé

Sent from my iPhone

Stevens, Mike

From: Drew Aldrich <drew_aldrich@hotmail.com>
Sent: Tuesday, September 6, 2022 8:30 PM
To: Stevens, Mike
Subject: Halara Hills Development

Mr. Stevens:

We currently own a home on Country Ridge Dr. near the intersection with Foxtrot Ln and Saddle Way. We are writing to express the very significant concerns we have regarding the proposed Halara Hills development submitted by Palisch Homes. We do not feel that the proposed changes made to the first attempt by Palisch (Ladera) will in any way address the negative impact this new development will have on the traffic and safety of the established homes in the Country Ridge neighborhoods.

The amount of speeding traffic down Country Ridge is already a hazard for anyone walking along the road and adding 80+ new homes will only exacerbate this safety issue. Adding a stoplight at the Country Ridge/Keene intersection will not address the traffic and safety issue, and will only serve to cause a major traffic backup along Country Ridge during high traffic commute times. If it hasn't already, the City should request a new traffic analysis since the original one for the Ladera development was conducted during the time of COVID shutdowns and does not represent normal traffic patterns. There are many school children who walk along Country Ridge to and from bus stops every day.

There is also the lack of an appropriate Secondary Emergency Vehicle Access (SEVA) to the proposed development. This is simply a major safety issue that cannot be overlooked, or postponed and figured out later as requested by Palisch. It would be an egregious mistake for the City to approve a development before a satisfactory Emergency Vehicle Access, such as a connection to Dallas Rd., is confirmed.

We are very much in opposition to the Halara Hills development as proposed, and appreciate you taking these issues into consideration.

Sincerely,
Drew and Sarah Aldrich
Country Ridge Dr.

Stevens, Mike

From: Edgar <ewmartinen@frontier.com>
Sent: Wednesday, September 7, 2022 7:59 AM
To: Stevens, Mike
Subject: Proposed development at Country Ridge

To whom it may concern:

My wife and I are residents of Country Ridge (2636 Quarterhorse Way) and are very concerned about the Palisch development plans. To approve a permit without first addressing safety and traffic concerns seems very ill advised. It is hard to imagine that the single entrance into Country Ridge could safely handle the additional traffic. Also the negative impact to family residences along the route to this new development is very troubling.

We strongly feel that this permit should be rejected.

Sincerely,

Edgar Martinen and Susan Fahey

Stevens, Mike

From: Emily Bass <emruth122@gmail.com>
Sent: Tuesday, September 6, 2022 10:53 AM
To: Stevens, Mike
Subject: Concerns with Halara Hills Development

Hello Mr. Stevens

My name is Emily Bass. I am a resident of the Country Ridge Estates neighborhood and have heard of the proposed development to be added to our neighborhood. I want to take this opportunity to express my concerns with the planned development and impact on our community.

1. Traffic

As you know, Country Ridge already has well over 200 homes in the neighborhood, and all of us use the one entrance into the neighborhood on Country Ridge Drive. That is a lot of families with only one way in and out. Adding an 80+ more lots to that one entrance will pose serious congestion issues. Several weeks ago I witnessed a car accident that took place at the intersection of Country Ridge and Keene Rd. No one from the neighborhood was able to leave because the accident blocked the intersection, and a line of cars, trying to get out, quickly developed. Placing a stop light at this intersection would make back ups like this even more frequent.

Furthermore, our community in general recently witnessed the dangers that fire can pose to a neighborhood with the recent fire on I-182, just across the way from our neighborhood. Should the mountain behind our neighborhood catch fire, it would spread quickly. And evacuating the over 200 homes out of the one intersection is already a potentially serious problem. Adding even more houses will make that danger even worse.

Our streets are not wide thoroughfares. With more traffic will come more instances of impatient drivers passing on our narrow streets. I have seen utility trucks parked on the side of the street. And while they do their best to get off to the side as much as possible, they still block a good portion of the lane.

2. Safety

There is only the one entrance for SEVA. Adding a second entrance for those vehicles will be good, but not enough to accommodate our neighborhood, the new development and the new housing on Queensgate. One additional entrance to help serve hundreds of new residences is not enough to help with the overall safety of our neighborhood.

Thank you for taking the time to look over and consider my concerns as a resident of Richland and of the Country Ridge Neighborhood.

Sincerely,
Emily Bass

Stevens, Mike

From: Eric McGarrah <emfm7@hotmail.com>
Sent: Wednesday, September 7, 2022 4:54 PM
To: Stevens, Mike
Subject: Comments objecting to Halara Hills Preliminary Plat Application

Mike Stevens, Planning Manager
625 Swift Blvd, MS-35
Richland, WA 99352
Sept 6, 2022

Re: Response to Notice of Application for Halara Hills Subdivision by Pahlish Homes

It is disturbing how little a developer must do to resubmit plat application that was previously denied by the prior Reviewer. Although the language used in the application appears to address comments from the independent reviewer, a closer inspection would show that it is merely wordsmithing to pass the first stage gate. If the City of Richland passes this onto a single individual for review and approval, it is neglecting it's responsibility as a planning organization. We may as well fire the planning managers and hire professional administrators that can follow a desk guide and schedule independent reviewers to make a decision on the future of our community.

Eric McGarrah

Stevens, Mike

From: fchoyeski@aol.com
Sent: Tuesday, September 6, 2022 10:15 PM
To: Stevens, Mike
Cc: blair080412@gmail.com; friendsofcountryridge@gmail.com; adinakenn@aol.com
Subject: Halara Hills homes

The submittal for the proposed development of Halara Hills homes has done nothing to mitigate concerns that were raised during the last hearing for the proposed development of Ladera.

Specifically:

- Traffic and safety concerns along Strawberry Lane and Country Ridge Drive proposals have not been addressed.
- Safety concerns should be addressed and specific plans should be formulated, approved and implemented prior to allowing construction rather than addressed after construction
- Secondary emergency vehicle access (SEVA)
 - Should not reroute traffic on other streets within adjoining neighborhoods that has only one entry and exit point.
 - Should consider the connection to Dallas road as the only solution that adequately addresses SEVA .
 - Should be made a prerequisite prior to approval of any construction.
- Environmental protection and preservation of the Badger Mountain and the associated shrub steppe
- Preservation of consistency with adjoining neighborhoods
 - Planning on use of Country Ridge Drive and Strawberry Lane makes it essentially a continuation of those communities and not an entirely new community. Therefore preservation of the community ambiance must be considered

Frank and Ellen Choyeski

Stevens, Mike

From: Gabe Geise <gabegeise@outlook.com>
Sent: Tuesday, September 6, 2022 11:59 AM
To: Stevens, Mike
Subject: Application S2022-102 & EA2022-115

Dear Mr. Stevens,

In response to the notice of application S2022-102 & EA2022-115, please accept my below response to the Halara Hills project.

It disappoints me that I'm even having to write this response. The City of Richland and its hearing examiner had already denied this request under notice of application S2020-102. Not only did the applicant fail to rebuttal the initial claim, but instead decided to submit an entirely new application without addressing the concerns which lead to the initial application being rejected. I feel the City of Richland had the opportunity to step up and protect the people of Country Ridge, but choose to step aside by welcoming the same but unsafe approach found in application S2022-102 & EA2022-115.

Some of the key issues that I have with this new application are that of the same of the old one. These issues can be broken-down into the following:

- Traffic
 - The volume of traffic along Strawberry Lane and Country Ridge Drive is already high with only one lane roads. If you include mail trucks, garbage trucks, delivery trucks, Landscaping trucks, etc. it makes it even worse. Not to mention when these 3rd party outside vehicles park alongside the one lane roads it makes it unsafe.
 - According to the City's Ordinance No. 34-20, the City "deliberately discourages" directing traffic from multiple developments through a Local Street. The Halara Hills project will direct 100% of the estimated traffic onto Country Ridge Drive.
- Safety
 - Secondary emergency vehicle access (SEVA) was a major issue and a primary reason that the last application was denied. As stated in my opening, The developer did not appeal that denial but instead resubmitted a new application, which I understand is not uncommon, except that they are now asking the hearing examiner to not make a decision on the SEVA this time. Also, there have been years to propose a SEVA and they have not come up with a solution, which indicates there is not a good solution.
 - There's not a complete path of sidewalks alongside Country Ridge Drive and Strawberry Lane. Bottomline, the new development should have its own SEVA that does not require the use of Strawberry Lane.
- Lot Sizes
 - The last application was denied in part by a misuse of density transferring provisions. Pahlisch Homes noted that the hillside is too steep to build upon so that justifies having smaller lots on the usable land. The way they did that was clearly wrong. This application reduced the number of lots and claims to not be using density transferring anymore. They will be "gifting" the unusable land to Badger Mountain to maintain, yet they are keeping enough property going up

the steep slope to artificially increase the average lot size. Many lots remain under the 12,000 sqft which is NOT consistent with the adjoining neighborhood.

Sincerely,

Gabe Geise

Stevens, Mike

From: Chiu Gavin <gavinchiu@aol.com>
Sent: Wednesday, September 7, 2022 12:54 PM
To: Stevens, Mike
Subject: Homeowner from country Ridge

Hi

My name is Gavin, me and my family live on country ridge dr. I believe a lot of homeowner just like us, We Enjoy this quiet neighborhood, my biggest concern is the traffic impact,first we only have one outlet imagine if we have extra 82 houses with to two cars each house now it will be extra cars going through is one outlet don't you think that will be a problem? Second what do you think if you have 80 some cars Drive in front of your house every day? I'm not trying to against of it but If the City want to put 82 house Here I think we should have more outlet , hope you have some plans for this,and hope my opinion is heard . Thanks

Sent from my iPhone

Stevens, Mike

From: Gavin Nelson <gbn1973@gmail.com>
Sent: Wednesday, September 7, 2022 3:16 PM
To: Stevens, Mike
Subject: Public Comment for S2022-102 & EA2022-115

Dear Mr. Stevens,

I'm writing to you today in response to the notice of application for the Halara Hills project.

In the traffic study portion of the proposal, Country Ridge Drive is listed as a "Local Street". Richland City Ordinance No. 34-20 deliberately discourages directing traffic from multiple developments through a Local Street. 100% of all estimated traffic increase from the Halara Hills project would be directed onto Country Ridge Drive. Per the project's own research, traffic will increase from 1,670 vehicles per day to 2,511, which is 250% over the City Ordinance maximum for a Local Street.

The traffic study states that Country Ridge Drive has space for walking and biking along with on-street parking. However, there have recently been issues with stormwater run-off from the existing development causing some shoulders being converted into run-off area, thus much of the on-street parking is now gone. A striped lane for pedestrians/bicyclists does exist but is eliminated or obstructed when on-street parking is utilized, which happens daily.

There are constantly construction vehicles parked in these areas for pool builds, tree trimming, lawn/yard maintenance, etc. Most of Country Ridge Drive has a broken yellow line indicating passing is permitted. Additionally, the street curves all the way up the hill, so visibility is limited. I often back my truck and trailer into our driveway and have had neighbors coming around the corner too fast and must dangerously hit the brakes to avoid hitting me. My two boys have a bus stop ¼ mile up the hill but I don't trust them to walk there safely due to there being no sidewalks for a portion of this walk.

Currently Country Ridge Drive does not meet the City Standard minimum requirements, which must be addressed before the Halara Hills project is even considered. Again, based on the city's ordinance, Country Ridge Drive would need to meet "Major Collector Street" designs to meet the estimated 2,511 vehicles per day. The project does not plan for a secondary emergency access. According to City requirements:

If the City Fire Marshal requires a secondary emergency vehicle access, it shall be included in the construction plan set and be designed to the following standards: A. 2-inches compacted gravel, minimum (temp. SEVA only). B. 2% cross-slope, maximum. C. 5% slope, maximum. Any access road steeper than 5% shall be paved or be approved by the Fire Marshal. D. Be 20-feet in width. E. Have radii that are accommodating with those needed for City Fire apparatus. Secondary emergency vehicles accesses (SEVA's) shall be 20-feet wide, as noted. Longer secondary accesses can be built to 12-feet wide with the approval of the City of Richland Fire Marshal, however turn-outs are required at a spacing

acceptable to the Fire Dept. Temporary SEVA's shall be constructed with 2-inches of compacted gravel, at a minimum. Permanent SEVA's shall be paved with 2-inches of asphalt over 4-inches of gravel, at a minimum.

The Halara Hills project only discusses "potential" future solutions to find a secondary emergency vehicle access, but as a father of two young boys living on Country Ridge Drive, that is simply not acceptable. The planners behind the Ladera, now Halara Hills project, have had plenty of time to find a solution to these problems, yet none is being proposed, which leads me to believe a solution is simply not possible. We have had several fires near Country Ridge in recent months, so an emergency route is obviously required. It seems apparent to everyone except the developer that a different main entrance to their proposed development is required.

Thank you for your time and attention to my concerns.

Gavin Nelson

1253 Country Ridge. Dr. Richland WA 99352

(949) 230-0615

Stevens, Mike

From: MacLeans <macleansemail@gmail.com>
Sent: Tuesday, September 6, 2022 10:10 PM
To: Stevens, Mike
Cc: natalie m
Subject: Halara Hills

Hello Mr. Stevens,

We are writing to communicate our strong opposition to the Halara Hills Development, formerly called the Ladera Hills Development. The roads in Country Ridge are relatively narrow with little space for roadside parking. Often when a family has a party or group meeting in their home, cars must of necessity park partially or even totally in the street. This is tolerable at present, but with the addition of 85 homes, and thus significantly more traffic, it will become intolerable and dangerous. Safety as well as peace and quiet are major concerns.

Also, there is an issue with emergency response vehicle access to the new area. From what we understand, the current plan will not meet minimum requirements for access. This is then an additional safety issue.

For these reasons, we ask you to not recommend or approve the Halara Hills Development.

Sincerely,
Graham and Rosa MacLean
1113 Foxtrot Lane, Country Ridge

September 7, 2022

Mr. M Stevens
Planning Manager
625 Swift Boulevard MS-35
Richland WA 99352
mstevens@ci.richland.wa.us

Dear Mr. Stevens,

I am writing to oppose the Pahlisch Homes Halara Hills notice of application by is currently being proposed to the Richland Planning Department. My reasons for opposition are the same concerns I had with their 2021 Ladera application. I have included my comments on the previous Ladera application.

Beyond the change of the project name and a slight reduction in the number of proposed lots little appears to have changed.

We have roughly 250 existing Country Ridge homes using a single entrance and exit. With the proposed addition of 82 homes, the primary streets in Country Ridge will be overwhelmed. Surface streets on Country Ridge Drive have service vehicles such as landscaper vehicles, water delivery trucks, pool builder trucks, and laborers vehicles constantly double parked along Country Ridge Drive which is the one of the main arteries in the development. The Halara project will severely add to the congestion in the development. Even if a road were punched out to Dallas Road, the majority of Halara Hills traffic would still drive through Country Ridge to reach the Queensgate retail area.

When the original Ladera/Halara Hills application was made to the City of Richland, an inaccurate traffic study was included. I think a new and more accurate traffic study needs to be conducted. Simply adding a traffic signal to the entrance of Country Ridge will not alleviate our traffic issues.

The hearing examiner made note in his denial of the Ladera project that: "The Fire Safety considerations are of special concern on the site." In addition, it was noted that: "There is ample evidence that this application cannot be approved as designed, and any future application of development on the same site with more than 16 homes would require a Secondary Emergency Vehicle access route meeting Fire and Public Works standards for such roads." The developer is now asking to work out the details of this plan at a later date, which is of concern to me.

The full report can be found here:

<https://www.ci.richland.wa.us/home/showpublisheddocument/12559/637667958031970000>

White Bluffs Elementary which has a capacity of 700 students, had an enrollment of 728 in June 2022. The Halara Hills development is within 1200 feet of White Bluffs and will impact the school.

Please deny the proposal as presented.

Sincerely,

Heather and Joe Cleary
1126 Stallion Place
Richland, WA 99352

February 19, 2021

Mr. Shane O'Neill
Senior Planner
625 Swift Boulevard MS-35
Richland WA 99352
soneill@ci.richland.wa.us

Dear Mr. O'Neill,

I am writing to oppose the Ladera notice of application by Pahlisch Homes as currently proposed. I have read through the proposed packet and have many concerns.

We live near the project and believe this project will negatively impact the traffic in our neighborhood, the natural shrub steppe environment, and will negatively impact our quality of life in the neighborhood.

With the onset of Covid-19 in March 2020, Richland School District closed on March 13, 2020, forcing 13,700 students and their families into remote learning. Traffic within the Country Ridge development came to a standstill and slowed significantly as residents sheltered at home, worked remotely and students shifted to remote learning. As of today, our schools have yet to fully open. Even with vaccines becoming available, life has not returned to normal.

Richland elementary schools Preschool to Grade 3 started to attend school in November 2020, and Grades 4-5 in January 2021. Middle schools began opening in late January. High School students will fully return to school beginning next week, February 22. Because of Covid-19 concerns more than 500 RSD students have chosen to remain exclusively remote by attending Richland Virtual Academy for this school year. Because of those circumstances, plus lack of after school activities, traffic has dropped significantly in Country Ridge. As retirees, we have barely put 3,000 miles on all our vehicles in the past year.

Also impacting traffic in our area is the opening of the Duportail Bridge on December 16th, 2020. Since the bridge opened, traffic patterns have changed and there has been a significant impact on the Queensgate/Keene Road intersection. The traffic study cited by Pahlisch to support building the project was done prior to opening of the Duportail bridge.

The reason why I cite these dates and numbers is to demonstrate that the traffic study in the application does not accurately reflect the significant impact that Covid-19 has had on traffic in the Richland community and our neighborhood. Even if the traffic estimate is rounded up to higher estimates; the study needs to be done during normal circumstances to accurately reflect the traffic impact of the proposed Pahlisch project.

Country Ridge Drive is the most heavily used road in Country Ridge. It is a local access road and was already at capacity (Pre-COVID-19). Adding the Ladera project will overburden our neighborhood roads. Country Homes Estates has 24 homes that use Strawberry Lane to access our homes. Adding 106 Ladera homes will overwhelm Strawberry Lane and the adjacent houses.

Additionally, the school most heavily impacted by this project is White Bluffs Elementary. White Bluffs has a practical capacity of 702 students and they currently have 552 students in Hybrid learning and another 116 that are online exclusively. The proposed Pahlisch project will fill the school beyond their capacity once Covid-19 subsides and the Ladera neighborhood is built out.

I also have concerns about native wildlife that surround us. We live close on the edge of a scrub steppe environment. We have jack rabbits and what I believe to be Pygmy Rabbits, which I believe are an endangered species. I would hope that someone would recheck the environmental report for this project.

Please postpone a decision on this project until a complete traffic study can be completed that accurately reflects the usage of roads in Richland and the permanent impact it will have on our neighborhood.

Heather Cleary
1126 Stallion Pl
Richland WA 99352
cleary.home@charter.net

Stevens, Mike

From: whalehome@charter.net
Sent: Wednesday, September 7, 2022 1:35 PM
To: Stevens, Mike
Subject: Opposition - Halara Hills

Mr. Mike Stevens

As long time Richland and Country Ridge residents, we are writing once again to express our concern with the proposed Ladera (now Halara) Development. We continue to be concerned with SAFETY. It is our understanding that the city has already taken steps to ensure approval of the new application without allowing adequate time for public comment. The addition of 82 new homes is expected to generate 841 more daily trips through our neighborhood, creating a high level of risk to the public. And the idea that our city officials would allow a developer to delay the resolution of critical issues regarding safety and traffic (SEVA road, for example) to a "later" time is simply not acceptable. Public concerns about safety must be understood and addressed before approval of the application.

Respectfully submitted,
James and Margo Qualheim
2507 Palomino Court
Richland, WA

Stevens, Mike

From: Jane Njuguna <njuguna_jyn@yahoo.com>
Sent: Tuesday, September 6, 2022 1:33 PM
To: Stevens, Mike
Subject: New development West of Country Ridge.

Hi,

Traffic and security is the biggest concern here. Can there be another access road from Dallas rd? Having no traffic light at KEENE rd junction will make most of us wait forever to exit.

If possible build a wall between new developments and the Strawberry lane neighborhood to keep the construction noise down for the residents.

Thank you

Stevens, Mike

From: Janet Artzer <artzejr_55@icloud.com>
Sent: Tuesday, September 6, 2022 7:32 AM
To: Stevens, Mike
Subject: Halara Hills

Mr Stevens, I know the volume of emails on this subject is tremendous and I do not believe I could add any concern not already mentioned. I can only say they are all concerns shared by me and hope you take them very seriously and weigh the impact this development would have on this community. Thank you. Steve and Janet Artzer Sent from my iPhone

Stevens, Mike

From: jamiilabeau@charter.net
Sent: Wednesday, September 7, 2022 1:49 PM
To: Stevens, Mike
Cc: JANICE gmail
Subject: Comments Objecting To Halara Hills Preliminary Plat Application

Mike Stevens, Planning Manager
625 Swift Blvd, MS-35
Richland, WA 99352
mstevens@ci.richland.wa.us

7 Sept 2022

Dear Mike,

I worked on the response (see copy below) to “Notice of Application for Halara Hills Subdivision by Pahlisch Homes.” Note, for the record, that I do not support Pahlisch’s proposal.

Thank you.

Janice Burnet Atkinson
jamiilabeau@charter.net
janice.kba@gmail.com
1324 Country Ridge Drive
Richland, WA 99352
509-221-1030

* * * * *

Mike Stevens, Planning Manager
625 Swift Blvd, MS-35
Richland, WA 99352

Sept 6, 2022

Re: Response to Notice of Application for Halara Hills Subdivision by Pahlisch Homes

Dear Sir, I am providing feedback on the application for Preliminary Plat of Halara Hills submitted by Pahlisch Homes. I am **not in support** of approving this application. As with their previous submission, their plans have adverse effects on the Country Ridge, Country Estates, and Country Heights communities. It also appears the City of Richland’s decision to zone that area R-1-12 was either not well thought out, or in error. Clearly,

impacts to adjacent communities were not considered. I urge the City to reject this Application, which is for a project detrimental to its citizens. Below are specific sections of the Application that are concerning.

3. Narrative

- At several places in the Application, including the Executive Summary, it is stressed there will be “amenities like trails and a neighborhood park.” Repeatedly, over and over. But there is essentially no detail of their plans beyond spaces marked on the Plat Map. The “neighborhood park” appears to be nothing more than a low point in the drainage system. Is there landscaping? Are there trees? Picnic table and cover? Playground equipment? The way the “neighborhood park” was discussed in the application as contributing to general quality of life, we would expect an actual ***park***, not a drainage pit.
- Regarding “trails” that will feed onto the Badger Mountain Centennial Preserve, while admirable, the commitments made in the Application are very minimal. My understanding is the Preserve is Benton County property. Has the County concurred with the plan? How about the Friends of Badger Mountain? Per Pahlisch Homes, this volunteer organization is going to build trails up the mountain on 40-degree slopes. Have they agreed to this? What is the schedule for completion? What budget did Pahlisch establish, or is it an open checkbook? Or perhaps the trail talk is just happy-talk, feel-good stuff.
- Hiking trails built to feed onto Badger Mountain Centennial Preserve will bring in additional traffic to the neighborhood. A perfect example is the impact of additional traffic to the Westcliffe Subdivision from Trailhead Park, which also accesses Badger Mountain Centennial Preserve. Traffic can be a nightmare, the neighborhood is disrupted, and a parking lot had to be built. Clearly this was not taken into consideration. In addition, impact of incremental traffic due to hiking trails accessing Badger Mountain Centennial Preserve was not addressed in the Traffic Impact Analysis.
- One topic addressed, being a previous item of contention, is the SEVA - Secondary Emergency Vehicle Access. This outstanding issue is still not resolved. The Narrative explains it as “Applicant and Fire Marshall ***have discussed***”; “***appears*** multiple options ***may be available***”; “ultimate solution will ***depend on timing***.” Depends on the timing of what? These statements are not definitive and seem designed to provide wiggle room. The words have had a lawyerly massaging to avoid specific accountability. Perhaps it will work out, or perhaps this could be a way to move a contentious issue into the future, hoping it will receive less public scrutiny.
- In the section of Narrative discussing the Critical Areas Report, it references correspondence with Mr. Ritter from the Washington Department of Fish & Wildlife. Specifically, Pahlisch included a statement from an email mentioning “we appreciate that the project is wiling to consider additional voluntary restoration...” Tell me, what is the commitment here? ***To consider*** – is that the extent of commitment? It seems any specific action to be taken is very, very limited at the least.
- Pages 13 & 14 of the Narrative reference the Richland Municipal Code and discuss installation of a traffic signal at Country Ridge Drive and Keene Road. Words such as “would be appropriately mitigated”; “continues to be warranted”; and “will work with the City” are used in the Narrative. This seems to lack any definitive commitment to resolve the traffic congestion that their project will make worse. There is no timetable, no budget, no completion date. What have they promised? “Will work with the City?” What, specifically, does that mean? Further into the Narrative, there is additional discussion of the traffic signal, and it includes the statement “The applicant will construction this

improvement concurrent with the proposed development.” Elsewhere in the Application, Pahlisch included verbiage that to effect said construction of the development will start in the Fall of 2022 and extend into 2024, depending on market conditions. Given that statement, is Pahlisch committing to a 2024 completion date for the traffic signal? Or, what?

8. Transportation Impact Analysis

- The Traffic Impact Analysis is lengthy and detailed, but overall, I am not satisfied with the analysis. To me, it’s questionable if it leads to conclusions that are in the best interests of the City of Richland’s residents.
- Page 37 of Pahlisch’s Narrative discusses Deadend Streets. It indicates that Lamont Street will “temporarily deadend until properties to the west develop and extend the road.” When those properties are developed, it will bring additional traffic. The Traffic Impact Analysis did not address this.
- As mentioned in my discussion of the Narrative, incremental traffic created by Pahlisch’s trailhead access to Badger Mountain Centennial Preserve was not considered or addressed in the Traffic Impact Analysis.
- The section of the Analysis, titled Surrounding Transportation Infrastructure, doesn’t really delve into the impact to current residents living and traveling on Country Ridge Drive. The Analysis mistakenly says “on-street parking appears to be available on the shoulder and in the gravel area adjacent to homes along most of both streets.” That gravel area belongs to the homeowners. Throughout the length of the street, there are mailboxes, drainage ditches and a few drain grates in those gravel areas. Some gravel areas have very coarse rock a sedan would never be able to park in. Some houses have landscape shrubbery that extend almost to the edge of the road. To describe the gravel areas as widely available parking is in error. The net effect is that in many spots vehicles can and will block the narrow striped lane described as for bicycles and foot traffic. USPS mail trucks, UPS trucks, School buses, and visitor vehicles all will block the striped areas at times.
- The Safety Review relied on crash records from WSDOT for analysis. That hardly seems like a complete measure of how safe an intersection is. How many close calls and near-misses were there? No one in Industry would consider narrowly avoiding a crash with a high-speed vehicle as ‘safe’. I have lived on Country Ridge Drive over eight years now and it has steadily gotten worse to exit onto Keene Road. The Traffic Impact Analysis notes Keene Road has a posted 45 mph speed limit. What it did not note or understand is the City of Richland rarely enforces that speed limit. At 45 mph, you are constantly being tailgated, bordering on causing road rage. At 50 mph, you are holding up traffic. The prevailing speed is frequently more than 50 mph, and this makes the intersection even more challenging to enter or exit. Crash records are a poor basis for decision making regarding this intersection.
- I found the Pedestrian Crossing Review humorous, although the Analysis took the subject seriously. It noted that the pedestrian numbers crossing the street (Keene Road) were not very high during a 16-hour observation period. Really?? Evidently, we have a shortage of residents with a death-wish.

- Under the Findings and Recommendations, the Analysis notes “the main access will be through Strawberry Lane” and “Country Ridge Drive ... the primary access.” Let’s quit beating around the bush here – they are not the “main” or “primary” access – they are ***the only access***. There are no other ways to get into the neighborhood, and no one can show you specific, accountable plans with definitive timetables that will change the situation. ‘Could be, might be, someday’ just doesn’t get it. Time to end the nonsense.
- Overall, I’m sure a great deal of work went into the Traffic Impact Analysis. I have no doubt the methodology conforms to various engineering codes and standards used for civil engineering works. But it’s important to note and understand that engineering codes define a floor, not a ceiling. In essence, they are saying ‘it can be no worse than...’ The Pahlisch project will degrade safety on Strawberry Lane and Country Ridge Drive and a traffic signal at Keene will not mitigate all the risks.

The last topic I want to address in my objections to the Pahlisch Homes Halara Hills Preliminary Application, concerns zoning. The Narrative and other parts of the application reference zoning classification R-1-12, Low Density Residential. I have no doubt that the piece of property is zoned R-1-12 and second time around Pahlisch appears to be working harder to comply with those requirements. But you may recall during their first proposal, many Country Ridge residents were surprised to learn that area was not zoned SAG. Why? Why were we surprised?

In Pahlisch’s Preliminary Plat, it shows a SAG zoned area just north of the Halara Hills development. This is in essence a narrow sliver of ‘no man’s land’ zoned SAG that is wedged between the proposed development and the right-of-way for Interstate 182. Page 1 of the Traffic Impact Analysis includes a Site Vicinity Map which shows the sliver of SAG land, and the rectangle of R-1-12 zone land to the south and west. Why? Why was this rectangular strip of property zoned R-1-12 and yet many of the nearby residents, who would be impacted by much denser development than permitted by SAG, left unaware of it?

Pahlisch goes on at length in their Narrative about how the R-1-12 development meets the City of Richland’s intentions in the Comprehensive Plan. Well, maybe it is or maybe it isn’t the City’s intentions by having this zoned R-1-12. This specific R-1-12 designation could have been the result of thoughtful and deliberate consideration. Or it could have been the result of not thinking things through, not considering the consequences of their actions and the impacts on residents in this specific case. The effects very well may not have been understood or considered.

Or perhaps the oddly shaped rectangle of properties being zoned R-1-12, when many thought it was SAG, is a result of manipulation of the zoning process, to the residents’ detriment. I don’t know, but am certainly not satisfied in how the City of Richland has looked out for residents’ best interests in this case.

Sincerely,

Thomas E Atkinson
 1324 Country Ridge Drive
 Richland, WA 99352
 509-221-1030
Natgaspro.TEA@gmail.com

Stevens, Mike

From: Janice Hansen <janicehansen57@gmail.com>
Sent: Wednesday, September 7, 2022 2:35 PM
To: Stevens, Mike
Subject: Ladera subdivision

To Mike Stevens,

I am a resident in Country Heights and am very concerned about the proposed Ladera Subdivision. I have recently discovered that very few residents in the Country Ridge Estates are even aware that this new subdivision is even being considered being built because the City of Richland only sent notices of the proposal to a very small percentage of homeowners.

After learning the details of the project, it has become clear that the reason only a few residents were notified was because the majority of residents would immediately oppose any project that threatens their community with the vast number of burdens and hardships that this one does right from the onset.

For example, normally, under a straight forward subdivision application filing, the possible detrimental effects on the environment by developing a project of this magnitude are hopefully prevented or at least mitigated by a careful evaluation of tests and studies performed, and then reviewed to ensure they are compliant with the current guidelines established by the city planning division.

However, knowing the environmental studies can be costly and take time to evaluate the data correctly, and that the application for development could be rejected, that could be a likely motive to seek alternatives that would bypass the normal process entirely.

These costs and delays, when added to the fact that the details of the project already violate the zoning/development agreements established long before the Country Ridge subdivision was developed, could be reason enough to have the project rejected by the city and residents.

Knowing this, the developers of the proposed Ladera have chosen to fast-track the project by requesting that The City of Richland bypass the standard process of environmental review, in favor of an optional/shorter review process.

After reviewing the proposal to build the new subdivision, it is blatantly obvious that this project only serves the best interests of the developers and completely disregards the daily stress and duress that it threatens to impose on the current residents of Country Ridge, forever.

Furthermore, the breach of agreements previously made opposing just such a development is a violation against this community, as well as the citizens of Richland, that will inevitably damage public trust with their elected officials entrusted to make future decisions.

With the approximately 249 existing homes in Country Ridge which already far surpasses local street capacity, the addition of the Ladera subdivision would even further exceed that number. As it is now with only one exit, often there is a line of cars trying to exit the neighborhood. Adding a stop light would do nothing to fix the problem. If there was an emergency situation where everyone needed to exit the neighborhoods this could be a disaster.

After the Country Estates Subdivision was formed, the prior planning department supervisor made assurances that if the land west of Country Estates were developed traffic from that development would not be allowed to go through Strawberry Lane and Country Ridge Drive and that the entrance must be made to Dallas Road.

Thank you,
Janice Hansen,
Pinto Loop

Stevens, Mike

From: Jeff Hertzelt <JeffH@tradewindllc.com>
Sent: Wednesday, September 7, 2022 2:17 PM
To: Stevens, Mike
Subject: Proposed addition of 82 homes in Country Ridge

The proposed addition of 82 homes in Country Ridge is irresponsible and appears to be an action driven by money and not the safety of the citizens of Richland.

Unless an additional access road is required in the neighborhood prior to any addition home construction the city is putting the safety of the entire neighborhood in jeopardy. If an evacuation of the neighborhood is ever required (Fire, Earthquake, Rainfall, Landslide) the current single evacuation route is already less than adequate. Both lanes will be used during an evacuation. Emergency personnel will be delayed access into the neighborhood as we are all trying to evacuate via a single road. (Both lanes on Country Ridge will be used as the neighborhood evacuates. People will not be waiting patiently with their loved ones in the car.) The addition of hundreds of people added to the evacuation route is irresponsible and I cannot believe the Fire Marshall or any life safety professional would permit these additional vehicles on the route.

Badger Mountain will burn and it is a geological fault line. The 500 year rain will occur. We will one day evacuate this neighborhood.

The addition of hundreds of vehicle trips up and down Country Ridge also puts all citizens at risk. When the first pedestrian is injured due to this additional vehicle load, this decision to add these homes will probably be discussed in the lawsuit. As you must know, the majority of Country Ridge does not have sidewalks. You are adding additional vehicles to the only access road where pedestrians are not walking on the sidewalk, as there are none. The neighborhood (Country Ridge Road) was never designed for the vehicle load now being proposed.

Also of concern is the capacity of the sewer system. These proposed homes will be tying into the existing 8 inch sewer line on Strawberry Lane. Has there been an analysis to verify this 8 inch sewer line can support this additional capacity? Walk by the 8 inch tie-in on a calm night. You can smell the sewage today.

Adding additional residences to this neighborhood without requiring additional access roads is violating the safety of the public.

Jeff Hertzelt
TradeWind Services LLC
Service Disabled Veteran Owned
509-943-4745 Phone
509-521-5593 Cell
509-943-4749 Fax
1100 Jadwin Ave. Suite 500
Richland, WA 99352
<http://www.tradewindllc.com>

Stevens, Mike

From: Seth Edvalson <sethnjen@hotmail.com>
Sent: Wednesday, September 7, 2022 8:31 AM
To: Stevens, Mike
Subject: Proposed housing development in country ridge

To whom it may concern,

I am contacting you as a concerned Richland City citizen and member of the Country Ridge Heights neighborhood. There are many concerns with the new proposed plan. First of all, I think it very double-dealing of the builder to purpose a new plan, changing the name of the neighborhood, with different ideas, pushing off the original issue of another exit being a necessity. Not only was the intent to avoid what was already decided by the judge, but also a total disregard for the wishes and needs of the neighborhood. I plead with you to firmly deny such attempts. If allowed, this will be become common practice in our city, we should stay clear from all crookedness like this.

There are many things I could discuss that are issues with the new proposed plan of 82 households on the land beyond ours; I will just discuss the one that matters most and has already been proven to be a problem, no additional exit for the increased numbers in the neighborhood. I live on Strawberry lane and will directly be affected by traffic increases. You should understand that we take this matter seriously, and will continue to fight any attempts to divert this problem. To decide later is like telling us, we don't really care about the exit and traffic issues, or the emergency availability to your homes. As a child, you hear your parents say, "oh, we will do that later" it never gets done, or "we will cross that bridge when it comes". Sorry to inform you, but that bridge has come, if more homes are going to go in that area, then you must provide the necessary things for the safety and convenience of said homes. You cannot simply say, we will put in electricity, when we get to it, or well, we will worry about sewer at a later date. No, this would be ridiculous to say: This is where we are coming from in the neighborhood—you must move forward only if it is done correctly. If things cannot be done correctly, then they must not be done, until all requirements are met, all safety protocols are in place and ready. The proposal needs to be denied and the builder needs to only move forward when the exit will be in place before any homes are built and sold. Anything else would be unjust, as a ruling has already been made defining those parameters. To be honest, I don't know why this discussion is even allowed, a court of law has already addressed it and it should be followed.

Sincerely,
Jenni Edvalson

Mike Stevens
City of Richland
625 Swift Blvd
Richland, WA 99352

Dear Mr. Stevens,

While we understand the vision to bring additional residential housing to the city of Richland, the manner of this proposed development, initially Ladera, now renamed Halara Hills; is inconsistent with the existing development of Country Ridge and does not fit existing zoning standards R-1-12 where located. Country Ridge was planned with estate size lots and large homes. Country Ridge is particularly attractive for prospective residents due to its large lots and open greenbelts, these that are paid for by the residents of Country Ridge and the HOAs therein.

Approving this proposed development beyond Country Ridge to the west that will include 82 homes would allow for the use and enjoyment of Country Ridge greenbelts and other areas, not paid for, planned or developed by the Halara Hills residents or the proposed developer. This entire proposed development does not conform to the standards of, or improve the Country Ridge subdivision, or its residents in any way as proposed. I also have concerns that many lots remain under the 12,000 sq ft threshold per the City of Richland R-1-12 zoning requirements.

The traffic situation on Country Ridge Drive is an untenable one currently. The existing Country Ridge Dr has more traffic already than it can support as it is currently classified as a local street (daily trip count less than 1,000). Furthermore, a traffic light at the single entrance and exit of the development is of absolutely no help to the increased traffic on the local streets of Country Ridge Dr and Strawberry Lane. Those streets do not have sidewalks. Our children walk over ¼ mile to their bus stop during the morning traffic commute and without sidewalks and street improvements it would become a huge safety problem. Our property and driveway are situated at the bottom of a long hill right at a curve where speed is already an issue on our street, additional vehicles would exacerbate this already existing problem, not to mention how hazardous this hill becomes during winter driving conditions. School buses regularly cannot make it up the hill in any type of freezing weather conditions.

We also have an existing sewer problem in Country Ridge, every summer we daily smell sewer gas in our area and at the entrance to Country Ridge; to date the city has not found a way to remediate or fix this problem. This has gotten markedly worse since the residential development began on the south side of Badger Mountain. This new development will clearly not improve that problem and will likely make it worse.

We oppose this development as submitted and believe the City of Richland should do better by its existing residents of the Country Ridge subdivision.

Jennifer and Wylie Perez
1243 Country Ridge Drive
Richland, WA 99352

Stevens, Mike

From: Klos, James J (Jim) <james_j_jim_klos@rl.gov>
Sent: Wednesday, September 7, 2022 1:33 PM
To: Stevens, Mike
Cc: 'Jim Klos'; friendsofcountryridge@gmail.com
Subject: Land Action on North Side of Badger Mountain

City of Richland,

I am writing in regard to the proposed land action at the north side of Badger Mountain, specifically above Country Ridge and Country Ridge Estates. My name is Jim Klos and I live at 1122 Country Ridge Dr. I am opposed to any further develop of homes in this area until a second access road is developed. As of now, 100% of all traffic filters through the Country Ridge Dr connection to Keene Road. We have lived at this address for 24 years and have seen the traffic flow more that double as the development has progressed up the hill. My concerns are:

- From an Emergency Management standpoint, it does not make sense to add more housing requiring any egress through 1 exit. As was seen during the recent fire on I-182 that effected the homes on Jericho Rd, it does not take much of an incident to cause a major concern on traffic. Imagine if we had some sort of emergency that blocked Country Ridge Dr at Keene Road. No one would be able to leave the neighborhood.
- There are more and more young families living in the homes on the lower portion of Country Ridge Dr. With the homes already developed in Country Ridge Estates and beyond, traffic at times is quite busy. I realize it is not the city's fault if people don't obey the speed limit, but people are people, and rarely do folks follow the 25-mph limit when doing downhill. It is just a matter of time before a tragedy happens and adding another 82 homes will only exacerbate the issue. 100% of the traffic created by any further development will filter through the lower portions of Country Ridge Dr.

As a longtime resident and former member of the Planning Commission for the City of Richland, I am vehemently opposed to this development until an additional access road is developed for the Country Ridge and Country Ridge Estates neighborhoods.

Sincerely,

Jim Klos

Jim Klos
1122 Country Ridge Dr
Richland, WA 99352

Stevens, Mike

From: Saber Sterling <saber.sterling@yahoo.com>
Sent: Wednesday, September 7, 2022 1:19 PM
To: Stevens, Mike
Cc: Alvarez, Michael; Westphal, Nichole; Jensen, Kerwin; Richardson, Theresa; Jones, Jhoanna; rluckson@ci.richland.wa.us
Subject: Halara Development Comment

Mr. Stevens,

This email is being submitted as a public comment to the proposed Halara Hills development. As you know, I own the property directly west of the proposed property development. Any compliant secondary vehicle access to the Halara development would have to travel over my property. Pahlisch has approached me multiple times to ask for an easement for this purpose and I have consistently denied them this access. I noticed in the current Halara application that Pahlisch is asking the hearing examiner to allow them to figure out the SEVA at a later time. That cant be a realistic can it?

Additionally, we do not otherwise support an 82 lot development directly below and adjacent to our property.

For these reasons we oppose the development.

Thank you,
Jim Sterling

Stevens, Mike

From: JJ Coats <jj_coats@msn.com>
Sent: Wednesday, September 7, 2022 1:30 PM
To: Stevens, Mike
Subject: Country Ridge Expansion

Greetings,

I am a homeowner in Country Ridge. I am writing regarding the proposed expansion of Country Ridge.

My concern is the lack of access and egress for residents as well as emergency vehicles, be it large fire engines and ladder trucks, emergency medical services and wildland firefighting vehicles. With only one entrance, it can easily become overwhelmed in the event of a house fire or wildland fire. In the event the neighborhood has to evacuate, I fear the fire department would not be able to enter through the entrance while the occupants are trying to evacuate.

Adding more homes will only overwhelm the lone entrance even further.

We have seen examples of this situation play out in California as well as the unintended consequences.

Thank you for your consideration.

JJ Coats

Stevens, Mike

From: Lynn Tanasse <lc_tanasse@hotmail.com>
Sent: Tuesday, September 6, 2022 8:59 AM
To: Stevens, Mike
Subject: NOTICE OF APPLICATION, PUBLIC HEARING AND OPTIONAL DNS (S2022-102 & EA2022-115)

Dear Mr. Stevens,

We are homeowners in the Country Ridge neighborhood and are writing to you regarding the application for proposed development by Pahlisch Homes for a 82-lot subdivision named the Preliminary Plat of Halara Hills which would be located to the west of our neighborhood . We don't believe this is a good idea. There are too many cars on Country Ridge Drive as it is right now. Very few drive the 25 mph speed limit and it is becoming dangerous for pedestrians and bike riders. The city has not done anything to address that. Also, Country Ridge Drive often gets backed up at the stop sign just trying to drive out of the neighborhood. There is no secondary emergency vehicle access which is critical as I have seen Badger Mountain on fire before. We request that if this development is to go in there should be independent access from Dallas Road, not Country Ridge Drive. This presents itself as the single best way to ensure that the safety of our Country Ridge neighborhood streets is preserved.

Thank you,

Joel and Lynn Tanasse
1130 Foxtrot Ln, Richland

Stevens, Mike

From: John Bell <johnjudybell@msn.com>
Sent: Wednesday, September 7, 2022 1:55 PM
To: Stevens, Mike
Subject: Halara Hills Development

Importance: High

Dear Mr. Stevens,

We strongly urge the disapproval of the subject Halara Hills development as it is currently planned. It is unreasonable and irresponsible to place the traffic load of 82 additional homes on the already overloaded and dangerous intersection of Country Ridge Drive and Keene Road. This intersection is hazardous as it exists today with no right-hand turn lane exiting Country Ridge onto Keene Rd. At times the cars attempting to exit Country Ridge are backed up past the intersection of Country Ridge Dr. and Saddle Way/Foxtrot Lane.

We have lived in our Country Ridge Home for over 30 years and have felt the impact of the growth in this development and not having a secondary access. We urge you to consider the safety and quality of life for those of us living here. The developer needs to do the responsible thing and add a second access to the new development. Please hold them accountable to do that.

Respectfully,

John and Judy Bell
1102 Saddle Way
Richland, WA 99352
(509) 539-2255

Stevens, Mike

From: john schreiner <john_calazar123@yahoo.com>
Sent: Wednesday, August 24, 2022 2:47 PM
To: Stevens, Mike
Subject: Country ridge Pahlisch development

Hello, My name is John schreiner and I live at 1100 Stallion Place in country ridge. I was made aware of the recent Halara Hills development in our community. First, I like to state no letter was sent to us of this development. Second the city has still not addressed the issue of traffic in and out of the community. These are too many cars for one way in and out. We live in a fire hazard area. We just had a fire 5 days ago. The entire side of the mountain burned down in 94. I'm not against developing the area. I just want a better solution to our concerns. All the city did was just renamed the development and now trying to push the development without any input from the community it directly effects. Please reconsider the number of homes that are purposed. If not, please make another road.
Thank you for time and consideration.

Stevens, Mike

From: dianamar@charter.net
Sent: Tuesday, September 6, 2022 10:05 PM
To: Stevens, Mike
Subject: Concerns Regarding Proposed Development of Halara Hills

Dear Mr. Stevens,

Safety of our families, displacement of the wildlife, and a changing landscape of Badger Mountain are at risk if the development of Halara Hills proceeds.

Safety in our neighborhood should be a top priority! Increased traffic is a safety concern for the community of Country Ridge. Many children ride bikes, people walk dogs, and neighbors taking a daily stroll will be in danger from increased traffic due to vehicles required for housing construction, delivery vans, and family cars.

There are two streets, Country Ridge and Strawberry Lane, that lead to Halara Hills. These two streets already support hundreds of vehicles daily; imagine more vehicles on the road! What would happen in an emergency when an ambulance or fire truck needs to travel quickly to save someone's life?

Displacement of the wildlife on Badger Mountain is equally important! Wildlife is already stressed due to minimal vegetation and natural habitats and further housing will only compound the issue. Chukars, snakes, coyotes, rabbits, and quails are only a few of the wildlife that use Badger Mountain as a home. If more housing is approved, then their ecosystem is disrupted tremendously!

From a holistic view, the Halara Hills development would be a very negative impact on Badger Mountain's landscape as well as the wildlife and safety of the existing community! The landscape should be preserved for everyone to enjoy. The landscape has many varieties of plants and wildflowers. The vegetation is food for the animals and is the primary beauty and focus of Badger Mountain.

As a resident of the Country Ridge neighborhood and citizen of Richland, Washington, I would ask the City of Richland deny this development of Halara Hills.

Thank you,

Joshua Brayton

Stevens, Mike

From: JP Blair <JPBlair@tradewindllc.com>
Sent: Wednesday, September 7, 2022 4:01 PM
To: Stevens, Mike
Subject: Land Use - Halara Hills Development

Mr. Stevens,

As a homeowner who will be directly affected by the subject referenced plan, I would like to express some comments regarding the proposal. Please find these comments below:

1. Safety is my biggest concern. Traffic safety is important and increasing the traffic by more than 80+ families (which very easily could equate to 150+ more vehicles on the road) will present a higher risk to the neighborhood. Additionally, the City allowing that many new homes to be developed without adding an additional/public entrance/egress road is, in my opinion, negligent. With events like irrigation canal failures or wildfires that have occurred, and can easily reoccur in the future, increasing the number of people who would be affected by an event such as this will turn a bad situation into a catastrophic one. My assumption is the main throughfare (Country Ridge Drive) would need significant improvements (e.g. sidewalks the length of the road) if this proposed development is approved. A large-scale traffic project like that will take a significant amount time (and money) to complete and will turn into a serious evacuation "bottleneck" if an event were to occur during that theoretical improvement or tax base growth project. However, even if a second entrance/egress route is agreed to and required for this proposal to move forward, I do not believe it will reduce traffic/risk on existing roads in Country Ridge. The logical cut-through would be to Dallas Road, but people will need to have a specific reason to exit that way as there are limited stores/attractions in that direction. From a business (and taxpayer) perspective it doesn't seem economical/ethical to spend taxpayer money on a road that would only be used on rare occasion or out of absolute necessity. Logic would then dictate that if this proposed development proceeds (with or without a secondary public entrance) the safety risk to the current residents will increase dramatically.
- 2.
3. In the referral packet there was mention of a discussion/meeting with representatives of the "Country Ridge Homeowners Association." See below:
- 4.
5. *"In addition to the significant modifications to the original application discussed above, the Applicant met with representatives from the Country Ridge Homeowners Association (HOA) to discuss the modified plan and answer questions about the project. Based on comments provided by the HOA representatives, the Applicant modified the layout to include a small pocket park in the northeast corner of the site (Tract H), a 15-foot wide buffer easement with trail along the site's eastern property line, and trails through Tracts A, B, and C to connecting both Halara Hills and existing neighborhood to the Badger Mountain Centennial Preserve."*
- 6.
7. I am curious to know if there are "Meeting Minutes" from that discussion and/or a roster of who was in attendance? Additionally, I would like to point out that despite the greater neighborhood being called "Country Ridge" there are at least 5 separate divisions within the neighborhood. Three of those five divisions have separate HOAs and the remaining two no longer have organized HOAs. My hope is that the developers interfaced with individuals/representatives from all five divisions within Country Ridge. I especially hope that multiple people from Country Estates (Essentially everyone who lives on or just off Strawberry Lane) were active in those discussions and we able to provide their input/concerns.

3. The referral packet also mentions in several sections that the sewer lines to these proposed lots/homes will tie into the “existing 18” sanitary sewer main”. What it does not mention is that that 18” sewer main (at least according to the GIS Maps provided on the City of Richland’s Website) reduces in diameter almost immediately to 8” for all of Strawberry Lane and continues with the diameter line all the way down Country Ridge Drive and beyond until it hits Queensgate. A further investigation of this map led me to discover that that very sewer line is currently being utilized by all the relatively new developments on “South Badger.” I am not an engineer, nor am I a city planner, but I hope that the City is monitoring this and has taken this into consideration with this proposal as well. I frequently walk down Strawberry Lane and have noticed a distinct aroma every time I near the lowest part of the Strawberry Lane. My assumption is the current sewer lines within “Country Ridge” were installed under the assumption that just the residents of the greater neighborhood (and only those residents) would be utilizing that part of the sewer system. Now that the system is being added to with hundreds of homes from South Badger the System is currently struggling to keep up with the higher demand/output. If you add another 80+ homes to this line, I assume significant improvements to the sewer lines within Country Ridge would need to be made.
4. As a lifetime resident of Washington State and outdoor enthusiast, protecting nature and the environment are ideas that were instilled in me at a young age. I read through the SEPA Checklist & Critical Areas Assessment and question some of the information provided in the report. I have lived in this neighborhood for nearly seven years now and have often walked near the proposed development site. I am no wildlife biologist, but I have seen/heard much more than occasional coyote sign and invasive shrub. With this land neighboring other additional lots, as well as Badger Mountain Preserve, it warrants a second critical area assessment to be conducted. My recommendation would be for an assessment to be conducted by an uninterested party. Would it be appropriate to get an additional site walkdown report from a group that is not presently being paid by the land developer (e.g. WA Fish & Wildlife)? I personally have seen owls, hawks, coyotes, rabbits (possibly pygmy rabbits), and small rodents (possibly Townsend ground squirrels) within the greater Strawberry Lane Area. Is it too far of stretch in the imagination to believe that these 3 parcels of land currently house more than just some sagebrush, songbirds, and cheatgrass?
- 5.
6. The idea of additional trails/ access points within the proposal is a great idea and allows even more people to enjoy and admire the beauty of the Richland Area. However, my biggest concern with the addition of this would be public access/parking. My fear is additional trail access points will also lead to an even further increase in traffic, inevitably from people who have no ties to the "Country Ridge Area". The addition of homes plus "public attractions" (i.e. trail access) will no doubt lead to traffic accidents or worse. Once an accident (or God forbid a fatality occurs) it would be sad and disappointing knowing that it could have and should have been prevented. Additionally, public access for additional trails will not only increase traffic in the neighborhood but also bring additional consequences like crime. Thanks again to the great GIS Maps that the City provides public access to, the largest cluster of crime near Country Ridge currently is at the Badger Mountain Trailhead. Adding additional trails with public access in our neighborhood will no doubt bring a similar outcome. I would like to point out that a quick investigation around most of the Tri-Cities provided indication to me that our neighborhood was clearly one with little to no crime at present.
- 7.
8. Being practical and business oriented, I understand what the city has to gain from an increased number of residents living within the city limits (e.g. tax revenue). However, I also believe that City has a responsibility to be reasonable, ethical, and act in the interest of the people it represents. This proposal has obviously started several dialogues with nearly all of the homeowners in the greater “Country Ridge Area”, and several questions/concerns have circulated as a result. Some residents have expressed concern over the lot sizes and how that number of homes will affect property values. Others have

expressed similar concerns to what I have already provided above. Still others have provided recounts of attempting to acquire the very lots that are in this proposal (or other lots elsewhere in the neighborhood) and given multiple reasons by various City Departments/officials why it would not be feasible/economical to develop those parcels with even a fraction of the homes that are currently being proposed. I am not here to claim a conspiracy, only to urge those in positions to approve/deny this proposal to perform their due diligence and put forth a concerted effort to investigate the history of this neighborhood. I hope they particularly focus their historical data “deep dive” into the history of the land parcels mentioned in the Halara Proposal.

I greatly appreciate your time and consideration in this matter and look forward to virtually attending the upcoming hearing. Thank you!

John-Paul Blair
Homeowner/Taxpayer of 1279 Country Ridge Drive
Cell: (206) 715-8934

Stevens, Mike

From: Karl Fecht <kfecht48@gmail.com>
Sent: Friday, September 2, 2022 11:33 AM
To: Stevens, Mike
Cc: Mickie
Subject: CITY OF RICHLAND NOTICE OF APPLICATION, PUBLIC HEARING AND OPTIONAL DNS (S2022-102 & EA2022-115)

Mike Shannon, Planning Manager for the City of Richland

A review of the PBS Geotechnical Engineering Report dated November 17, 2020 for the subject notice of application found geologic documents that should be considered in an evaluation of geologic hazards of Halara Hills development. The documents were published subsequent to the PBS Geotechnical Engineering Report and include by reference:

- 1). S. P. Reidel, K. R. Fecht, I. L. Hutter (Harrold), T. L. Tolan, and M. A. Chamness, 2021, The Olympic-Wallowa lineament: A new look at an old controversy, Geological Society of America Bulletin, v. 133; no. 1/2; p. 115–133; <https://doi.org/10.1130/B35454.1>.
- 2). K. R. Fecht, M. A. Chamness, S. P. Reidel, and P. R. Newman, 2022, Geologic maps of Badger Mountain and Candy Mountain, Benton County, Washington, Map 2022-02, Washington State Geological Survey, Olympia, Washington (available on-line).

These documents include updated information on and new insights into geologic hazards in the Badger Mountain area, specifically faults and landslides. These documents should be reviewed to determine whether an update or reevaluation of geologic hazards associated with the Halara Hills development is warranted.

Sincerely,
Karl Fecht

Stevens, Mike

From: Kathy Hertzelt <KathyH@tradewindllc.com>
Sent: Wednesday, September 7, 2022 4:18 PM
To: Stevens, Mike
Subject: Proposed Phalish development at the end of Strawberry Lane in Richland, WA

To whom it may concern;

I am a resident of Country Ridge and have lived at 3460 Strawberry Lane for the last 10 years. I understand that there is a pending proposal to develop the land at the end of Strawberry Lane into 80 plus additional home lots, without a guarantee of an additional access road to the development. I unequivocally oppose this development, unless there is a guarantee of an additional access road. My Grandchildren will be waiting for the school bus on the corner of Strawberry Lane and Country Ridge, which is currently a very light usage, safe corner. The addition of potentially 160 or more vehicles leaving the new development through Strawberry Lane will greatly increase the risk to children walking to and waiting for the school bus. Most of Country Ridge Drive does not even have sidewalks, the infrastructure was not created for the heavy usage of adding more homes and cars to the roads and will cause additional danger to children and all walkers in the neighborhood.

Country Ridge is also a disaster waiting to happen with only a single access road to the entire neighborhood. I have lived in South Richland for 39 years and seen Badger Mountain and Little Badger Mountain burn a number of times during that period. Thankfully none of these fires happened during one of our heavy wind storms, like the wind blown fire that burned a number of homes in West Richland a few years ago. If this occurs you will see a panicked evacuation of over 250 homes down a single steep hill. Adding an additional 80 homes is completely irresponsible and increases the risk by almost an additional 25%. Is the city of Richland willing to take responsibility for a disaster they knew could easily occur? If this land is ever developed there should absolutely be another access route to make sure the new residents and all of the current residents of Country Ridge are safe.

Please consider all of these factors in making your decision.

Thank you,

Kathy Hertzelt
3460 Strawberry Lane
Richland, WA 99352
509-539-1648

Stevens, Mike

From: Kelli Coughanour <coughanour@yahoo.com>
Sent: Wednesday, September 7, 2022 1:22 PM
To: Stevens, Mike
Subject: Hilaria Hills

Dear Mr. Stevens,

It has come to our attention that Pahlisch Is once again attempting to add homes to the Country Ridge area - this time 82 homes.

This is incredibly concerning as residents of this neighborhood for almost fourteen years.

There are already SO many homes in this area where there is only ONE way in and out. This is dangerous for residents. There was an accident at the bottom of Country Ridge last winter that blocked access to the area (because that part of the road is incredibly slick on many winter mornings) and no one was allowed in or out for a period of time. While this was incredibly inconvenient for residents needing to get to work or other places, what if there had also been an emergency and emergency personnel were needed in the neighborhood?

My understanding is that the SEVA details haven't been worked out BEFORE Pahlisch would like to move forward. This should be totally unacceptable on such an important matter regarding the safety of families who will be impacted by this project. Adding a traffic light will simply help to direct the traffic coming in and out of the neighborhood and does nothing to solve the problem of only one entrance/exit and increased traffic on both Strawberry Lane and Country Ridge Drive that this development would cause.

There are additional, significant safety concerns with adding traffic from over 80 new homes up and down Country Ridge Drive.

When driving on Country Ridge, there are often landscaping and other construction vehicles parked along the side of the road, forcing traffic to move to one lane. This means cars have to move into oncoming traffic. There has been a long construction project right at the bend leading up Country Ridge which has often made it dangerous to see if another vehicle is coming as you must move into the oncoming traffic lane to get by.

This is also a neighborhood where people often walk along the road and children play. Our own dog was run over the first year we lived here, before we had a fence, by a teenager not paying attention as she turned onto Country Ridge from Strawberry Lane. As tragic as that was for our family, this could easily have been a child or adult.

I can't imagine adding the amount of traffic to this neighborhood that that subdivision will bring if the above mentioned issues are not addressed. We feel the new subdivision should have its own SEVA if it is to be considered.

My husband and I truly hope you will take this matter into serious consideration. I would appreciate a reply indicating you received my email.

Warm Regards,

Kelli Coughanour
1294 Country Ridge Drive

Stevens, Mike

From: kevin <smithhouse03@gmail.com>
Sent: Friday, September 2, 2022 11:17 AM
To: Stevens, Mike
Subject: Proposed S2022-102 & EA2022-115 Halara Hills Development

Dear Mr. Stevens,

I am a homeowner in the Country Heights community in Richland.

I am very concerned about the safety of the current residents of the Country Ridge/Country Heights/Country Estates occupying the 250 homes in these communities.

Currently we have only one access road in and out of the community to Keene Road.

With the edition of the proposed 82 homes in Halara Hills development we will have 333 homes with only one access road.

Two points:

Why allow the developer to kick the can down the road in such a non-committal manner to maybe, at some point, consider a secondary road? This is unconscionable. This puts all of the residents at risk by limiting emergency access out and limiting access in for first responders, firefighters etc into the community up Country Ridge Drive for 1000+ residents. You played hardball with the developer who proposed condominiums along the Columbia River but was non-committal in terms of building shops and retail space (maybe, sometime in the future), and you voted against the development because of this. Apply the same principle here.

Secondly, even though the speed limit is 25 up Country Ridge Drive, most cars go much faster than this. This road is used for walking, running and biking as well as young children playing very near or on the street itself. The road currently does not have a sidewalk. With the substantially increased traffic flow, the new developer must commit to putting in a sidewalk on both sides from the base of Keene Road to (at a minimum), the access road to the proposed development.

We are hopeful the City of Richland will do the right thing.

Sincerely,

Kevin Smith
1136 Pinto Loop
Richland, WA

Stevens, Mike

From: Kris Waltze <waltze11@hotmail.com>
Sent: Monday, September 5, 2022 11:38 AM
To: Stevens, Mike
Subject: Halara Hills

Please include this email in the Hamada Hills meeting.

I feel like it is very irresponsible for the City of Richland to consider Pahlisch homes to be allowed to develop the land for the Halara Hills development and have access through Country Ridge.

I personally went down the City regarding developing this land before it went for auction and was told by the city official that no traffic could go through the existing neighborhood as the traffic limits were already exceeded. Strawberry Lane would have to be blocked off and an entrance must be made to Dallas Road. Due to this cost we never made an offer on the land. Now for me to find out that rules have been changed for Pahlisch Homes I am extremely upset. I asked if there were any other options and was told absolutely NO. Now this plan has lot sizes way smaller than the rest of the neighborhood. It is ridiculous that a private investor is told one thing but when a home builder asked they get a totally different set of rules and are possibly allowing this many homes.

I personally live on Country Ridge Drive and for this new amount of traffic to be allowed when there isn't even sidewalks is a joke. There goes all our children's safety right out the window.

County Ridge is one of the last remaining hidden gems in all of Tri Cities and if this development is allowed to happen we will all lose a lot of our home's value as well as change the scope of the whole neighborhood.

I was told by the City of Richland that Country Ridge was already over their traffic count and adding any more houses would be a safety issue. Why has this now been changed?

Thank you,
Kris Waltze

Stevens, Mike

From: Luay Ailabouni <ailabouni@hotmail.com>
Sent: Wednesday, September 7, 2022 12:02 AM
To: Stevens, Mike
Cc: Luay Ailabouni
Subject: Halasa Hills & Country ridge concern

Dear Mr Stevens,
Thank you for forwarding the below email to the hearing examiner.

Dear Mr. Hearing Examiner,

I am writing to voice my opposition to the Halara Hills Proposal. My strong opposition is because of many safety concerns that I do not believe are fixed despite our appeal last year to put a stop to this project, it's all happening again. I am disappointed that the city approved this proposal because it still does not address any of the issues that were ruled upon in the last application. Please protect us by ruling the development MUST have a SEVA figured out before moving forward. The lot size is an issue as well as it uses the large hillside lots to contribute to the larger median size. This is dishonest. The city is not following its own codes for local streets and will be putting too much traffic on our already busy main road. Peoples of all ages use this road day AND night to walk along. It is very dangerous as is, and will be exponentially moreso if this development is approved.

Please rule against this until Pahlisch (AND the city) have figured out a solution. They've had years to do so, and have not. To me this indicates there is no good solution unless the lots are greatly reduced.

Please feel free to contact to me for any further questions.

Thank you for your time,
Luay Ailabouni
1169 Pinto loop
Richland WA 99352
509-713-5829

Re: Halara Hills S2022-102 & EA2022-115

Mr. Mike Stevens, Planning Manager

Mr. Stevens,

As a property owner at 1021 Country Court, I am very concerned about the proposed subdivision south and east of Country Ridge. I **oppose** the Halara Hills project because of the following items.

Secondary Emergency Vehicle Access (SEVA)

With only one road to access all of Country Ridge and the proposed subdivision, emergency vehicles would be impaired. Residents trying to flee in case of fire on Badger Mountain will be impacted. The applicant proposes delaying any action on SEVA. In the Preliminary Plat Application (page 3) they state, "The Applicant and Fire Marshal have discussed the SEVA requirements, and it appears multiple options **may be available**." This is not definitive.

In the Preliminary Plat Application (page 20) under Title 20, Life Safety they state, "After completion of the development, there will be a single full access point at Strawberry Lane. Lamont Street will be stubbed to the western property boundary for future extension and will eventually be a second full access point; however, **with the development timeline to the west unknown, a SEVA is required.**"

This future extension appears to be to extend Strawberry Lane to Dallas Road. I do not believe there is a right of way approved to even do this.

From the Traffic Study (page 2), "It is our understanding that Strawberry Lane will extend west to Dallas Road in the future as part of standard street connectivity and extension policies, which is a County road classified as a Minor Arterial. Currently, there is no right-of-way to support this connection, nor is it shown in the 2017 Comprehensive Plan Supporting Analysis. Accordingly, this connection is not assumed or contemplated within this report."

Traffic

The proposed development would add 841 new daily trips to Strawberry Lane bringing volume of about 1,670 vehicles to **2,511** vehicles. Country Ridge was never designed for this volume.

Most of Country Ridge has no sidewalks so pedestrian safety is a concern. Country Ridge is used frequently by residents to exercise themselves and pets.

Children waiting for school buses would be subjected to much more traffic and possible injury as there is no sidewalk to wait on.

The improvements the developer proposes are ridiculous. A sidewalk between Foxtrot Lane and Keene Road would do nothing to improve safety. This is perhaps 50' of a much longer roadway.

They propose to slow traffic down by putting raised speed bumps at both Foxtrot Lane connections with Country Ridge. Again, really doesn't do anything to mitigate safety concerns given they are only looking at a small portion of the total roadway.

Much of the traffic study references "Ladera" so I wonder if they really did do a new study.

The proposal skirts the issue of increased traffic by only talking of the roads within the subdivision.

Under Richland Municipal Code, Title 12, Streets and Sidewalks – it states that "Nothing in this chapter shall be construed to limit the city's authority to deny development permits when a proposal would result in significant adverse traffic impacts...."

IF this development is approved access should be from Dallas Road only.

Other Items

City of Richland Housing Element Goal 5 is to “Ensure compatibility of new residential developments with established neighborhoods and the community”. This development certainly is nothing like the established neighborhood they want to build in.

Permanent loss of shrubsteppe is anticipated according to the application. Conservation of the unbuildable acres involved does not prevent the loss. They state they will voluntarily reseed some areas although there is no requirement or oversight this will happen.

They plan to cut and fill 180,000 yards of soil. I doubt that watering the site will be effective to keep dust from blowing on the adjacent highway or neighborhood given the prevailing winds in the area.

Please reject this proposal.

Lydia McMillin
1021 Country Court

Stevens, Mike

From: Matt and Erica Upmeyer <upmeyer@yahoo.com>
Sent: Wednesday, September 7, 2022 7:45 AM
To: Stevens, Mike
Subject: Public Comment for hearing examiner meeting 9/15 - New Development in Country Ridge

Dear Mr. Stevens,

I am writing to comment on the proposed new development in the Country Ridge housing development. I strongly oppose this new development and outlined below are several main reasons why.

- The development is not set up to handle any additional traffic. Currently it is already congested during busy times with mail trucks, garage trucks, delivery trucks, landscaping trucks, etc. With additional housing this will only become an even greater problem but also a great safety risk. There are many roads that don't have sidewalks which poses danger to our very active community (old and young). Often times these types of vehicles park in front of driveways and block parts of the lane causing cars to pass using the lane with oncoming traffic. Our streets are not designed to transport multiple neighborhoods. I have teenage drivers and I can't tell you how many "close calls" they have had because they have had to go around service vehicles in our neighborhood into oncoming traffic.
- Safety is a huge reason I am strongly opposed to this development. The increased traffic is one element of risk, but in addition we have one entry and exit to the neighborhood which is not adequate even now with our number of homes. Increase that number of houses exponentially and we have a huge public risk on our hands. Emergency vehicles will not be able to respond to any type of concern in a timely way with one way in and out. Even with an additional exit, which I don't even know if this has been addressed with a response, would not be adequate for the amount of people and houses for the neighborhood.

Please take into the consideration the safety risks and logistical challenges that this would create.

Thanks,

Erica Upmeyer

Stevens, Mike

From: Max Schneider <maxschneider80@gmail.com>
Sent: Wednesday, September 7, 2022 7:07 AM
To: Stevens, Mike
Subject: Halara Hills #S2022-102

Dear Mr. Stevens,

I am writing to you as the President of the Country Ridge Homeowners Association. I wanted to write a separate letter from our HOA Board Letter to address some of the language used in the Pahlisch Home application. The Preliminary Plat Application states that modifications were made after meeting and discussing with the HOA. While it is true that I and a couple others met with Pahlisch Homes, we were very clear that we were there to listen as we do not represent the all of the HOA's (which there are six) and that we are not agreeing to anything in this meeting. Additionally, addressing the buffer zone and park - a plan was shown with these additions and a comment was made that those are nice additions to your plan, however, our (which is a consensus from all of the HOAs) primary concern has always been and continues to be the amount of traffic coming down our local street and safety if there's a fire (SEVA).

Thank you for reading my comment and considering my concern - please add this to the public comments in the staff report.

Max Schneider
President Country Ridge HOA

September 7, 2022

Mr. Mike Stevens, Planning Manager
City of Richland
625 Swift Boulevard, MS-35
Richland, WA 99352

PRELIMINARY PLAT OF HALARA HILLS (DNS S2022 & EA2022-115)

Dear Mr. Stevens:

I am writing in opposition to the City's probable determination of non-significance (DNS) for the above proposal by Pahlisch Homes. This proposal is indeed a significant environmental action as evidenced through the factors leading to the previous denial of the original attempt by the developer with basically the same proposal with substantially the same impacts. This proposal warrants a full environmental assessment. No short cuts. No currently undisclosed mitigation offered sometime in the future without public involvement and after the development approval by the City of Richland such as with the Secondary Emergency Vehicle Access (SEVA) issue should be allowed.

I have spent over 35 years in the fire service dealing with wildfires and other emergencies in the Wildland Urban Interface which the area adjacent to Badger Mountain definitely qualifies. Many of the local, Regional, and National Incidents where I have served as member of the assigned Incident Management Teams have had **tragic consequences where access is limited to one way in-one way out such being proposed.** I have seen countless instances where emergency response vehicles and resources attempting to gain access to the incident have encountered residents attempting a mass evacuation. Preplanning ingress and egress in the development stage would have gone a long way to mitigate the hazards of one way in-one way out issues. **The City of Richland should require PERMANENT deeded access from Dallas Road in addition to any planned access from Keene Road.** This proposal only lists a string of temporary easements for development. Don't set us up for a massive failure down the road. One has to only look back a few weeks to the evacuation of the local residences served by only one point of entry near Keene and Queensgate due to the fire along I-182 to see the need for multiple access points.

I am also concerned with the additional traffic generated by the proposal on local streets that were never designed for the level of increased traffic. Local streets such as Strawberry Lane and Country Ridge Drive as well as other existing adjacent local streets in many cases have blind spots due to curves and hills. Many times, lanes are reduced because of shoulder (sometimes even traffic lane) parking by landscapers, contractors, delivery trucks, even school buses and USPS vehicles. Addressing all this with only a proposed signal light at Keene Road as proposed misses the entire point the streets were not designed for the traffic speeds and volumes we are currently witnessing without even adding this proposed development.

This project proposal requires a full environmental review and traffic impact study. It is not appropriate in this case to use the DNS process contained in WAC 197-11-355. Adequate environmental assessment of the impacts around fire safety and access, traffic impacts,

stormwater issues, noise, construction impacts such as blowing dust, and threatened and endangered species need to be addressed outside of a DNS. The analysis to this point has made an attempt at addressing the issues raised by the public and agencies regarding the previous proposal submitted. The result for each of those issues with this current proposal has been basically “we’ve looked at it and it won’t be a problem.”

I am asking you to structure any hearing regarding this proposal to allow in-person meetings. Any virtual hearing that may be planned is short-changing us all. Citizens need to need to be able to fully participate, and a virtual hearing is just another way for fast tracking a project without full participation.

The City of Richland should use the same hearing examiner used for the Ladera proposal by Pahlisch Homes due to the similarities of the two “different” proposals as they are quite the same as far as impacts are concerned.

Sincerely,

MICHAEL L. EVANS
1137 Foxtrot Lane
Richland, WA 99352

(509) 628-3882
email: mike@fireflyassociates.com

Stevens, Mike

From: Morissa Douglas <morissa@icloud.com>
Sent: Wednesday, September 7, 2022 7:05 AM
To: Stevens, Mike
Subject: Proposed Home Development

Dear Mike,

I am writing because I am extremely concerned with the idea that an additional housing development could be added to the Country Ridge neighborhood. My number one concern is the increase in traffic and the impact it will have on entering and exiting from Keene Rd.

I live at the top of the Country Ridge neighborhood, and have for over 5 years now. Our area is quiet and kids as well as adults are frequently walking and scooting along Country Ridge Drive. An increase in traffic will impact the safety of those coming and going along our roads.

PLEASE put a stop to this development and insist that the access be from Dallas Rd and NOT from Country Ridge.

Sincerely,

Morissa Douglas
2611 Thoroughbred Way
Richland, WA 99352
509-308-1478
Sent from my iPhone

September 7th, 2022

Mr. Mike Stevens,

Planning Manager,

625 Swift Boulevard, MS-35, Richland, WA 99352.

mstevens@ci.richland.wa.us.

RE: Halara Hill Development applications: DNS (S2022-102 & EA2022-115)

Dear Mr. Stevens,

I am resident of the Country Ridge neighborhood, and we will be negatively impacted by this new development for the following reasons:

Negative Traffic Impact on Country Ridge Residences:

With the proposed development of 82 homes, that will add a minimum of additional 164 cars traffic in Country Ridge Dr. Since, the build of the new Duportail Bridge , the traffic in Keen Rd has become much heavier, and it becomes very difficult to make a left and right turns safely from Country Ridge Rd during rush hours. This new proposed development will make this problem much worse. It is expected during the morning rush hours for cars to be packed up in Country Ridge Rd, and its intersections with Saddle Way and Foxtrot Ln.

Also, during afternoon rush hours, it is expected that cars will be packed up in Keen Rd trying to make a left turn from Keen Rd. into Country Ridge Dr.

During winter time, Country Ridge Dr becomes icy in morning hours, giving that its hilly intersection with Keen Rd, I have seen cars and school buses that are sliding down trying to break and can easily crash with cars coming in Keen Rd. With this new development, this problem will become much worse as the cars packed bumper to bumper.

Because of all of that it makes much more sense for this new development to be connected to Dalles Rd, rather to Country Ridge Dr.

Otherwise, before any new development feeding more cars into Country Ridge Rd., the City of Richland is obligated to improve traffic safety in the intersection between Country Ridge and Keen Rd by adding a new traffic signal, making 2 lane exit and one lane entry, similar to the three nearby neighborhoods, 1) Kensington Way, 2) Shockley Rd, 3) Westcliffe Blvd.

Negative Safety Impacts on pedestrians and kids:

Without any sidewalks, the safety of pedestrians and kids riding school buses are of great concern. Before any new development, the city of Richland and the developers are obligated to build sidewalks in Country Ridge Rd. all the way from Keen Rd. to Strawberry Ln., similar to the ones at the three nearby neighborhoods, 1) Kensington Way, 2) Shockley Rd, 3) Westcliffe Blvd.

Negative Safety Impact during Fire Events:

The fire event that happened in August 13th, 2022, was a clear indication of what could happen in the future. The fire threatens homes and structures off Jason Loop, which was promptly evacuated when the first-arriving fire crews rushed to the residential neighborhood to protect homes. In this day, we were lucky that it was not a windy day, if that was not the case, the fire would have easily expanded to Country Ridge neighborhood, with the current single exist, the evacuation of Country Ridge would have been turned into nightmare, with potential loss of life. The new proposed development will significantly increase this safety risk. The City of Richland needs first to find a solution before approving new development.

Negative Impact on Surrounding Neighborhoods:

The Country Ridge Neighborhood and Country Ridge Heights are having unique feature of low density houses, no more than 2 houses per acre, and very large green belts. This new development does not fit in with these neighborhood nature with building 82 small houses in a very small area, with a very little green areas proposed. It does not make much sense to have more than 40 lots in the proposed land development to match surrounding houses and to maintain a reasonable green footprint

I strongly urge Richland city staff and the Examiner to reject the developers plan until all the issues above are resolved.

Sincerely,
Nader Samaan, Phd, PE
1114 Appaloosa Way
Richland, WA

Stevens, Mike

From: Nick Kooiker <nickkooiker@yahoo.com>
Sent: Friday, September 2, 2022 11:21 AM
To: Stevens, Mike
Subject: Public Comment - Halara Hills Subdivision

Mr. Stevens –

I am writing in reference to the proposed Halara Hills subdivision. Our home is located on Strawberry Lane, and we have significant concerns related to the proposal submitted by Pahlisch Homes.

First of all, there doesn't appear to be a great solution for emergency vehicle access to the subdivision. I lived in Country Ridge back in the 90's when Badger Mountain was ignited by a lawn mower spark, and the chaos that ensued evacuating the neighborhood was concerning. And this was before Country Estates & Country Heights was developed. Surely this is a significant concern for the City and emergency officials. Badger Mountain will burn again, so we should be prepared. I don't believe there is a solution for this problem, and a traffic signal certainly will not alleviate this concern. A second access point on Lariat will not help if there is a fire. There will be too many residents coming from the same point trying to evacuate on Strawberry Lane and the new Halara Hills subdivision.

Second, I feel that the new development should be consistent with the existing neighborhoods around it. This could be accomplished with similar lot sizes and lower density development. I think Pahlisch builds very nice homes, but they are more of a large scale "tract" kind of builder.

Lastly, and my largest concern, would be the traffic created on Country Ridge drive and Strawberry Lane. This neighborhood has many young children, with only two of them being mine. 82 new homes would create so much additional traffic on our street, that it create a substantial safety concern. I also don't believe Strawberry Lane was designed to carry a substantial amount of traffic. The way the road was excavated resembles a roller coaster, so vehicles tend to naturally pick up speed on the downgrades. There is also a significant change in the road elevation right in front of my house, already nearly causing collisions pulling out of my driveway. When residents up here have visitors, they park in the street partially blocking the lanes of traffic. This bottleneck in traffic can lead to collisions, especially with more vehicle travel. Country Ridge drive doesn't have sidewalks for pedestrians, so it's already dangerous walking down that road. I have actually been passed on Country Ridge drive, because 25mph was too slow for the driver behind me!

If the City does approve this project, then there should be one access point on Dallas Road. Strawberry Lane shouldn't even connect to the new development. There's more than 82 lots in Country Ridge, Country Heights, and County Estates, and the City doesn't believe having one access point is a problem. Surely this wouldn't be a problem from Halara Hills either.

Thank you for your time and consideration on this item

Nick & Mandy Kooiker

3701 Strawberry Lane

Stevens, Mike

From: Dottie Norman <dunk27@hotmail.com>
Sent: Wednesday, September 7, 2022 3:22 PM
To: Stevens, Mike
Cc: friendsofcountryridge@gmail.com
Subject: Opposition to Pending Land Action by Pahlisch Homes - Halara Hills Plat, File Number S2022-102

To Whom It May Concern:

We are writing this letter to express our deep concerns and opposition with the Pending Land Action by Pahlisch Homes as described in the Halara Hills Preliminary Plat Application (Application) and will view the City of Richland's approval of said Application as a gross misconduct by all associated city officials and staff involved. The approval of the Application, as written and proposed, will demonstrate the City's total disregard for the safety and security of the current residents within the Country Ridge, Country Heights, and Country Estates developments and highlight the City's intention to serve the special interests of Pahlisch Homes.

We were opposed to the previous land action (Ladera Plat) by Pahlisch Homes and continue to stand in opposition to Pahlisch Homes for their current proposed land action (Halara Hills Plat) on the same land parcels. Predominately, our opposition is centered on unaddressed and unresolved safety and security concerns for the current residents of Country Ridge, Country Heights, and Country Estates developments.

Specifically, the Application fails to address how traffic safety standards will be met for the current residents of the Country Ridge, Country Heights, and Country Estates communities. The Country Ridge Drive roadway is not equipped with established sidewalks which forces residents of our communities, and most importantly our children, to walk along the roadway to and from the school bus, for play dates with the neighbors, and general exercise. Vehicles (from residents, guests, delivery companies, garbage trucks, landscaping, etc.,) are often parked on the edge of the roadways and block parts of the vehicle lanes, forcing persons to enter the physical roadway and forcing traffic into oncoming traffic lanes. The use of Country Ridge Drive as the single and/or primary access point for the proposed Halara Hills development will dramatically increase the number of vehicles on this already constrained and limited roadway and significantly impact the safety and security of our children and residents. This is intentionally overlooked in the Application and instead emphasis is placed on acknowledging sidewalks along Strawberry Lane and the new proposed development streets. It is unacceptable for the safety and security of the residents along this proposed main thoroughfare route of Country Ridge Drive to be ignored.

Additionally, the Application highlights the egregiousness of Pahlisch Homes in downplaying the safety and security needs of not only the current community residents but future residents of the proposed Halara Hills development in not prioritizing the Secondary Emergency Vehicle Access

(SEVA) requirements. It is noted several times throughout the Application that multiple options for SEVA are available now but for one reason or another the decision is being delayed and a request is being made for city officials to resolve this concern, at a later date in time. This is especially concerning given the repeated statements throughout the Application that future extended developments are planned beyond the western property boundary of the Halara Hills Plat. The use of Strawberry Lane / Country Ridge Drive or potential future connection of Lariat Lane to Queensgate are unacceptable solutions for SEVA. The City of Richland should hold Pahlisch Homes and themselves to a higher standard in providing safety and security to Richland residents.

Regards,

Patrick and Deborah Heinen
1150 Pinto Loop

Comments on S2022-102 & EA2022-115 Halara Hills

Laurie Ness
Patrick Paulson

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Acronyms

CAO - Richland Critical Areas Ordinance.....	passim
DS -- Determination of Significance	2, 6
FWHCA -- Fish and Wildlife Habitat Conservation Area	1
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NOA -- Notice of Application	5
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RMC -- Richland Municipal Code	1
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1. Introduction

The Halara Hills Preliminary Plat¹ fails to mitigate the impact to, and destruction of, large tracts of Shrubsteppe. Shrubsteppe is a Priority Habitat or Species (PHS) recognized by the Washington Department of Fish and Wildlife (WDFW).² As PHS, areas containing shrubsteppe are protected by Richland’s Critical Areas Ordinance (CAO) as Fish and Wildlife Habitat Conservation Areas (FWHCA).³ The project violates Richland’s Municipal Code (RMC) by destroying this critical habitat without replacing its ecological functions and values; therefore the project should not be approved by the Hearing Examiner.⁴

Approval of *Halara Hills* also requires the “development application meets the requirements and intent of the Richland Municipal Code” (RMC 19.60.095.A). We argue requirements have not been met due to an incomplete and inadequate project application and the inappropriate use of the Optional DNS (ODNS)⁵ process for environmental review.

¹ Pahlisch Homes, 2022. *Halara Hills Type III Preliminary Plat* [Halara Hills]. At pp. 157-199 in City of Richland, 2022. *S2022-102 & EA2022-115 Halara Hills* [Packet].
<https://www.ci.richland.wa.us/home/showpublisheddocument/13863/637964252075900000>.

The first citation of a reference will be given in a footnote and listed in Section 9 (References). The reference will be followed by a reference identifier in square brackets (e.g. [Halara Hills]). Additional citations will occur in the text using the reference identifier in italics (e.g. *Halara Hills*).

² WDFW, 2008, Revised 2022. *Priority Habitats and Species List* [PHS List], pp. 269-270.
<https://wdfw.wa.gov/sites/default/files/publications/00165/wdfw00165.pdf>.

³ Richland Municipal Code (RMC), section 22.10.185, *Fish and wildlife habitat conservation areas*. “Fish and wildlife habitat conservation areas include the following ... State priority habitats and areas associated with state priority species”.

⁴ RMC 19.60.095: “No development application for a Type II or Type III permit shall be approved by the city of Richland unless ... *[i]mpacts of the development have been appropriately identified and mitigated under Chapter 22.09 RMC ...*”. Also, RMC 19.60.060: “The project permit application must be supported by proof ... *any significant adverse environmental impacts have been adequately addressed.*” (Our emphasis).

⁵ Described in WAC 197-11-355.

Because critical areas are adversely impacted; we request the City issue a Determination of Significance (DS) under the State Environmental Policy Act (SEPA) and mitigate per SEPA standards according to the Washington State Code and the Richland Critical Areas Ordinance (CAO).

After a brief description of the project, we present our argument that mitigation has not been provided for the destruction of shrubsteppe (Section 3). We then argue the project is incomplete due to an inadequate habitat conservation area report and the incorrect use of the O/DNS SEPA Threshold Determination process (Section 4).

Finally, we argue that due to the lack of mitigation for the adverse impacts to—and destruction of—shrubsteppe, the City should issue a Determination of Significance for the *Halara Hills* (Section 5).

The remaining comments provide background supporting our arguments and summarize our points.

2. Project Description

This project is located on the same property proposed for the *Ladera* preliminary plat.⁶ Besides the name, *Halara Hills* differs from *Ladera* in number of lots (82 as opposed to 106) and average lot size (15,962 SF instead of 13,105 SF).

3. Failure to Mitigate Loss of Shrubsteppe

Halara Hills fails to mitigate for adverse impacts to areas of shrubsteppe identified in the project's Habitat Report⁷. Further, the *Habitat Report* perpetuates the errors made in *Ladera* by failing to mitigate for all impacts to shrubsteppe on and adjacent to the project site.

3.1 Failure to Mitigate for Shrubsteppe Identified in *Habitat Report*

Halara Hills will destroy Shrubsteppe. The *Habitat Report* states, “The Applicant is proposing to construct an 82-lot residential subdivision within the flatter, northern portion of the site, requiring unavoidable encroachment into shrub-steppe FWHCA ecosystem in the

⁶ *Halara Hills* p. 3.

⁷ Stacey Reed, 2022. *Halara Hills Critical Areas Assessment and Fish and Wildlife Habitat Conservation Area Plan Richland, Washington*. Bend, OR: AKS Engineering & Forestry, LLC (AKS). [Habitat Report]. In *Packet* at pp. 217-239.

northeastern portion of the site.” We note that this encroachment is *not* “unavoidable”. The area is only being developed to increase the number of lots in order to increase profit for the developer.

The *Habitat Report* (pp. 5) claims the destruction is mitigated by

... preservation of over 23 acres of priority shrub-steppe habitat...[p]reservation of this area will ensure long-term protection of locally significant habitat and no net loss of functions and values.

But the area proposed for preservation is the area “depicted as Tracts A- C”; that is, shrubsteppe located on the site that already requires protection under Richland’s CAO. While the preservation of this area may ensure “no net loss of the functions and values” associated with the *preserved* habitat, it does *nothing* to replace the functions and values of the “FWHCA ecosystem in the northeastern portion of the site” razed by the development.

As noted by the Hearing Examiner⁸,

There is no credible dispute that the Ladera^[9] plat has been designed and proposed to include lots located within the blue polygon area^[10] shown above. And, while development might be allowable within such area, it must first satisfy all applicable City codes addressing Critical Areas considerations...

The “applicable City codes addressing Critical Areas” include RMC 22.10.220 (See Section 8.2), which requires mitigation for all impacts to FWHCA.

The *Habitat Report* (p. 5) claims that “AKS coordinated closely with WDFW Habitat Biologist Michael Ritter and he agrees the recommended preservation mitigation action will offset the permanent loss of shrub-steppe habitat within the site”. However, as the Hearing Examiner noted in *Ladera Decision* (p. 15),

Mr. Ritter’s comments ... that the conservation areas on the site (Tracts A, B, and C)^[11] are recognized as mitigation for permanent impacts to the loss of shrub steppe habitat ... do not

⁸ Hearing Examiner for the City of Richland. 2020. *Findings, Conclusions and Decision on Application for Preliminary Plat of Ladera* [Ladera Decision], p. 14.
<https://www.ci.richland.wa.us/home/showpublisheddocument/12559/637667958031970000>

⁹ Richland Plat file no. S2020-103Ladera].

¹⁰ The ‘blue polygon area’ referred to is equivalent to the “FWHCA ecosystem in the northeastern portion of the site” described in the *Habitat Report*.

¹¹ Equivalent to the area “depicted as Tracts A- C” in the *Habitat Report*.

obviate the applicant's requirement to satisfy the specific language found in City Codes addressing Critical Areas.

RMC 22.10.220 requires mitigation to preserve, replace, or compensate for the loss of functions and values of *all* critical areas, including shrubsteppe.

The *Habitat Report* (p. 5) states the proposed mitigation

will compensate for the impact to shrub-steppe habitat by providing protection to a similar suitable resource, meeting the approval criteria set forth under RMC Section 22.10.220.A.5.

But RMC 22.10.220.A.5 only allows for compensation through “replacing, enhancing, or providing similar substitute resources or environments” and says *nothing* about “providing protection” for such resources.

Further, the *Habitat Report* claims: “Currently the shrub-steppe habitat in the southern portion of the site is not protected and subject to human disturbance”. But this area is a documented FWHCA consisting of PHS shrubsteppe, thus *fully protected* by Richland's CAO. In addition, as a Geologically Hazardous Critical Area¹² this area is granted additional protection from development by the CAO.

In short, the developer proposes to compensate for the destruction of one tract of shrubsteppe by agreeing *not* to destroy another tract of shrubsteppe. If the City approves this type of “robbing Peter to pay Paul” mitigation, it will lead inevitably to the reduction and extinction of *all* FWHCA within Richland's city limits.

¹² RMC 22.10.240.C.9 “Areas with a slope of 40 percent or steeper and with a vertical relief of 10 or more feet except areas composed of consolidated rock” as Geologically Hazardous Areas. A slope of 40 percent for the area proposed for preservation is shown in Figure 3 in PBS Engineering and Environment, 2020, *Geotechnical Engineering Report, Country Ridge Subdivision, Strawberry Lane, Richland, Washington* [Geotech Report]. At pp. 326-367 in *Packet*. . Further, regarding the hillside proposed for preservation, the *Geotech Report* (p. 5) states that “previous exploration in the vicinity revealed a veneer of variable thickness consisting of unconsolidated windblown loess and colluvium overlying basalt bedrock. Similar subsurface conditions may be present on the site and, if present, site slopes could be destabilized by cutting near the toe of the slope.”

3.2 Failure to identify all FWHCA at Project Site

As we note in Section 7, the *Habitat Report* fails to identify all shrubsteppe on or adjacent to the project site. Mitigation for impacts to this shrubsteppe are wholly absent, resulting in loss of ecological functions and values.

4. Failure to meet Development Regulations, Requirements for Open Record Public Hearings, and Requirements for Approval of a Preliminary Plat

Approval of *Halara Hills* requires that the “development application meets the requirements and intent of the Richland Municipal Code” (RMC 19.60.095.A). *Halara Hills* cannot be approved because it fails to meet the requirements and intent of the Richland Municipal Code in at least two ways: the failure to include a habitat conservation area report meeting the criteria of the CAO, and a Notice of Application (NOA) that fails to meet the requirements of WAC 197-11-355.

RMC 22.10.200 requires “When development is proposed within a [FWHCA] ... a habitat conservation report shall be prepared”. As shown in Section 6 below, the *Habitat Report* prepared for *Halara Hills* fails to meet the requirements given in RMC 22.10.200.A-E (Section 8.3 below).

In addition, as we discussed in Section 3.1 above, no mitigations meeting the criteria given in RMC 22.10.220 have been included as conditions for plat approval, resulting in adverse impacts to shrubsteppe.¹³ Because of this omission, *Halara Hills* cannot meet the requirements and intent of the Richland Municipal Code as required by RMC 19.60.195.A.

The ODNS process (WAC 197-11-355, paragraph 2.b) the Halara Hills notice of application was issued under¹⁴ requires the Lead Agency “List in the notice of application the conditions

¹³ The only FWHCA protected on the site is in areas that are in Geologically Hazardous critical areas.

¹⁴ City of Richland, 2022. *Notice of Application, Public Hearing and Optional DNS (S2022-102 & Ea2022-115)* [Notice]. In *Packet* at P. 1 and P. 2. The Notice states “The City of Richland is lead agency for the proposal under the State Environmental Policy Act (SEPA) and has reviewed the proposed project for probable adverse environmental impacts and expects to issue a determination of non-significance (DNS) for this project. *The optional DNS process in WAC 197-11-355 is being used.*” (Our emphasis)

being considered to mitigate environmental impacts, if a mitigated DNS is expected”. No such conditions are listed in *Notice* even though the *Habitat Report* clearly states there *will* be impacts to shrubsteppe.

In summary, the City did not require that the applicant submit a Habitat Conservation Area Report meeting the requirements of RMC 22.10.200. Further, by using the ODNs process for a project with known environmental impacts, but failing to list mitigations for those impacts in the *Notice*, the City failed to meet the requirements of WAC 197-11-355. Because of these failures, *Halara Hills* does not meet the requirements and intent of the Richland Municipal Code and so cannot be approved.

5. The City Must Issue a Determination of Significance for Halara Hills

5.1 Responsibilities of Lead Agencies Issuing Threshold Determinations

WAC 197-11-330 specifies that (our emphasis):

(3) In determining an impact's significance (WAC 197-11-794), the responsible official shall take into account the following, that:

...

(e) A proposal may to a significant degree:

(i) *Adversely affect environmentally sensitive or special areas, ...*

(ii) *Adversely affect endangered or threatened species or their habitat;*

(iii) Conflict with local, state, or federal laws or requirements for the protection of the environment; and

...

The *Notice* states that a DNS is anticipated. WAC 197-11-360 requires that “If the responsible official determines that a proposal may have a probable significant adverse environmental impact, the responsible official shall prepare and issue a determination of significance (DS)”, and a DNS can be issued only if a determination is made that there will be *no* such impacts.¹⁵ The *Habitat Report* identifies significant impacts to shrubsteppe but fails to specify meaningful mitigation for those impacts. Further, the *Habitat Report* fails to identify all impacts to shrubsteppe caused by this project (see Sections 6 and 7). Because of these omissions

Halara Hills will impact FWHCA and reduce the net functions and values of shrubsteppe habitat within and adjacent to the project site. Because of these unmitigated impacts a DNS cannot be supported for *Halara Hills*.

6. Inadequate and Incomplete Habitat Conservation Area Report

RMC 22.10.200 requires the Habitat Assessment Report contain “Identification of any priority species and habitats (PHS) ... that have a primary association with habitat on or adjacent to the project area, and assessment of potential project impacts to the protected habitat...”. The report should also contain a “discussion of any federal, state or local special management recommendations, *including Department of Fish and Wildlife habitat management recommendations*, that have been developed for species or habitats located on or adjacent to the project area” (our emphasis).

Data Forms

Form 1B. Form used to assign assessment areas to broad habitat categories. To use the form, the appropriate selection should be checked off for Formation, Shrub, and herbaceous vegetation attributes. Invasive species should also be recorded.

FORMATION (Please check one)	
I. Closed forest	☐
II. Woodland	☐
III. Shrubland	☐
IV. Herbaceous	☐
V. Aquatic	☐
VI. Vinyland	☐
VII. Bare ground	☐
DOMINANT OR CO-DOMINANT SHRUBS (Please check one)	
A. <i>Artemisia arbuscula</i>	☐
B. <i>Artemisia. spp.</i>	☐
C. <i>Artemisia arbuscula – Artemisia. spp.</i>	☐
D. <i>Artemisia arbuscula – Purshia tridentata</i>	☐
E. <i>Artemisia. spp. – Purshia tridentata</i>	☐
F. Other	☐
G. Other – <i>Artemisia arbuscula</i>	☐
H. Other – <i>Artemisia. spp.</i>	☐
I. Other – <i>Purshia tridentata</i>	☐
J. No (or few) shrubs	☐
DOMINANT OR CO-DOMINANT HERBACEOUS VEGETATION (Please check one)	
1. Bunchgrasses	☐
2. Forbs	☐
3. Annual grasses	☐
4. Bunchgrasses – Forbs	☐
5. Bunchgrasses – Annual grasses	☐
6. Forbs – Annual grasses	☐
7. Other (e.g., bare ground)	☐
INVASIVE SPECIES (In order of dominance)	
Species name	Dominant or co-dominant (yes / no)

A-38

Figure 1. Form for assignment of assessment areas to habitat categories. WDFW Shrubsteppe p. A-38).

The *Habitat Report* states the area was “surveyed using the field methodology outlined in Appendix 7 of WDFW’s Management Recommendations for Washington’s Priority Habitats:

Shrubsteppe (updated September 2020).”¹⁶ But Appendix 7 of *WDFW Shrubsteppe* describes a methodology for *landscape* level surveys which is not appropriate for parcel-level surveys.¹⁷ While the consultant uses language from the appropriate parcel level protocol,¹⁸ no data from the surveys are given for independent review or evaluation, such as the data forms provided in *WDFW Shrubsteppe* (see example in Figure 1).

Rather than using language from *WDFW Shrubsteppe*, the consultant uses their own terminology, characterizing some of the area as “good condition shrub steppe” and other portions as “moderate condition shrub steppe”. Without showing data, this terminology is subjective. The parcel level protocol given in *WDFW Shrubsteppe* would instead result in an Ecological Integrity Assessment (EIA) score for each delineated Assessment Area (AA), as shown in Figure 2.¹⁹ Given the misleading description of the protocol used by the consultant we must conclude the protocols required by Richland for shrubsteppe assessment— those given in WDFW management recommendations – were not used to assess shrubsteppe on the project site.

¹⁶ Citing Azerrad, J. M., K. A. Divens, M. F. Livingston, M. S. Teske, H. L. Ferguson, and J. L. Davis. 2011 (Revised 2020). *Management recommendations for Washington’s priority habitats: managing shrubsteppe in developing landscapes*. Washington Department of Fish and Wildlife [WDFW Shrubsteppe]. p. 22: “Appendix 9 summarizes this protocol. We recommend you use this protocol in the early stage of developing an HMP [Habitat Management Plan].”

¹⁷ Azerrad et al. “A protocol for identifying and mapping shrubsteppe over broad landscapes” at pp. A-9 to A-21 in Azerrad, J. M., K. A. Divens, M. F. Livingston, M. S. Teske, H. L. Ferguson, and J. L. Davis. 2011 (Revised 2020). *Management recommendations for Washington’s priority habitats: managing shrubsteppe in developing landscapes*. Washington Department of Fish and Wildlife [WDFW Shrubsteppe]. p. 22: “Appendix 9 summarizes this protocol. We recommend you use this protocol in the early stage of developing an HMP [Habitat Management Plan].”

¹⁸ *WDFW Shrubsteppe* p. 22: “Appendix 9 summarizes this protocol. We recommend you use this protocol in the early stage of developing an HMP [Habitat Management Plan].”

¹⁹ *WDFW Shrubsteppe* pp. A-25 through A-29.

Form 2B. Data form used for summarizing the findings from an assessment of each metric and for assigning an overall rank to an assessment area.

Metric Attributes	Assigned Metric Points (M)	Assigned Metric Rank	Total Metric Score (ΣM)	Overall EIA Score ($\Sigma M \div 5$)	Overall EIA Rank*
Buffer					
Edge length					
Edge width					
Edge condition					
Landscape Context					
Connectivity					
Landscape condition model index					
Vegetation Composition					
Native plant species cover					
Native bunchgrass cover					
Cover of native increasers					
Invasive species cover					
Vegetation Structure					
Biological soil crust					
Fire-sensitive shrubs					
Physiochemical					
Soil surface condition					
			$\Sigma M =$	$(\Sigma M \div 5) =$	Overall EIA Rank =

* Ranking: A = > 4.5; B = 3.5 – 4.4; C = 2.5 – 3.4; D = < 2.4

Figure 2. Ecological Integrity Assessment form for WDFW's protocol for shrubsteppe assessment of individual parcels. (WDFW Shrubsteppe p. A-39).

The *Habitat Report* recognizes 25.07 acres of “good condition” shrub steppe habitat on the southern and far east portions of the project site an additional 2.69 acres of “moderate condition” shrub steppe habitat at the northern edge of the property. However, according to the PHS diagram shown in Figure 6 of *Habitat Report*, WDFW has determined the *entire* property is shrubsteppe. This is the *current* status assigned to the area by WDFW. It is *not* a “historical” categorization, as stated on p. 4 of the *Habitat Report*. Additionally, when the same area was surveyed by the WDFW Habitat Biologist in 2020 for the *Ladera* plat, they stated “Our site visit clearly documents shrub- steppe habitat on site and that *the entire area is WDFW Priority*

Habitat and a City of Richland Critical Area [emphasis added]”.²⁰ Our own surveys, described in Section 7, show the entire area is Fire Disturbed Shrubsteppe²¹ and should be protected as shrubsteppe.

6.1 Flawed Analysis of Habitat Connectivity

The *Habitat Report* (p. 4) states:

The FWHCA shrub-steppe habitat in the northeastern portion of the site, where encroachment is proposed, is located adjacent to an existing residential community, concrete-lined irrigation canal, and interstate highway, limiting its ability to provide meaningful and protected wildlife use.

As we show in Section 7 this area is contiguous to healthy, mature shrubsteppe immediately north of the site which provides a wildlife corridor to areas north of the interstate. This area is also immediately adjacent to the fire-disturbed shrubsteppe on the remainder of the project site, connecting this area to the mature shrubsteppe in “Tracts A-C” and the Badger Mountain Centennial Preserve.

6.2 Failure to Survey Area Required by RMC 22.10.200

The Richland CAO requires the habitat report to examine “the project area and adjacent lands within 300 feet of the project boundaries”. Figure 7 of the *Habitat Report* clearly shows that areas outside the project boundaries were *not* surveyed.

6.3 Failure to Identify all PHS Within Report Area

RMC 22.10.200.C.2 requires the report contain “Identification of any priority species and habitats (PHS) ... on or adjacent to the project area”. The *Habitat Report* identifies shrubsteppe on some portions of the site, but it is clear from previous reports and our own surveys (described

²⁰ Hearing Examiner for the City of Richland. 2020. *Findings, Conclusions and Decision on Application for Preliminary Plat of Ladera* [Ladera Decision].
<https://www.ci.richland.wa.us/home/showpublisheddocument/12559/637667958031970000>

²¹ *WDFW Shrubsteppe* p. A-18. “Because fire is a component of shrubsteppe, fire- disturbed shrubsteppe is still shrubsteppe, only in a temporarily altered or early successional state.” P. 25: “Shrubsteppe disturbed by fire alters habitat condition but does not eliminate the shrubsteppe habitat. Thus, planners and developers should consider fire-disturbed shrubsteppe as a priority under WDFW’s PHS Program. This should consequently be factored into any decisions about developing in and around fire-disturbed shrubsteppe.” P. A-28, footnote “a”: “Do not assume that all AAs lacking shrubs are not shrubsteppe. In some cases, AAs without shrubs are fire-disturbed early succession shrub-steppe.”

in Section 7) that the entire project site – as well as much of the area adjacent to the site – also consists of PHS shrubsteppe.

6.4 Preparation by Qualified Professional

The habitat conservation area report must be prepared by a qualified professional.²² RMC 22.10.040 requires a “qualified professional must have obtained a B.S. or B.A. or equivalent degree in biology, ecology, engineering, environmental studies, fisheries, geomorphology, or related field, and two years of related work experience” and a “qualified professional for habitats or wetlands must *have a degree in biology, ecology or related field*” (our emphasis). The *Habitat Report* was prepared by a consultant who

... has a bachelor’s degree from the Evergreen State College in Washington, with coursework emphasis on Environmental Science and Restoration Ecology. She is a certified Professional Wetland Scientist (PWS).

These credentials do not state the consultant is qualified under Richland code since it is never claimed the consultant holds the required “degree in biology, ecology, or related field. A PWS certification also does not require the completion of a degree in the fields required by RMC 22.10.200.A, only that the holder of the certificate has completed some four-year degree and specific course work.²³

6.5 Errors on Species Status and Definition of Shrubsteppe

The *Habitat Report* incorrectly states

Since Townsend’s ground squirrel is not designated as a federal or state listed endangered, threatened, or sensitive species, according to RMC Section 22.10.185. A, the Townsend’s ground squirrel is not regulated by the City as FWHCA.

Townsend’s ground squirrel is a PHS species²⁴ protected by the City as FWHCA. RMC 22.10.185.A states “Fish and wildlife habitat conservation areas include the following: ... 2. State priority habitats and areas associated with state priority species.”

The *Habitat Report* (p. 3) states, without attribution, that “Priority shrub-steppe habitat will typically have an average of at least approximately 30 percent shrub canopy cover.” This

²² RMC 22.10.200.A: “The report shall be prepared by a *qualified professional* ...” (our emphasis).

²³ Society of Wetland Scientists Professional Certification Program. 2022. *Requirements*. <https://wetlandcert.org/requirements.html>.

²⁴ P. 208, *PHS List*.

characterization does not appear in *WDFW Shrubsteppe*, which instead states “less disturbed habitat typically has a canopy between 5% and 30%.”

7. Surveys and Characterization of Shrubsteppe on, and Adjacent to Project Site

The Examiner noted in *Ladera Decision* (p. 13) the WDFW Habitat Biologist stated in his comments

Our site visit clearly documents shrub- steppe habitat on site and that the *entire area is WDFW Priority Habitat and a City of Richland Critical Area*. We do not agree “... that the project site does not contain habitat that would meet the current WDFW of priority habitat...” [emphasis added]

This observation is in accordance with our own field observations²⁵ that the project area outside of the FWHCA identified in the *Habitat Report* is “fire disturbed shrubsteppe”. *WDFW Shrubsteppe*²⁶ (p. 18) pointedly states that “Because fire is a component of shrubsteppe, fire-disturbed shrubsteppe is still shrubsteppe, only in a temporarily altered or early successional state” and that “Post-fire, few if any of the pre-fire shrubs may remain in shrubsteppe habitat.”

In addition, areas immediately adjacent to the site to the north and the west contain mature shrubsteppe and provide wildlife connectivity to additional habitat. This shrubsteppe also contains older, denser sagebrush and forbs that provide a seed bank for the shrubsteppe recovering from fire disturbance within the project site.

The entire project site is also part of a large tract of shrubsteppe (Figure 3). This habitat is vital since, as noted by WDFW, “With an estimated 80% of historic shrubsteppe lost or degraded to development and agriculture since the arrival of non-native settlers, *protecting remaining shrubsteppe habitats is more important than ever* (emphasis added)”.²⁷

²⁵ We note that author Laurie Ness holds a B.S. degree in Fisheries and Wildlife and extensive experience in conducting field inventories and surveys.

²⁶ RMC 22.10.185.A.2 defines, “State priority habitats and areas associated with state priority species” as FWHCA and that “The state of Washington’s Department of Fish and Wildlife should be consulted for current listing of priority habitats and species”. Also, *WDFW Shrubsteppe* is a WDFW PHS management recommendation. Also, RMC 22.10.200.C.3 requires habitat conservation area reports to contain “A discussion of ... [WDFW] habitat management recommendations, that have been developed for species or habitats located on or adjacent to the project area”.

²⁷ WDFW, 2022. Ecosystems in Washington: Shrubsteppe. <https://wdfw.wa.gov/species-habitats/ecosystems/shrubsteppe>.

7.1 Impacts to Wildlife Corridors not Considered in *Habitat Report*

A large area of undeveloped land stretches along the north slope of Badger Mountain westwards to Candy Mountain and the Rattlesnake Hills; this area is adjacent to a freeway which blocks any natural migration routes of terrestrial species. However, currently some species might use the highway underpass at nearby Dallas Road to pass under the freeway. This connecting route for terrestrial wildlife will be blocked if the project is developed as proposed.²⁸

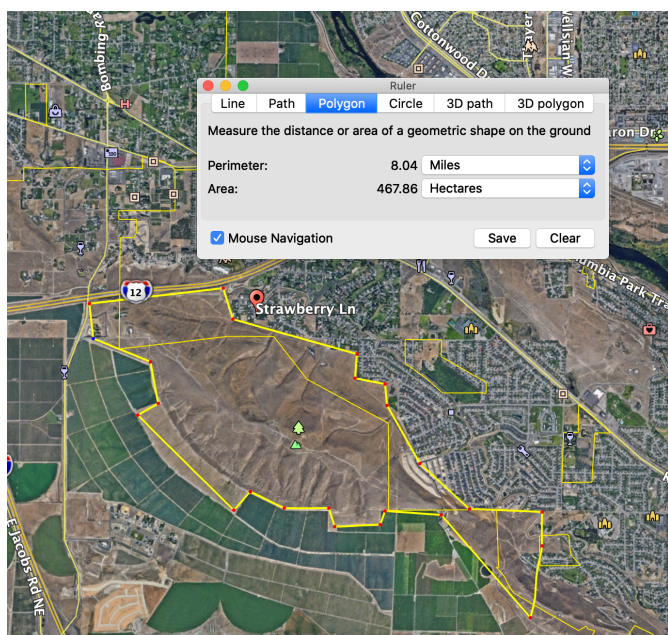


Figure 3. Site is part of one of largest continuous regions of Shrub steppe in the Tri-Cities Area.

7.2 Shrubsteppe Adjacent to Project Site

Figure 4 and Figure 5, show mature shrubsteppe immediately adjacent to the site to the north of the site. No survey of this area is included in the *Habitat Report* as required by the Richland

²⁸ Sandra J. Nga, Jim W. Dolea, Raymond M. Sauvajotb, Seth P.D. Riley, and Thomas J. Valone. Use of highway undercrossings by wildlife in southern California. *Biological Conservation* 115 (2004), 499–507. https://www.originalwisdom.com/wp-content/uploads/bsk-pdf-manager/2019/03/NG_2004_Use-of-highway-undercrossings-copy.pdf; Terrestrial species, including carnivores, mule deer, small mammals, and reptiles can use the highway underpasses to cross freeways.

CAO.²⁹ Figure 6 shows this area contains cryptobiotic crusts while Figure 7 gives an overview of the wildlife connectivity provided by this shrubsteppe – assuming it is not further fragmented by development.

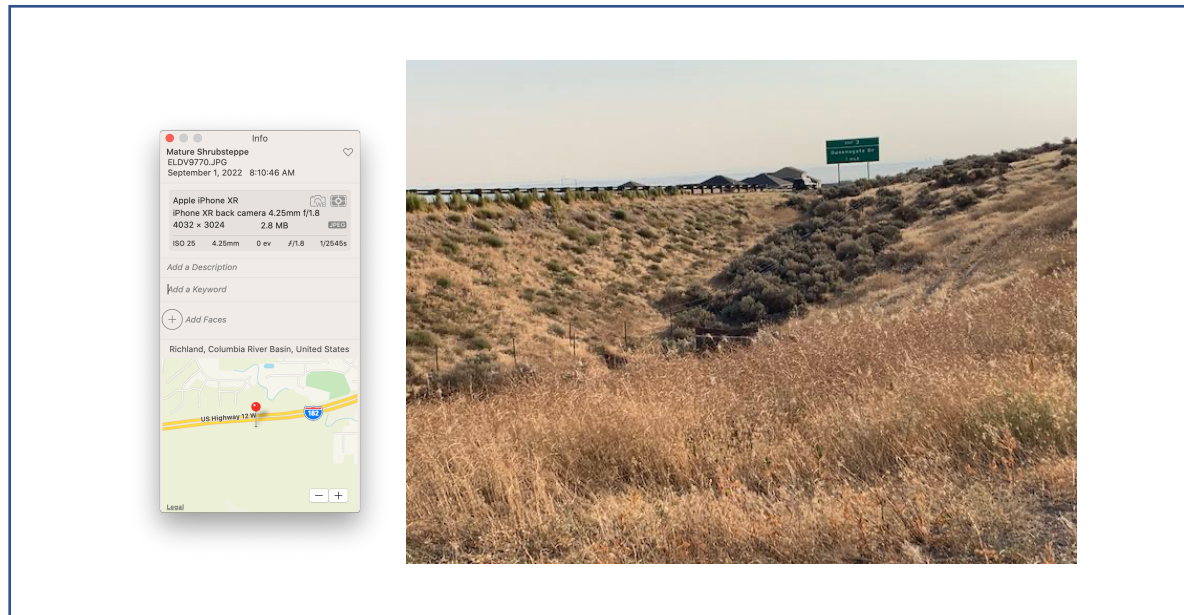


Figure 4. Mature shrubsteppe adjacent and north of site

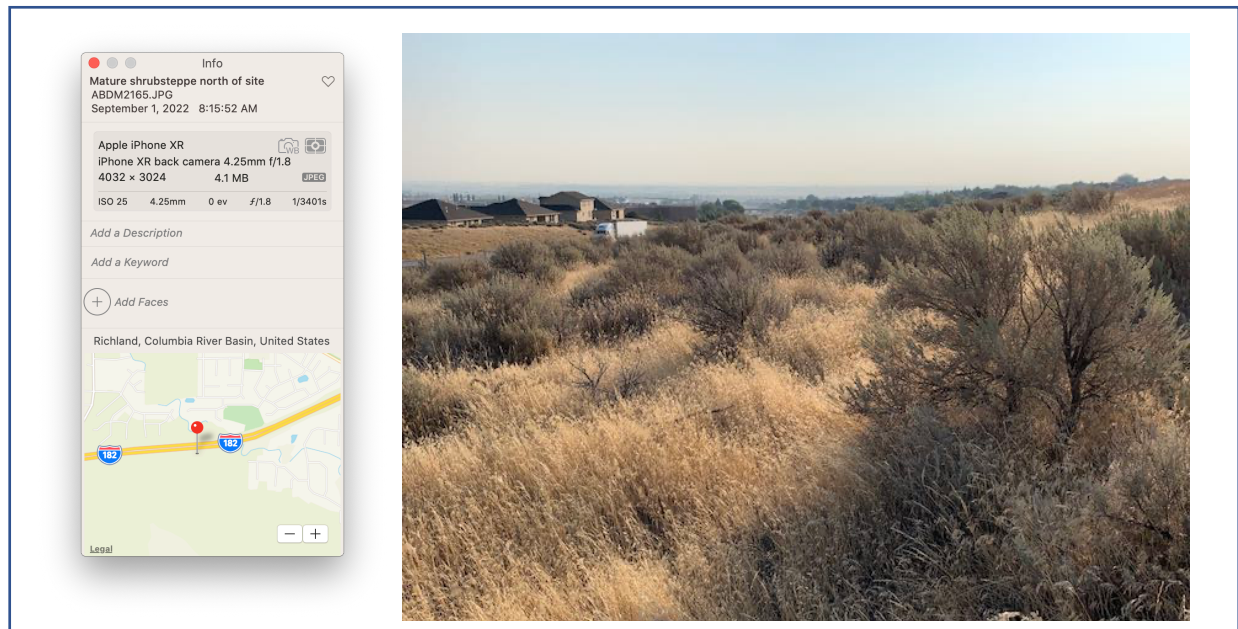


Figure 5. Mature shrubsteppe adjacent and north of site

²⁹ RMC 22.10.200.B: “The area addressed in any report for a fish and wildlife habitat conservation area shall include the project area and adjacent lands within 300 feet of the project boundaries”

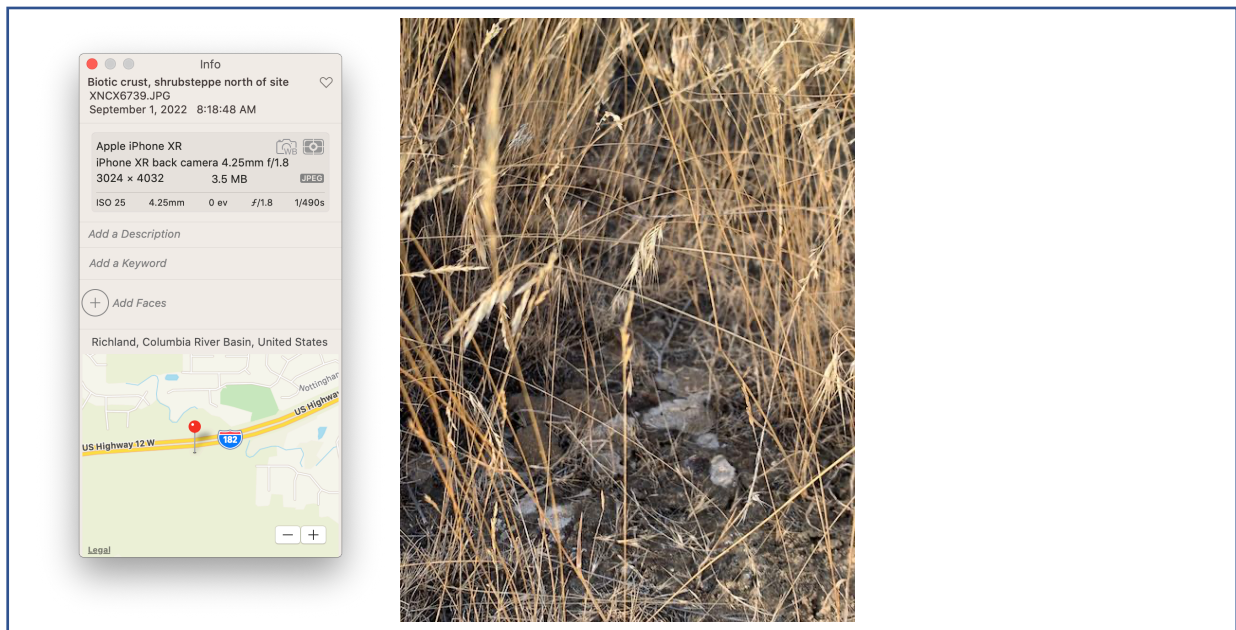


Figure 6. Cryptobiotic crusts, shrubsteppe adjacent to north of site

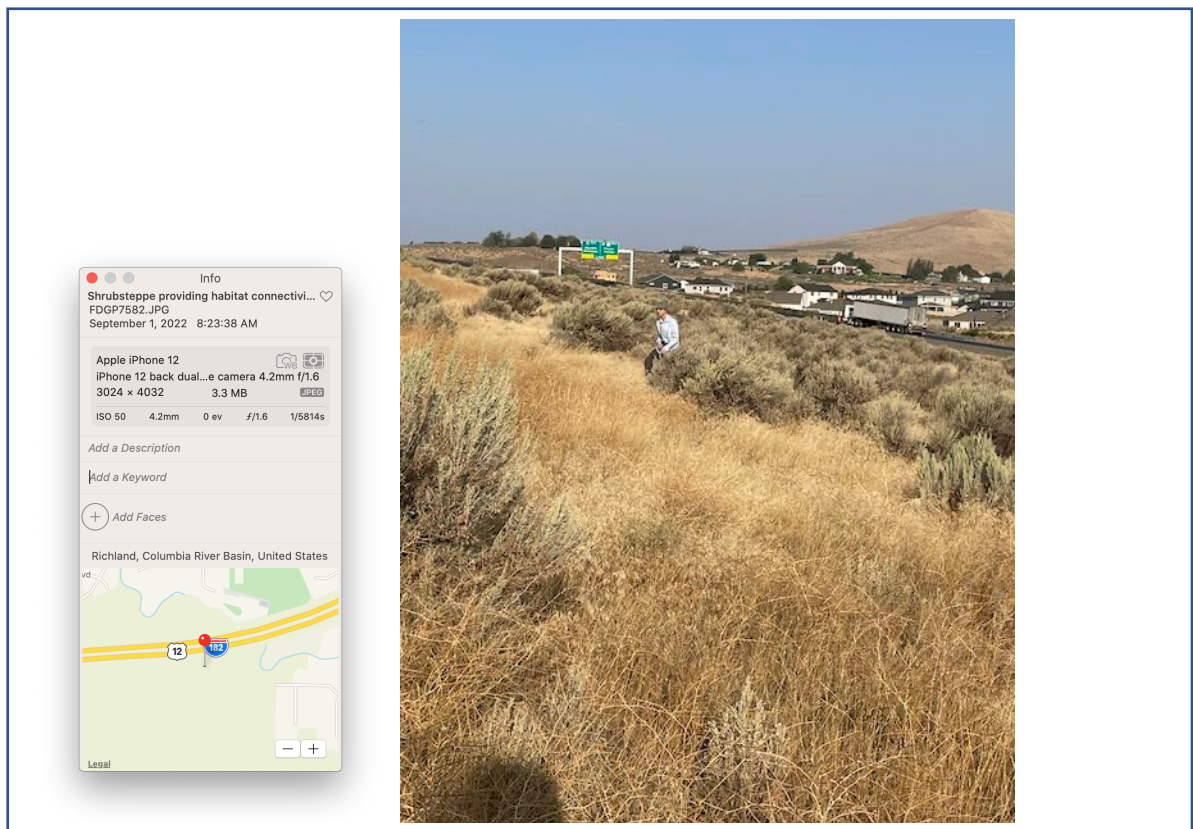


Figure 7. Wildlife connectivity provided by mature shrubsteppe adjacent to north of site

7.3 Fire Disturbed Shrubsteppe

The habitat conservation area report prepared for *Ladera* reports that³⁰

... given its current vegetation composition it is likely that the site has burned in the past. The absence of shrub cover and dominance of non-native grasses often points to fire or historic agriculture disturbance. It is worth noting that approximately 250 acres on the south side of Badger Mountain caught fire in 2010.

The WDFW Habitat Biologist also reported evidence of fire-disturbed shrubsteppe, stating “Throughout the site are signs of past fires as evidenced by burnt sage brush stumps [Figure 8]”.³¹

In a survey we conducted on September 1, 2022, we found additional evidence that the project site contains fire-disturbed shrubsteppe outside of areas described as shrubsteppe in the *Habitat Report*. Figure 9 and Figure 10 show remnants of burnt sage in this area and Figure 11 shows healthy shrubsteppe forbs.



Figure 8. Photo of Burnt sage (Picture 7) from WDFW Ladera Report.

³⁰ PBS Engineering and Environmental. 2021. *Ladera Residential Subdivision Project, Critical Areas Assessment – Fish and Wildlife Habitat Conservation Areas* [Ladera Habitat Report]. P. 2. <https://www.ci.richland.wa.us/home/showpublisheddocument?id=11852>.

³¹ Mike Ritter, WDFW Habitat Biologist. 2021. *Ladera residential development* [WDFW Ladera Report]. Attached to *Ladera Habitat Report* at pp. 16-28.

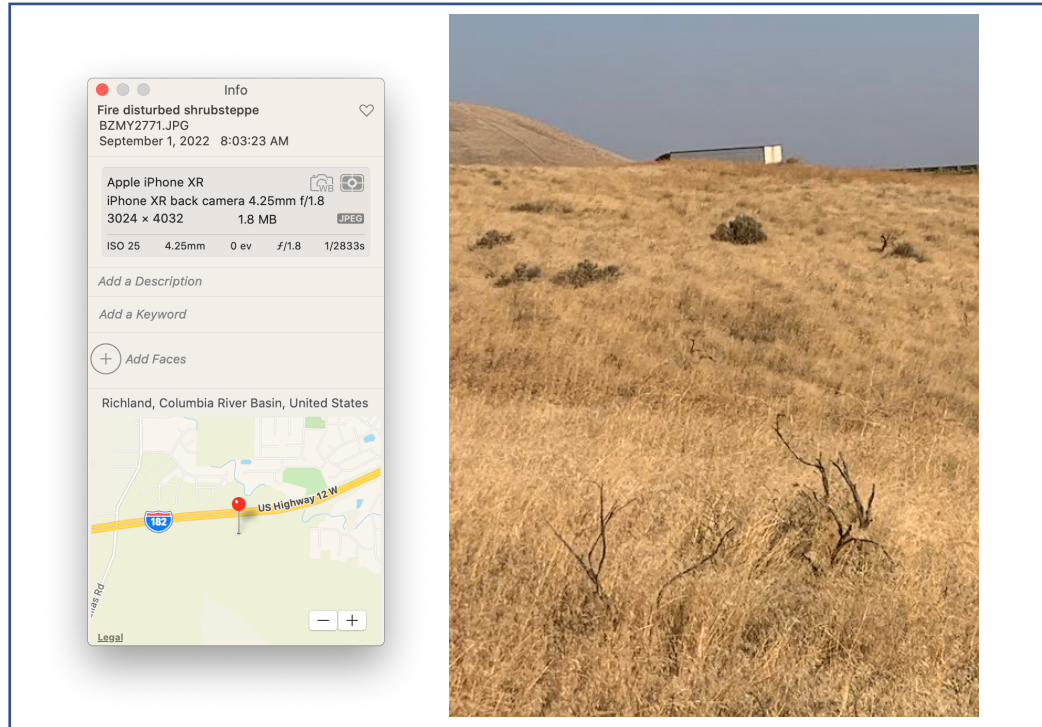


Figure 9. Fire disturbed shrubsteppe.

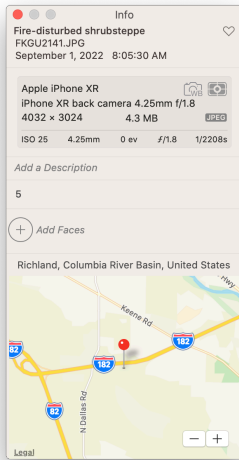


Figure 10. Fire disturbed shrubsteppe on site. Note burnt sagebrush.

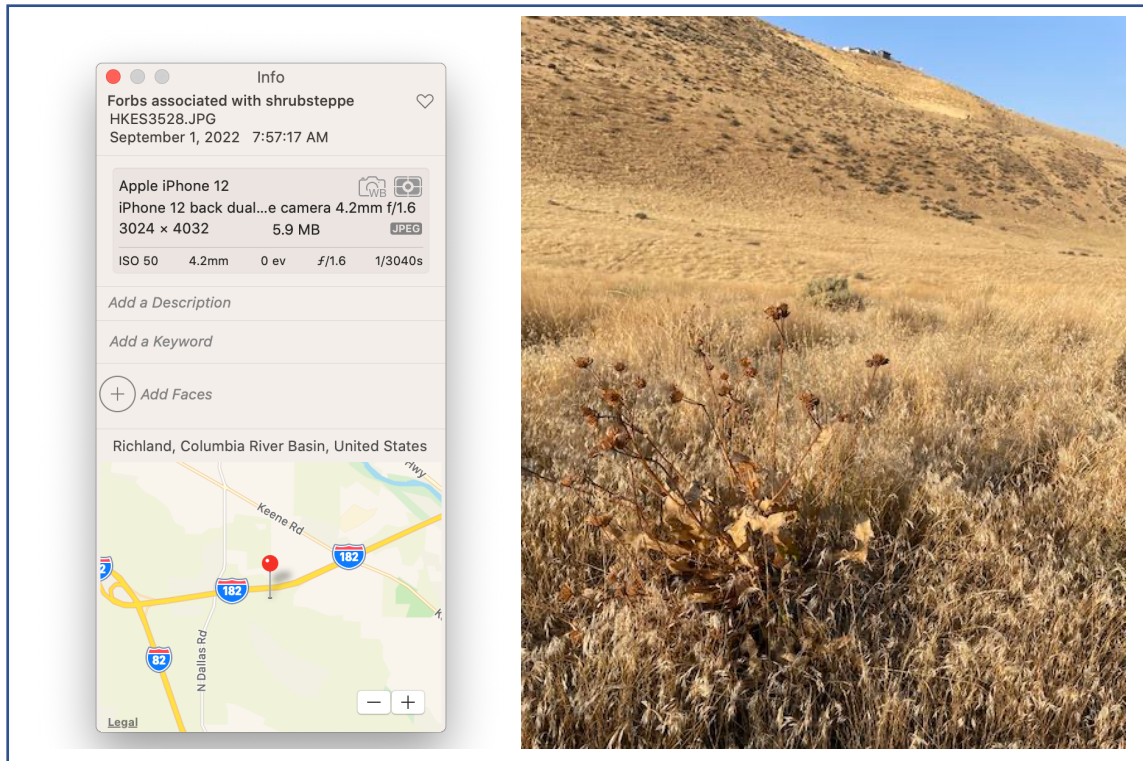


Figure 11. Shrubsteppe forbs in fire-disturbed area (typically dried and dormant in September when survey completed).

Imagery from the mid 1990s indicates high quality shrubsteppe in and adjacent to the site area; this can be compared with imagery of pasture-land from the 1990's and with areas known to be quality shrubsteppe at that time (Figure 12, Figure 13, and Figure 14). This indicates there was a fire in the early 2000's and that the site area is recovering shrubsteppe. Since Columbia Basin shrubsteppe takes about 20 years to recover from fire and fill in from a lower intensity burn³², the growth height of the sagebrush on much of the site corresponds with healthy recovering shrubsteppe priority shrubsteppe.

³² "...studies suggest that mountain big sagebrush stand recovery requires fire- free intervals of 20 to 35+ years under favorable conditions". P. 5, Kitchen, Stanley G. and Weisberg, Peter J. 2013. "Historic fire frequency in mountain big sagebrush communities of the eastern Great Basin and Colorado Plateau: A comparison of estimates based upon proxy fire scar records and predictions derived from post-fire succession rates" (2013). JFSP Research Project Reports. 92. <http://digitalcommons.unl.edu/jfspresearch/92>

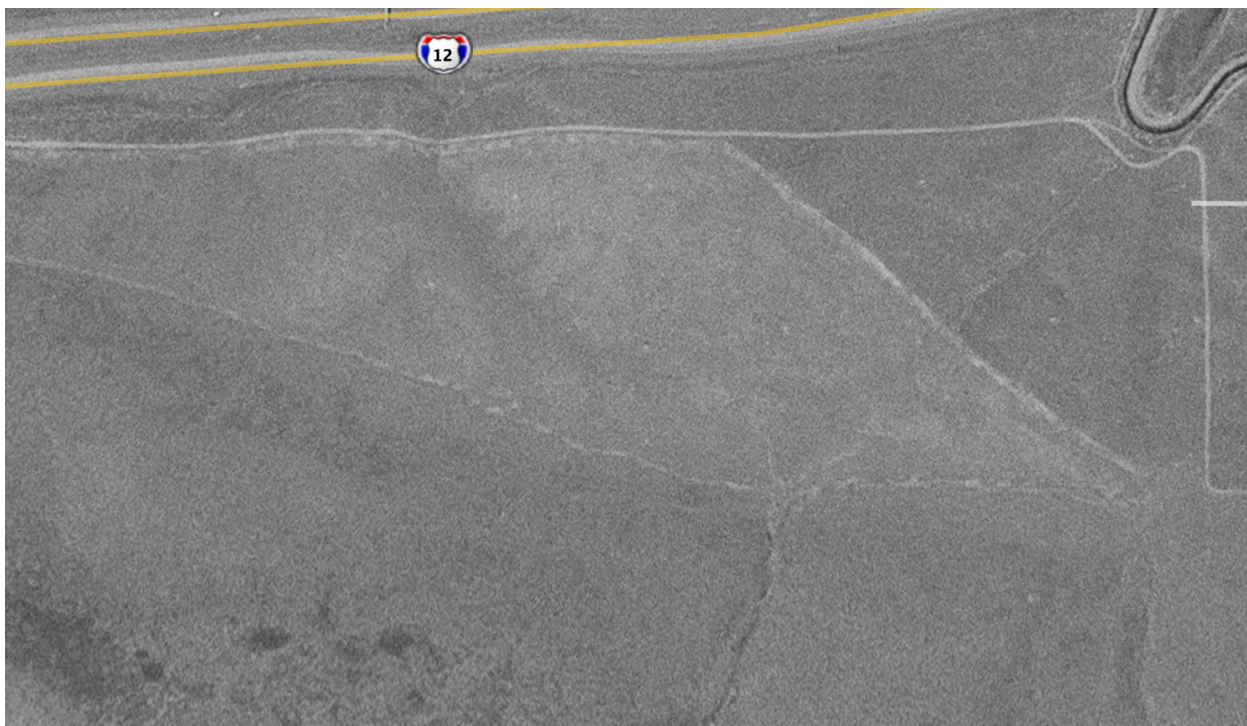


Figure 12. Historical Imagery of Site, Mid-1990s, Google Earth, showing Shrubsteppe.



Figure 13. Google Earth imagery from 1990s of area known by the authors to be Shrubsteppe in the 1990s.



Figure 14. Google earth imagery of area known be authors to be pasture in mid 1990s (compared to some shrubsteppe in bottom portion).

8. Relevant Development Regulations

8.1 Fish and Wildlife Habitat Conservation Areas

The City defines FWHCAs as Critical Areas³³, and FWHCAs include³⁴

2. State priority habitats and areas associated with state priority species.
 - a. State of Washington priority habitats and species are considered priorities for conservation and management. The state of Washington's Department of Fish and Wildlife [WDFW] should be consulted for current listing of priority habitats and species;

WDFW's current listing of priority habitats and species includes shrub-steppe.³⁵

8.2 Fish and wildlife habitat conservation area alteration.

RMC 22.10.220 states

- A. Adverse impacts to habitat functions and values shall be mitigated to the extent feasible and reasonable. Mitigation actions by an applicant or property owner shall occur in the following preferred sequence:
 1. Avoiding the impact altogether by not taking a certain action or parts of actions;

2. Minimizing impacts by limiting the degree or magnitude of the action and its implementation by using appropriate technology and engineering, or by taking affirmative steps to avoid or reduce adverse impacts;
3. Rectifying the impact by repairing, rehabilitating, or restoring the affected environment;
4. Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action;
5. Compensating for the impact by replacing, enhancing, or providing similar substitute resources or environments. Preference shall be given to measures that replace the impacted functions on site or in the immediate vicinity of the impact;
6. Monitoring the impact over time and taking corrective measures to minimize additional impacts.

Where impacts cannot be avoided, the applicant or property owner shall seek to implement other appropriate mitigation actions in compliance with the intent, standards and criteria of this section. In an individual case, these actions may include consideration of alternative site plans and layouts, reductions in the density or scope of the proposal, and/or implementation of the performance standards listed in RMC 22.10.210.

8.3 Fish and Wildlife Habitat Conservation Area Identification, Reports and Performance Standards

RMC 22.10.190 requires that “To determine the location and extent of fish and wildlife habitat conservation areas, the city shall use best available science, *including* current information contained in priority habitats and species maps as maintained by the Washington State Department of Fish and Wildlife.”

RMC 22.10.200 requires that

When development is proposed within a fish and wildlife habitat conservation area or its buffer, or where development is proposed to be located adjacent to a fish and wildlife habitat conservation area or its buffer or close enough to the FWHCA so as to likely impact critical area ecosystem functions and values, a habitat conservation report shall be prepared consisting of the following:

- A. The report shall be prepared by a qualified professional using the best available science;
- B. The area addressed in any report for a fish and wildlife habitat conservation area shall include the project area and adjacent lands within 300 feet of the project boundaries to account for potential buffers that may not be accurately mapped at the time of application. Further the report shall identify all habitat conservation areas, shorelines, floodplains, other critical areas and related buffers;
- C. A habitat conservation report shall include an assessment to evaluate the presence or absence of priority habitat. At a minimum the habitat assessment shall include:

...

2. Identification of any priority species and habitats (PHS) or any endangered, threatened, sensitive or candidate species and any habitat or species of local concern that have a primary association with habitat on or adjacent to the project area, and assessment of potential project impacts to the protected habitat or use of the site by the species;

3. A discussion of any federal, state or local special management recommendations, including Department of Fish and Wildlife habitat management recommendations, that have been developed for species or habitats located on or adjacent to the project area;

...

...

RMC 22.10.210.D requires that “Activity within or close to a habitat conservation area shall not result in the degradation of the functions and values of the habitat”.

8.4 Development Regulations and Public Hearings

RMC 19.60.095 states:

No development application for a Type II or Type III permit shall be approved by the city of Richland unless the decision to approve the permit application is supported by the following findings and conclusions: A. The development application is consistent with the adopted comprehensive plan and meets the requirements and intent of the Richland Municipal Code. B. Impacts of the development have been appropriately identified and mitigated under Chapter 22.09 RMC ...”.

RMC 19.60.060 states:

Except for Type IV actions, the burden of proof is on the proponent. The project permit application must be supported by proof that it conforms to the applicable elements of the city’s development regulations, comprehensive plan and that any significant adverse environmental impacts have been adequately addressed.

By RMC 19.20.010.C, this requirement applies to Type III actions, which include Preliminary Plats such as the one described in *Halara Hills*: “Type III permits include the following types of permit applications: 1. Preliminary plats or major revisions thereof; ...

9. References

[Ladera]	passim
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Peggy Estes
1137 Bridle Drive
Richland, WA 99352
abjpestes@charter.net

September 6, 2022

Mr. Mike Stevens, Planning Manager, City of Richland
625 Swift Blvd., MS-35
Richland, WA 99352

Dear Mr. Stevens,

I am writing to express my concern for the Pahlisch Homes application for an 82-lot subdivision named Halara Hills with file # S2022-102. I have reviewed the application documents and found an item which I believe needs to be addressed before approval of the development is granted.

The Critical Areas Assessment states that the 60 acres of this proposed development lie within a larger area designated by the Washington Department of Fish and Wildlife as a Priority Habitat Area. This designation is largely due to the presence of shrub-steppe habitat as well as historical records of the presence of the Townsend's Ground Squirrel. According to information on the WDFW website one subspecies of this Ground Squirrel is endemic to the area south and west of the Yakima River and is identified as a "state candidate species" with Priority Species designation. Priority species require protective measures for their survival due to their population status and sensitivity to habitat alteration. In the Critical Areas report, the AKS natural resources biologist, Stacey Reed, who visited the development site on January 22, 2022 described surveying the area for the presence of Townsend Ground Squirrels, looking for evidence of burrows, but acknowledging that the actual presence of the squirrel would be unlikely as they are still hibernating during that time of year. Townsend Ground Squirrels are typically active for only 4-5 months of the year with the greatest visibility when young emerge from underground burrows in March and April. Ms. Reed stated that while she didn't see any Townsend Ground Squirrels that day, she did find a few burrows that potentially could be the correct size. It also was stated that the Townsend's Ground Squirrels are known to be present in the adjacent Badger Mountain Preserve.

Given the challenge of locating Townsend's Ground Squirrels in a one-day observational survey done in January, it seems like this evaluation is inadequate to state whether this Priority Species will be disturbed by this development. Also, given that the Squirrels are known to be present in the adjacent undeveloped area on Badger Mountain it seems possible that even if they are not now present, if this area were to remain undeveloped that the Squirrels could expand their population into this area and populate a habitat that may be suitable for their survival. I know that efforts are being made in this development to set aside land on the upper slopes and "the project layout was designed to minimize encroachment into priority FWHCA habitat as much as practical." But leaving this space undeveloped provides even greater chance that this species, endemic to this area, survives.

Having lived in the Country Ridge neighborhood since 1982, I can state for certain that Townsend's Ground Squirrels were very present in the early 1980's as they frequented my newly landscaped backyard right off the green belt open space and what was undeveloped land adjacent. They gradually disappeared as more homes, with people and cats and groomed yards moved into their space. If there is any possibility that the Ground Squirrels have survived and continue to live in the still open space within those yet undeveloped 60 acres, that needs to be studied more closely prior to any further development. Thank you for addressing this concern.

Sincerely,
Peggy Estes

Stevens, Mike

From: Richard Harrington <richardharrington95@outlook.com>
Sent: Wednesday, September 7, 2022 4:41 PM
To: Stevens, Mike
Cc: Stevens, Mike; Bob & Nancy Rosselli; Barb Moffet; Barbara Norris; Ben Gmail; Bob Rieck; Bob & Ann Parker; Sunwoochong@gmail.com; Theresa Hagler; Dana; Morissa Douglas; Dawn Zimmerman; rdsrds@charter.net; ewmartinen@frontier.com; Jack and Barbara Moffett; Lu Guan; Jo Joseph; Jon & Diana Spangle; Kathy Kinion; Leslie Oleson; Lmanawadu@gmail.com; mjk6373@aol.com; Bookkie@msn.com; Juanita Johnson; sdevipetersen@gmail.com; Joy and Ray Geimera; Richard Harrington; Jane & Steve Kirkendall; Suzanne Ard; Theresa Hagler; geimerray@gmail.com; Kathy Beecher; Geomax.reichmuth@gmail.com; Allen Johnson; Mark Peterson; benpetersen1@gmail.com; Walter and Elektra Covington; dwk673@me.com; majaeger@mac.com
Subject: Palisch Proposal

Dear Mr. Stevens,

Thanks for the opportunity of providing me with the opportunity of voicing my very strong objections to the Palisch proposal. Attached above is my signed attestation, the body of which reads as follows:

I vehemently oppose the proposed Palisch development.

I have lived in Country Ridge for over 20 years. When I learned of the subject second proposal attempt, I was immediately disappointed, frustrated, and frightened to think my city would even consider this type of development again. Safety is my number one concern on the proposed single and only egress and access point. This has to be major concern for emergency services, especially the Fire Department.

Then I was shocked that the subject plat would even be approved and zoned for similar lot sizes and the number of homes that were attempted and failed in February of 2021 . These homes on smaller lot sizes developed and connected to Country Ridge would surely be reflected in our current home values. As you know Country Ridge continues to be premier development with much larger lots and custom homes, which is reflected on our taxes.

Even if I didn't live in Country Ridge I would not approve this development. As I stated **safety** in terms of traffic flow, emergency access/egress, and potential crime in my number one reason to not approve this application. Secondly, I would also question the zoning.

For these reasons, please reject this proposal by Palisch. Please ensure the integrity, safety, and value of our rustic community by declining their application.

Sincerely,

Richard Harrington
2646 Quarterhorse Way
Richland, WA 99352

Stevens, Mike

From: hayhays2@charter.net
Sent: Friday, September 2, 2022 10:32 AM
To: Stevens, Mike
Subject: Halara Development/Pahlisch Proposal

Dear Mr. Stevens,

Once again our community is reaching out to the city with regards to the new Pahlisch Home proposal now referred to as, Halara Hills.

This new application does not address the concerns of our Country Ridge community. Our prior letter was one of concern for the safety of our residents, and with no SEVA access to the development it is once again apparent this is NOT being taken seriously.

Now Pahlisch apparently has permission to address this issue "down the road?" How can this be acceptable. This is disappointing, but not surprising as the meager appeasement of the Pahlisch proposal seems to once again be taking the forefront over safety. The city has an opportunity and obligation to protect and provide assistance, yet continues to side-step the issue.

Our community is NOT exclusive, nor do we claim to be. Wanting the integrity of our neighborhood and the safety of its residents to be maintained is of importance to all and is at the forefront of the united front of our residents.

We ask that you once again take into consideration the safety concerns of this community and act accordingly and not be swayed by meager tweaks to a proposal that continues to avoid the concerns of this community.

Thank you for your consideration,
Ron & Carol

Stevens, Mike

From: Ruth Bebee <icu_nurse_99353@yahoo.com>
Sent: Wednesday, September 7, 2022 1:47 PM
To: Stevens, Mike
Subject: RE: Halara Hills Plat Application by Pahlisch Homes

I hereby wish to express my concerns regarding the above-named application and wish to see it denied. The project, as proposed, will significantly impact those of us who are homeowners in Country Ridge, Country Heights, and Country Estates. Currently Country Ridge far exceeds the capacity limit for "local street" classification by code. This addition of 82 new homes will greatly overload the already stressed capacity. The biggest concern here is the potential impact on fire safety, need for emergency vehicle access, need for emergency evacuation, noise pollution, significant traffic impact with lines of cars entering and exiting Country Ridge. The addition of a traffic light will do nothing to increase our safety. We have only one way out. Be concerned for our safety! Currently our streets are frequently encumbered by service vehicles including garbage trucks, mail trucks, delivery trucks, landscaping trucks, etc. At times, these vehicles make it impossible to proceed without crossing into the opposing traffic lane. Having more vehicles in this area will only add to creating a potentially dangerous traffic situation. Most of our streets do not have sidewalk access. Residents who like to walk in the neighborhood also use these streets for foot traffic. Our streets simply are not designed to accommodate multiple neighborhoods.

Lot size is also a concern in that it appears by going up the steep slope the lot size is increased. This appears to be a way to artificially increase the average lot size. These are still small lot, and the steep slope is a concern for land stability.

I am also concerned that many of us who live in these neighborhoods were not given notification of this application. Thanks to our neighbors, we have been made aware of this new application for the Halara Hills development.

I respectfully request that you listen to and heed our concerns in this matter.

Ruth Bebee
1143 Pinto Loop
Richland, WA 99352

Stevens, Mike

From: SBG <grov672@gmail.com>
Sent: Friday, August 26, 2022 4:52 PM
To: Stevens, Mike
Subject: CITY OF RICHLAND NOTICE OF APPLICATION, PUBLIC HEARING AND OPTIONAL DNS (S2022-102 & EA2022-115)

Good Afternoon Mr Stevens,

I am formally requesting to (please) be notified of any decisions pertaining to the "CITY OF RICHLAND NOTICE OF APPLICATION, PUBLIC HEARING AND OPTIONAL DNS (S2022-102 & EA2022-115)."

My wife Angela and I live at 1111 Country Ridge Drive with our 4 boys. We are the second house on the right as you turn in from Keene, and we provided written comments to Shane O'Neill the last time that Pahlisch submitted their application for this project, just branded differently.

I reviewed the updated traffic study and once again found it absolutely fascinating that there is a belief that the single entrance into Country Ridge can handle any additional traffic. To that end I would openly invite you to come by for a cup of coffee around 7am and we can sit out on the front patio and watch the traffic line up as folks are trying to pull out on Keene. If you really want to be entertained, please come during the months of November-March and you can watch as the various vehicles either try to stop going down the hill or get stuck driving up the hill. This is not a trivial thing and should not be discounted based on a paper study.

For all of the same reasons that we provided to Mr. O'Neill during the last unsuccessful attempt (Ladera), we flat out reject the idea that any additional homes can be supported by the current infrastructure. Placing a traffic light here is just going to exacerbate the current stressed roadway as it will simply back cars up a fairly steep hill as well as up Foxtrot and Saddle Way. This cannot be a spreadsheet exercise, one must come and drive the roadway to understand what we are trying to articulate. From an impact perspective, if Pahlisch wants to add the additional area in our subdivision, which I am still fully against based on the reasoning already provided to Mr. O'Neill, they need to add an additional access point into the area to support both the SEVA requirement and the impact to the existing residents of Country Ridge.

Pahlisch appears to be seeking to kick the SEVA can down the road with what appears to be nothing more than hope as their strategy. We implore you to require them to address the SEVA situation now and not allow this effort to continue with the idea that it can be solved at a later time.

Additionally, I would request that you please include our comments provided to Shane O'Neill from their last attempt as part of the public record.

Sincerely,

Sam Grover

(208) 709-0791

Stevens, Mike

From: SEAN M DEMARS <ssdemars@msn.com>
Sent: Saturday, September 3, 2022 10:03 PM
To: Stevens, Mike
Subject: Halara Hills concerns

Mr. Stevens,

Thank you for taking a few minutes to review some concerns I have about the proposed development next to Country Ridge. I understand the need for more housing in our area and do not object to more development, but to do so in a manner that compromises safety is unwise. Our streets in this neighborhood are not designed to carry the minimum 30% increase in traffic that will come with it. With no other access to Halara Hills than Country Ridge Drive, the amount of increased congestion dramatically increases the risk to our children, other pedestrians, and cyclists. Country Ridge currently takes advantage of the rolling hills, and while this creates better views for the homes and more visual interest, by adding more traffic to the roads than originally intended, the visibility will greatly suffer. Our children catch the bus in the neighborhood, and the increased traffic will require crossing more busy roads and waiting for the bus in areas with no sidewalks and many hills, all with more cars. We already have many cars, delivery, maintenance, and utility trucks often parked along shoulders that create more single-lane travel and worsened visibility. Adding another 82 homes without another means of entrance and exit compounds all these dangers. Additionally, if we have an emergency in the neighborhood, we have to rely on those increasingly congested roads for the assistance to be able to arrive. There should not be an acceptance of a plan to proceed with the Halara Hills development unless it includes, and is preceded by, a means of accessing those homes that is not reliant on Country Ridge Drive. There must be an exit in place to the west that is functioning to prevent this compromise of the safety of our children and families.

Sincerely,
Sean and Sarah Demars

Stevens, Mike

From: Seth Edvalson <dredvalson@gmail.com>
Sent: Wednesday, September 7, 2022 1:45 PM
To: Stevens, Mike
Subject: land use action near country ridge

To whom it may concern,

I am contacting you as a concerned Richland City citizen and member of the Country Ridge Heights neighborhood. There are many concerns with the new proposed plan.

Last year it was ruled that there needs to be a second emergency vehicle access. The amount of traffic from an increase like this is not what was planned for when the streets here were constructed.

The builder/developer knew what the conditions of the land were when it was purchased and thought he could negotiate with the city to change and skirt around some of the codes so that he could make a windfall by purchasing land meant for fewer houses and putting 4 times the amount of houses on it. If he or anyone else knew they could put 80-100 houses on it that land would have sold for more money, that's the evidence we all have that he knew what he was buying. He wasn't fooled to buy land that was meant for large lots, he just thought he could change it and not follow what others had been previously told about developing that land.

Sincerely,
Seth Edvalson



Virus-free. www.avast.com

Stevens, Mike

From: Shawndell Wilson <shawndell.wilson11@gmail.com>
Sent: Tuesday, September 6, 2022 4:46 PM
To: Stevens, Mike
Subject: Halera, previously Ladera development

Ladera now Halara Comments from Country Ridge Homeowner –

Changing the name does not change the real issues and serious safety factors. The addition of a traffic light does nothing to address traffic from the intersection to the new development. Our roads and lack of sidewalks is a serious concern by adding the amount of traffic from a high-density development.

- Local streets should have a daily trip count of less than 1,000.
- City traffic engineer used the ITE (Institute of Transportation Engineers) calculator to show each house generates 10 trips per day.

The Halara subdivision on its own would exceed the limits of a local street traffic.

Traffic – I live on the corner of Strawberry Lane and my driveway is the bus stop for 3 buses in the morning and 3 buses in the afternoon. Parents pull over to the side of the road to ensure the younger kids get on the bus. There is no room on the side of the road. Therefore blocking part of the two way traffic. Adding additional cars turning at that corner is an accident waiting to happen to these children. Has Pahlisch and City of Richland re checked the current traffic count? Last time they checked during covid slow down? Which basically is false data due to people being home on lockdown.

Secondary emergency vehicle access (SEVA) – This was a major issue and a primary reason that the last application was denied. The developer did not appeal that denial but instead resubmitted a new application, which is not uncommon, except that they are now asking the hearing examiner to not make a decision on the SEVA this time. The new development should have its own SEVA that does not require the use of Strawberry Lane.

Many lots are still below 12,000 sq ft and are certainly not consistent with the adjoining neighborhood. The developer wants to hook into existing utilities and

irrigation water that was developed for the Country Ridge. Have they even done research that our utilities can handle the increase?

Public Officer Assurances – After the County Estates Subdivision was formed, the former planning department supervisor made assurances that the vacant 60 acres off of Strawberry would never be allowed to divert traffic through Strawberry Ln and CR Drive.

- Several of our neighbors approached the City of Richland regarding developing this land and were told by the city official that no traffic could go through the existing neighborhood as the traffic limits were already exceeded. Strawberry Lane would be blocked off and an entrance must be made to Dallas Road.

Proof of this was established in the last hearing. City of Richland should have copies of the letters.

*Shawndell H Wilson
3404 Strawberry Lane
Richland, WA 99352*

Stevens, Mike

From: Shelley Cleaves <shelley_cleaves@yahoo.com>
Sent: Tuesday, September 6, 2022 10:18 AM
To: Stevens, Mike
Subject: Halara Hills

Mr. Stevens,

My husband has recently wrote to you expressing our family's concern about the new Halara Hills Development.

I am echoing his remarks that he sent.

Please see below.

v/r,

Shelley Cleaves

I am a resident of Country Ridge and I wanted to express my significant concern about the impact that the addition of the new Halara Hills development would have to my family's quality of life in our neighborhood.

I understand that change is a constant and I am glad that our community is growing, but we need to be smart about the development.

Country Ridge is already a very busy community, and with only one access point to the neighborhood it seems that adding more homes using this access point is a recipe for disaster. In our time in this neighborhood, I have seen a lot of close calls and a very bad accident at the opening of this neighborhood. The traffic on Keene is ever increasing, making it more and more difficult to exit our neighborhood. Adding another development using this access point would make things so much worse. Our home alone has 4 drivers, so adding another community would make the amount of usage of that entrance sky rocket.

I know that the developers are proposing putting a traffic light at the opening to our neighborhood. This is not a good solution. One thing it would create even more congestion and discontent amongst the drivers on Keene given that there is already a light at Duportail and Queensgate. Also, it would do nothing to alleviate the inevitable traffic in the neighborhood. A light would only result in long waits, and very congestion in our neighborhood. The entrance is a culmination of three streets (Saddle, Country Ridge, and Fox-Trot), and backing up cars at the entrance would create significant animosity amongst the neighbors in an already congested exit/entrance point to our neighborhood.

I think the only real solution for Halara Hills, is its own entrance at Dallas Road. This would alleviate any concerns that I have about increase in traffic flow through our neighborhood. If we dead end our neighborhood at Strawberry Lane and make the Halara Hills supply their own entrance at Dallas Road, it would provide a solution for all parties.

I worry about the increased traffic flow in the neighborhood causing an increased risk of accidents and pedestrian injury. We are a community of walkers and I think the increased flow would result in more accident potential and personal injury. Plus our neighborhood is not designed for that kind of increased traffic flow since we have no sidewalks and our roads are not especially wide.

Please keep our neighborhood safe and a desirable location to live. Please make the Halara Hills Development create its own access point at Dallas Road.

v/r,

Dr. Tom Cleaves

Stevens, Mike

From: Sherry Sandilands <sherrys@bhhstricities.com>
Sent: Wednesday, September 7, 2022 2:19 PM
To: Stevens, Mike
Subject: Hilara Hills Developmet

This is an email to notify the City of Richland Planners that I speak for Country Ridge as a whole and that we are vehemently against the high density small lot size proposal of Halara Hills Development UNLESS they have their own access that does not go through Country Ridge. Our neighborhood roads were not designed to multiply the numbers of cars going up the small roads of Country Ridge Drive and Strawberry Lane. We already have a dangerous traffic situation with back up from Mail trucks, garbage trucks, delivery trucks, landscaping trucks etc parked who must park on these roads with barely any shoulder. Cars pull around into oncoming traffic to get around these vehicles and multiplying the chance of accidents of oncoming traffic and hitting pedestrians who walk these routes for their daily exercise is irresponsible, inappropriate and dangerous. In addition, the one outlet onto Keene for our entire neighborhood was designed for a max of 250 homes.

*There is talk that the city is considering a connection of Lariat Ln to Queensgate which would also be irresponsible adding 82 homes to the already 250 homes and then accommodating the multi-family buildings proposed for the Queensgate development on the other side of Country Ridge.

The solution is simple. We want a dead end road at the end of Strawberry Lane and the development to be required to design and pave a road designated for this new Halara Hills neighborhood.

The primary reason the previous application by Pahlish was denied is the same major issue again. Secondary Emergency Vehicle Access (SEVA). Pahlish did not appeal this but instead ignored the issue and submitted a new application. Why? Maybe we all forgot about it?

The last application was denied in part by a misuse of density transferring provisions. They noted the hillside is too steep to build upon so that justifies having smaller lots on the usable land. That trial of justification was clearly wrong and absurd.

This new application reduces the number of lots and claims to not be using the density transferring anymore. They will be gifting the unusable land to Badger Mountain to maintain, yet they are keeping enough property going up the slope to artificially increase the average lot size. Why this is an issue is many lots are still under the 12,000 sq ft and are not at all consistent with the adjoining neighborhood. If you put a dead end at the end of Strawberry Lane this is a non issue.

There is also concern of the shrub steppe in the area on which homes are supposed to be built and is inconsistent to the city's comprehensive plan.

Thank you for your time and efforts to protect our beloved neighborhood and it's inhabitants! We encourage you to drive through Country Ridge and better yet come live here!

Happy to have Hilara Hills built appropriately on this land/at this location but only with a separate neighborhood access road of their own and a dead end at the end of Strawberry lane.

Warm Regards,

Sherry Sandilands
1130 Pinto Loop

Sherry Sandilands
Real Estate Broker
Luxury Specialist
503-709-1268 - Cell
sherrys@bhstricities.com

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Stevens, Mike

From: Steve Graney <steve.graney@gmail.com>
Sent: Wednesday, September 7, 2022 9:56 AM
To: Stevens, Mike
Subject: Coutry Ridge Additional Homes Expansion

Good Morning,

I understand there is deadline tonight for letters regarding this project and I would appreciate this being added to the stack of letters. We have lived in Country Heights (top of Country Ridge) for 9 years. The first thing people say when they are in our back yard is Wow you can really hear the traffic roar. We sigh and say yes it wasn't like that in 2013. Today we are woken up every morning by the freeway roar and every day and night you hear the traffic roaring on Keene. We even have the pleasure of listening to the racing that happens on Keene which the Richland Police will address when they have more officers hired. We heard there was a bust last week and a couple drivers arrested so at least the policing has finally started. So far, do you want to spend over a million dollars for a home like this? My home is beautiful but thanks to lack of planning by the city, lack of noise reduction down below, lack of policing Keene which is officially a freeway with most drivers driving 50-55 mph, poor traffic flow at Queensgate, selfish builders adding homes and wanting to add more homes which don't comply with lot sizes or neighborhood city rules, we are moving out of this city.

It's incredibly sad as we have raised our kids here. Do you just need more money and therefore just don't care? Just come to the top of country ridge and go for a walk and tell me how adding 80, 100, 200 homes is going to make Richland a better place. I dare you to just come walk on Pinto loop where all the homes are 1 million plus and come listen. 25ph? Yeah right. 3 dogs have been killed in the past 2 years as most cars are going 30-35. You want more cars coming in 1 entrance and one exit? Have you watched the traffic at 5pm? Saturday at Noon around there? Look at the cracks on the roads from water running down the mountain from irrigation. Look at the crack on Pinto Loop from water running down the mountain. You want to another 100 homes and more water and more irrigation and more foundations moving? You feel good about another 100 homes and 300 cars? It makes zero sense. ZERO. Stand for what makes Richland a better place. We can move to Seattle if we want this type of life. No thanks. I have 5 friends 5. 5. 5 leaving Richland for reasons just like this one. Time to stand for what is right.

Thank you,

--

Steve Graney
509-539-2039

Stevens, Mike

From: Steve Wright <Steve.Wright@atkinsglobalns.com>
Sent: Tuesday, September 6, 2022 7:05 PM
To: Stevens, Mike
Subject: NOTICE OF APPLICATION, PUBLIC HEARING Preliminary Plat of Halara Hills.

From Steven Wright, 1141 Percheron Place

The impact of this additional; 82 lots cannot and should not be underestimated

The impact of the addition 82 lots starts to show itself at the Country Ridge/Keene intersection. The traffic from those 82 lots when combined with the existing traffic from approx. 240 homes on Country Ridge and the various higher divisions, will result in increased delays, and associated impatience, at that junction, both exiting from Country Ridge and accessing Country Ridge from Keene.

The vast majority of accidents are the result of left turns. At the Country Ridge/Keene intersection the left turn volumes will go up, hence increased accidents. So, are traffic lights the answer? only if understood and used correctly.

Travelling up Country Ridge, the greater is the impact, and remember Country Ridge Drive does not have sidewalks, even walking against the traffic flow there are several areas when vehicles will try to take a corner tight. This problem is further compounded when snow forces pedestrians further into the roadway. Sidewalks within the development do not make any difference here

The major traffic issue is at the upper levels of Country Ridge, County Heights, and Country Estates. In these areas the additional 82 lots and the associated increase in traffic volume is significant. Very simply put, without recourse to graphics, spreadsheets and the like: the introduction of traffic from 82 lots (1000+ journeys per day) through a subdivision of 20 houses (County Estates, via Strawberry Lane) cannot and should not be considered acceptable when safety, quality of life and the like are factored in.

Better still to eliminate the traffic impact on the Country Ridge neighborhood and the Country Ridge/Keene intersection altogether, decouple the new development completely from Country Ridge and route all new traffic via Dallas and chain off access to Country Ridge for emergency service only.

Stevens, Mike

From: Teresa Stracener <tjstracener@yahoo.com>
Sent: Wednesday, September 7, 2022 1:33 PM
To: Stevens, Mike
Subject: Fwd: Country Ridge Expansion

Greetings,

>> I am a homeowner in Country Ridge. I am writing regarding the proposed expansion of Country Ridge.

>>

>> My concern is the lack of access and egress for residents as well as emergency vehicles, be it large fire engines and ladder trucks, emergency medical services and wildland firefighting vehicles. With only one entrance, it can easily become overwhelmed in the event of a house fire or wildland fire. In the event the neighborhood has to evacuate, I fear the fire department would not be able to enter through the entrance while the occupants are trying to evacuate.

>>

>> Adding more homes will only overwhelm the lone entrance even further.

>>

>> We have seen examples of this situation play out in California as well as the unintended consequences.

>> Thank you for your consideration.

>> JJ Coats

Stevens, Mike

From: Bikertj <bikertj@aol.com>
Sent: Monday, September 5, 2022 11:39 AM
To: Stevens, Mike
Subject: OPPOSITION TO DEVELOPMENT OF HALARA HILLS

Dear Mr. Stevens,

My name is Thomas Johnson and I and my family have lived at 1161 Foxtrot Ln, in Country Ridge since 1993. In that time, there has been many new residences added that all must enter/exit Country Ridge Dr. from Keene Road. There is no other way to get in/out of Country Ridge, Country Heights and Country Estates.

There is already traffic congestion at this intersection, especially in the morning, from 6:30-9:00 and afternoon 4:00-6:30. It is not unusual to have 5-7 cars waiting to get out of Country Ridge and just as many cars, heading east from Queensgate Dr., on Keene Road trying to get into Country Ridge during these times.

A few years ago, The City of Richland revised the intersection, and actually made Country Ridge Dr. narrower than it was previously, so now, unless a car that is turning left unto Keene Road is hugging the centerline of Country Ridge Drive, it's almost impossible for another car to turn right onto Keene at the same time.

With the development of South Richland and West Richland, west of SR182, traffic on Keene Road has exponentially increased, causing delays when turning onto Keene Road from Country Ridge. The new bridge across the Yakima River seems to have increased traffic on Keene Rd, from Queensgate Road, heading towards West Richland. The addition of 82 additional lots that would require ingress/egress via Country Ridge Drive will make the traffic congestion at this intersection much worse than it already is.

I understand that a traffic light is being considered at the intersection of Country Ridge Drive and Keene Road. Although this might be a slight improvement for the existing residents of Country Ridge, it will not significantly improve traffic flow with the 82 additional homes, and it will further impede traffic on Keene Road, as there are already traffic lights at Queensgate Drive and Duportail St.

I respectfully request that this subdivision, as currently designed, be reconsidered or denied. I would propose that the ingress/egress for these 82 lots be on Dalles Road and not Strawberry Lane/Country Ridge. There is significantly less traffic on Dalles Road, and it might give the City an opportunity to pass on much of the cost of improving Dalles Road to the developer of Halara Hills.

I have not touched on the other issues that the increased traffic would impact such as emergency fire evacuation or possible flood caused by the KID canal, which, by the way, flooded Country Ridge and Bridle Roads a couple years ago, preventing some residents from exiting the area until the roads were cleared. Also, the increased dust in the air caused by the construction, which already is a problem, even without the new development.

In summary, I am requesting that the City of Richland take more time in reviewing this proposed subdivision and consider the impacts on the existing residents in the area. There already is a serious traffic problem getting out of Country Ridge and this addition would only add to the congestion and negatively impact the safety of the residents here.

Thank you for your consideration,

Thomas and Debra Johnson
1161 Foxtrot Ln
Richland, WA 99352

Mike Stevens, Planning Manager
625 Swift Blvd, MS-35
Richland, WA 99352

Sept 6, 2022

Re: Response to Notice of Application for Halara Hills Subdivision by Pahlisch Homes

Dear Sir, I am providing feedback on the application for Preliminary Plat of Halara Hills submitted by Pahlisch Homes. I am **not in support** of approving this application. As with their previous submission, their plans have adverse effects on the Country Ridge, Country Estates, and Country Heights communities. It also appears the City of Richland's decision to zone that area R-1-12 was either not well thought out, or in error. Clearly, impacts to adjacent communities were not considered. I urge the City to reject this Application, which is for a project detrimental to its citizens. Below are specific sections of the Application that are concerning.

3. Narrative

- At several places in the Application, including the Executive Summary, it is stressed there will be "amenities like trails and a neighborhood park." Repeatedly, over and over. But there is essentially no detail of their plans beyond spaces marked on the Plat Map. The "neighborhood park" appears to be nothing more than a low point in the drainage system. Is there landscaping? Are there trees? Picnic table and cover? Playground equipment? The way the "neighborhood park" was discussed in the application as contributing to general quality of life, we would expect an actual ***park***, not a drainage pit.
- Regarding "trails" that will feed onto the Badger Mountain Centennial Preserve, while admirable, the commitments made in the Application are very minimal. My understanding is the Preserve is Benton County property. Has the County concurred with the plan? How about the Friends of Badger Mountain? Per Pahlisch Homes, this volunteer organization is going to build trails up the mountain on 40-degree slopes. Have they agreed to this? What is the schedule for completion? What budget did Pahlisch establish, or is it an open check book? Or perhaps the trail talk is just happy-talk, feel-good stuff.
- Hiking trails built to feed onto Badger Mountain Centennial Preserve will bring in additional traffic to the neighborhood. A perfect example is the impact of additional traffic to the Westcliffe Subdivision from Trailhead Park, which also accesses Badger Mountain Centennial Preserve. Traffic can be a nightmare, the neighborhood is disrupted, and a parking lot had to be built. Clearly this was not taken into consideration. In addition, impact of incremental traffic due to hiking trails accessing Badger Mountain Centennial Preserve was not addressed in the Traffic Impact Analysis.

- One topic addressed, being a previous item of contention, is the SEVA - Secondary Emergency Vehicle Access. This outstanding issue is still not resolved. The Narrative explains it as “Applicant and Fire Marshall **have discussed**”; “**appears** multiple options **may be available**”; “ultimate solution will **depend on timing**.” Depends on the timing of what? These statements are not definitive and seem designed to provide wiggle room. The words have had a lawyerly massaging to avoid specific accountability. Perhaps it will work out, or perhaps this could be a way to move a contentious issue into the future, hoping it will receive less public scrutiny.
- In the section of Narrative discussing the Critical Areas Report, it references correspondence with Mr. Ritter from the Washington Department of Fish & Wildlife. Specifically, Pahlisch included a statement from an email mentioning “we appreciate that the project is wiling **to consider** additional voluntary restoration...” Tell me, what is the commitment here? **To consider** – is that the extent of commitment? It seems any specific action to be taken is very, very limited at the least.
- Pages 13 & 14 of the Narrative reference the Richland Municipal Code and discuss installation of a traffic signal at Country Ridge Drive and Keene Road. Words such as “would be appropriately mitigated”; “continues to be warranted”; and “will work with the City” are used in the Narrative. This seems to lack any definitive commitment to resolve the traffic congestion that their project will make worse. There is no timetable, no budget, no completion date. What have they promised? “Will work with the City?” What, specifically, does that mean? Further into the Narrative, there is additional discussion of the traffic signal, and it includes the statement “The applicant will construction this improvement concurrent with the proposed development.” Elsewhere in the Application, Pahlisch included verbiage that to effect said construction of the development will start in the Fall of 2022 and extend into 2024, depending on market conditions. Given that statement, is Pahlisch committing to a 2024 completion date for the traffic signal? Or, what?

8. Transportation Impact Analysis

- The Traffic Impact Analysis is lengthy and detailed, but overall, I am not satisfied with the analysis. To me, it’s questionable if it leads to conclusions that are in the best interests of the City of Richland’s residents.
- Page 37 of Pahlisch’s Narrative discusses Deadend Streets. It indicates that Lamont Street will “temporarily deadend until properties to the west develop and extend the road.” When those properties are developed, it will bring additional traffic. The Traffic Impact Analysis did not address this.
- As mentioned in my discussion of the Narrative, incremental traffic created by Pahlisch’s trailhead access to Badger Mountain Centennial Preserve was not considered or addressed in the Traffic Impact Analysis.

- The section of the Analysis, titled Surrounding Transportation Infrastructure, doesn't really delve into the impact to current residents living and traveling on Country Ridge Drive. The Analysis mistakenly says "on-street parking appears to be available on the shoulder and in the gravel area adjacent to homes along most of both streets." That gravel area belongs to the homeowners. Throughout the length of the street, there are mailboxes, drainage ditches and a few drain grates in those gravel areas. Some gravel areas have very coarse rock a sedan would never be able to park in. Some houses have landscape shrubbery that extend almost to the edge of the road. To describe the gravel areas as widely available parking is in error. The net effect is that in many spots vehicles can and will block the narrow striped lane described as for bicycles and foot traffic. USPS mail trucks, UPS trucks, School buses, and visitor vehicles all will block the striped areas at times.
- The Safety Review relied on crash records from WSDOT for analysis. That hardly seems like a complete measure of how safe an intersection is. How many close calls and near-misses were there? No one in Industry would consider narrowly avoiding a crash with a high-speed vehicle as 'safe'. I have lived on Country Ridge Drive over eight years now and it has steadily gotten worse to exit onto Keene Road. The Traffic Impact Analysis notes Keene Road has a posted 45 mph speed limit. What it did not note or understand is the City of Richland rarely enforces that speed limit. At 45 mph, you are constantly being tailgated, bordering on causing road rage. At 50 mph, you are holding up traffic. The prevailing speed is frequently more than 50 mph, and this makes the intersection even more challenging to enter or exit. Crash records are a poor basis for decision making regarding this intersection.
- I found the Pedestrian Crossing Review humorous, although the Analysis took the subject seriously. It noted that the pedestrian numbers crossing the street (Keene Road) were not very high during a 16-hour observation period. Really?? Evidently, we have a shortage of residents with a death-wish.
- Under the Findings and Recommendations, the Analysis notes "the main access will be through Strawberry Lane" and "Country Ridge Drive ... the primary access." Let's quit beating around the bush here – they are not the "main" or "primary" access – they are **the only access**. There are no other ways to get into the neighborhood, and no one can show you specific, accountable plans with definitive timetables that will change the situation. 'Could be, might be, someday' just doesn't get it. Time to end the nonsense.
- Overall, I'm sure a great deal of work went into the Traffic Impact Analysis. I have no doubt the methodology conforms to various engineering codes and standards used for civil engineering works. But it's important to note and understand that engineering codes define a floor, not a ceiling. In essence, they are saying 'it can be no worse than...' The Pahlisch project will degrade safety on Strawberry Lane and Country Ridge Drive and a traffic signal at Keene will not mitigate all the risks.

The last topic I want to address in my objections to the Pahlisch Homes Halara Hills Preliminary Application, concerns zoning. The Narrative and other parts of the application reference zoning classification R-1-12, Low Density Residential. I have no doubt that the piece of property is zoned R-1-12 and second time around Pahlisch appears to be working harder to comply with those requirements. But you may recall during their first proposal, many Country Ridge residents were surprised to learn that area was not zoned SAG. Why? Why were we surprised?

In Pahlisch's Preliminary Plat, it shows a SAG zoned area just north of the Halara Hills development. This is in essence a narrow sliver of 'no man's land' zoned SAG that is wedged between the proposed development and the right-of-way for Interstate 182. Page 1 of the Traffic Impact Analysis includes a Site Vicinity Map which shows the sliver of SAG land, and the rectangle of R-1-12 zone land to the south and west. Why? Why was this rectangular strip of property zoned R-1-12 and yet many of the nearby residents, who would be impacted by much denser development than permitted by SAG, left unaware of it?

Pahlisch goes on at length in their Narrative about how the R-1-12 development meets the City of Richland's intentions in the Comprehensive Plan. Well, maybe it is or maybe it isn't the City's intentions by having this zoned R-1-12. This specific R-1-12 designation could have been the result of thoughtful and deliberate consideration. Or it could have been the result of not thinking things through, not considering the consequences of their actions and the impacts on residents in this specific case. The effects very well may not have been understood or considered.

Or perhaps the oddly shaped rectangle of properties being zoned R-1-12, when many thought it was SAG, is a result of manipulation of the zoning process, to the residents detriment. I don't know but am certainly not satisfied in how the City of Richland has looked out for residents' best interests in this case.

Sincerely,

Thomas E Atkinson
1324 Country Ridge Drive
Richland, WA 99352
509-221-1030
Natgaspro.TEA@gmail.com

Stevens, Mike

From: Tom Cleaves <cleavesmd@yahoo.com>
Sent: Tuesday, September 6, 2022 10:15 AM
To: Stevens, Mike
Subject: Halara Hills

Mr. Stevens.

I am a resident of Country Ridge and I wanted to express my significant concern about the impact that the addition of the new Halara Hills development would have to my family's quality of life in our neighborhood.

I understand that change is a constant and I am glad that our community is growing, but we need to be smart about the development.

Country Ridge is already a very busy community, and with only one access point to the neighborhood it seems that adding more homes using this access point is a recipe for disaster. In our time in this neighborhood, I have seen a lot of close calls and a very bad accident at the opening of this neighborhood. The traffic on Keene is ever increasing, making it more and more difficult to exit our neighborhood. Adding another development using this access point would make things so much worse. Our home alone has 4 drivers, so adding another community would make the amount of usage of that entrance sky rocket.

I know that the developers are proposing putting a traffic light at the opening to our neighborhood. This is not a good solution. One thing it would create even more congestion and discontent amongst the drivers on Keene given that there is already a light at Duportail and Queensgate. Also, it would do nothing to alleviate the inevitable traffic in the neighborhood. A light would only result in long waits, and very congestion in our neighborhood. The entrance is a culmination of three streets (Saddle, Country Ridge, and Fox-Trot), and backing up cars at the entrance would create significant animosity amongst the neighbors in an already congested exit/entrance point to our neighborhood.

I think the only real solution for Halara Hills, is its own entrance at Dallas Road. This would alleviate any concerns that I have about increase in traffic flow through our neighborhood. If we dead end our neighborhood at Strawberry Lane and make the Halara Hills supply their own entrance at Dallas Road, it would provide a solution for all parties.

I worry about the increased traffic flow in the neighborhood causing an increased risk of accidents and pedestrian injury. We are a community of walkers and I think the increased flow would result in more accident potential and personal injury. Plus our neighborhood is not designed for that kind of increased traffic flow since we have no sidewalks and our roads are not especially wide.

Please keep our neighborhood safe and a desirable location to live. Please make the Halara Hills Development create its own access point at Dallas Road.

v/r,

Dr. Tom Cleaves

Stevens, Mike

From: Tracy Ikenberry <ikeus100@gmail.com>
Sent: Tuesday, September 6, 2022 11:59 PM
To: Stevens, Mike
Subject: Comments on S2022-102 Halera Hills preliminary plat application

September 6, 2022

Mike Stevens
Planning Manager
City of Richland
625 Swift Boulevard, MS-35
Richland, WA 99352
mstevens@ci.richland.wa.us

Dear Mr. Stevens,

I am contacting you to provide comment on the proposed S2022-102 "Halera Hills" Preliminary Plat application. This is a much improved application over the earlier 2020-103 "Ladera" Preliminary Plat application. However, as a nearby Richland resident, I feel there are still some issues that the application fails to fully address:

1. There are needed improvements to Country Ridge Drive to accommodate an additional 841 average daily trips. Country Ridge Drive has no curbs, no sidewalks and without improvements the additional traffic affects the safety of walkers and cyclists along this street. It is curving and rather steeply downhill from the proposed development. As a resident of Country Ridge living on Bridle Drive, the other main road for the Country Ridge neighbors, I am too aware of the number of drivers who have little consideration for lower slope residents and children on these roads, speeding downhill in excess of 50 mile per hour. This road is really not suitable for an additional ~300 residents, especially in the winter when black ice and snow are distinct possibilities. The lower portion of Country Ridge Drive where it nears the intersection of Keene is steep and particularly unsuited for much additional traffic. The proposed traffic light is definitely a requirement.
2. The application needs to specifically address secondary emergency vehicle access (SEVA). The only logical choice for a new access point for new development in this area is a connection to Dallas Road. As the only logical choice, it needs to be specifically included in the application and required by the City of Richland. A proposed SEVA of Lariat Loop, which would be illogical and strongly opposed by all nearby residents, might cause rioting in the streets.
3. While understandable for the City to allow residential development in this area, the proposed configuration of the Haldera Hills plat is still out of character with the existing residential properties in the immediate area and through which residents of this area would travel. The layout of the proposed development is better than initially proposed as "Ladera," and hopefully the developer would have consideration for consistency with existing neighborhoods, although beyond resident control.
4. The percentage of impervious surfaces has decreased slightly, to 18.6%, but this still seems high compared to the nearby neighborhoods.
5. The lots on the south side of the development still seem artificially large to increase the average lot size.

Thank you for considering my comments.

Regards,

Tracy Ikenberry

1174 Bridle Drive
Richland

Albert K & Nichole M Barton (Trey & Nikkie)
1180 Pinto Loop
Richland WA, 99352
(310) 872-7978
Treybarton17@gmail.com

RE: Halara Hills Development by Pahlisch Homes

Mr. Stevens,

My husband and I currently reside on Pinto Loop within Country Heights. We are both very concerned with the planned subdivision development that Pahlisch Homes is applying for which is located close to our neighborhood currently referred to as "Halara Hills".

After reviewing the application documents that Pahlisch Homes submitted, we are very concerned about their overall plan. More specifically, we are concerned with the increased traffic, safety/proper access to the neighborhood, and the lot sizes they are proposing.

Currently, we have one entryway into both Country Ridge and Country Heights. Our neighborhood residential streets cannot support the use of commercial sized trucks used for construction. If a neighbor is remodeling their home, the service vehicles are large and unintentionally block part of the two lane street. With the curves and mature trees in our neighborhood, we cannot see around them and it can be unsafe to pass. If we are behind a garbage truck picking up trash, it is unsafe for us to pass because we cannot see oncoming traffic. Furthermore, our local streets are not designed to transport multiple neighborhoods. The current 249 existing homes already maximize the safe use limits of our streets, especially Country Ridge Drive. Adding a third neighborhood will only put more stress on our residential streets. I see where the developer is wanting to add a traffic light at the entrance, however this traffic light does nothing to address the traffic from the intersection to the new development. We request the developer adds a new independent access to the developed neighborhood via Dallas Road.

In terms of safety, we only have one street to access our neighborhood. This new development should have its own emergency vehicle access road. I see that the developer requested this be addressed at a later time. This shows that the developer is not concerned with the safety of any of the residents, and I fear that if it is not thought out and a good plan is developed in these early planning stages it will be ignored and forgotten about in the future. This needs to be addressed by the developer in these early planning stages with a real solution prior to developing the neighborhood.

Lastly, when we were looking to move into our home we were drawn by the size of the lots and the quality of the homes in Country Ridge and Country Heights. We are known for our lot sizes, space and mature landscaping, and this is one aspect of what makes our neighborhoods desirable. We were actually debating between our current home, and a Pahlisch home listed on Legacy Lane. We choose to live in Country Heights for the lot size, the neighborhood and the quality of craftsmanship in our Don Pratt home. We are concerned that the majority of the lots that Pahlisch is hoping to develop are smaller than 0.5 acres, which is already below average compared to the existing neighborhood, and that they are proposing to include the unusable steep slopes of the mountain to include in the lot sizes to make it appear as if the lots are larger on paper vs real usable space. Pahlisch has the capability of designing beautiful, high quality homes and I hope that they are held to the same standard as the adjoining neighborhoods in both lot size and build quality.

Thank you for your time and consideration.

Sincerely,

Nikkie & Trey Barton

Dear Mike Stevens,

My name is S. Veronica Idrogo, and my husband and I currently reside on Appaloosa way. We are concerned with the planned subdivision development that Palisch Homes is applying for located close to our neighborhood.

After reviewing the application documents that Pahlish Homes have created, we are very concerned about what they are planning. We are specifically concerned with the traffic, safety access to the neighborhood, and the lot sizes they are proposing.

Currently, we have one entryway into both Country Ridge and Country Heights. Our neighborhood residential streets cannot support the use of commercial sized trucks used for construction. If a neighbor is remodeling their home, the service vehicles are large and unintently block part of the two lane street. With the curves and mature trees in our neighborhood, we cannot see around them and it can be unsafe to pass. If we are behind a garbage truck picking up trash, it is unsafe for us to pass because we cannot see oncoming traffic. Furthermore, our local streets are not designed to transport multiple neighborhoods. The current 249 existing homes already maximize the safe use limits of our streets, especially Country Ridge Drive. Adding a third neighborhood will only put more stress on our residential streets. I see where the developer is wanting to add a traffic light at the entrance, however this traffic light does nothing to address the traffic from the intersection to the new development. We request the developer adds a new independent access to the developed neighborhood.

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Thank you for your time and consideration.

Sincerely,

Veronica and Dieter Idrogo

Stevens, Mike

From: Wendy Gosselin <gosselin1@charter.net>
Sent: Monday, September 5, 2022 1:10 PM
To: Stevens, Mike
Cc: Alvarez, Michael
Subject: Halara Hills Proposal by Pahlisch

We are contacting you to express several concerns about the Pahlisch Homes proposed Halara Hills development.

1. This newly proposed subdivision is still a much higher density than the Country Ridge, Country Heights, and Country Ridge Estates neighborhoods through which owners will travel. A substantial increase in trips per day will occur on Country Ridge Drive and Strawberry Lane. This is FAR too much traffic added to our existing neighborhood streets. The increase in traffic from construction vehicles alone is too much for our neighborhood roads to bear.
2. The potential of increased traffic on these existing streets also creates a safety issue for children playing, school bus routes, pedestrians on sections without sidewalks, or for evacuation of homes in case of an emergency.
Our neighborhoods already have roadway passing issues due to on-street parking by visitors, delivery trucks, and contractors. This will worsen with the addition of construction vehicles and 82 new homeowners.
For the reasons outlined in items 1 and 2, we believe an additional access (SEVA) to the Halara Hills development should be agreed upon prior to approval of this proposal and built before home construction begins.
3. The environmental impact to wildlife and the grading of land/runoff at the base of protected lands are still of concern to us. We hope the city will honor the land we care about here in Richland by carefully considering a new environmental review of this application.

We thank you for considering our concerns. Please keep us and our neighbors informed of ongoing plans and feel free to contact us if you would like further input.

Sincerely,

Stephen and Wendy Gosselin
1285 Country Ridge Dr.
Richland, WA 99352
Gosselin1@charter.net
509-948-3681

Sent from [Mail](#) for Windows

Stevens, Mike

From: William Estes <westes591@gmail.com>
Sent: Wednesday, September 7, 2022 10:12 AM
To: Stevens, Mike
Cc: natalie m
Subject: Halara Hills Development

Dear Mr. Stevens,

My name is William Estes and I live at 2500 Saddle Way in Country Ridge. I am concerned about the Halara Hills housing development (82 houses) in the area. The concern is that there is not a separate ingress and egress for the new vehicles and would be required to use the only ingress/egress for Country Ridge. I understand that the City of Richland performed a traffic survey for the Country Ridge ingress/egress previously and found the increased traffic of the new development not to be a problem.

I don't believe this assessment is accurate and would be a major bottleneck for exiting Country Ridge. If each additional house has 2-3 cars per household, there would be 164 to 246 cars added to the traffic flow into and out of Country Ridge as well as additional contractor vehicles, delivery vehicles, school buses, and other business-related vehicles in the area. This, combined with the Keene Road traffic, makes it difficult and potentially dangerous for people exiting Country Ridge.

I have noticed a substantial increase of traffic on Keene Road the last several years. My lot is adjacent to Keene Road and the traffic is much busier and louder than ever before. I foresee even more traffic on Keene Road with housing and businesses popping up in the area.

Country Ridge Drive is a two lane road which makes it difficult to enter Keene Road especially when making a left turn. This bottleneck may have many cars lined up at the exit especially in the morning when people drive to school or work. Since I live on Saddle Way I am concerned that traffic would back up on Saddle Way as well and may make it difficult for us to get out of our driveway at times. Foxtrot Lane could also be backed up since it also ties into Country Ridge Drive close to Keene Road.

I would recommend not allowing this development without one or more suitable ingress/egress points that would safely and orderly allow residents to come and go from their homes.

Thank you for your consideration.

William and Linda Estes

2500 Saddle Way, Richland