



AGENDA

**MONDAY, MARCH 10, 2024
6:00 P.M.**

**CITY OF KENNEWICK
HYBRID COUNCIL CHAMBERS & VIRTUAL MEETING
210 W. 6TH AVE, KENNEWICK, WA 99336**

Procedure for Participation

- Please register and sign in to Zoom if you wish to receive a copy of the decision when it is issued and if you plan to give testimony virtually.
- When recognized by the Examiner, state your name, address and whether you are representing only yourself or others.
- All remarks, comments, and questions should be addressed to the Hearing Examiner and not to the audience or parties. You may offer written comments or other items (such as photographs) to the Hearing Examiner as an exhibit for the permanent record. Please provide at least three (3) copies of each item submitted: one copy for the Hearing Examiner, one for the Official Record, and one for Staff). During an Appeal Hearing, if the appellant and the applicant are different parties, then a fourth copy of all documentation is requested.

I. CALL TO ORDER

II. PROCEDURAL INFORMATION

III. PUBLIC HEARING

- A. Planned Residential Development (PRD-2024-0001), "Canyon View Estates" proposing 53 single-family lots, 3 open space tracts, one lot with 21 multi-family structures (126 units), and a community building on 29.5 acres generally located SE of US-HWY 395 and Ridgeline Drive interchange. The site is currently zoned Residential, Low Density (RL). The applicant is Scott Shumaker, PBS Engineering & Environmental, 400 Bradley Blvd., Ste. 106, Richland, WA 99352. Property owner is Chad Bagley, Canyon View Estates, LLC, 1418 E. Saint Helens Street, Pasco, WA 99301.
- B. Preliminary Plat (SUB-2024-0003), "Sunny Meadows" proposing to subdivide 23.46 acres into 76 lots located and 3 tracts located at 240 E 49th Avenue. The site is currently zoned Residential, Low Density (RL), the Comprehensive Plan designation is Low Density Residential. The applicant is Paul Knutzen, Knutzen Engineering, 5401 Ridgeline Dr. #160, Kennewick, WA 99338. Property owner is RP Development, 105609 Wiser Pkwy., Kennewick, WA 99338.

IV. ADJOURN



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COMMUNITY PLANNING DEPARTMENT

STAFF REPORT AND RECOMMENDATION TO THE HEARING EXAMINER

FILE No: PRD-2024-0001

Staff Report Date: February 19, 2025

Public Hearing Date and Location: March 10, 2025, City Hall

Report Prepared by: Steve Donovan, Planning Manager

Report Reviewed by: Matt Halitsky, Senior Planner

Summary Recommendation: The City of Kennewick RECOMMENDS that Planned Residential Development PRD-2024-0001 be APPROVED with conditions.

Summary of Proposal: A Planned Residential Development consisting of 53 single-family lots, 3 open space tracts, one lot with 21 multi-family structures (126 units) and a community building on 29.5 acres.

Proposal Location: The proposal is generally located SE of the US 395 and Ridgeline Drive Interchange. Parcel Nos. 1-2189-100-0002-000.

Legal Description: See Exhibit 2

Property Owner: Canyon View Estates, LLC
c/o Chad Bagley
1418 E Saint Helens Street
Pasco, WA 99301

Applicant: PBS Engineering and Environmental
Attn: Scott Shumaker
400 Bradley Boulevard, Suite 106
Richland, WA 99352

Engineer: Same as Above

Approval Criteria:

1. Comprehensive Plan – Land Use
2. KMC Title 18 – Zoning
3. KMC Title 17 – Subdivisions
4. KMC Section 5.56 – Public Works Construction Standards
5. Washington State Environmental Policy Act

Preliminary Plat Key Application Processing Dates:

Pre-Application/Feasibility Meeting	N/A
Application Submittal	September 25, 2024

Determination of Completeness Issued	October 3, 2024
Notice of Application	October 3, 2024
Property Posting Sign	October 3, 2024
City Department Review Meeting	January 8, 2025
SEPA Threshold Determination Issued	January 9, 2025
SEPA Appeal Period Ends	January 23, 2025
Date of Published Notice of Public Hearing	February 16, 2025
Date of Posting Hearing Notice On-Site	February 21, 2025
Date of Mailed Notice of Public Hearing	February 20, 2025
Public Hearing Date	March 10, 2025

Exhibits:

1. Staff Report
2. Legal Description
3. PRD Plan for Canyon View Estates
4. Development Schedule
5. Phasing and Open Space Diagram for Canyon View Estates
6. Landscape Plan for Canyon View Estates
7. Critical Areas Report and Mitigation Options
8. Geotechnical Engineering Study
9. Traffic Impact Analysis
10. Applicant's Response to comments
11. SEPA Determination
12. Notice of Public Hearing Affidavit, Mailing List and Notice
13. Public Works Memorandum
14. Traffic Engineering Division Memorandum
15. State of Washington Department of Fish and Wildlife
16. Bonneville Power Administration
17. Williams
18. Kennewick Irrigation District
19. Washington State Department of Transportation
20. Benton Clean Air Agency

Staff Analysis of Proposal & Discussion:**Planned Residential Development:**

Planned Residential Development Permit, PRD-2024-0001, has a single-family residential component and a multi-family component to it. No deviations were requested from the development regulations. The applicant has requested a 5 percent density bonus, resulting in eight additional lots.

Approval of the Planned Residential Development is required prior to approval of the Preliminary Plat Application due to requesting multi-family housing in a single-family zoning district.

The purpose of Planned Residential Developments (KMC 18.45) is to encourage imaginative design and the creation of permanent open space by permitting greater flexibility in zoning requirements than generally permitted by Kennewick's development standards. The specific setback, lot size, height limits, and other dimensional requirements can be waived if the Development Standards listed in KMC 18.45.050 and the Open Space Standards in KMC 18.45.060 are met.

Preliminary Plat:

A preliminary plat has not been formally submitted. The conceptual drawing consists of 54 lots and a 6.6-acre open space area

Property History:

The property was annexed and zoned Residential, Low (RL) in September 2014 by adopting Ordinance 5567.

Density/Lot Size:

Per the Table of Residential Development Standards (KMC 18.12.010 A.2) there is no maximum density for the RL Zone, only a minimum lot size of 7,500 SF. The PRD development standards in KMC 18.45.050(4) allow a 20 percent density increase; the applicant is proposing a 5 percent density increase, which is 8 units. The allowed number of units is 171, the applicant has proposed 179.

Setbacks:

No setback deviations were requested, the following standard setbacks for the Residential, Low (RL) will be applicable to the project:

- Front: 15-feet
- Garage: 20-feet
- Side: 5-feet
- Rear: 15-feet

Traffic:

The City's traffic engineer has reviewed the applicant's Traffic Impact Analysis. Specific conditions of approval for road construction requirements and traffic impact fees have been submitted by the Traffic Engineering Division, see Exhibit 14.

Storm Water:

The development is subject to the storm water requirements in City of Kennewick Standard Specification Section 5-9 and Storm Water Management Manual for Eastern Washington (SMMEW), see Exhibit 13.

Streets & Utilities:

The developer will be required to provide construction of public roads, sidewalks, streetlights, storm drainage, and designate sidewalk and utility easements all in conformance with the latest City of Kennewick (COK) Standard Specifications and details, see Exhibit 13.

Critical Areas:

The site has areas designated as erosion hazard areas and slopes greater than 15%. The applicant submitted a Geotechnical Engineering Report, the development is subject to the recommendations of that report, see Exhibit 8.

The project site is classified as a Fish and Wildlife Habit Conservation Area pursuant to KMC 18.63.010. Additionally, it is identified as Benton County Shrub Steppe within the Washington Department of Fish and Wildlife's (WDFW) Priority Habitat and Species Program. WDFW recommends that a 2:1 mitigation ration be applied to lands that are converted from Shrub Steppe Habitat, see Exhibit 15.

The applicant submitted a critical area report for the proposal. The report states that the site contains 29.5 acres of shrub-steppe, see Exhibit 7. Off-site mitigation will be required for 24.5 acres of the site. The remaining 5 acres will be enhanced on-site and subject to the mitigation planning instructions contained the critical area report. Mitigation for shrub-steppe conversion must be approved prior to disturbing the designated area.

Grading:

Grading will be reviewed once a Preliminary Plat Application is submitted and/or prior to ground work starts.

Parks:

No City parks are proposed. The Preliminary Plat Application will be subject to Park Impact Fees.

Common Area Maintenance:

The applicant is proposing 6.6 acres of open space, which is 22.3% of the site. The applicant has submitted a landscaping plan for the development's proposed open space, that is not subject to the shrub steppe enhancement plan in the critical area report. A maintenance agreement for common open space, private streets, and shared driveways will be required to be approved by the City Attorney and recorded against the property. Per KMC 18.45.100, a Homeowner's/Property Owner Association are required for maintenance and management of open space.

Schools:

The Kennewick School District will provide comments once the preliminary plat is submitted.

Kennewick Irrigation District:

The proposed development is outside the boundary of the Kennewick Irrigation District (KID) Boundary, the district has reviewed the project and submitted comments, see Exhibit 18.

Bonneville Power Administration:

An existing transmission line runs across the northern third of the site. The Bonneville Power Administration (BPA) requires that land use application be submitted, addition to acquiring a land use application, see Exhibit 16.

Williams:

Williams will require an encroachment permit for the proposed development in its gas line easement, see Exhibit 17.

Surrounding Property:

All adjacent properties to the site are vacant and undeveloped. The properties to the north, east and south are zoned either Residential, Medium or Residential, Low. The property to the west are in unincorporated Benton County. Residential development has been proposed directly to the north, but no construction has started. It is staff's opinion that the proposed Planned Residential Development will be harmonious with the surrounding properties.

Comprehensive Plan:

Staff is of the opinion that this request is consistent with and generally conforms to the City's Comprehensive Plan, and it will implement the following, goals and policies of the Comprehensive Plan:

CRITICAL AREAS AND SHORELINE GOALS + POLICIES:

GOAL 1: *"Protect the public and personal property from the effects of landslides, steep slope failures, erosion or flooding."*

POLICY 1: *"Continue to classify, designate and protect geologically hazardous areas in the critical areas ordinance."*

GOAL 2: *"Protect the unique environment of the critical areas and shoreline."*

POLICY 1: *"Protect critical areas and the shoreline using the Critical Areas Ordinance and the Shoreline Master Plan."*

POLICY 2: *“Use Best Available Science (BAS) to protect critical areas and shorelines and their environmental functions.”*

POLICY 3: *“Preserve and protect anadromous fish, and threatened, endangered and candidate species as identified by federal and state agencies.”*

GOAL 3: *“Regulate or mitigate activities in or adjacent to critical areas or the shoreline to avoid adverse environmental impacts.”*

Staff Comment: Future development will be subject to the recommendations of the submitted critical areas report and KMC Chapter 18.62 – Critical Areas – Geologically Hazardous Areas and Chapter 18.63 – Critical Areas – Fish and Wildlife Habitat Conservation Areas.

RESIDENTIAL GOALS + POLICIES:

RESIDENTIAL GOAL 1: *“Provide for attractive, walkable, and well-designed neighborhoods, with differing densities and compatible with neighboring areas.”*

Staff Comment: The proposed Planned Residential Development has open space and walking paths for the residents to use. Additionally, multi-family and single-family residential is proposed.

RESIDENTIAL GOAL 2: *“Provide appropriate public facilities supporting residential areas.”*

RESIDENTIAL GOAL 3: *“Promote a variety of residential densities with a minimum density target of 3 units per acre as averaged throughout the urban area.”*

POLICY 1: *“Establish and implement maximum densities in the City’s residential zoning categories.”*

Staff Comment: The proposed development has a 5% higher density pursuant to the requirements of the Planned Residential Development Regulations.

HOUSING GOALS + POLICIES:

GOAL 1: *“Support and develop a variety of housing types and densities to meet the diverse needs of the population.”*

Staff Comment: The development will consist of multi-family housing and standard single-family residences. Both types of housing have the potential to provide needed housing for of the City’s population.

The City of Kennewick hereby RECOMMENDS the following conditions of approval for Planned Residential Development 2024-0001:

1. Comply with City of Kennewick regulatory controls, policies and codes, including the Single-family Residential and Multi-Family Design Standards.
2. All fees required by the City shall be paid prior to the approval of the final plat.
3. The future preliminary plat shall match the PRD Plan for Canyon View Estates, see Exhibit 3.
4. Comply with the Public Works memorandum dated October 3, 2024 (Exhibit 13).
5. Comply with Traffic Engineering Division Conditions dated October 15, 2024 (Exhibit 14).
6. Comply with Kennewick Irrigation District letter dated December 18, 2024 (Exhibit 18).
7. Comply with the Bonneville Power Administration Comments, dated October 4, 2024 (Exhibit 16).
8. Comply with the State of Washington Department of Fish and Wildlife Comments, dated December 20, 2024 (Exhibit 15).

9. Comply with Williams Comments, dated December 19, 2024 (Exhibit 17).
10. Comply with the Washington State Department of Transportation Comments, dated October 17, 2024 (Exhibit 19).
11. Comply with the Benton Clean Air Agency Comments, dated December 16, 2024 (Exhibit 20).
12. Comply with the proposed critical area mitigation in the Critical Areas Report dated 12/4/24 and the comments from the WDFW dated 12/20/24. The applicant shall provide 5 acres of onsite enhanced mitigation. Off-site mitigation shall be calculated at a 2:1 mitigation ratio. A \$3,500 per acre cash deposit, payable to the Benton and Franklin Conservation Districts, shall be required as a replacement for physical mitigation completed by the applicant. The size and location of all proposed mitigation must be reviewed by the City prior to earthwork being done in the designated shrub-steppe critical areas. The City, WDFW and the applicant must approve any proposed alternative critical area mitigation protection plans.
13. Each phase shall have its corresponding pedestrian paths and open space completed at the time of that phase's final plat approval.
14. The Ridgeline Drive, Street 1 and open space landscaping shall be planted as shown on the proposed landscape plan.
15. Pursuant to KMC 18.45.080(2) & (3), the PRD expires 7 years from the date of approval from the Hearing Examiner. Requests for extensions must be in writing and received by the Community Planning Department prior to expiration of the PRD approval.

Legal Description

PARCEL 1 OF SURVEY 5488 RECORDED IN BOOK 1, OF SURVEYS AT PAGE 5488, FILED UNDER BENTON COUNTY AUDITOR'S FILE NUMBER 2021-019551, LOCATED IN THE NORTH HALF OF THE NORTHEAST QUARTER OF SECTION 21, TOWNSHIP 8 NORTH, RANGE 29 EAST OF THE WILLAMETTE MERIDIAN, CITY OF KENNEWICK. BENTON COUNTY, WASHINGTON, DESCRIBED MORE PARTICULARLY AS FOLLOWS: BEGINNING AT THE NORTHWEST CORNER OF THE NORTHEAST QUARTER OF SAID SECTION BEING MARKED BY A 3 1/4" ALUMINUM CAP STAMPED "DNR S16-S21 1986", BEING NORTH 00°22'32" WEST A DISTANCE OF 2,699.33 FEET FROM THE CENTER QUARTER CORNER OF SAID SECTION 21 MARKED BY A 5/8" IRON REBAR; THENCE SOUTH 00°22'32" EAST ALONG THE WEST LINE OF THE NORTHEAST QUARTER OF SAID SECTION 21 A DISTANCE OF 1,166.19 FEET; THENCE NORTH 89°37'28" EAST LEAVING SAID WEST LINE A DISTANCE OF 895.41 FEET; THENCE NORTH 10°39'41" EAST A DISTANCE OF 74.61 FEET; THENCE NORTH 20°36'11" EAST A DISTANCE OF 204.31 FEET; THENCE NORTH 06°48'06" EAST A DISTANCE OF 79.00 FEET; THENCE NORTH 81°37'39" WEST A DISTANCE OF 84.14 FEET; THENCE NORTH 36°08'45" EAST A DISTANCE OF 54.16 FEET; THENCE NORTH 61°13'22" EAST A DISTANCE OF 99.76 FEET; THENCE NORTH 39°52'14" EAST A DISTANCE OF 136.34 FEET; THENCE NORTH 55°14'29" WEST A DISTANCE OF 104.07 FEET; THENCE NORTH 57°06'52" EAST A DISTANCE OF 214.99 FEET; THENCE NORTH 17°33'11" EAST A DISTANCE OF 103.89 FEET; THENCE NORTH 43°51'59" WEST A DISTANCE OF 208.36 FEET; THENCE NORTH 51°27'26" EAST A DISTANCE OF 198.27 FEET; THENCE NORTH 34°46'06" EAST A DISTANCE OF 68.43 FEET; THENCE NORTH 68°56'28" EAST A DISTANCE OF 90.95 FEET; THENCE NORTH 11°54'25" EAST A DISTANCE OF 17.44 FEET TO THE NORTH LINE OF THE NORTHEAST QUARTER OF SAID SECTION 21; THENCE SOUTH 88°05'28" WEST ALONG SAID NORTH LINE A DISTANCE. OF 1.386.96FEET TO THE NORTHWEST CORNER OF THE NORTHEAST QUARTER OF SAID SECTION 21 AND THE POINT OF BEGINNING. HAVING AN AREA OF 1,285.243 SQUARE FEET, 29.51 ACRES, MORE OF LESS. SUBJECT TO AND TOGETHER WITH ACCESS AND UTILITY EASEMENTS SHOWN AS PROPOSED ON RECORD OF SURVEY RECORDED UNDER AUDITOR'S FILE NUMBER 2021-019551, RECORDS OF THE BENTON COUNTY AUDITOR. (BOUNDARY LINE ADJUSTMENT AF#2023-003960, 03/06/2023).



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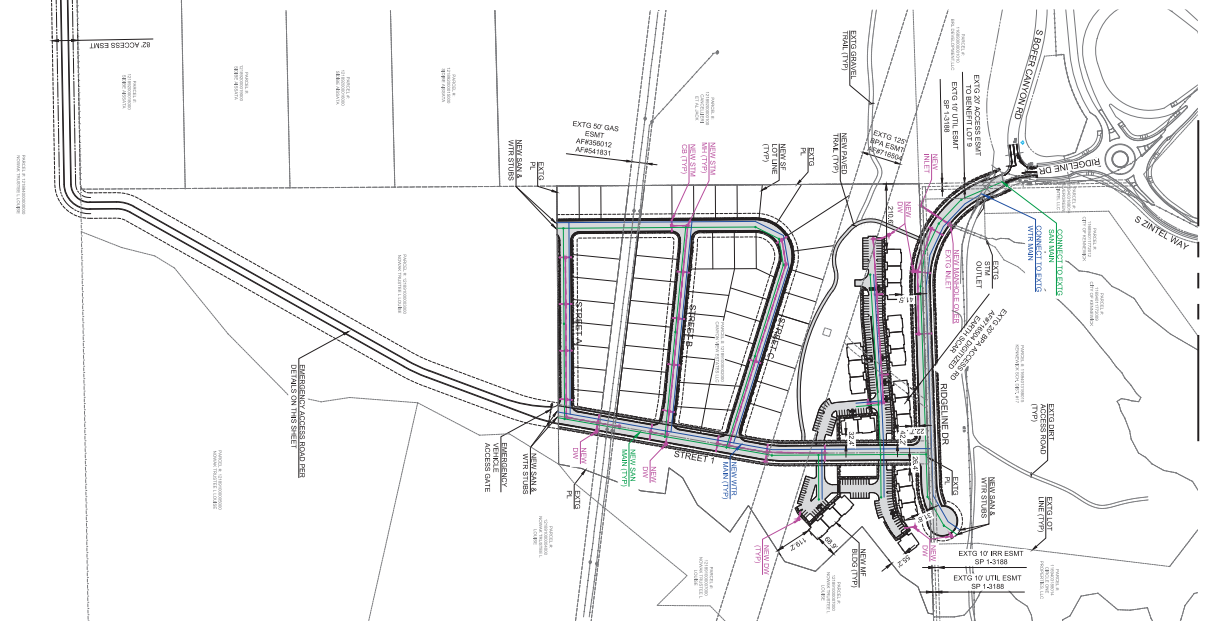
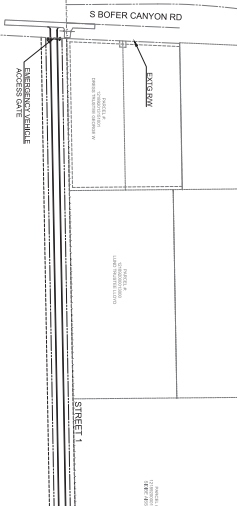
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01-11-2000

Abbreviation Legend	
Dr Well	DW
Sanitary	SAN
Water	WTR
Property Line	PL
Existing	EXTG
Typical	TP
Memento	MH
Catch Basin	CB
Storm	STM
Single Family	SF
Multi-family	MF
Building	BLDG

Hatching Legend	
	Proposed Asphalt



MATCHLINE
SEE THIS SHEET FOR CONTINUATION



MATCHLINE

SEE THIS SHEET FOR CONTINUATION

GENERAL SHEET NOTE:

1. NO DEVIATIONS FROM THE KENNEWICK MUNICIPAL CODE ARE REQUESTED.

Scale 1" = 200'

PRD PLAN

PRD PLAN FOR:

CANYON VIEW ESTATES

A SITE LOCATED IN THE CITY OF KENNEWICK, WASHINGTON



PRELIMINARY

DESIGNED:
PVR/SDY

CHECKED:
SAS

78195.000

100

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PBS Engineering and Environmental Inc.
1325 SE Tech Center Drive
Suite 140
Vancouver, WA 98663
360.695.3488
pbsusa.com

APPROXIMATE DEVELOPMENT SCHEDULE

PHASE 1 2025 / 2026

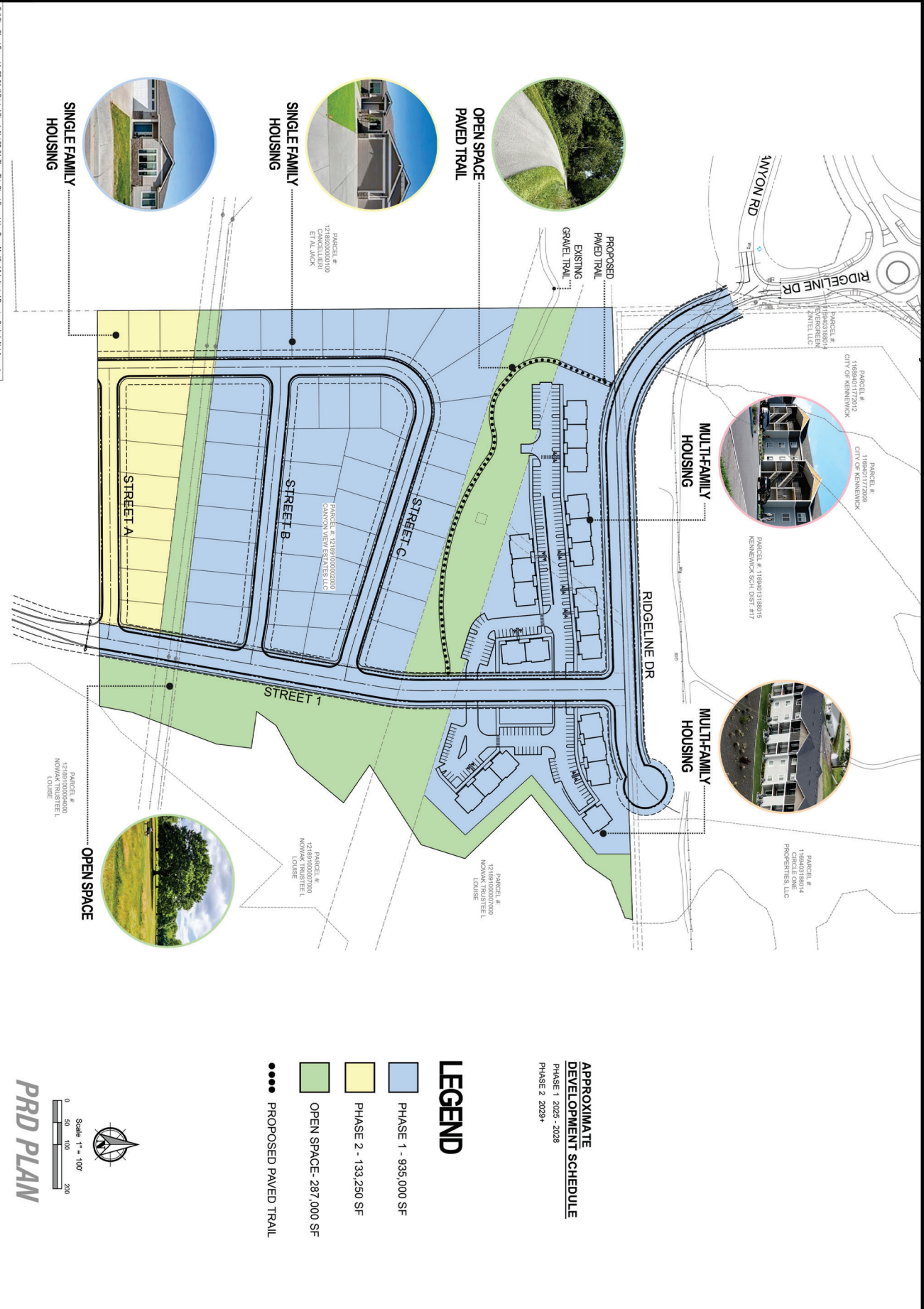
PHASE 2 2027

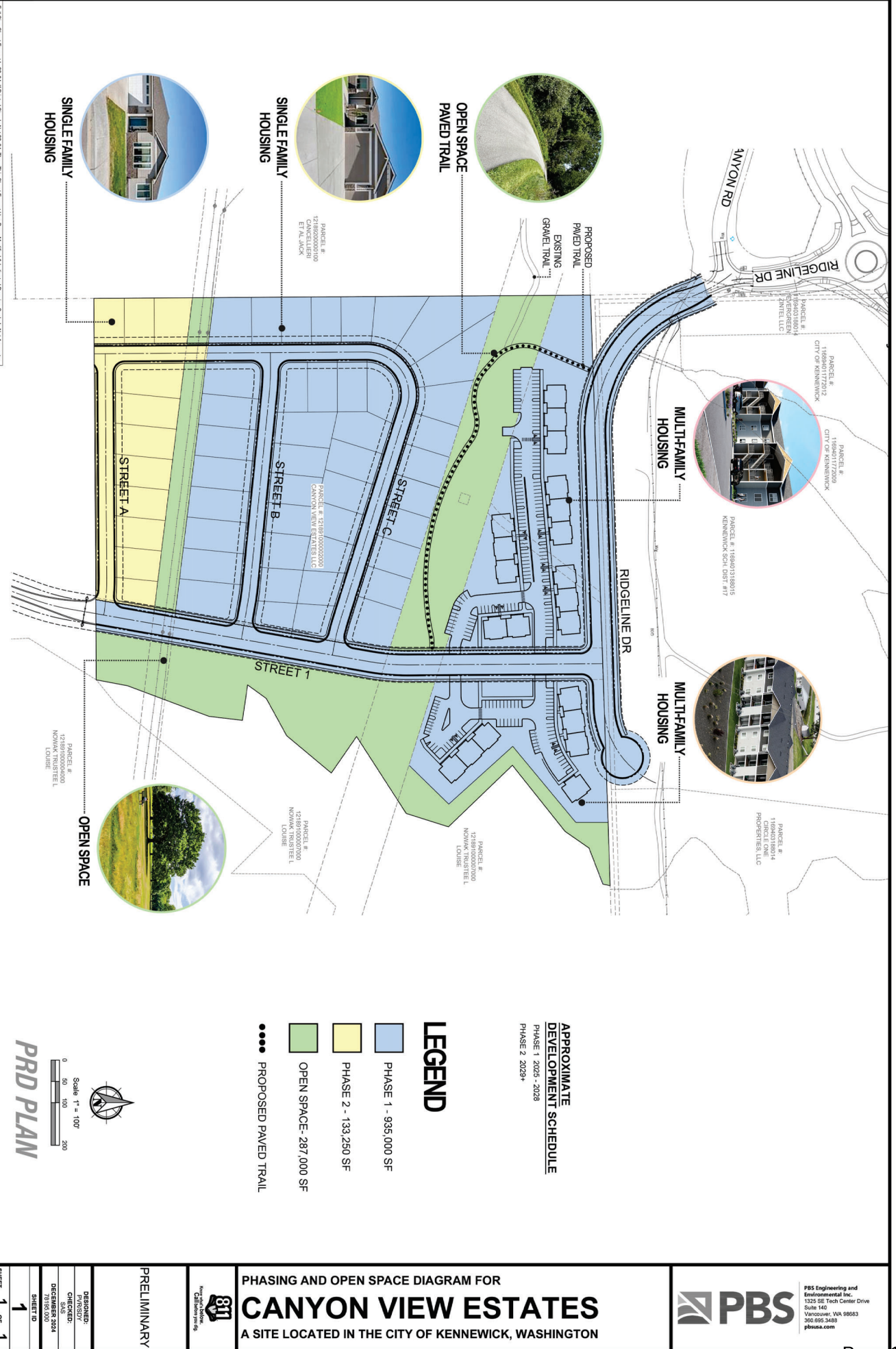
PHASE 3 2028

PHASE 4 2029

Filename: \\apexcoz.local\PBS_L\Projects\7800078195\78195-000\Landscape\CAD\78195-000_OPEN SPACE DIAGRAM(REV1).dwg Layout Tab: PRD 1 User: Bryan Bailey CAD Plot Date/Time: 12/13/2024 10:35:52 AM

Full Size Sheet Format is 2024. If Project Size is Not 2024, Then This Sheet Format Has Been Modified & Indicated Drawing Scale is Not Accurate.





REFERENCE NOTES SCHEDULE

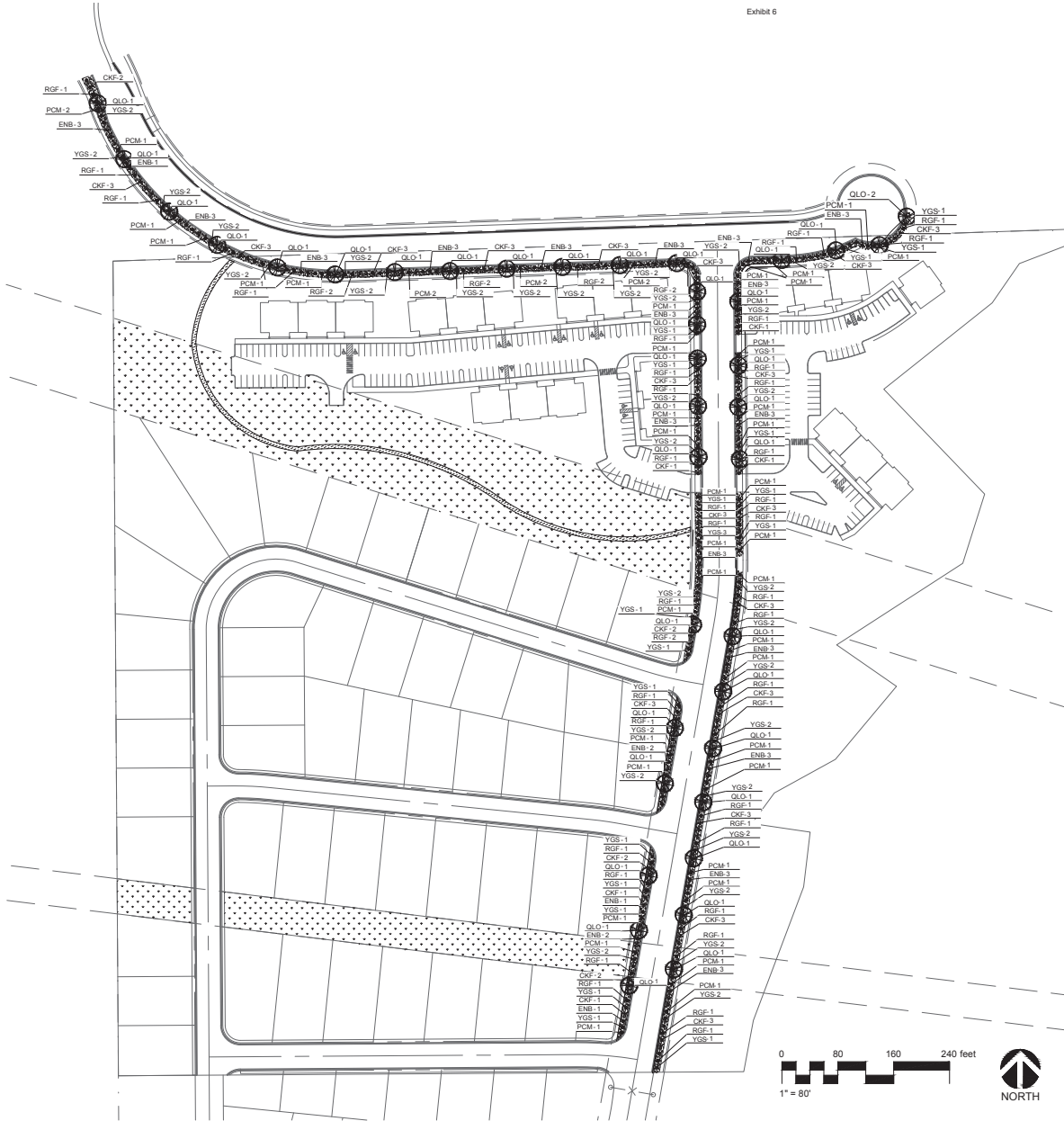
SYMBOL	DESCRIPTION
	BASALT ROCK MULCH
	NATIVE GRASS SEED
	1" ASPHALT PATH

PLANT SCHEDULE

SYMBOL	BOTANICAL NAME	COMMON NAME	CONT	DETAIL
TREES				
	QUERCUS ROBUR X BICOLOR 'LONG'	REGAL PRINCE® OAK	B & B	1/L-501
SHRUBS				
	CALAMAGROSTIS X ACUTIFLORA 'KARL FOERSTER'	KARL FOERSTER FEATHER REED GRASS	1 GAL	2/L-501
	EUONYMUS NANUS	DWARF BURNING BUSH	5 GAL	2/L-501
	PINUS MUGO 'COMPACTA'	DWARF MUGO PINE	3 GAL	2/L-501
	RHUS AROMATICA 'GRO-LOW'	GRO-LOW FRAGRANT SUMAC	3 GAL	2/L-501
	YUCCA FILAMENTOSA 'GOLDEN SWORD'	GOLDEN SWORD ADAMS NEEDLE	2 GAL	2/L-501

GENERAL PLANTING NOTES: (NS)

- CORRESPONDING SPECIFICATION SECTIONS(S) HAVE NOT BEEN DEVELOPED FOR THIS PROJECT. ALL PERTINENT INFORMATION HAS BEEN PROVIDED ON THESE PLAN SHEETS. ENSURE THAT ALL RELATED ARCHITECTURAL AND CIVIL SHEETS ARE THOROUGHLY REVIEWED AS REFERENCE TO INFORMATION ON THE LANDSCAPE AND IRRIGATION SHEETS.
- VERIFY LOCATION OF ALL EXISTING AND PROPOSED UTILITIES EITHER ABOVE OR BELOW GRADE PRIOR TO BEGINNING ANY WORK. COORDINATE WITH ALL OTHER CONTRACTORS TO AVOID CONFLICTS BETWEEN IRRIGATION EQUIPMENT AND TREE/SHRUB PLACEMENT, AND/OR OTHER SITE AMENITIES.
- VERIFY THAT SUB GRADE PREPARATION HAS BEEN COMPLETED TO ACCEPTABLE TOLERANCES PRIOR TO BEGINNING ANY WORK.
- ALL WORK COMPLETED SHALL BE GUARANTEED FOR ONE (1) FULL YEAR.
- LANDSCAPED AREAS TO RECEIVE 4" OF APPROVED TOPSOIL IN LAWN AREAS AND 6" IN ALL SHRUB PLANTING AREAS.
- ACCEPTABLE TOPSOIL SHALL BE EITHER TAKEN FROM 'ON-SITE' STRIPPED AND STOCKPILED TOPSOIL, OR IMPORTED FROM LOCAL SUPPLIERS, AND SHALL BE FRIABLE SURFACE SOIL TAKEN ONLY FROM THE 'A' HORIZON AS DETERMINED BY THE USDA SOIL CONSERVATION SERVICE, FREE FROM TOXIC MATERIAL, NOXIOUS WEED SEEDS, SUBSOL, STONES AND OTHER DEBRIS GREATER THAN 1" DIAMETER.
- ALL LANDSCAPE AREAS SHALL BE IRRIGATED BY AN AUTOMATIC IRRIGATION SYSTEM.
- COORDINATE WITH GENERAL CONTRACTOR FOR THE PROTECTION AND WATERING OF EXISTING PLANT MATERIAL IDENTIFIED AS 'TO REMAIN' UNTIL THE NEW IRRIGATION SYSTEM IS OPERABLE.
- SHRUB PLANTING AREAS SHALL BE MULCHED WITH 3" OF APPROVED BASALT ROCK MULCH UNLESS OTHERWISE NOTED. GROUND COVER AREAS SHALL BE DRESSED WITH 1" - 2" OF APPROVED BASALT ROCK MULCH UNLESS OTHERWISE NOTED. FINISHED GRADE OF MULCH SHALL NOT BE ABOVE OR MORE THAN 1" BELOW ADJOINING SURFACES.
- ALL NATIVE GRASS AREAS SHALL BE SEEDED.
- PLANT SYMBOLS SHALL DICTATE COUNT.



PROJECT ADDRESS: 2403

CANYON VIEW ESTATE

PROFESSIONAL SEAL

LANDSCAPE ARCHITECT

STATE OF VIRGINIA

NO. 498 Exp. 07/2026

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BY

REASON

REMARKS



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MEMORANDUM

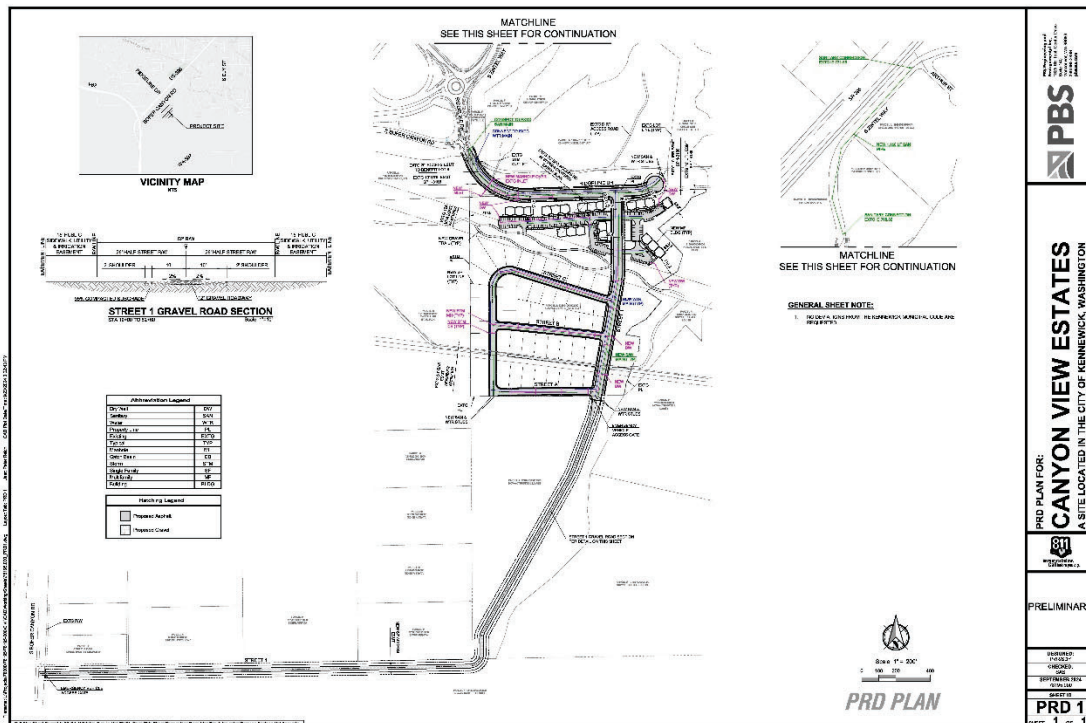
To: Chad Bagley, Canyon View Estates, LLC **Date:** December 4, 2024

From: Ben Floyd, White Bluffs Consulting

Cc: Erin Burgess, Sage Basin Ecosystems

Re: Canyon View Planned Residential Development (PRD-2024-0001), City of Kennewick – Critical Areas Report and Mitigation Options

This memorandum helps integrate several documents, including recent and historical studies, into a collective set of information that serves as a Critical Areas and mitigation options report for Fish and Wildlife Habitat Conservation Area to be impacted by the proposed development. The proposed development is Canyon View Planned Residential Development (PRD-2024-0001) located south of Zintel Canyon dam and it is proposed by Canyon View Estates, LLC (see figure below). The report has been prepared consistent with City of Kennewick requirements.¹



¹ <https://www.go2kennewick.com/DocumentCenter/View/125/Critical-Area-Report-General-Requirements?bidId=>

The area of potential impact for the Canyon View PRD is 29.5 acres, with 24.5 acres being developed as new residential development with roads and utilities. Five acres will remain as undeveloped open space (“avoidance,” as part of mitigation sequencing requirements); this is the steeper slope area on the east side of the PRD.

The entire site is designated as Shrubsteppe Fish and Wildlife Habitat Conservation Area per WDFW Priority Habitat and Species mapping (see Attachment 3), and mitigation will be required for 24.5 acres of development impact. Some mitigation can occur as restoration/habitat enhancement on the 5 acres of undeveloped open space, while the remaining impact will need to be mitigated offsite. Site plan details addressing stormwater, roads and other proposed aspects of the Canyon View PRD have been provided to the City and are not included in this report.

This Critical Areas report builds off and incorporates two prior reports for a project area directly north of the proposed development, including an Anchor QEA critical areas memorandum dated June 2017 (Attachment 1) and the 2008 HDR Critical Areas report (Attachment 2). Additionally, a habitat assessment was conducted by Sage Basin Ecosystems in November 2024 to verify site-specific conditions for the Canyon View PRD (Attachment 3). White Bluffs Consulting and Sage Basin Ecosystems staff have confirmed that conditions have not changed from 2008 or 2017 conditions and findings, as documented in the attached documents.

The HDR report identifies suggested best management practices and other actions to minimize and mitigate project impacts. Compensatory mitigation measures are described including site selection areas, plant types, and goals and objectives, along with performance monitoring and contingency plans.

This information is still valid for the Canyon View PRD, **except for mitigation site selection areas**. Additionally, based on prior precedent and communications with Washington Department of Fish & Wildlife (WDFW) staff on other similar, offsite mitigation, which will be necessary to meet mitigation requirements is likely to be required at a 2:1 ratio.

The mitigation approach in the HDR report is amended to include the following additional detail and context. This updated information with suggested mitigation concepts is for consideration and use in discussions with the City of Kennewick and Washington Department of Fish & Wildlife staff involved in the permitting review.

On Site Mitigation – There is opportunity for restoration planting on the 5 acres of open space. As described in the Critical Habitat and Assessment Report for the Canyon View PRD, this is lower quality shrubsteppe habitat that could be improved to provide higher onsite habitat value for the habitat that would remain. Removal of invasive species such as cheat grass and planting of additional bunchgrass, forbes (native leafy plants) and potentially even additional sagebrush could improve this habitat value, and partially offset the 24.5 acres of impact. The actual amount of reduction in offsite mitigation area, if the developer proposes to conduct this enhancement, will be determined in discussions with the City of Kennewick and WDFW.

Protection of Onsite Mitigation/Enhancement Area – Controls such as fencing, signage and other measures may be necessary for the 5-acre area, if onsite mitigation/enhancement is selected as part of the mitigation strategy. Off-road usage and other higher intensity activities that could destroy mitigation plantings should be prohibited.

Offsite Mitigation Ratio and Options – The HDR report does not specify the replacement ratio that would be applied. As noted above, it is expected that WDFW will require a 2:1 replacement ratio. If the full 24.5 acres is required for mitigation, then this would result in 49 acres of offsite mitigation be secured. If something less than 24.5 acres (due to onsite mitigation enhancement, as discussed above) is determined to be the offsite mitigation acreage amount, then that acreage amount x 2, is what would be required.

There are a few options for offsite mitigation. These include:

- Developer-secured mitigation, where Canyon View Estates LLC would research and select a property to be purchased or modified with deed restriction (conservation easement) to permanently protect up to 49 acres of mitigation.
 - City of Kennewick/Benton Conservation District In-Lieu Fee program, where Canyon View Estates writes a check for offsite mitigation requirement at \$3,500 per
-

acre. So for example, if the offsite mitigation amount was determined at 20 acres x 2 = 40 acres, then the in-lieu fee amount would be \$140,000 (40 acres x \$3,500/acre). The Benton Conservation District would then be responsible for finding and securing the mitigation property through purchase or conservation easement.

Mitigation Planting Instructions – If onsite mitigation is pursued then all invasive species within the footprint should be removed to facilitate the success of native plantings. Seed sources outside of the footprint may be transported by wind and animals into the restoration area and should be minimized to the greatest extent possible.

A reference area free of invasive plant species should be identified nearby to aid in restoring plant diversity and establishing spacing and monitoring guidelines. Native species in the construction footprint may be kept intact or excavated, salvaged, staged, and replanted post-construction. Impacts outside the proposed construction footprint should be avoided, and the project footprint should be minimized to the extent possible.

Re-seeding should occur in November or early December of the year selected for planting before the ground freezes and/or becomes too saturated. Re-seeding at this time should be early enough to benefit from seasonal moisture. These methods are predicted to effectively re-establish native habitat within 1 to 3 years, replacing the habitat and associated functions and values affected by the proposed waterline construction. The larger plants (sagebrush) could take longer to establish. Seeding for sagebrush and rabbitbrush can regenerate from surrounding plant species, but plugs can also be utilized to establish new seed sources and encourage more rapid establishment of sagebrush and rabbitbrush.

Attachments (3)

- HDR Engineering, 2008. Southridge-Shrub-steppe Conceptual Restoration Plan, December 2008.
 - Anchor QEA, 2017. Iron Hills Development – Wildlife Survey, June 30, 2017. Prepared by Sarah Montgomery and Joseph Pursley, Anchor QEA
 - Sage Basin Ecosystems, 2024. Critical Habitat and Species Report, Canyon View Estates LLC, Parcel #12-1891000002000, Kennewick Washington, November 18, 2024.
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Introduction

This report has been prepared to address potential impacts to critical areas per the City of Kennewick critical areas code (Ordinance No. 5206) for the proposed Southridge master planned development. Portions of the development affect shrub-steppe habitats that have been mapped as a Fish and Wildlife Habitat Conservation Area (FWHCA) on City Critical Areas maps developed by the City of Kennewick (Figure 1).

Methods

To evaluate potential affects to the shrub-steppe habitat located in the Southridge portion of the City of Kennewick, HDR completed a site visit in July 2008. During this site visit HDR biologists completed general habitat surveys of the affected land and of land contained within the City of Kennewick Critical Areas Map polygon. This area had been surveyed previously by HDR while conducting the Critical Areas Ordinance update and Best Available Science Review for the City in 2007. Prior to conducting the field review, HDR biologists reviewed Priority Habitats and Species PHS data to determine if specific sensitive species were known to nest or breed at the site.

The field review consisted of a biologist traversing the entire project site, noting plant species, plant associations, signs of disturbance, wildlife sign (such as tracks, scat, signs of herbivory, nests, etc.) as well as wildlife observations and aural detections. The site surveys for this project included a traverse of all land potentially affected by the development project and land within 200-feet of the project boundary.

Study Area

In order to evaluate the impacts to the Critical Area identified in the City of Kennewick Critical Areas Map, this study evaluates shrub steppe habitat potentially affected by the development project and how adjacent land (land within 100-feet of the project boundary) will be affected by a loss of habitat. Analysis also considers potential impacts to habitat functions provided by the larger Shrub-Steppe area that was the subject of protection under the City's CAO. The study area also includes the evaluation of potential restoration areas that could be treated as mitigation for habitat loss (Figure 2).

Existing Conditions

The large shrub-steppe habitat block identified within the City of Kennewick CAO was designated as a Critical Area and one worthy of protection under the CAO because it met the definition as a Priority Habitat, and was mapped as a Priority Habitat by the Washington Department of Fish and Wildlife's (WDFW) Priority Habitats and Species (PHS) Program. The area was designated because it met the definition as a Shrub-steppe "Large Tract", which includes:

Tracts of land >259 ha (640 ac) consisting of plant communities with one or more layers of perennial grasses and a conspicuous but discontinuous layer of shrubs. Large tracts of shrub-steppe contribute to the overall continuity of the habitat type throughout the region because they

are relatively unfragmented, contain a substantial amount of interior habitat, and are in close proximity to other tracts of shrub-steppe. These tracts should contain a variety of habitat features (e.g., variety of topography, riparian areas, canyons, habitat edges, plant communities). Another important component is habitat quality based on the degree with which a tract resembles a site potential natural community, which may include factors such as soil condition and degree of erosion; and distribution, coverage, and vigor of native shrubs, forbs, grasses, and cryptogams. (WDFW, 1999)

There is a presumption that these areas have a relatively high diversity of fish and wildlife species density and diversity and that these types of habitat conditions are scarce. The tract of habitat that has been mapped by the City of Kennewick straddles the City urban growth boundary and measures approximately 537 square acres. This does represent a sizable amount of available native shrub-steppe habitat within an otherwise urban and agricultural landscape. The development impact area represents approximately 19 acres of land, of which, approximately 7.3 acres have been mapped as shrub-steppe. This impact to shrub-steppe habitat represents 1.3% of the shrub-steppe block.

The large, 537-acre shrub-steppe area contains relatively-native, shrub-steppe habitat. The habitat area is surrounded on the south and east by agriculture, on the north and west by development and State Route 395 abuts the west side of the area. The area has been subject to past disturbances, such as grazing and fire and currently experiences human disturbances from mountain bikers, hikers and people taking their pets for a walk. These activities limit the habitat functions at this area by frightening nesting animals, disrupting critical behaviors and through direct predation by pets.

Habitat conditions observed within the study area are mixed. The shrub-steppe habitat available at the project area is relatively small (7.3 acres) compared to the larger area (537.1 acres) and much of the area slated for development appears to have been burned in the somewhat recent past. This burn, or disturbance, has limited the available shrub dominance at the site. Within the 19.1 acre building site, only 7.3 acres are dominated by shrub vegetation. The remaining 11.8 acres is dominated by grasses and shallow soils.

Plants

The grass areas are dominated by cheatgrass (*Bromus tectorum*), blue bunch wheatgrass (*Agropyron spicatum*) and forbes, such as knapweed (*Centaurea diffusa*) and phlox (*Phlox longifolia*). It appears this area is recovering from a disturbance by fire, as evidenced by charred shrub stems and lack of shrub overstory. Cheatgrass dominance is the same for the shrub as well as the grass dominated parts of the site, indicating that the site was probably grazed for many years. Trails are present throughout the grass dominated part of the site.



Photo 1. Looking west from the project site back toward SR 385 and the small ravine that defines the northwest edge of the project.



Photo 2. View east from the west side of the ravine to the project site. This photo shows the north part of the site.

The shrub area of the site is dominated by big sagebrush (*Artemesia tridentata*) and gray rabbitbrush (*Chrysothamnus nauseosus*). Scattered throughout the shrub dominated areas are uncommon forbes, such as balsamroot (*Balsamorhiza sagittata*), lupine (*Lupinus sp.*), desert parsley (*Lomatium sp.*), and larkspur (*Delphinium sp.*). The large shrub tract is also bisected by a powerline corridor and roadway that sees occasional off-road motorcycle and orv use.



Photo 3. View east southeast showing the discontinuity of shrub vegetation at the site. The powerline and trails are visible.

Animals

Large tracts of shrub-steppe habitat are rare in Washington (Dobler, 1996). Ongoing habitat fragmentation and habitat conversion has reduced available shrub-steppe habitat in the Columbia basin by as much as 50% according to estimates. Several species of birds and mammals are known to only use large, undisturbed tracts of habitat, including the Sage Sparrow (*Amphispiza belli*), Brewer's Sparrow (*Spizella breweri*), Sage Thrasher (*Oreoscoptes montanus*), Sage Grouse (*Centrocercus urophasianus*) and the Pygmy rabbit (*Brachylagus idahoensis*) (Vander Haegen, 1999). None of these species were observed at the site or are known to occur at the shrub-steppe block mapped by the City of Kennewick.



Photo 4. Big sagebrush natural regeneration at the site. This photo also shows the near 100% cover of cheatgrass in the herbaceous understory

Other species that are also a concern to resource managers and who also tend to inhabit shrub steppe habitats include: Burrowing owl (*Speotyto cunicularia*), Black-tailed Jackrabbit (*Lepus californicus*), and Townsend's ground squirrel (*Spermophilus townsendii*). Each of these species is discussed below.

Burrowing Owl

HDR biologists investigated all potential perch habitat and surveyed the project area for active nest burrows as part of this survey. The ground below potential perches were investigated for the presence of raptor pellets and none were observed. Burrowing owl nests may occur in this habitat block, though none were observed and the PHS database does not show any known nests. Foraging habitat for Burrowing owl is present within the project area. Rodent burrows were observed, and open trails and roads offer foraging areas for owls.

Black-tailed Jackrabbit

Black-tailed Jackrabbits use big sagebrush associations for denning and foraging habitat. Black-tailed jackrabbits consume big sagebrush as well as species of plants that grow in association with sagebrush including rabbitbrush, and bluebunch wheatgrass. HDR biologists did not observe Black-tailed jackrabbits during the field review, though they may occupy the area. Jackrabbits may also be limited within the area by the ongoing disturbance associated with pets, off-road vehicles and mountain bikes.

Townsend's Ground Squirrel

Townsend's ground squirrels use big sagebrush for burrow sites. They prefer open, grassy, early-seral, large sagebrush communities for protection and pup rearing. There

are no known nesting colonies of ground squirrels at the site, but they may occur within the shrub-steppe tract. No individuals or nest burrows were observed during the surveys at the site.

Species observed at the project area and within the shrub-steppe tract include: Western meadowlark (*Sturnella neglecta*), Dark-eyed junco (*Junco hyemalis*), California quail (*Callipepla californica*), House finch (*Carpodacus mexicanus*), and Cottontail rabbit (*Sylvilagus nuttallii*). Bats and small mammals are likely to use the area, as are deer, coyote and other fur-bearing mammals. Use of the area by wildlife is probably limited by the ongoing disturbances that have already been discussed and by water availability. Lack of adjoining habitat may also have a limiting effect to non-avian wildlife.

Project Impacts

The proposed development would remove approximately 7.3 acres of shrub-steppe habitat on the site, thus resulting loss of habitat for shrub-steppe obligate species. The project would result in approximately 19.1 acres of overall habitat loss, including the disturbed grassland community. The entire area may provide habitat for generalist species such as the burrowing owl (*Athene cunicularia*), western meadowlark (*Sturnella neglecta*), horned lark (*Eremophila alpestris*), coyote (*Canis latrans*) and mule deer (*Odocoileus hemionus*).

The development would eliminate approximately 7.8 acres of shrub-steppe habitat from a 537-acre block of shrub-steppe vegetation. This translates to a loss of 1.3 % of the available habitat. This loss would not fragment the 537-acre block of shrub-steppe habitat, but trim a fringe of the area. The project does not appear to affect high-quality native shrub-steppe habitat, and there are no known nest sites for sensitive species at the site. While the loss of shrub-steppe habitat from the project is small compared to the whole, conversions of this type can result in significant cumulative losses over time. The following section presents mitigation options that should be pursued to limit the long-term affects from this project to the remaining habitat areas.

Mitigation

Best Management Practices

Disturbance Abatement

Probably the most effective form of mitigation to rectify the impacts associated with habitat loss for this project would be to protect and enhance the remaining habitat block. As stated earlier, one of the most injurious ongoing impacts to habitat is the uncontrolled human and domestic animal disturbance to the larger habitat tract. Controlling access, enforcing leash laws, and limiting off-road vehicle use could have a positive effect on the entire habitat block. The development design can help accommodate these goals. Proper fences that keep pets from freely roaming the area should be maintained. Lighting should be directed toward the developed area and discouraged from light-polluting the natural area. Fires should be discouraged and any activity that further degrades the undeveloped habitat should be discouraged.

Compensatory Mitigation Elements

Habitat enhancement, in the form of planting new shrub-steppe species could be completed. This would provide direct compensation for the habitat lost. The techniques described below should be employed with any successful habitat enhancement program. Potential habitat enhancement areas have been delineated on Figure 2.

Site Selection

Land adjacent to the existing 537-acre shrub-steppe block would be revegetated with patches of basin big sagebrush (*Artemisia tridentata* ssp. *tridentata*) and native grasses and forbs. Mitigation areas would be chosen based on soil and topographic conditions that would optimize the establishment and growth of shrub-steppe species. In particular, sites selection would prioritize relatively level, north-facing land that has uncompacted, well-drained soils and existing cryptogamic crust, and that are not susceptible to erosion. Mitigation areas would be sited away from development to minimize disturbance that would deter wildlife use.

Plant Palette

The primary shrub species in shrub-steppe communities in this region is basin big sagebrush (*Artemisia tridentata* ssp. *tridentata*). Typical native grasses and herbaceous species are listed below. The suite of grass and herbaceous species need to be field-confirmed with vegetation adjoining the shrub-steppe block to ensure the selected species will be compatible with soil and topographic conditions of the mitigation areas. Suitable planting methods for sagebrush (seeding, containerized seedling installation, and/or transplanting) and grasses (hydromulching and/or drill seeding) would be determined after assessing mitigation site conditions.

Shrub-Steppe Creation Plant Species	
Common Name	Scientific Name
Overstory	
Basin big sagebrush	<i>Artemisia tridentata</i> ssp. <i>tridentata</i>
Tall Understory	
Bluebunch wheatgrass	<i>Agropyron spicatum</i>
Short Understory	
Cusick's bluegrass	<i>Poa cusickii</i>
Sandberg bluegrass	<i>Poa sandbergii</i>
Longleaf phlox	<i>Phlox longifolia</i>

Goals and Objectives

The overall goal of the compensatory mitigation would be to create shrub-steppe habitat to replace habitat lost as a result of the proposed development. The following goals establish specific structural characteristics to meet the overall goal of creating shrub-steppe habitat suitable for regional obligate and generalist species. In particular, the shrub-steppe creation area would be designed and planted to create distinct, discontinuous patches of sagebrush interspersed with bare ground or cryptogamic crust, and one or more strata of native perennial

grasses and herbs. Portions of the undisturbed shrub-steppe block adjoining the mitigation sites should be assessed as mitigation reference areas to refine mitigation goals and management techniques.

Goal 1: Establish a native woody vegetation stratum typical of shrub-steppe habitat

Objective:

Establish distinct, dense patches of basin big sagebrush (*Artemisia tridentata* ssp. *tridentata*) of varying height and age classes to provide nesting, foraging, and cover for targeted species.

Performance Standards:

- Basin big sagebrush shall provide at least 10% cover but no more than 80% cover in the mitigation area after 3 years

Goal 2: Establish native herb and grass strata typical of shrub-steppe habitat

Objective:

Establish patches of native grasses and herbs to provide foraging and movement for target species.

Performance Standard:

- Native grass and herbaceous species shall cover at least 10% but no more than 70% of the mitigation area after 3 years.

Goal 3: Establish a bare ground stratum (including areas of cryptogamic crust) typical of shrub-steppe habitat

Objective:

Establish bare ground (including areas of cryptogamic crust) to provide foraging and movement for target species. Cryptogamic crust also maintains soil stability, moisture, nutrient transfer, and shrub dominance in shrub-steppe communities.

Performance Standard:

- Establish and maintain at least 10% bare ground cover (including areas of cryptogamic crust) in mitigation area over a 3 year monitoring period

Goal 4: Minimize invasive plant species that degrade shrub-steppe habitat

Objective:

Prevent invasive species infestation, particularly by cheatgrass (*Bromus tectorum*), which may inhibit establishment of sagebrush and native grass species (either by out-competing native species or increasing fuel load for fires that are detrimental to shrub-steppe communities) and/or reduce open areas needed for foraging and movement of target species.

Performance Standard:

- Total cover by all invasive species in the mitigation area shall be more than 60% after 3 years

Monitoring

Monitoring shall continue for a period of 3 years. Year 1 of the mitigation monitoring period will commence one year from the month that the plant installation is approved. Overview photos will be taken from the same vantage points each year to document overall appearance of the mitigation area before, during, and after construction. Survivorship will be defined as fully healthy and thriving. Monitoring field visits will take place during the growing season of each monitoring year. A formal monitoring report shall be submitted to the county by the end of each calendar year.

Contingency Plan

Information from the annual monitoring effort will be used to identify the need for maintenance or corrective action. If problems are encountered during monitoring, the first step will be to identify the reason for the problem, then to implement an appropriate corrective or maintenance action. These actions will be documented in annual monitoring reports.

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Memorandum

June 30, 2017

To: Ben Floyd, White Bluffs Consulting LLC
From: Sarah Montgomery and Joseph Pursley, Anchor QEA
cc: John Small, Anchor QEA

Re: Iron Hills Development – Wildlife Survey

Introduction

This technical memorandum has been prepared as an addendum to the Southridge – Shrub-Steppe Conceptual Restoration Plan prepared by HDR in 2008. The purpose of this memorandum is to provide an update on site conditions in the area proposed for development (Figure 1). Portions of the proposed development would affect shrub-steppe and Townsend's ground squirrel habitats that have been mapped as Priority Habitat and Species (PHS) by Washington State Department of Fish and Wildlife (WDFW 2017, Figure 2). PHS data and associated polygons and species sightings are defined in the City's critical areas code as Fish and Wildlife Habitat Conservation Areas.

On June 13, 2017, an Anchor QEA, LLC, biologist and a White Bluffs Consulting field assistant performed a habitat assessment and wildlife survey. The results of the site visit and changes in habitat and wildlife use since the Conceptual Restoration Plan was released in 2008 are detailed below.

Information Sources

As part of the survey, the following sources of information were reviewed by Anchor QEA to support field observations:

- WDFW PHS Maps (WDFW 2017)
- Aerial imagery
- Southridge – Shrub-Steppe Conceptual Restoration Plan (HDR 2008)
- Internal field notes from previous site visits to the project area

Habitat and Wildlife Survey

A habitat and wildlife survey for sensitive species was performed at the site on June 13, 2017, by Anchor QEA biologist Sarah Montgomery and White Bluffs Consulting field assistant Lara Floyd. Joseph Pursley, Anchor QEA senior biologist, reviewed site materials, all field notes and photographs, and this technical memorandum. Resumes for Sarah Montgomery and Joseph Pursley are included in Attachment 1. The following sections provide the methods and findings of the survey.

The site contains a mosaic of native and nonnative vegetation associated with upland grassland and shrub-steppe vegetation communities common in Benton County, Washington. A detailed description of habitat within the site is provided in the Critical Areas Review report (HDR 2008). Habitat characteristics typically associated with the wildlife survey species, (burrowing owls and Townsend's ground squirrels) are also described in the Critical Areas Review report. This information is not repeated, but included by reference in this memorandum.

Methods

The survey began at 9 am and lasted 4 hours to identify habitat conditions in the project area. The field visit consisted of traversing the entire project site, all land potentially affected by the proposed development project, and land within 100 feet of the project footprint. Surveyors noted plant species, plant associations, signs of disturbance, wildlife signs (e.g., tracks, scat, signs of herbivory, nests), as well as wildlife observations and aural detections. The time spent in different areas of the site was based on the quality of habitat conditions. For example, areas of the site with a more dominant presence of native vegetation, and thus a higher likelihood to provide habitat for the wildlife survey species, were surveyed more narrowly than areas with a higher presence of nonnative plant species. In addition to walking through the site, observations were made while standing stationary at random locations to scan the site and the sky with binoculars for wildlife species. All wildlife species, tracks, and wildlife signs observed during the survey were documented.

Rough boundaries of vegetation assemblages were drawn on aerial imagery, organized by associations of dominant plants, presence of native and nonnative grasses, and other species.

Results

Overall, results from the 2017 site visit are similar to those noted in the 2008 HDR Plan.

During the field visit, several plant species were identified and vegetative communities were classified. All identified plants are included in Table 1. During this field visit, several dominant plant species were observed, including tall (giant) sagebrush (*Artemisia tridentata*), gray rabbitbrush (*Chrysothamnus nauseosus*), and blue bunch wheatgrass (*Agropyron spicatum*). Cheatgrass (*Bromus tectorum*) is a nonnative plant species commonly found in the area, and was the dominant understory plant throughout the areas with sagebrush, and a dominant grass species in areas without sagebrush. The site comprises discontinuous sparse sagebrush habitat and grasslands (Figures 3 and 4), consistent with the descriptions in the 2008 HDR Plan. It appears that the entire site has been disturbed by fire and grazing in the past, evidenced by the relatively sparse and low-growing sagebrush and dominance of cheatgrass.

Table 1
Plant Species Observed

Scientific Name	Common Name	Native
<i>Achillea millefolium</i>	Yarrow	Yes
<i>Agropyron cristatum</i>	Crested wheatgrass	No
<i>Agropyron spicatum</i>	Bluebunch wheatgrass	Yes
<i>Ambrosia artemisiifolia</i>	Common ragweed	Yes
<i>Amsinckia mensziesii</i>	Small-flowered fiddleneck	Yes
<i>Artemisia tridentata</i>	Big sagebrush	Yes
<i>Astragalus succumbens</i>	Crouching milkvetch	Yes
<i>Balsamorhiza sagittata</i>	Arrowleaf balsamroot	Yes
<i>Bromus tectorum</i>	Cheatgrass	No
<i>Calochortus sp.</i>	Lily	Yes
<i>Centaurea diffusa</i>	Diffuse knapweed	No
<i>Chondrilla juncea</i>	Rush skeletonweed	No
<i>Chrysothamnus naueosus</i>	Gray rabbitbrush	Yes
<i>Convolvulus arvensis</i>	Field bindweed	No
<i>Crepis tectorum</i>	Annual hawksbeard	No
<i>Descurainia sophia</i>	Flixweed	No
<i>Erigeron filifolius</i>	Threadleaf fleabane	Yes
<i>Lactuca serriola</i>	Prickly lettuce	Yes
<i>Leucanthemum vulgare</i>	Oxeye daisy	No
<i>Lomatium dissectum</i>	Fernleaf desert-parsley	Yes
<i>Lupinus sericeus</i>	Silky lupine	Yes
<i>Phlox longifolia</i>	Longleaf phlox	Yes
<i>Salsola iberica</i>	Russian thistle	Yes
<i>Secale cereale</i>	Common rye	No
<i>Sisymbrium altissimum</i>	Tall tumble mustard	No
<i>Stipa hymenoides</i>	Indian ricegrass	Yes
<i>Tragopogon dubius</i>	Yellow salsify	No
<i>Verbascum thapsus</i>	Common mullein	No

In addition, on the eastern slope of the draw, an area of disturbed ground was observed, where native bunchgrasses appear to have been planted (Figure 5). It is unclear whether this is a restoration site, or a mitigation site associated with the City of Kennewick water line project, which was installed several years ago.

Also, within the denser sagebrush habitat in the middle of the site, approximately five patches of rock were observed (Figure 6). These averaged 10 feet in diameter and the reason for their placement is unknown.

The habitat present on site could potentially support two sensitive species: burrowing owls and Townsend's ground squirrels. These species may occur in the project area, but were not observed during the wildlife survey. No track, sign, or vocalizations of these species were observed and no evidence of habitat features associated with breeding activity for these species was identified. The biologist checked all perch habitat and found no evidence of owl foraging.

Several burrow habitat features are present within the site, especially in the draw in the eastern portion of the site. These burrows were typically too small (1 to 2 inches in diameter) and too vertical to support burrowing owls or Townsend's ground squirrels. Dozens of Bank swallows (*Riparia riparia*) were observed in the vicinity of the burrows. Most of the burrow holes were 1 to 2 inches in diameter (Figure 7).

Burrow holes observed on the ground were similarly 1 to 2 inches in diameter. No large burrows were observed during the site visit, though coyote (*Canis latrans*) sign (scat) was observed frequently on trails through the project area.

In addition, no scat, prey remains, or piles of plant material—characteristics consistent with current use by burrowing owls or Townsend's ground squirrels—were in the vicinity of the observed burrow holes. No scat or prints of burrowing owls or Townsend's ground squirrels were observed within the site during the survey.

Wildlife species observed during the survey include American robin (*Turdus migratorius*), western meadowlark (*Sturnella neglecta*), Bank swallows, and American crow (*Corvus brachyrhynchos*). Vocalizations for these species were heard often during the survey.

In conclusion, habitat conditions on this site may support sensitive species, but no evidence was found during the June 13, 2017, site visit. The site contains a mosaic of native and nonnative vegetation associated with previously disturbed upland grassland and shrub-steppe vegetation communities common in Benton County. The general habitat conditions at the site have not changed since the 2008 Plan, and the probable impacts of developing this site are described in the 2008 Plan.

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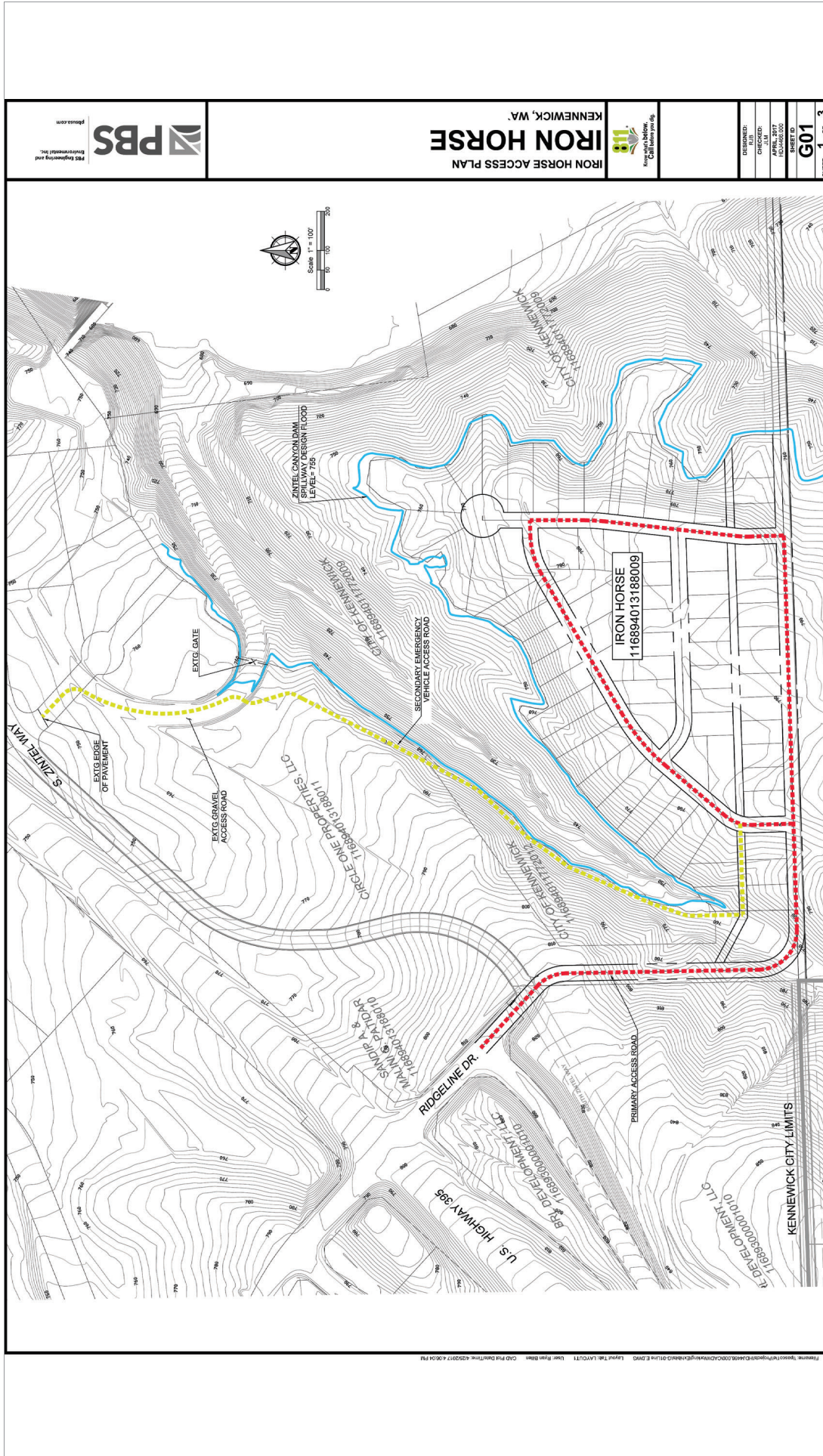
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Attachment 1: Anchor QEA Resumes

Figures

Exhibit 7



Filepath: K:\Projects\Southridge\Iron Hills CAR Addendum 2017\Figures\docs



Figure 1
Iron Horse Site Drawing
Habitat and Wildlife Survey Critical Areas Report Addendum
Iron Hills Development



Figure 3
Grassland Representative Composition



Figure 4
Sagebrush with Bunchgrasses and Cheatgrass



Figure 5
Looking East into Draw and to Densest Sagebrush Habitat



Figure 6
Patch of Rock within Sagebrush Habitat



Figure 7
Burrows in Eastern Draw



Attachment 1: Anchor QEA Resumes

Joseph Pursley

Senior Biologist

Mr. Pursley is a natural resource scientist, ecologist, and environmental compliance specialist with experience in wetland science, habitat mapping, wildlife biology, stream ecology, ecological restoration, forestry, and environmental monitoring. He has worked in all phases of project construction including design, permitting, mitigation, and restoration. Mr. Pursley’s project experience includes initial site assessment, resource delineation, design review, best management practice installation/review, water quality sampling, and environmental compliance coordination and communication. He is a Certified Erosion and Sediment Control Lead (CESCL), an International Society of Arboriculture Certified Arborist, and 40-hour HAZWOPER trained.

Education
*B.S., Natural Resources Science,
North Carolina State University, 2001*

Licenses/Certifications
*Certified Erosion and Sediment
Control Lead (CESCL)*
40-hour HAZWOPER Training
*Certified Arborist (International
Society of Arboriculture), 2012*

Project Experience

**Avian Predation Program
Implementation and
Monitoring**
*U.S. Army Corps of Engineers
Lower Columbia River Estuary and
South Central Oregon Interior
Oregon/California*

Mr. Pursley provided design, implementation, and logistical support for a three State Avian Predation and Fisheries study in WA, OR, and CA. Pre-nesting attraction and monitoring infrastructure was designed, built, and maintained on dredge spoils islands in the Lower Columbia Estuary and on reservoir constructed islands in the south central interior of OR and Northern CA. Nesting behavior, nesting colony establishment, and nesting dissuasion activities were monitored on islands by terrestrial observers and by aerial photography. Avian foraging and predation on the regional fisheries was also monitored and studied. The work is ongoing through Fall 2016.

**Riparian Vegetation Mapping
and Tree Survey**
*Willamette River
Portland, Oregon*

Mr. Pursley provided habitat assessment and riparian vegetation mapping of existing conditions along a half-mile reach of the industrialized Willamette River. Vegetation communities were mapped according to dominant and sub-dominant strata including forested, scrub-shrub, grass/herbaceous, and un-vegetated gravel or soil. In all vegetated areas a tree inventory was conducted to map the tree species, tree size (diameter at breast height), and the tree location. Data collected were used to establish a baseline of existing conditions for future project implementation, mitigation, and permitting.

**Wetland Reconnaissance and
Habitat Mapping**
*Port of Kalama
Kalama, Washington*

Mr. Pursley conducted detailed wetland mapping and data collection along the Columbia River near Kalama, Washington. He documented evidence of past land use and compared the data collected to historical and modern aerial photographs of the area. Detailed plant community and species richness data were also gathered and assessed for potential planting and restoration efforts.

Project Experience

Nearshore Habitat and Riparian Wetland Mitigation Site Search

*Private and Confidential Client
Lower Willamette River, Oregon*

Mr. Pursley planned and conducted a mapping and field-based mitigation site search along the Lower Willamette River from Willamette Falls to the confluence with the Columbia River. He conducted upland investigations to locate and confirm wetland and stream inputs, past land use practices, and existing use conditions. Water-based assessment in the field included confirmation of nearshore bathymetry, shoreline substrate, and evidence of past and existing land uses. Dozens of sites were visited and mapped for mitigation potential and suitability. Data collected were also used in a sedimentation model to aid in the design of future mitigation sites.

Botanical Surveys

*Stillaguamish Tribe and Washington
State Department of Transportation
Mount Baker Snoqualmie National
Forest, King and Snohomish
Counties, Washington*

Mr. Pursley performed U.S. Forest Service (USFS) botanical surveys in two counties within the Mount Baker Snoqualmie National Forest (MBSNF). Species observed during the field surveys were confirmed using a taxonomic key and recorded into a master species list. All vascular and non-vascular species observed were identified in the field using appropriate field guides and regional botanical references. State-listed or -monitored Noxious Weeds were mapped using a GPS unit. All botanical findings were reported to the USFS MBSNF Botanist.

SR 520, Bridge Replacement and HOV Program

*WSDOT
King County, Washington*

Mr. Pursley Provided natural resource survey support for federal, state and local permitting efforts. He conducted tree surveys, shoreline assessment, and natural resource review for permit compliance review of design-build alternatives.

Methow River Wetland Delineation and Habitat Mapping

*Bureau of Reclamation
Winthrop/Twisp, Washington*

Mr. Pursley conducted wetland delineations and habitat mapping for a Bureau of Reclamation project between Winthrop and Twisp, Washington, on the Methow River. Relic terraces, floodplains, and streambeds were surveyed to identify plant communities, and sensitive resources including wetlands.

Resource Specialist for I-405 Projects

*WSDOT
Bellevue, Washington*

Mr. Pursley provided wetland, stream, and critical areas surveys for several of the Interstate 405 (I 405) road widening projects. He also provided permitting, planning, and all associated environmental compliance conditions once the road project went to construction. Mr. Pursley also provided wetland/stream mitigation design and construction compliance support. He worked directly with all Federal, State, County, and Local regulatory agencies.

Linden Tree Park, Wetland and Stream Habitat Assessment

*City of Wenatchee
Wenatchee, Washington*

Mr. Pursley conducted natural resource assessment along the Columbia River and its tributaries in Linden tree Park in Wenatchee, Washington. Shoreline habitats and boundaries were established for both streams and wetlands. Complete species inventories of all native and non-native flora and fauna were documented to address natural restoration and removal of invasive species.

Project Experience

**Little Mountain Quarry
Environmental Permit Project**
*WSDOT
Skagit County, Washington*

Mr. Pursley was the lead ecologist for the natural resources assessment associated with an approximately 200-acre undeveloped parcel owned by the Washington State Department of Transportation.

**Eddon Boatyard Sediment
Remediation**
*City of Gig Harbor
Gig Harbor, Washington*

Mr. Pursley provided onsite construction management, environmental compliance, and natural resource restoration services during the pre-construction, construction, and post-construction phases of the project. Construction activities managed during the project included in-water dredging, over-water structure demolition, post-dredging sampling, capping, shoreline restoration, and upland excavation. Permit compliance including water quality monitoring and observations for distressed or injured wildlife occurred daily.

**Neo-Tropical Passerine Migrant
Surveys, Avian Habitat
Assessment, and Nest Success
Surveys**
*USDA
Great Smokey Mountains, North
Carolina and Tennessee*

Mr. Pursley conducted field observation and behavioral data collection of neo-tropical migrant songbirds in the Great Smoky Mountains National Park using standard point counts and audible detection. Detailed vegetation plots were also established at all sample points to quantify the available habitat. Nest searches were conducted and all found nests were monitored to document parental behavior, foraging behavior, predation, and nesting success rates. He also performed quality assurance/quality control (QA/QC) of field team's data sheets and conducted database entries and queries at the end of the field season.

**Deepwater Horizon Spill
Response**
*Mobile Incident Command Center
Mobile, Alabama*

Mr. Pursley worked as a Wildlife Specialist and Wildlife Team Lead during the 2010 BP Oil Spill in the Gulf of Mexico. As a member of the Incident Command System, Mr. Pursley worked directly with federal, state, and local agencies to identify, evaluate, and prepare plans and procedures to safely perform cleanup operations while protecting wildlife, habitat, cultural, and environmental resources.

Seattle Seawall Replacement
*City of Seattle
Seattle, Washington*

Ms. Pursley is supporting ongoing marine mammal monitoring for the City of Seattle Seawall Replacement Project during in-water construction activities. During in water project activities he monitors the marine environment for all marine mammal species, including the Humpback whale (*Megaptera novaeangliae*) and the resident Killer whale (*Orcinus orca*). Mr. Pursley coordinates with the City of Seattle management team, the on-site contractors, and the other marine mammal monitors positioned throughout Elliott Bay and the project area of influence.

Project Experience

East Link Light Rail, Sound Transit

Sound Transit

Bellevue and Redmond, Washington

Mr. Pursley led environmental field teams to assess streams and wetlands within the project area of the proposed Link Light Rail corridor which stretches from the eastern shoreline of Lake Washington to the project terminus at the Overlake Transit Center. Mr. Pursley was the projects Certified Arborist and conducted tree surveys within the entire length of the proposed project alignment. Tree survey data collected was used for vegetation mitigation planning, beneficial re-use of removed trees, and to aid in landscape planning and planting during construction. He also coordinated with the project design engineers and planners to design and propose mitigation measures which address stormwater treatment and potential impacts to streams and wetlands.

Sarah Montgomery

Biologist

Ms. Montgomery is a natural resources biologist with field experience across the country. Her expertise is in biological monitoring, rare species identification, wetland delineation, fish identification and sampling, avian surveys, and plant censuses. She performs data quality assurance and control (QA/QC), researches historical data, and assists in writing environmental impact statements and biological assessments for projects across the state of Washington. Ms. Montgomery’s experience includes both regulatory and mitigation frameworks of fisheries and natural resources. She also has experience collecting and characterizing soil and sediment samples.

Ms. Montgomery has an academic background in ecology, fisheries, biological monitoring, forestry, and Latin language.

Education

B.S. Biology (Ecology, Evolution, and Conservation), University of Washington, 2013

B.A. Classical Studies and Latin Minor, University of Washington, 2013

Licenses/Certifications

40-hour HAZWOPER

BioSonics Hydroacoustic Assessment Training

WSDOT Biological Assessment Junior Author

DOT Hazmat Security Awareness

Wetland Delineation

WDFW Certified Forage Fish Biologist

Wilderness First Responder

CPR and AED

Wilderness Navigation

Project Experience

Wayne Co. Tissue Sampling

*Glenn Springs Holding
Clifton, Tennessee*

Ms. Montgomery used an electroshocker, nets, and hook and line to collect fishes in small streams. The field team collected, identified, and sampled tissue from species of black bass, sunfish, catfish, and many others. They also identified and avoided rare and endangered species.

Superfund Site

*Confidential Client
New York City, New York*

Ms. Montgomery collected aquatic species for tissue sampling using minnow traps, gill nets, and crab pots. Ms. Montgomery was also a field lead for wildlife monitoring. Work included identifying any species in the project area and documenting foraging behavior of any species in the intertidal or channel area.

Project Experience

Sunset Falls Salmon Studies

*Snohomish County Public Utility District
Snohomish County, Washington*

Anchor QEA performed a radio telemetry fish study on the Skykomish River, Washington, at Sunset Falls in order to determine if survival of juvenile coho and Chinook varies with the amount of flow in the river at the time of release. Ms. Montgomery set up telemetry equipment at five sites along the river, interfacing with landowners and Washington Department of Fish and Wildlife (WDFW's) Sunset Falls Trap and Haul operators. She coordinated with WDFW to collect and tag salmon at their Wallace River facility. She handled the fish during tagging, monitored their health, and released the fish. She also analyzed data and assisted in writing the report.

Yakima Basin Integrated Water Resource Management Plan

*U.S. Bureau of Reclamation
Kittitas County, Washington*

Ms. Montgomery assisted in writing the Environmental Impact Statement chapter for Surface Water Quality for the Cle Elum Pool Raise Project. She assisted in writing and editing the Fish and the Threatened and Endangered Species chapters for the Kachess Drought Relief Pumping Plant and Keechelus to Kachess Conveyance projects.

Chehalis Basin Strategy

*State of Washington
Thurston, Grays Harbor, and Lewis Counties, Washington*

Ms. Montgomery performed large woody debris surveys in the Chehalis River and tributaries as part of a basin-wide geomorphic assessment. Ms. Montgomery also performed background research on aquatic species presence and wrote sections of the Aquatic Species Restoration Plan and related memoranda. She is currently drafting the Bank Protection Strategy and a report on data gaps in the basin.

Cedar Creek

*Mercury Marine
Ozaukee County, Wisconsin*

Ms. Montgomery performed wetland delineations. Delineating and mapping many small wetlands along Cedar Creek included interfacing with landowners, quickly identifying plants and hydrologic features, and identifying hydric soils with detail. She also assisted in a rare and endangered plants census in the project area.

Southridge Critical Areas Report

Private Developer

Ms. Montgomery conducted a habitat assessment and species survey for a 500-acre parcel with another biologist. Areas of the property were characterized for plant and wildlife species and findings were summarized in a critical areas report consistent with requirements in City of Kennewick and Benton County municipal code. Ms. Montgomery assisted in developing mitigation options and recommendations.

Crescent Bar Delineations and Biological Assessment

Grant County Public Utility District

Ms. Montgomery performed wetland and ordinary high water mark (OHWM) delineations for Grant County Public Utility District, who is proposing recreational improvements in the Columbia River. She assisted in writing the delineation reports and the biological assessment. Ms. Montgomery collected and developed species data including species biology and site-specific occurrence. She developed the environmental baseline information and the effects analysis of listed species in the project area.

Project Experience

Alaskan Way Seawall Replacement Project *City of Seattle*

Ms. Montgomery performs marine mammal monitoring and water quality monitoring in support of in-water construction. During periods of in-water pile-driving, she monitors the surrounding area for listed marine mammal species, including the humpback whale (*Megaptera novaeangliae*) and the resident killer whale (*Orcinus orca*), and is required to stop work when and if the species are in the area. She helps manage the data collection and scheduling for this project and drafts the annual report.

Quilomene Bay Biological Assessment *Grant County Public Utility District*

Ms. Montgomery assisted in developing a biological assessment for Grant County Public Utility District, who is proposing recreational improvements and a floating restroom in Quilomene Bay, in the Columbia River. Ms. Montgomery collected and developed species data including species biology and site-specific occurrence. She developed the environmental baseline information and the effects analysis to listed species in the project area.

Rocky Reach, Rock Island, and Wells Dam Habitat Conservation Plans *Chelan and Douglas County Public Utility Districts Washington*

Ms. Montgomery supports senior level staff and two technical committees (including tribal, state, and federal agencies) overseeing the implementation of Habitat Conservation Plans for the Rocky Reach, Rock Island, and Wells Dam Hydroelectric projects for the Chelan and Douglas County Public Utility Districts. The plan stipulates a performance-based standard of "No-Net-Impact" to migrating salmon and steelhead via fish passage, hatchery mitigation, and a comprehensive monitoring and evaluation program.

Terminal 5 Fender Piling Repair and Maintenance Project *Port of Seattle Seattle, Washington*

Ms. Montgomery performed species observations (presence/absence of marine mammals and location) and recorded species behavior. If an Endangered Species Act-listed marine mammal species was observed within the marine mammal monitoring area during this time, the biologist notified the on-site resident engineer for the Port of Seattle, who would require the contractor to cease work until the marine mammals have moved outside of the area.

Buffalo River Habitat Restoration *Honeywell Buffalo, New York*

Ms. Montgomery is one of two construction managers for the riparian planting portion of this restoration project along the banks of the Buffalo River in upstate New York. Ms. Montgomery oversees a crew of planters for several weeks throughout the spring and summer. She writes daily reports for client review, interacts with sub-contractors, and drives a boat along the river.

West Waterway Sediment Characterization *Port of Seattle Seattle, Washington*

Ms. Montgomery performed sediment coring and characterization for the West Waterway dredge material characterization investigation.

Project Experience

Skagway Sediment Characterization

*Private Client
Skagway, Alaska*

Ms. Montgomery performed sediment coring and characterization in the Port of Skagway.

Pacific Lamprey GIS Habitat Analysis

*Chelan County Public Utility District
Columbia River Basin, Washington*

Ms. Montgomery created a GIS program using fisheries and hydrologic data to estimate the availability of spawning, rearing, and migration habitat in the Columbia River Basin available to Pacific lamprey. A scientific paper on this work is currently undergoing review.

Avian Predation Program Monitoring

*U.S. Army Corps of Engineers,
Portland District
Washington and Oregon*

Ms. Montgomery performed field and office work in support of all tasks for the Avian Predation Program Monitoring of Caspian terns and double-crested cormorants on East Sand Island, in the Lower Columbia River Estuary, and at islands in Eastern Oregon and Northern California in 2016. Ms. Montgomery set up monitoring equipment and blinds at all study sites including building walls, structures, tunnels, and setting up dissuasion materials, decoys, and social attraction equipment. She led the field team in post-season PIT-tag data collection. She drafted weekly reports for monitoring on ESI, in the LCRE, and at the interior islands and is currently preparing presentations and the annual reports.

CRITICAL HABITAT AND SPECIES REPORT

Canyon View Estates LLC.

Iron Hills Development

Parcel #12-1891000002000

Kennewick Washington

November 18, 2024

Sage Basin Ecosystems
Erin Burgess
(541) 601-3877
sagebasineco@gmail.com

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INTRODUCTION

Sage Basin Ecosystems was contracted to conduct a Shrub Steppe analysis on the above-mentioned parcel located south of Kennewick, WA. in Benton County. The purpose of the survey was to perform an analysis of the extent and quality of shrub steppe habitat on the property and determine if any Washington State identified sensitive priority species exist on the site. Shrub Steppe habitat is an identified priority habitat by Washington State and identified in the City of Kennewick Critical Areas – Fish and Wildlife Habitat Conservation Areas Code 18.63. The Kennewick City Code of Ordinances (KCCO) Chapter 18.63.010 identifies critical resources within the city and defines Fish and Wildlife Habitat Conservation Areas (HCAs) as “1.a. Areas where state of federal designated endangered, threatened, and sensitive species have a primary association.” Both Priority Species and Shrub Steppe Habitat have restrictions associated with impacts resulting from any proposed development.

This site is approximately 29 acres in an area of undeveloped open space (Figure 1); the land use proposal on the site is planned residential development, including 24 acres of the assessment site.

This report addresses the findings of the shrub steppe assessment and sensitive species survey that was conducted on November 4, 2024.

BACKGROUND

The area surveyed is approximately 29 acres within Section 21 of Township 8 North, Range 29 East, Benton County Washington. The site is bordered to the north, east and south by undeveloped large expanses of quality shrub steppe habitats and upland grassland. Directly west, the site is bordered by an area of undeveloped open space, bordered by South Bofer Canyon Road and state highway 395 (Figure 1). The entire site would be considered upland grassland and shrub steppe vegetation communities with areas of high disturbance.

METHODS

The critical habitat and species survey was carried out using aerial photos (Google, WDFW PHS Web and Benton County Web) and then walking the site to verify photo interpretation as well as specific flora and fauna presence. During the on the ground investigation, species typically associated with shrub steppe habitat were looked for.

The Shrub Steppe Habitat analysis and sensitive species survey was conducted by Erin Burgess between 10AM and 2PM on November 4, 2024. The weather was cloudy with high winds between 15 and 25MPH and gusts up to 35 MPH. The ambient temperature was 45°F.

The Washington State Dept. of Fish and Wildlife (WDFW) Priority Habitats and Species

(PHS) web site (Figure 2) identifies the possible presence of shrub steppe habitat, Ferruginous Hawk (*Buteo regalis*), and Townsend's Ground Squirrel (*Urocitellus townsendii*) as potential priority species for this site. During the wildlife survey those species identified by WDFW and those typically associated with shrub steppe habitat were looked for.

The Shrub Steppe analysis is based on criteria found in Table 2 and where appropriate management recommendations for Washington's priority habitats: "Managing shrubsteppe in developing landscapes".

The site investigation consisted of traversing the entire project site, all land within 100 feet of the project footprint, and all land potentially affected by the proposed development. Survey data was collected using 100-foot transect lines running north to south. Transect lines at a 100-foot distance were used to account for the wildlife being surveyed for, specifically the Townsend's Ground Squirrel (*Urocitellus townsendii*), as the burrows and scat would be the only available evidence of the species at this time of year. In addition to line transects, random point surveys were conducted for wildlife observations and aural detections. Data collected from traversing the transects lines and point surveys included identification of native and non-native plant species (Table 2), signs of disturbance to the landscape, and wildlife signs including tracks, scat, and nests or burrows.

DISCUSSION

General Description

The site has a consistent northeastern slope ranging from 5 to 30% grade, with the steepest slopes occurring in the eastern region of the site. Most of the site is considered upland grassland with dispersed areas of medium quality shrubsteppe. There is an area of significant disturbance in the central portion of the site. The disturbance appears to be a storage site of gravel and is not naturally occurring part of the landscape. The eastern region of the site has steeper slopes associated with a draw running the length of the eastern border of the site. The northwestern portion of the site and western border of the site presented the highest quality shrub steppe habitat and associated native vegetation.

The USDA web soil survey identifies the soil unit on this site as Ellisforde silt loam (0 to 5 percent slopes) and Warden silt loam (15 to 30 percent slopes, severely eroded) (Figure 3).

Shrub Steppe Analysis

The 29-acre site is predominantly upland grassland with discontinuous sparse sagebrush associated with shrub steppe habitat. low to medium quality shrub steppe habitat, with localized disturbance accounting for about 20% of the site.

Across the site native plant diversity and presence occurred discontinuously with localized areas of sparse sagebrush habitat, mixed with the more dominant upland grassland

vegetation (Images 1). The native shrub component includes tall (giant) sagebrush (*Artemisia tridentata*) and gray rabbitbrush (*Chrysothamnus nauseosus*) at 0 to 20% (Image 2). The native grass mix of Sherman (*Poa secunda*), blue bunch wheatgrass (*Pseudoroegneria Spicatum*), Indian ricegrass (*Stipa hymenoides*), and Idaho fescue (*Festuca idahoensis*) ranges between 10 to 60%. The native herbaceous layer observed was primarily phlox (*spp.*), yarrow (*Achillea millefolium*), Fernleaf desert-parsley (*Lomatium dissectum*), arrowleaf balsamroot (*Balsamorhiza sagittata*), crouching milkvetch (*Astragal succumbens*), hoary tansyaster (*Dieteria canescens*), two-color rabbit tobacco (*Pseudognaphalium biolettii*), and prickly lettuce (*Lactuca serriola*) at 5 to 15%.

The nonnative weedy vegetation component consisted of tall tumble mustard (*Sisymbrium altissimum*), cheatgrass (*Bromus tectorum*), Russian thistle (*Salsola tragus*), crested wheatgrass (*Agropyron cristatum*), rush skeletonweed (*Chondrilla juncea*), diffuse knapweed (*Centaurea diffusa*), yellow salsify (*Tragopogon dubius*), common mullein (*Verbascum thapsus*), flixweed (*Descurainia sophia*), common rye (*Secale cereale*), and tansy ragwort (*Senecio jacobaea*). Most prevalent of the non-native plant species were the cheatgrass, Russian thistle, and tall tumble mustard occurring 40 to 80 percent across the landscape. Cheatgrass was observed in all areas of the site. It was the dominant species in the open grassland areas as well as the dominant understory plant species in areas with sagebrush.

The fossorial activity on this site was low to medium and the biological crust ranged between 0 and 5%.

There is evidence of a history of fire activity on this site due to the dominance of cheat grass and sparse low growing sage brush.

Sensitive Species Survey

At the time of the survey no sensitive species were observed, or signs of presence were encountered. Although no evidence of sensitive species was found, it is worth noting that the habitat did support several burrow features within the site. The burrows were approximately 1 to 2 inches in diameter which do not meet the requirements to classify them as either Townsend's ground squirrel burrows or burrowing owl burrow sites. No large burrows were observed during the site visit; however, coyote (*Canis latrans*) scat was found on the trails throughout the site.

Wildlife species observed:

Western Meadowlark	<i>Sturnella neglecta</i>
American Pipit	<i>Anthus rubescens</i>
Common Raven	<i>Corvus corax</i>

In addition to the identified observed species, there was a Buteo hawk circling above, at the time of the survey I could not get a positive ID on the specific species.

CONCLUSION AND RECOMMENDATIONS

The 29-acre site is dominated by upland grasslands and low to medium quality shrub steppe habitat. There are localized areas of high disturbance identified throughout the site. Although no sensitive species were observed at the time of the survey, the habitat types and plant communities are of a quality that could support the Townsend's ground squirrels. Surveys from 2008 (HDR) and 2017 (Anchor QEA) conducted on an adjacent parcel produced congruent habitat and wildlife survey results. Overall, the three separate surveys, spanning 16-years, concluded similar results of plant community types and habitat quality, confirming the land has the potential to support specific sensitive wildlife species although at the time of each survey, none were identified.

The proposed action for this site is a planned residential development. The total disturbed area will account for 24 of the 29-acres of the site. With most projects that impact a critical area, similar sequencing criteria found in the City of Kennewick, Critical Area Ordinance 18.58.090 are employed.

Erin Burgess

Sage Basin Ecosystem

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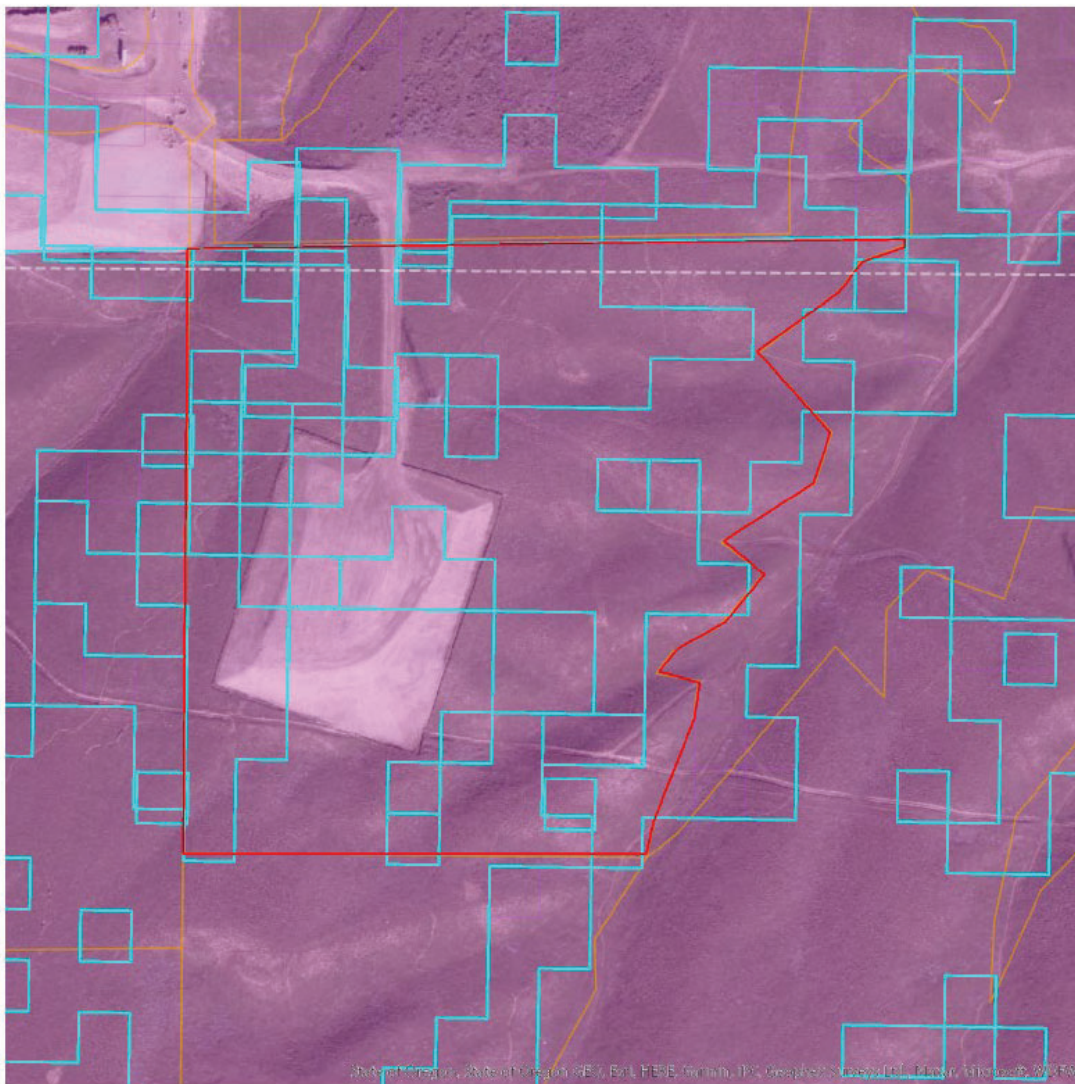
Appendix I. Tables and Figures



Figure 1. Parcel 12-1891000002000 Kennewick, WA. Survey site and surrounding area.



Priority Habitats and Species on the Web



PHS Species/Habitats Overview:

Occurrence Name	Federal Status	State Status	Sensitive Location
Shrubsteppe	N/A	N/A	No
Ferruginous Hawk	N/A	Endangered	No
Townsend's Ground Squirrel - townsendii	N/A	Candidate	Yes
Townsend's Ground Squirrel - townsendii		Candidate	Yes

Figure 2. The Washington State Dept. of Fish and Wildlife (WDFW) Priority Habitats and Species (PHS) search results parcel 12-1891000002000 Kennewick, WA. Accessed 11/15/2024.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
EfB	Ellisforde silt loam, 0 to 5 percent slopes	22.6	78.0%
WdE3	Warden silt loam, 15 to 30 percent slopes, severely eroded	6.4	22.0%
Totals for Area of Interest		28.9	100.0%

Figure 3. USDA web soil survey results for parcel 12-1891000002000, Kennewick, WA. Accessed 11/15/2024.



Image 1. This photo was taken from the eastern portion of the site near the ravine and shows the upland grassland vegetation composition. Cheatgrass and Russian thistle were the dominant plants of this community.



Image 2. This photo was taken from the southern region of the site looking west. Here we can see the sparse sagebrush and rabbitbrush vegetation composition.

Table 1. Plant Species Observed

Scientific Name	Common Name	Native
<i>Achillea millefolium</i>	Yarrow	Yes
<i>Artemisia tridentata</i>	Tall Sagebrush	Yes
<i>Astragal succumbens</i>	Crouching milkvetch	Yes
<i>Balsamorhiza sagittata</i>	arrowleaf balsamroot	Yes
<i>Chrysothamhus nauseosus</i>	Gray rabbitbrush	Yes
<i>Dieteria canescens</i>	Hoary tansyaster	Yes
<i>Lactuca serriola</i>	Prickly lettuce	Yes
<i>Lomatium dissectum</i>	Fernleaf dessert-parsley	Yes
<i>Phlox longifolia</i>	Longleaf phlox	Yes
<i>Poa Secund</i>	Sherman	Yes
<i>Pseudognaphalium biolettii</i>	Two-color rabbit tobacco	Yes
<i>Psuedoroegneria spicatum</i>	Bluebunch wheatgrass	Yes
<i>Stipa hymenoides</i>	Indian Ricegrass	Yes
<i>Agropyron crustatum</i>	Crested wheatgrass	No
<i>Bromus tectorum</i>	Cheatgrass	No
<i>Centaurea diffusa</i>	Diffuse Knapweed	No
<i>Chondrilla juncea</i>	Rush skeletonweed	No
<i>Descurainia sophia</i>	Flixweed	No
<i>Salsola tragus</i>	Russian thistle	No
<i>Secale cereale</i>	Common rye	No
<i>Senecio jacobaea</i>	Tansy ragwort	No
<i>Sisymbrium altissimum</i>	Tall tumble mustard	No
<i>Tragopogon dubius</i>	Yellow salsify	No
<i>Verbascum thapsus</i>	Common mullein	No

ERIN BURGESS

1605 EASY ST. WENATCHEE, WA 98801
(541)601-3877 | BURGESS.ERINANNE@GMAIL.COM

PERSONAL SUMMARY

Driven by a passion for wildlife and ecology, I seek opportunities to use my extensive education and experience in project and personnel management, field techniques and research design, community outreach, and public speaking to connect people to the environment around them.

- Public speaking
- Scientific process & research design
- ArcGIS Pro & ArcMap proficiency
- Geospatial analysis
- Community outreach
- Remote cameras
- Telemetry
- Technical Writing
- Wildlife Trapping Certified (NC)
- Habitat Mitigation Planning

EDUCATION

- Master of Science, Geoscience**
University of North Carolina, Wilmington, NC. May 2023
- Bachelor of Science, Wildlife Biology**
Lees-McRae College, Banner Elk, NC. May 2015
- Comparative Literature**
University of Washington, Seattle, WA. September 2000 – June 2004

CERTIFICATES & RELEVANT SCHOLASTIC EXPERIENCE

- Geospatial Intelligence**
University of North Carolina, Wilmington, NC. May 2023
- Teaching Assistant**
Introduction to Physical Geography. University of North Carolina, Wilmington. Spring 2018, Fall 2019

SOFTWARE EXPERIENCE

- | | |
|----------------------------|--|
| ArcGIS Desktop | Introduction to GIS & Advance GIS (ArcGIS) |
| Remote Sensing (ESRI) | Microsoft Office |
| Drone Applications (Pix4D) | Adobe Illustrator |

SKILLS

Project management	Public Speaking
Data Visualization	Critical Thinking
Imagery Analysis	Personnel Management
Scientific Writing	Wildlife Habitat Management

EXPERIENCE

Sage Basin Ecosystems, LLC, Principal
Wenatchee, WA June 2023 - Present

- Priority habitat assessments and wildlife surveys in central Washington relating to Critical Area Ordinance codes
- Habitat Management Plans and mitigation options for critical area impacts
- Conducting surveys using binoculars, GPS units, mobile data collection devices and mapping software
- Transect grid surveys for threatened Washington species
- Data management and organization utilizing Excel spreadsheets and mapping software

Colorado Parks and Wildlife. Golden Gate Canyon State Park, Educator & Visitors Center Technician
Golden, CO April 2018 – October 2018

- Working directly with public: educating on park trails, amenities, wildlife they may see in the park, park rules and regulations, and hunting licensure
- Public Speaking
- Facilities maintenance

RESEARCH

Investigating the spatial relationship between land cover change and abundance of gray (*Urocyon cinereoargenteus*) and red (*Vulpes vulpes*) fox populations in North Carolina
University of North Carolina Wilmington Master's research 2019 – 2023

- Proficiency in geoprocessing using ArcMap 10.8 and ArcGIS Pro
- Comprehensive knowledge of red and gray fox ecology and relationship to unique land cover types
- Adept in scientific process and research design
- Written and oral presentations of analysis and results
- Close communication with advisory committee throughout the research process

Acoustic Monitoring of Northern Flying Squirrels

North Carolina Wildlife Resources Commission

July 2014 – October 2015

- Assist a NCWRC Biologist in setting up ultrasonic detection equipment in numerous locations throughout Western North Carolina to evaluate a population of endangered Northern Flying squirrels.
- Extensive and often strenuous field duties are required including hiking mountainous terrain, often “bushwhacking” to locate ideal survey spot, hiking in equipment weighing up to 40 lbs., using aluminum ladders to reach nest boxes attached to trees reaching thirty feet up.

White-tailed deer population comparison by habitat study

Banner Elk, North Carolina

Lees-McRae College

January 2015 – May 2015

- Developed hypotheses and conducted scholarly research on population differences of white-tailed deer of neighboring habitats
- Proposed methods for testing hypothesis
- Set 5-mile transects where observations were made three times weekly
- Tested the hypothesis by conducting visual point counts and including the use of field camera surveys
- Managed detailed field data
- Analyzed the data results within Excel and organized the findings into a scientific report

Belize Foundation for Research and Environmental Education

Belize, Central America

Lees-McRae College

March 2014

Tropical biology field course

- Avian mist netting: forest ecosystem and cacao farm
- Small mammal trapping using Sherman live traps

- Bladen river aquatic macro invertebrate survey
- Daily birding
- Bat emergence
- Endemic plant identification

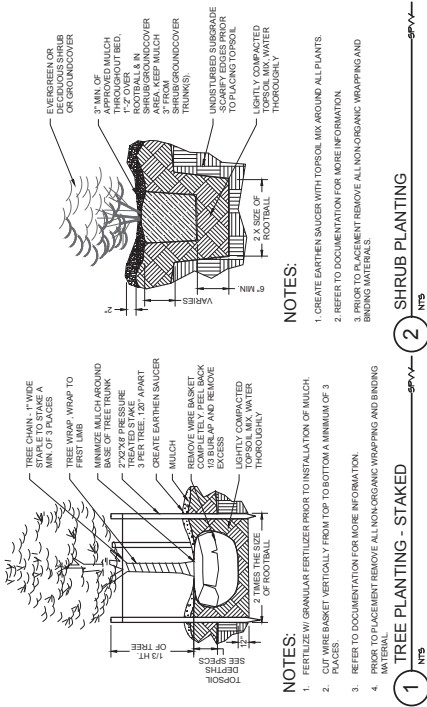
Salamander Population Surveys

Banner Elk, North Carolina

Lees-McRae College

August 2014 – November 2014

- Team leader in research activities including capturing, identifying, measuring, weighing, and releasing specimens at the various habitat locations
- Collected and analyzed data using Excel



NOTES:

1. CREATE EARTHEN SAUCER WITH TOPSOIL MIX AROUND ALL PLANTS.
2. REFER TO DOCUMENTATION FOR MORE INFORMATION.
3. PRIOR TO PLACEMENT REMOVE ALL NON-ORGANIC WRAPPING AND BRACING MATERIALS.

NOTES:

1. FERTILIZER/ GRANULAR FERTILIZER PRIOR TO INSTALLATION OF MULCH.
2. REMOVE WIRE BASKET VERTICALLY FROM TOP TO BOTTOM A MINIMUM OF 3 PLACES.
3. REFER TO DOCUMENTATION FOR MORE INFORMATION.
4. WATER TO PLACEMENT REMOVE ALL NON-ORGANIC WRAPPING AND BRACING MATERIALS.

**CANYON VIEW ESTATES
RIDGELINE ROAD & S. BOFER CAYON ROAD
KENNEWICK, WASHINGTON**

For:

**BAGLEY LANDSCAPE CONSTRUCTION, INC.
1418 E. ST. HELENS STREET
PASCO, WASHINGTON 99301
ATTN.: MR. CHAD BAGLEY**

Provided By:



**1106 Ledwich Ave.
Yakima, WA 98902
509-469-3068
general@baertesting.com**

*April 16, 2024
Project No: 24-054*



September 25, 2024

Kevin Biersner, PE, Assistant Traffic Engineer
City of Kennewick
PO Box 6108
Kennewick, Washington 99336

Via email: kevin.biersner@ci.kennewick.wa.us

Regarding: Traffic Impact Analysis
Canyon View Estates
Parcel ID 121891000002000
Kennewick, Washington
PBS Project 78195.000, Phase 002B

Dear Mr. Biersner:

This traffic impact analysis (TIA) letter supports the proposed Canyon View Estates project in Kennewick, Washington, for its Planned Residential Development application to the City of Kennewick (City). This letter addresses the City's TIA requirements and presents the findings of the project's traffic impacts on the site vicinity.

PROJECT DESCRIPTION

The proposed Canyon View Estates project is a planned residential development (PRD) proposed on Benton County (County) parcel 121891000002000, which spans approximately 29.5 acres in the northeast quarter of Section 21, Township 8 North, Range 29 East, of the Willamette Meridian. The site is currently undeveloped. The development will occur in two areas: the northern portion will include 126 units of multi-family housing, and the southern portion will include 53 units of single-family housing.

To connect the project to the transportation network, Ridgeline Drive will be extended southeast from S Bofer Canyon Road, and a new north-south minor arterial roadway, currently labeled Street 1, will be constructed south of Ridgeline Drive. All local access is proposed along Street 1: the four driveways accessing the multi-family housing portion and the three local access roadways accessing the single-family housing portion will intersect Street 1. In addition, the southern end of Street 1 will be connected to S Bofer Canyon Road as a gravel road across parcel 121891000003000; this gravel road will be gated and will be for emergency access only.

The project construction is assumed to be completed in a single phase by 2025. See Figure 1 for a vicinity map and Figures 2 and 3 for preliminary site plans.

The studied intersections for this TIA are as follows:

1. Plaza Way / Ridgeline Drive
2. US Highway 395 (US 395) / Hildebrand Boulevard
3. Southridge Boulevard / Ridgeline Drive
4. Southridge Boulevard / Hildebrand Boulevard
5. S Zintel Way / Hildebrand Boulevard

This letter includes analysis of existing conditions, future background conditions based on a 2.0% annual growth rate and in-process projects, and future conditions with the project trips. The TIA scope of work is based on the City of Kennewick's Level 3 traffic impact analysis (TIA) guidelines¹ and the scoping correspondence emails between PBS and City staff.

EXISTING CONDITIONS

The existing site and roadway conditions in the study area were documented to inform the analysis.

Existing Site Conditions

The site is zoned Residential – Low Density (RL). There are no overlay districts. The Comprehensive Plan² future land use is defined as Low-Density Residential. The site is inside the City of Kennewick limits and the Kennewick urban growth area. The site, which is identified with parcel number 121891000002000 on County records, comprises approximately 29.5 acres. See Figure 1 for the vicinity map.

Existing Roadway Conditions

The existing roadway providing access to the site is Ridgeline Drive. Data were gathered on this and other roadways in the study area to inform operations analysis of the existing roadway system. The pertinent information regarding the study area roadways is tabulated in Table 1.

Table 1. Existing Roadway Information

Roadway Name	Segment	Classification ³	Speed Limit (mph)	Lane Configuration		
				Travel Lanes	Sidewalks	Bike Lanes
Ridgeline Drive	West of Southridge Boulevard	Collector	30	3	Partial	Yes
	East of Southridge Boulevard	Minor Arterial	35	2 to 4	Partial	Yes
US Highway 395 (US 395)	All	Expressway	55	4 to 5	No	No
Hildebrand Boulevard	West of US 395	Principal Arterial	35	5	Yes	Yes
	East of US 395	Minor Arterial	25	3 to 4	Yes	Yes
Southridge Boulevard	North of Ridgeline Drive	Minor Arterial	40	3	Partial	Yes
	South of Ridgeline Drive	Collector	45	3	Yes	Yes
Zintel Way	All	Local Road	25*	3	Partial	Yes

mph: miles per hour

* Assumed

The lane configurations and traffic controls at the studied intersections are presented on Figure 4.

¹ City of Kennewick. (May 8, 2014). "Development Traffic Impact Analysis Criteria."

² City of Kennewick. (undated). *Together We Are One Kennewick, 2021-2041*. Accessed September 23, 2024, at <https://www.go2kennewick.com/DocumentCenter/View/9723/Comprehensive-Plan-Together-we-are-One-Kennewick>.

³ Transpo Group, for City of Kennewick. (June 2018). *City of Kennewick 2040 Transportation System Plan (TSP)*. Accessed September 23, 2024, at <https://www.go2kennewick.com/DocumentCenter/View/780/Transportation-System-Plan-PDF?bidId=>.

Existing Traffic Volumes

Turning movement counts were gathered for the weekday PM (4:00 to 6:00 pm) peak period by All Traffic Data (ATD) in July 2024 at the following intersections:

1. Plaza Way / Ridgeline Drive
2. US 395 / Hildebrand Boulevard
3. Southridge Boulevard / Ridgeline Drive
4. Southridge Boulevard / Hildebrand Boulevard
5. S Zintel Way / Hildebrand Boulevard

Figure 5 shows the existing peak hour volumes based on these counts. Copies of the count data are provided in Appendix A.

FUTURE CONDITIONS

The future site and roadway conditions in the study area were documented to inform the analysis.

Future Roadway Conditions

The City's current Transportation Improvement Plan⁴ identifies two planned improvements within the study area:

- Zintel Way/Ridgeline Drive/Bofer Canyon (TIP Map ID 21 / TSP ID N-4): Construct the remaining Zintel Way as a three-lane urban street. The improvement is expected to be driven by private development alongside the roadway. Construction is anticipated to be complete by the end of 2030.
- Southridge & Ridgeline Intersection Roundabout (TIP Map ID 24): Expand the existing roundabout to a two-lane roundabout. Construction is anticipated to be complete by the end of 2030.

Consistent with the TIA scoping correspondence with the City, this TIA anticipates S Zintel Way will be functionally complete for vehicular travel between Ridgeline Drive and Hildebrand Boulevard prior to the buildout of the Canyon View Estates PRD. The expanded roundabout at the Southridge / Hildebrand Boulevard intersection, however, is not assumed to be complete for the site buildout.

Future Traffic Volumes

Background growth is a generic increase in traffic volumes that is not attributable to specific developments. For this TIA, a linear yearly background growth rate of 2% was applied to all peak hour movement volumes between public roadways at the studied intersections.

In-process projects are specific developments that are approved but not fully occupied at the time the count data is collected. City staff identified the following in-process project that will add trips to the studied intersections: Zintel Way Apartments, a 195-unit multi-family apartment complex. The in-process project is assumed to be completed before the Canyon View Estates project. Figure 6 summarizes the in-process volumes for the studied intersections. Copies of the in-process project trip information are provided in Appendix B.

Figure 7 shows the 2025 Without Project volumes, which represent the sum of the count data, the background growth volumes, and the in-process project trips.

⁴ City of Kennewick. (Adopted June 5, 2024). *Six-Year Transportation Improvement Plan (TIP) – 2025 to 2030*.

Proposed Trip Generation

The number of trips generated by the Canyon View Estates PRD is based on the Institute of Transportation Engineers' (ITE) *Trip Generation Manual*,⁵ specifically land use codes 210 (Single-Family Detached Housing) and 220 (Multifamily Housing, Low-Rise). The trip generation calculation results are summarized in Table 1, and the calculation details are provided in Appendix C. The site trips are presented for the average weekday and for the weekday PM peak hour between 4:00 pm and 6:00 pm.

Table 2. ITE Weekday Trip Generation—Canyon View Estates PRD

Land Use (ITE Code)	Single-Family Detached Housing (210)	Multi-Family Housing (Low-Rise) (220)	New Trip Totals
Independent Variable	Dwelling Units	Dwelling Units	
Size	53	126	
Average Daily Trips (ADT)	563	883	1,446
Peak Hour Trips	PM	PM	PM
Entering	34	47	81
Exiting	21	28	49
Total	55	75	130

As shown in Table 2, the Canyon View Estates PRD is anticipated to generate 1,446 new vehicle trips during a typical weekday, including 130 during the PM peak hour.

Proposed Trip Distribution and Assignment

The proposed distribution of primary trips is based on a review of the roadway network, land uses within the study area, the Benton-Franklin Council of Governments (BFCOG) trip distribution model, and engineering judgment. All vehicle trips are assigned to travel through the S Zintel Way—US 395 Northbound Ramps / Ridgeline Drive intersection. Beyond that roundabout, trips will distribute to and from Ridgeline Drive, US 395, or S Zintel Way. The proposed trip distribution and assignment of the project's new trips are shown in Figure 8.

Figure 9 shows the project's 2025 With Project volumes, or the sum of the 2025 Without Project volumes and the proposed site trips.

INTERSECTION OPERATIONS ANALYSIS

Measures of Effectiveness

Traffic operations are assessed in terms of level of service (LOS), a concept developed by transportation engineers to qualify the level of operation of intersections and roadways. As defined in the *Highway Capacity Manual* (HCM),⁶ LOS measures are classified in grades "A" through "F," indicating a range of operation, with LOS "A" signifying the best level of operation, i.e., full freedom of movement, and LOS "F" representing the worst level, i.e., operational failure. The HCM defines LOS thresholds based on the average delay, expressed as seconds per

⁵ Institute of Transportation Engineers. (2021). *Trip Generation Manual*, 11th Edition. Accessed September 23, 2024, via the ITETripGen Web-Based App at <https://www.itetripgen.org/Query>.

⁶ Transportation Research Board, National Research Council. (2016). *Highway Capacity Manual*, 6th Edition.

vehicle (sec/veh). The LOS can be calculated for each intersection lane group, for a multilane approach, or for an intersection as a whole.

The volume-to-capacity (v/c) ratio quantifies the portion of the theoretical capacity consumed by traffic demand volume. A v/c ratio of zero (0.00) indicates all the capacity is available and represents full freedom of movement. A v/c ratio of one (1.00) indicates all the capacity is consumed and represents operational failure. The v/c ratio can be calculated for each intersection lane group or for an intersection as a whole, with the latter calculation aggregating the v/c ratios of the intersection's critical lane groups.

Operation Standards

The City applies the following LOS standards during the weekday PM peak hour as the minimum acceptable operations for all arterials and collectors, as noted in the City's TSP, Chapter 4.5.2:

- LOS D for major approaches at signalized intersections and roundabouts
- LOS E for all minor street approaches at unsignalized intersections or driveways
- LOS F may be acceptable at unsignalized intersections or driveways under certain conditions; however, none applies to this TIA.

The Washington State Department of Transportation (WSDOT) has jurisdiction over US 395, its ramps, and its intersections. Within urban areas of Benton County, for highways of statewide significance (HSS) such as US 395, LOS D is the adopted minimum operational standard for peak hours.⁷

Analysis Methodology

The project's traffic impacts were estimated to determine the changes in traffic conditions. To make these determinations, the following assumptions and inputs were employed:

- The peak hour factor (PHF) for each intersection, as calculated from the count data, was applied for the baseline 2024 analysis scenario and the future 2025 conditions.
- A minimum heavy vehicle percentage (HV%) of 2% was assumed for each movement for all analysis scenarios. The HV% calculated from the count data was applied if it was greater than 2%.
- The LOS, delay, and v/c ratio for the studied intersections were calculated with different tools depending on the control type:
 - Trafficware's Synchro software, Version 11, was used to evaluate signalized intersections based on HCM methodologies and the WSDOT traffic analysis guidelines.^{8,9}
 - Akcelik and Associates' Sidra Intersection software, Version 9.1, was used to evaluate roundabout intersections based on the WSDOT Sidra analysis guidelines.¹⁰
- Intersection results report the overall intersection LOS, overall intersection delay, and the critical lane group v/c ratio (the highest lane group v/c ratio).

⁷ Washington State Department of Transportation. (January 1, 2010). *Level of Service Standards for Washington State Highways*.

⁸ Washington State Department of Transportation. (February 2019). *WSDOT Traffic Analysis Guide*.

⁹ Washington State Department of Transportation. (August 2018). *WSDOT Synchro & SimTraffic Protocol*.

¹⁰ Washington State Department of Transportation. (March 2021). *WSDOT Sidra Policy Settings*.

Level of Service Analysis

The following tables summarize the LOS reports for the studied intersections. All LOS reports are included in Appendix D.

Table 3 describes the LOS for each studied intersection for the 2024 Existing Conditions volumes during the weekday PM peak hour.

Table 3. Estimated 2024 Level of Service for Existing Conditions at Studied Intersections

Int. #	Intersection	Traffic Control	PM Peak Hour		
			LOS	Delay (sec/veh)	v/c*
1	Plaza Way / Ridgeline Drive	Roundabout	A	2.0	0.07
2	US 395 / Hildebrand Boulevard	Signal	C	23.2	0.83
3	Southridge Boulevard / Ridgeline Drive	Roundabout	A	3.1	0.08
4	Southridge Boulevard / Hildebrand Boulevard	Signal	B	19.6	0.72
5	S Zintel Way / Hildebrand Boulevard	Roundabout	A	2.4	0.22

* The reported v/c ratio represents the lane group with the highest v/c ratio.

As shown in Table 3, all studied intersections currently operate at an acceptable LOS during the weekday PM peak hour.

Table 4 describes the LOS for each studied intersection for the 2025 Without Project volumes during the weekday PM peak hour.

Table 4. Estimated 2025 Level of Service for Future Without Project at Studied Intersections

Int. #	Intersection	Traffic Control	PM Peak Hour		
			LOS	Delay (sec/veh)	v/c*
1	Plaza Way / Ridgeline Drive	Roundabout	A	2.4	0.10
2	US 395 / Hildebrand Boulevard	Signal	C	30.3	0.75
3	Southridge Boulevard / Ridgeline Drive	Roundabout	A	3.1	0.09
4	Southridge Boulevard / Hildebrand Boulevard	Signal	B	14.1	0.56
5	S Zintel Way / Hildebrand Boulevard	Roundabout	A	2.6	0.22

* The reported v/c ratio represents the lane group with the highest v/c ratio.

As shown in Table 4, all studied intersections will operate at an acceptable LOS in the 2025 Without Project scenario during the weekday PM peak hour.

Table 5 describes the LOS for each studied intersection for the 2025 volumes with the project trips during the weekday PM peak hour.

Table 5. Estimated 2025 Level of Service for Future With Project at Studied Intersections

Int. #	Intersection	Traffic Control	PM Peak Hour		
			LOS	Delay (sec/veh)	v/c*
1	Plaza Way / Ridgeline Drive	Roundabout	A	3.5	0.08
2	US 395 / Hildebrand Boulevard	Signal	C	30.1	0.75
3	Southridge Boulevard / Ridgeline Drive	Roundabout	A	3.1	0.09
4	Southridge Boulevard / Hildebrand Boulevard	Signal	B	14.1	0.46
5	S Zintel Way / Hildebrand Boulevard	Roundabout	A	2.6	0.23

* The reported v/c ratio represents the lane group with the highest v/c ratio.

As shown in Table 5, all studied intersections will operate at an acceptable LOS in the 2025 With Project scenario during the weekday PM peak hour.

Queuing Analysis

Queuing analysis was performed to evaluate queue storage adequacy at the studied intersections. Simulated 95th percentile queues were estimated using Trafficware's SimTraffic software (Version 11). Available storage was measured on publicly available aerial imagery and was rounded to the nearest 5 feet. Queue demand was rounded to the nearest 25 feet, the average headway of a queued vehicle.

Table 6 summarizes the queuing analysis results for the weekday PM peak hour. Results are provided for each signalized, stop-controlled, or yield-controlled lane, and each lane is described by the intersection movements allowed. Data output sheets from all queuing calculations are included in Appendix E.

Table 6. PM Peak Hour Intersection Queuing Analysis

Int. #	Intersection	Approach	Movements	Available Storage (Feet)	95th Percentile Queue (Feet)		
					2024 Existing	2025 Without Project	2025 With Project
1	Plaza Way / Ridgeline Drive	EB	U/L/T	625	25	25	25
			R	150	25	25	25
		WB	U/L/T	1,000+	25	25	50
			R	150	25	25	75
		NB	L/T	425	25	25	25
			R	180	25	25	25
		SB	U/L	1000+	25	25	25
			T/R	150	25	25	25
2	US 395 / Hildebrand Boulevard	EB	L	350	75	100	125
			L	350	100	100	125
			T	575	125	125	150

Int. #	Intersection	Approach	Movements	Available Storage (Feet)	95th Percentile Queue (Feet)		
					2024 Existing	2025 Without Project	2025 With Project
			T	575	75	75	125
			R	200	50	50	50
		WB	L	260	25	25	50
			L	260	50	50	75
			T	550	75	75	125
			T/R	550	100	100	150
			R	250	75	75	100
		NB	L	350	50	50	50
			L	350	75	75	125
			T	575	250	250	250
			T	575	250	250	225
			T/R	575	200	225	175
		SB	L	300	100	100	125
			L	300	50	75	125
			T	1000+	200	175	175
			T	1000+	200	200	200
			R	260	50	25	50
3	Southridge Boulevard / Ridgeline Drive	EB	L/T/R	800	25	25	25
		WB	U/L/T/R	625	25	25	25
		NB	L/T	725	25	25	25
			R	75	25	25	25
		SB	L/T/R	825	25	25	25
4	Southridge Boulevard / Hildebrand Boulevard	EB	L	250	100	100	100
			T	625	50	75	75
			T/R	625	25	50	25
		WB	L	175	25	25	25
			T	550	75	75	75
			TR	550	100	100	125
		NB	L	150	75	75	50
			T	900	125	150	100
			R	100	50	50	50

Int. #	Intersection	Approach	Movements	Available Storage (Feet)	95th Percentile Queue (Feet)		
					2024 Existing	2025 Without Project	2025 With Project
5	S Zintel Way / Hildebrand Boulevard	SB	L	150	200	225	125
			T	725	125	200	100
			R	150	75	125	75
		EB	U/L/T/R	500	75	75	125
			R	225	25	25	25
		WB	U/L/T	115	50	50	50
			T/R	500	25	25	25
		NB	U/L	165	25	25	25
			L/T/R	525	25	25	25
		SB	L/T/R	225	50	50	50
			R	165	25	25	25

EB: eastbound; WB: westbound; NB: northbound; SB: southbound; U: U-turn; L: left turn; T: through; R: right turn.

As shown in Table 6, queues will not exceed the available storage for any movement or approach at the studied intersections through the 2025 With Project conditions.

SAFETY EVALUATION

Collision Analysis

Collision data from the study area were obtained from WSDOT for the five-year period spanning from January 2019 through December 2023. Copies of the collision data are provided in Appendix F. This analysis assumes that a collision rate less than 1.00 collision per million entering vehicles (MEV) is typically considered to be within acceptable parameters. A collision rate above 1.00 per MEV is worthy of further examination.

To calculate the collision rate, the PM peak hour total entering volumes from the existing turning movement counts were multiplied by 10 to provide an approximation of the average daily trips. Detailed calculations of collision rates are provided in Appendix F. Table 7 presents the results of the collision analysis.

Table 7. Collision Analysis for Studied intersections (January 2019 through December 2023)

Int. #	Intersection	Collisions by Type			Total Collisions	Collision Rate per MEV
		Angle	Fixed-Object	Rear-End		
1	Plaza Way / Ridgeline Drive	0	2	0	2	0.40
2	US Route 395 (US 395) / Hildebrand Boulevard	2	1	15	18	0.41
3	Southridge Boulevard / Ridgeline Drive	0	0	0	0	N/A
4	Southridge Boulevard / Hildebrand Boulevard	4	5	7	16	0.76

Int. #	Intersection	Collisions by Type			Total Collisions	Collision Rate per MEV
		Angle	Fixed- Object	Rear- End		
5	Hildebrand Boulevard / Zintel Way	2	0	1	3	0.26

N/A: not applicable

As shown in Table 7, the calculated collision rates all fall below 1.00 per MEV. However, the Southridge Boulevard / Hildebrand Boulevard intersection shows a slightly elevated collision rate due to a higher number of fixed-object collisions than typically seen at signalized intersections, though these incidents have not resulted in significant injuries. Consequently, further study at this intersection is not necessary. Additionally, the remaining studied intersections also exhibit no serious injuries, leading to the conclusion that no further study is necessary.

Pedestrian, Bicycle, and Transit Facilities

The existing sidewalks and bike lanes along Ridgeline Drive end just northwest of the intersection with S Bofer Canyon Road. The new roadways being planned with the site development should include sidewalks, pedestrian crossings, and bike lanes aligned with the existing facilities at the location where Ridgeline Drive currently ends, ensuring pedestrian and bicycle access and connectivity. Although bike lanes are readily available between the site and nearby destinations, there are sidewalk gaps west and north of the Plaza Way / Ridgeline Drive intersection. For the new development, it is essential to design and construct facilities compliant with the Americans with Disabilities Act's (ADA) pedestrian accessibility standards.

Ben Franklin Transit provides public transit services within the study area. The closest bus stop, located near Plaza Way and the Trios Southridge Hospital main entrance, is approximately 0.8 miles north of the site and is served by bus route 47 Kennewick / 27th Avenue, which travels among Three Rivers Transit Center, the Southridge area, and the Dayton Transfer Point on 30-minute headways Monday through Saturday. The sidewalk gaps between the Plaza Way / Ridgeline Drive intersection and the Trios Southridge Hospital frontage, however, may limit transit's utility until those fronting properties develop. The closest transit center (Three Rivers Transit Center) is approximately six miles north of the site.

Sight Distance at Site Access Locations

The site development proposes driveways and local access intersections along the proposed Street 1 south of Ridgeline Drive. Sight distance evaluations are not possible where the accessed roadways do not exist, so this section simply provides recommendations.

Design and construct the proposed access points—driveways to the multifamily portion and local access roadway intersections to the single-family portion—for intersection sight distance (ISD) considerations in accordance with the City's *Code of Ordinances*,¹¹ Chapter 13.12.

CONCLUSIONS

This section summarizes the findings and recommendations of this TIA that are detailed in the above narrative.

¹¹ City of Kennewick. (Updated on September 3, 2024). *Code of Ordinances*. Accessed September 23, 2024, at https://library.municode.com/wa/kennewick/codes/code_of_ordinances.

Findings

The Canyon View Estates PRD site development is anticipated to generate 1,446 new vehicle trips during a typical weekday, including 130 during the PM peak hour. All these trips will travel through and distribute from the S Zintel Way—US 395 Northbound Ramps / Ridgeline Drive intersection.

The studied intersections will operate with acceptable LOS and queuing through the site buildout conditions. There are no collision rates or trends in the 2019–2023 collision history meriting further evaluation.

Although bicycle travel is readily available throughout the study area, and pedestrian facilities are available along Ridgeline Drive where the site improvements will begin, sidewalk gaps west and north of the Plaza Way / Ridgeline Drive intersection will limit the connectivity and utility of pedestrian and transit travel modes.

Recommendations

PBS recommends the following in relation to the Canyon View Estates PRD:

- Assure that all driveways, sidewalks, crosswalks, and curb ramps constructed or modified with the project comply with the current ADA accessibility guidelines.
- Include sidewalks, pedestrian crossings, and bike lanes along the new roadways being planned. Align and connect these facilities with the existing facilities at the Ridgeline Drive / S Bofer Canyon Road intersection.
- Design and construct the proposed access points for ISD considerations in accordance with the City's Code of Ordinances, Chapter 13.12.

CLOSING

Please feel free to contact me at 360.567.2123 or David.Holt@pbsusa.com with any questions or comments.

Sincerely,



David Holt, PE
 Traffic Engineer

cc: Bryan Bailey, John Manix, Jason Mattox, Peter Reich, Scott Shumaker, Moe Taha, Rebecca Wahlstrom (PBS)

Attachments: Figures
 Appendix A. Traffic Counts
 Appendix B. In-Process Project Trips
 Appendix C. ITE Trip Generation
 Appendix D. Level of Service Reports
 Appendix E. Queuing Reports
 Appendix F. Collision Data and Rate Calculations

MT:DH,JM:tl

Digitally signed by David Holt
 Date: 2024.09.25 03:40:35-07'00'



Figures

- Figure 1. Vicinity Map
- Figure 2. Northern Portion Site Plan
- Figure 3. Southern Portion Site Plan
- Figure 4. Existing Lane Configurations and Traffic Controls
- Figure 5. 2024 Existing Volumes
- Figure 6. In-Process Project Volumes
- Figure 7. 2025 Without Project Volumes
- Figure 8. Trip Assignment and Distribution
- Figure 9. 2025 With Project Volumes

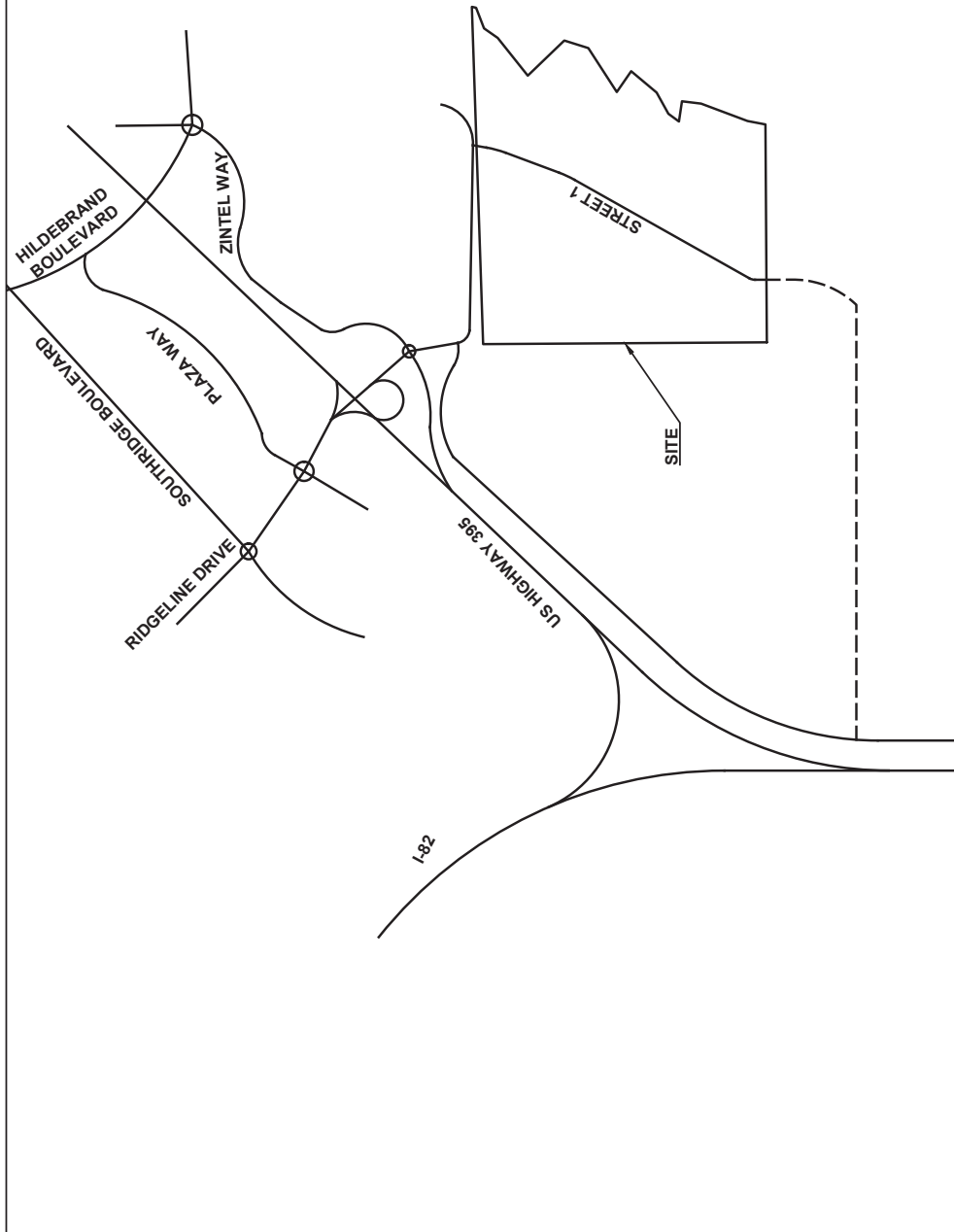


FIGURE 1

Vicinity Map Canyon View Estates



Exhibit 9

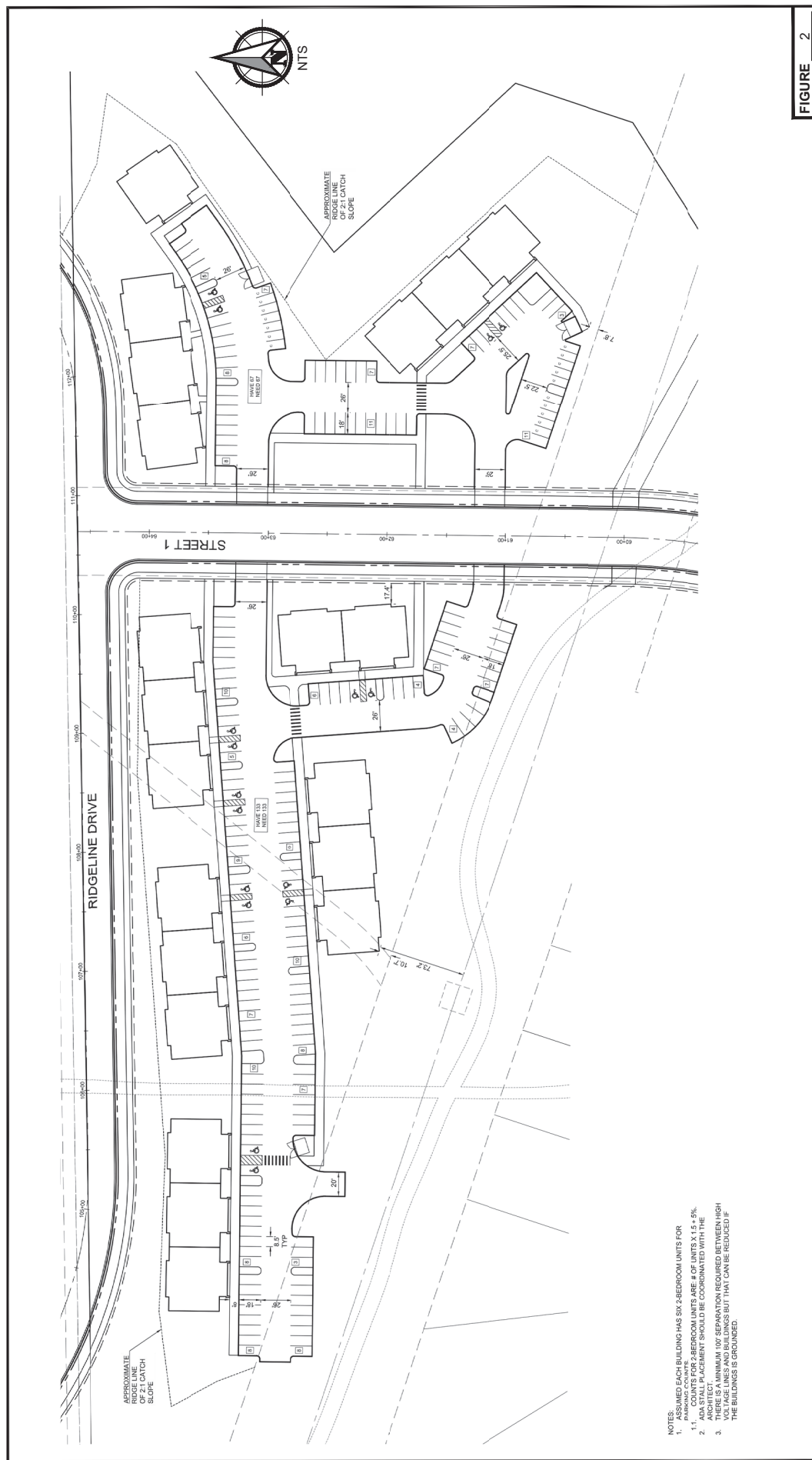
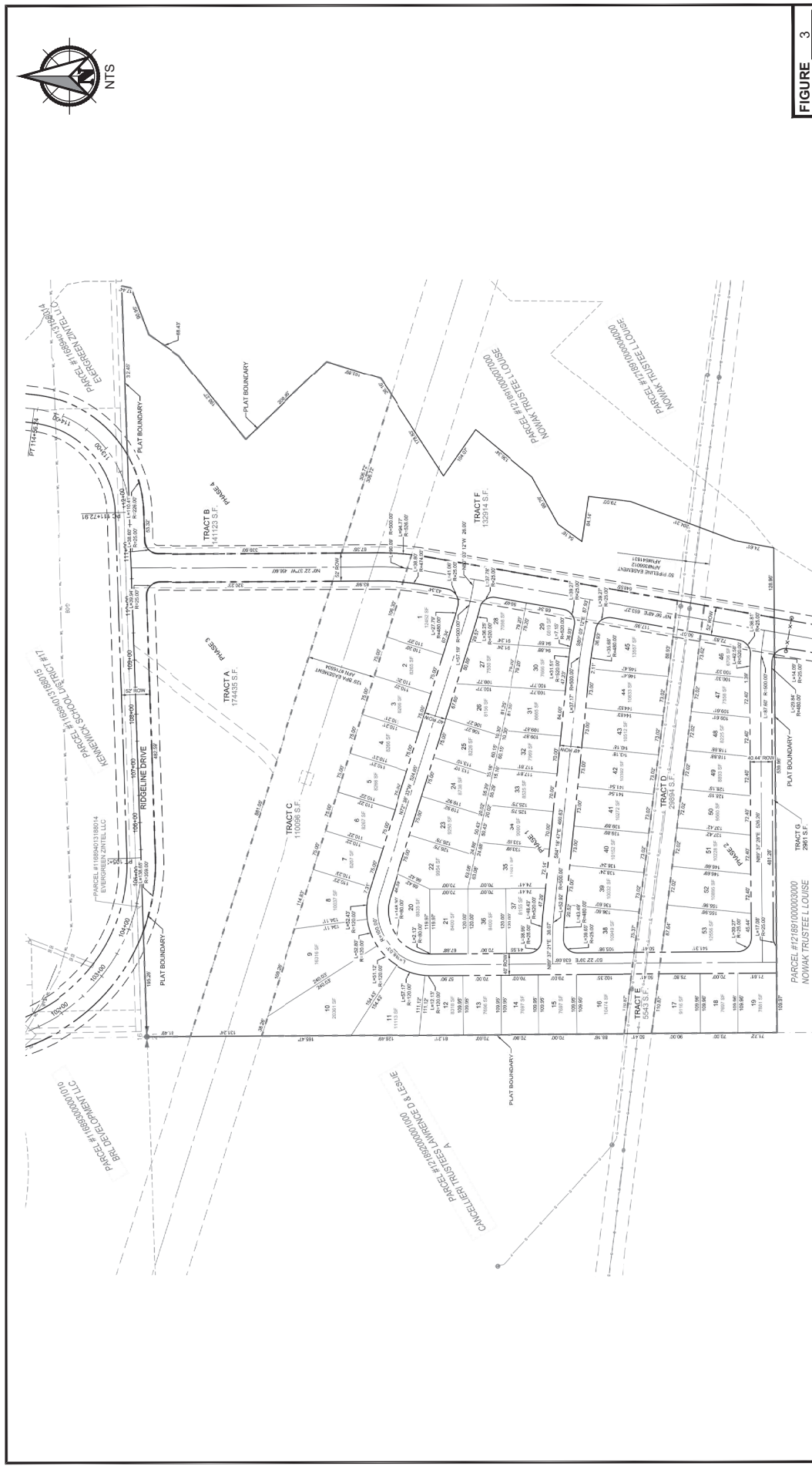


FIGURE 2

Northern Portion Site Plan

Canyon View Estates

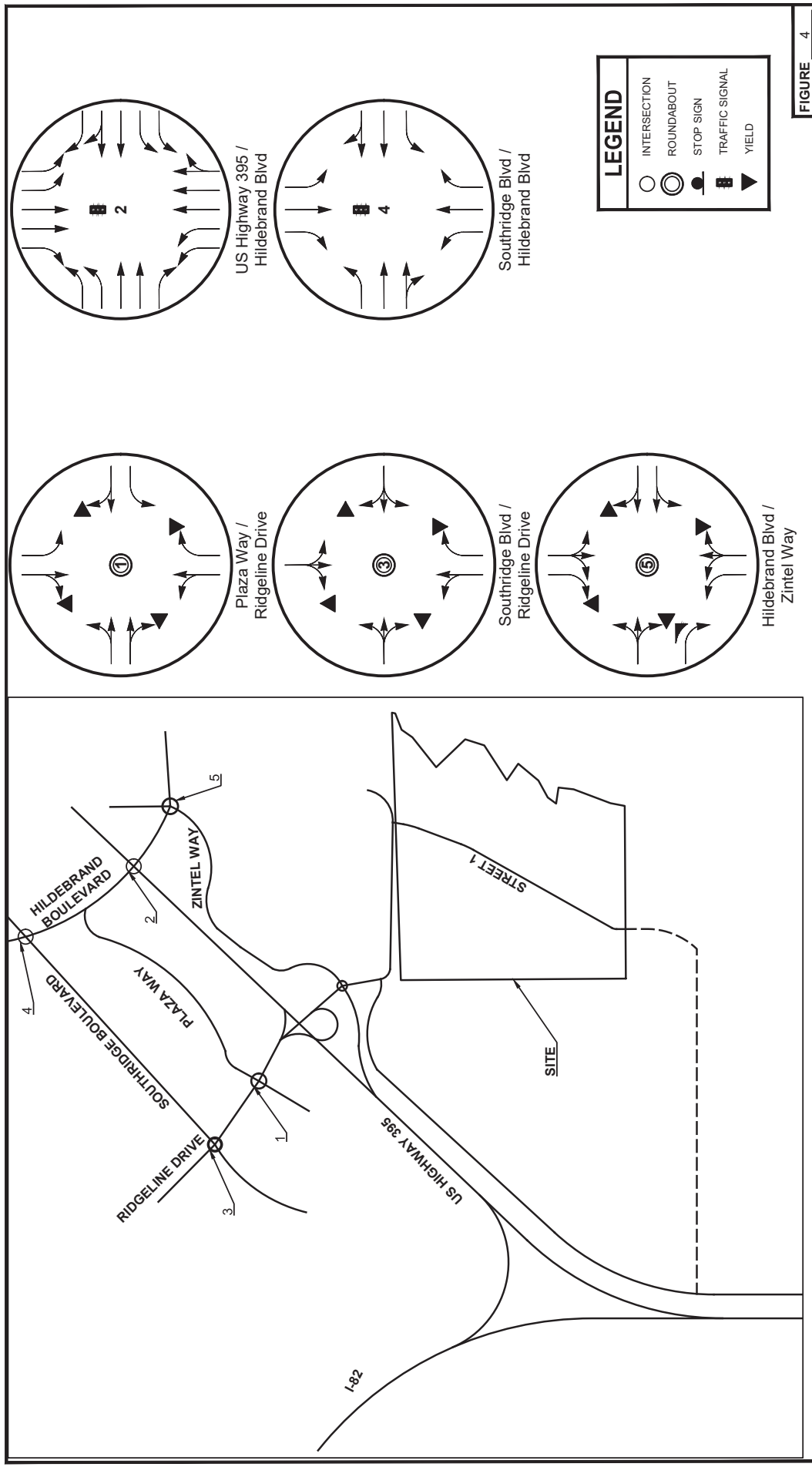
Exhibit 9



Southern Portion Site Plan

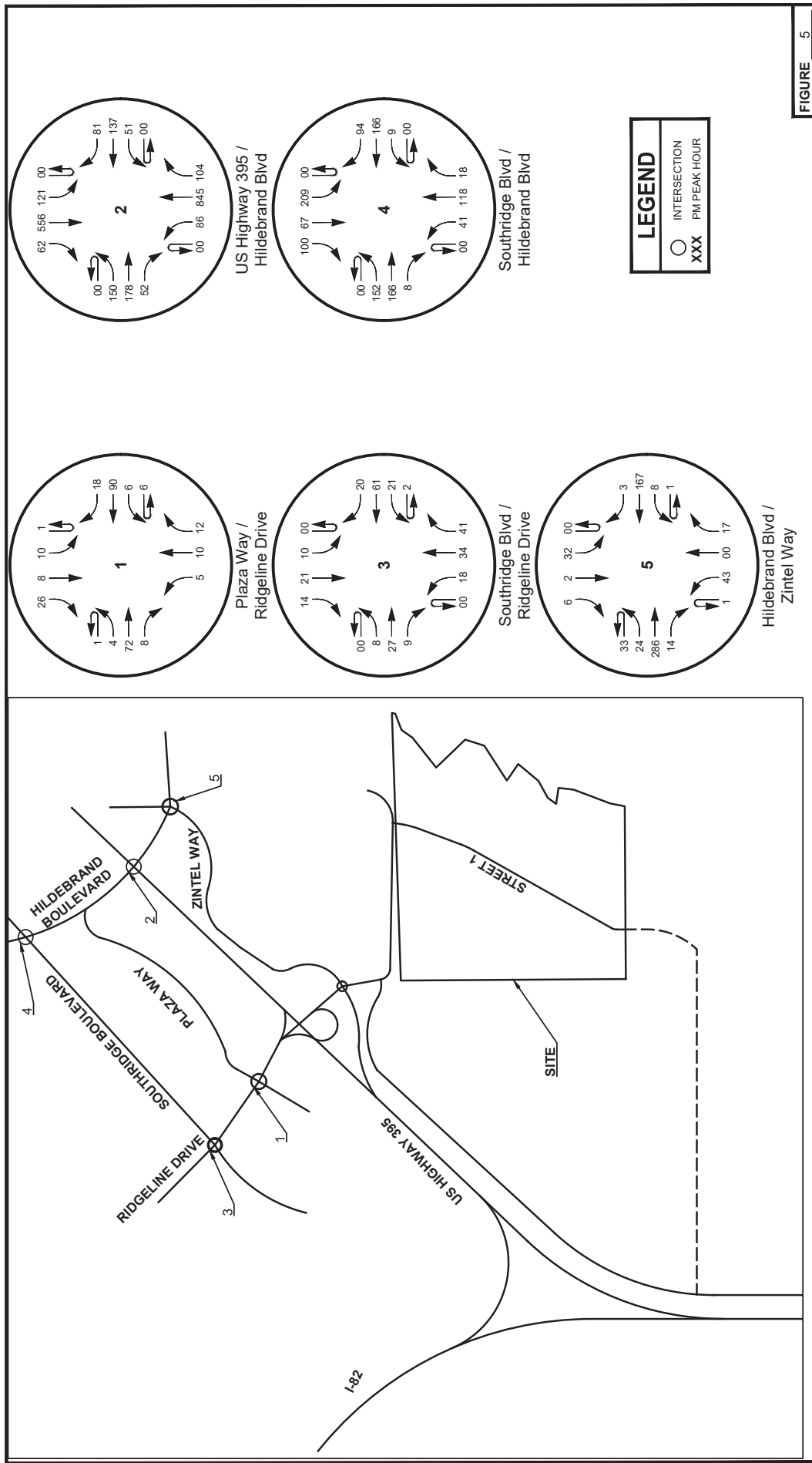
Canyon View Estates

Exhibit 9



Existing Lane Configurations and Traffic Controls
Canyon View Estates

Exhibit 9



2024 Existing Volumes
Canyon View Estates

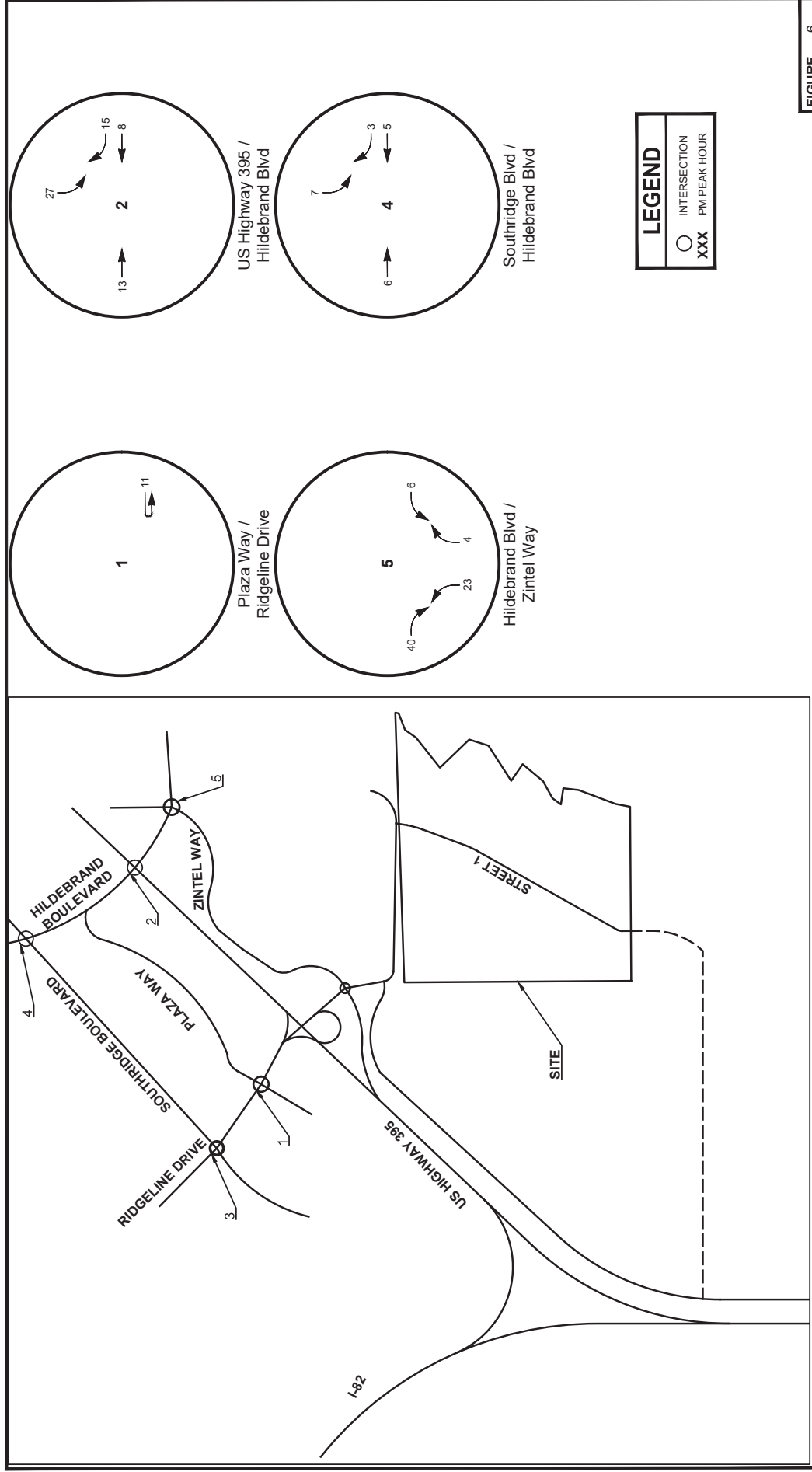


FIGURE 6

In-Process Project Volumes Canyon View Estates

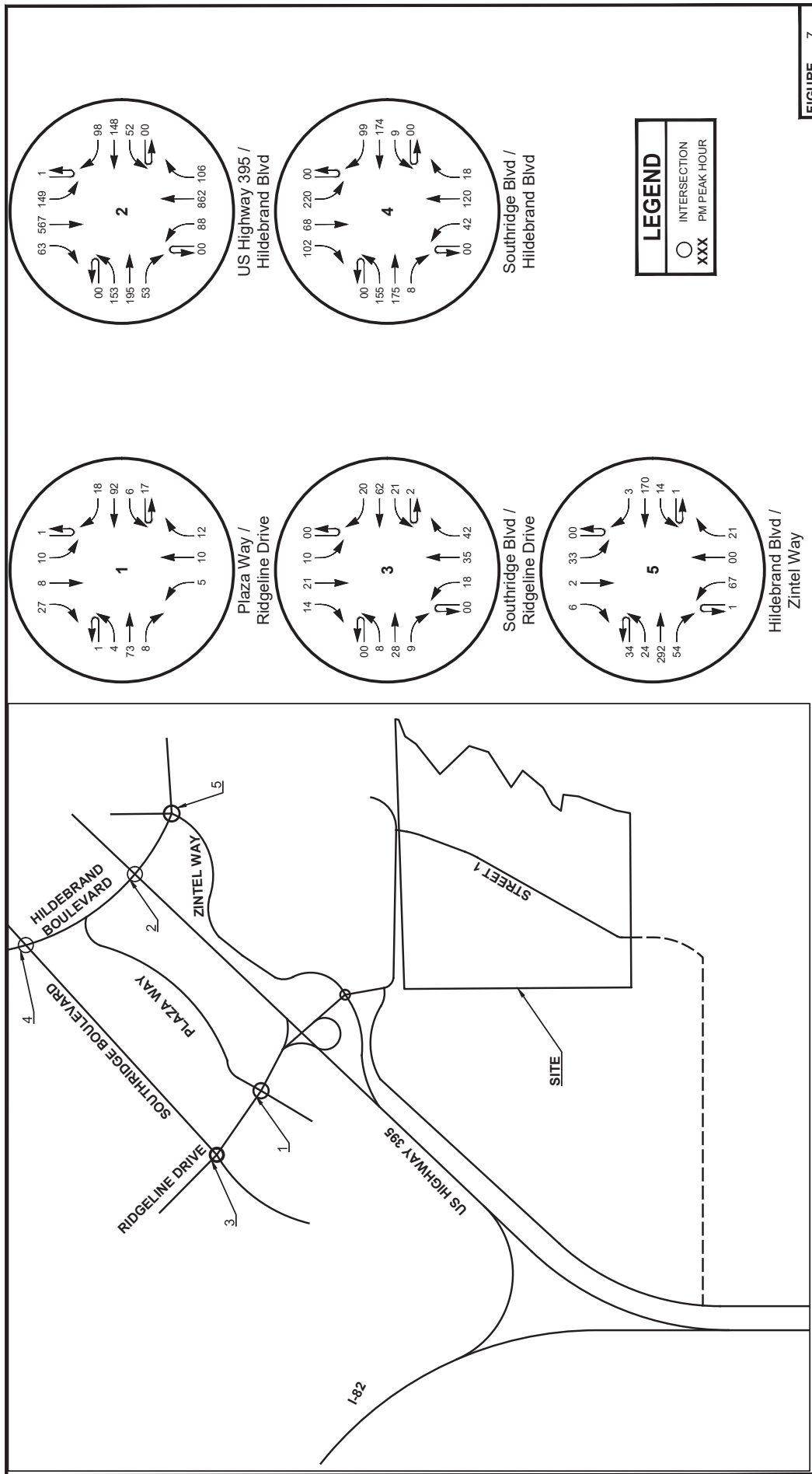
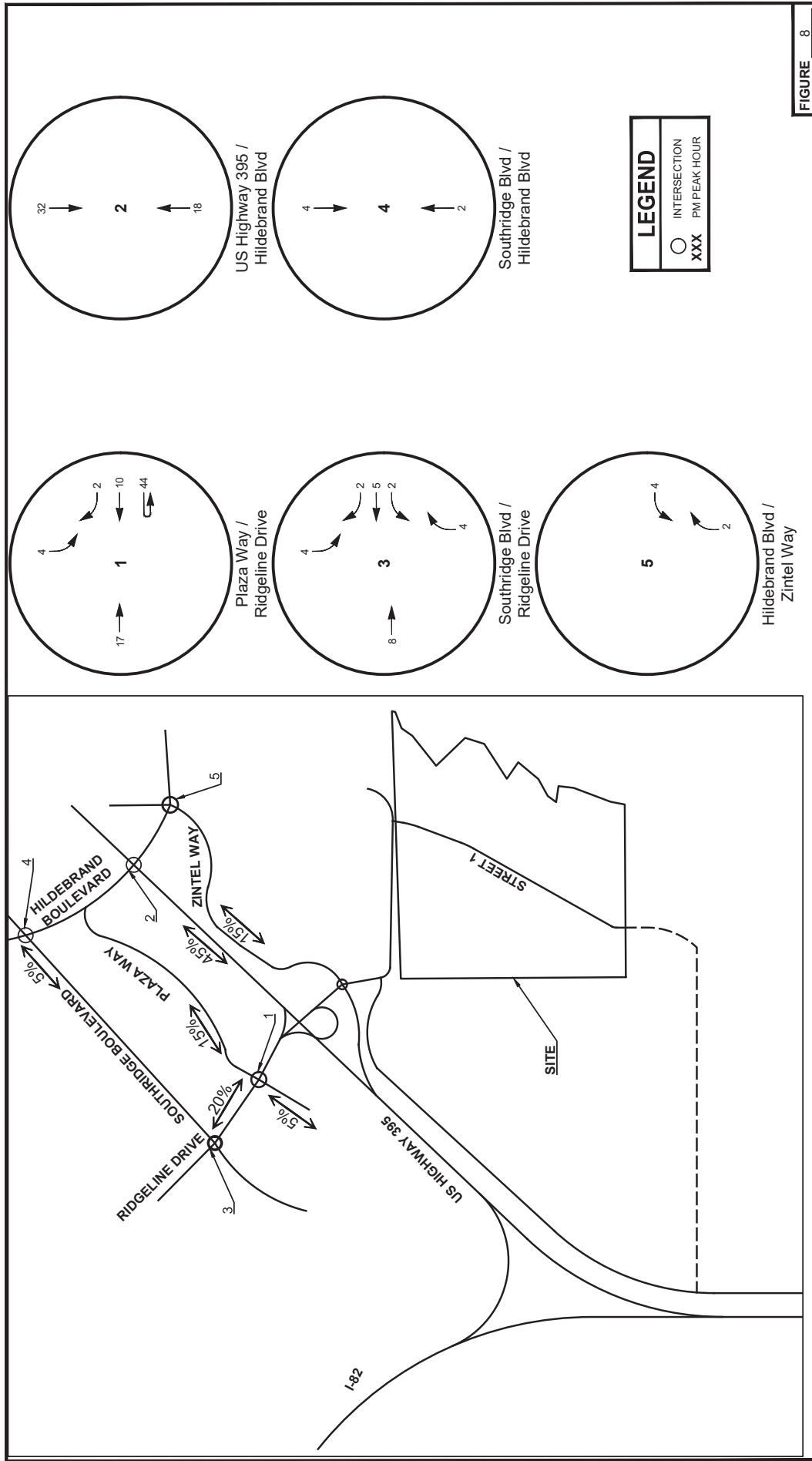


FIGURE 7

2025 Without Project Volumes Canyon View Estates



Trip Assignment & Distribution
Canyon View Estates

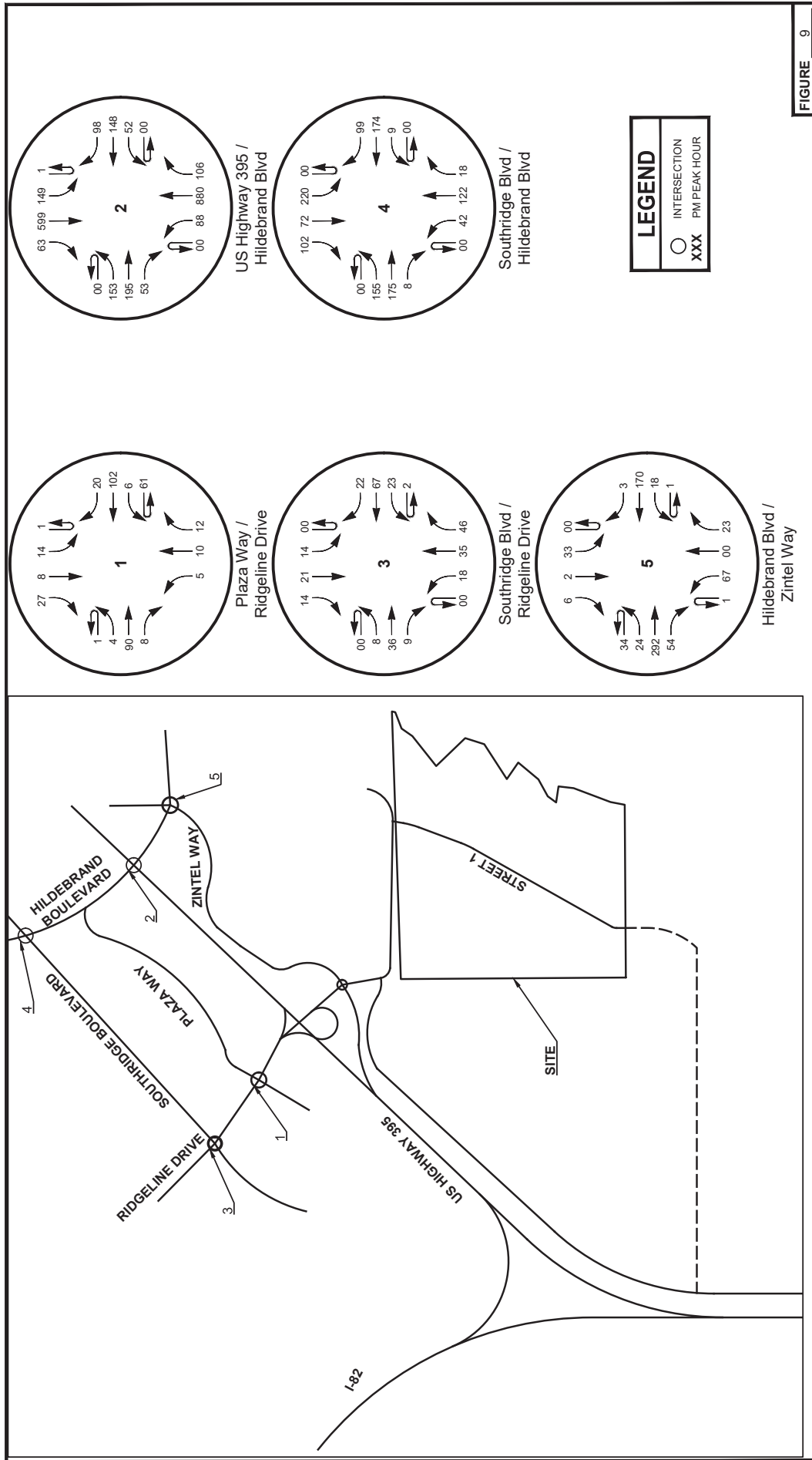


FIGURE 9

2025 With Project Volumes Canyon View Estates

Appendix A

Traffic Counts



ALL TRAFFIC DATA SERVICES

(303) 216-2439

www.alltrafficdata.net

Location: 1 PLAZA WAY & RIDGELINE DRIVE PM

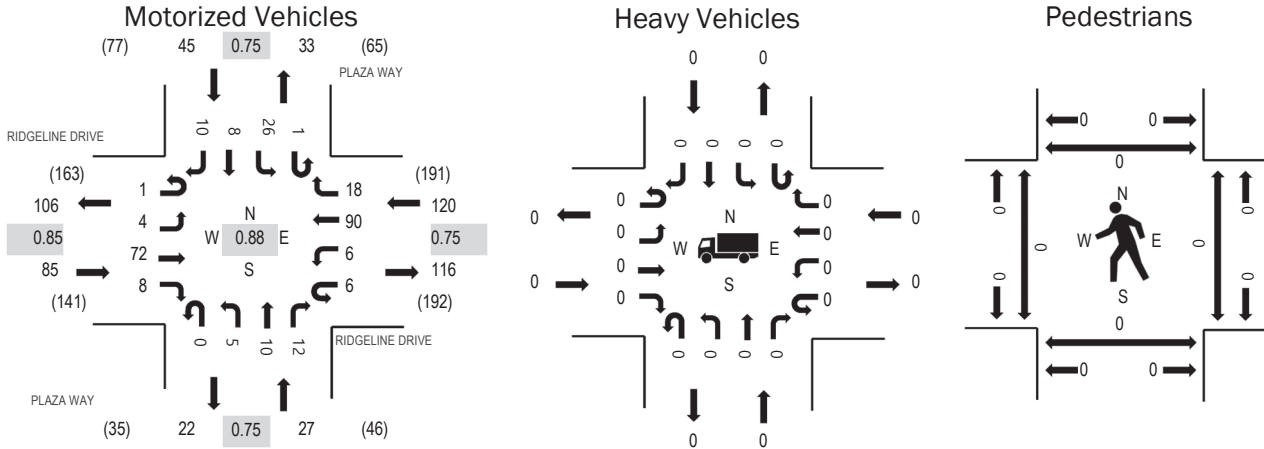
Date: Tuesday, July 23, 2024

Peak Hour: 04:25 PM - 05:25 PM

Peak 15-Minutes: 04:45 PM - 05:00 PM

Exhibit 9

Peak Hour



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	0.0%	0.85
WB	0.0%	0.75
NB	0.0%	0.75
SB	0.0%	0.75
All	0.0%	0.88

Traffic Counts - Motorized Vehicles

Interval Start Time	RIDGELINE DRIVE Eastbound				RIDGELINE DRIVE Westbound				PLAZA WAY Northbound				PLAZA WAY 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	0	3	0	1	1	5	1	0	0	0	2	0	1	1	0	15	239
4:05 PM	0	0	6	0	0	0	2	0	0	0	0	1	0	4	0	0	13	244
4:10 PM	0	1	2	1	0	0	3	2	0	0	0	1	0	1	2	0	13	257
4:15 PM	0	3	3	1	2	0	2	0	0	1	0	0	0	1	0	0	13	259
4:20 PM	0	0	5	0	0	1	3	3	0	0	0	0	0	0	1	1	14	274
4:25 PM	1	0	7	2	2	0	6	1	0	0	0	1	0	3	0	3	26	277
4:30 PM	0	0	9	2	1	0	7	5	0	2	1	1	0	4	1	1	34	266
4:35 PM	0	0	3	0	0	2	1	2	0	0	1	1	0	2	1	0	13	251
4:40 PM	0	0	7	0	0	0	10	0	0	0	1	0	0	1	0	0	19	254
4:45 PM	0	2	8	2	0	0	9	4	0	1	0	1	1	0	1	1	30	245
4:50 PM	0	0	3	1	0	0	6	2	0	1	1	0	0	4	1	2	21	236
4:55 PM	0	0	6	0	2	0	17	0	0	0	1	0	0	2	0	0	28	232
5:00 PM	0	0	7	0	1	0	8	0	0	0	1	2	0	1	0	0	20	216
5:05 PM	0	1	10	0	0	1	7	1	0	0	0	2	0	3	0	1	26	
5:10 PM	0	0	2	1	0	0	5	1	0	1	1	1	0	1	1	1	15	
5:15 PM	0	0	9	0	0	1	8	1	0	0	1	3	0	3	1	1	28	
5:20 PM	0	1	1	0	0	2	6	1	0	0	2	0	0	2	2	0	17	
5:25 PM	0	1	1	0	0	0	4	1	0	1	0	3	0	2	0	2	15	
5:30 PM	0	0	5	1	0	0	7	1	0	0	1	1	0	1	1	1	19	
5:35 PM	0	1	1	0	0	0	7	1	0	0	1	0	0	2	1	2	16	
5:40 PM	0	0	6	0	0	0	2	2	0	0	0	0	0	0	0	0	10	
5:45 PM	0	1	5	0	1	1	6	2	0	0	2	0	0	2	0	1	21	
5:50 PM	0	2	4	0	0	0	2	2	0	0	1	3	0	2	0	1	17	
5:55 PM	0	0	3	0	0	1	2	3	0	1	0	0	0	1	0	1	12	
Count Total	1	13	116	11	10	10	135	36	0	8	15	23	1	43	14	19	455	
Peak Hour	1	4	72	8	6	6	90	18	0	5	10	12	1	26	8	10	277	

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	0	0	0	0	0	4:00 PM	0	0	0	0	0	4:00 PM	0	0	0	0	0
4:05 PM	0	0	0	0	0	4:05 PM	0	0	0	0	0	4:05 PM	0	0	0	0	0
4:10 PM	0	0	0	0	0	4:10 PM	0	0	0	0	0	4:10 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0	4:15 PM	0	0	0	0	0	4:15 PM	0	0	0	0	0
4:20 PM	0	0	0	0	0	4:20 PM	0	0	1	0	1	4:20 PM	0	0	0	0	0
4:25 PM	0	0	0	0	0	4:25 PM	0	0	0	0	0	4:25 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0	4:30 PM	0	0	0	0	0	4:30 PM	0	0	0	0	0
4:35 PM	0	0	0	0	0	4:35 PM	0	0	0	0	0	4:35 PM	0	0	0	0	0
4:40 PM	0	0	0	0	0	4:40 PM	0	0	0	0	0	4:40 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0	4:45 PM	0	0	1	0	1	4:45 PM	0	0	0	0	0
4:50 PM	0	0	0	0	0	4:50 PM	0	0	0	0	0	4:50 PM	0	0	0	0	0
4:55 PM	0	0	0	0	0	4:55 PM	0	0	0	0	0	4:55 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0	5:00 PM	0	0	0	0	0	5:00 PM	0	0	0	0	0
5:05 PM	0	0	0	0	0	5:05 PM	1	0	0	1	2	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	0	0	0	0	0	5:15 PM	0	0	0	0	0	5:15 PM	0	0	0	0	0
5:20 PM	0	0	0	0	0	5:20 PM	0	0	0	0	0	5:20 PM	0	0	0	0	0
5:25 PM	0	0	0	0	0	5:25 PM	0	0	0	0	0	5:25 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0	5:30 PM	0	0	0	0	0	5:30 PM	0	0	0	0	0
5:35 PM	0	0	0	0	0	5:35 PM	0	0	0	0	0	5:35 PM	0	0	0	0	0
5:40 PM	0	0	0	0	0	5:40 PM	0	0	0	0	0	5:40 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0	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	0	0	0	5:55 PM	0	0	0	0	0	5:55 PM	0	0	0	0	0
Count Total	0	0	0	0	0	Count Total	1	0	2	1	4	Count Total	0	0	0	0	0
Peak Hour	0	0	0	0	0	Peak Hour	1	0	1	1	3	Peak Hour	0	0	0	0	0

Location: 2 US-395 & HILDEBRAND BLVD PM

Date: Tuesday, July 23, 2024

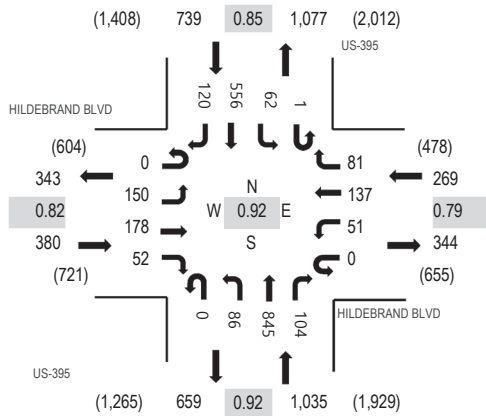
Peak Hour: 04:30 PM - 05:30 PM

Peak 15-Minutes: 04:45 PM - 05:00 PM

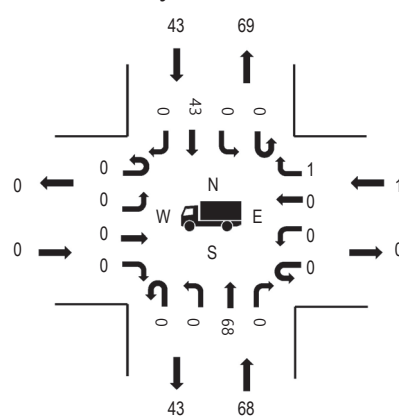
Exhibit 9

Peak Hour

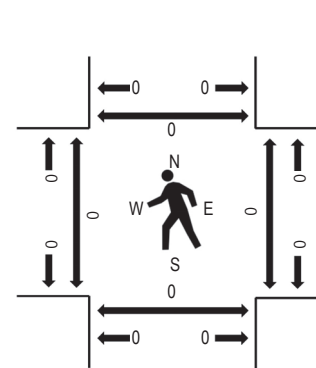
Motorized Vehicles



Heavy Vehicles



Pedestrians



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	0.0%	0.82
WB	0.4%	0.79
NB	6.6%	0.92
SB	5.8%	0.85
All	4.6%	0.92

Traffic Counts - Motorized Vehicles

Interval Start Time	HILDEBRAND BLVD				HILDEBRAND BLVD				US-395				US-395				Total	Rolling Hour
	Eastbound				Westbound				Northbound				Southbound					
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right		
4:00 PM	0	9	6	1	0	6	15	5	0	5	61	6	0	4	39	8	165	2,307
4:05 PM	0	14	19	6	0	1	7	5	0	3	61	3	0	6	51	7	183	2,306
4:10 PM	0	9	9	7	0	2	7	10	0	2	75	7	0	3	45	8	184	2,347
4:15 PM	0	10	21	1	0	3	9	7	0	7	54	6	0	5	44	10	177	2,379
4:20 PM	0	9	15	3	0	1	5	6	0	8	68	15	0	7	49	13	199	2,368
4:25 PM	0	19	9	5	0	7	7	5	0	3	75	6	0	2	25	6	169	2,399
4:30 PM	0	5	10	3	0	2	13	6	0	11	80	7	1	10	43	4	195	2,423
4:35 PM	0	11	13	6	0	4	8	8	0	0	77	7	0	3	53	9	199	2,406
4:40 PM	0	10	16	0	0	4	14	12	0	6	44	13	0	7	39	9	174	2,356
4:45 PM	0	20	7	5	0	3	9	9	0	7	84	9	0	3	52	16	224	2,350
4:50 PM	0	8	20	3	0	5	21	8	0	6	69	8	0	5	37	8	198	2,306
4:55 PM	0	13	13	4	0	4	2	3	0	13	80	12	0	7	74	15	240	2,294
5:00 PM	0	20	14	1	0	6	6	3	0	8	60	4	0	1	31	10	164	2,229
5:05 PM	0	10	15	6	0	3	22	7	0	11	74	12	0	7	50	7	224	
5:10 PM	0	8	10	8	0	3	13	8	0	8	86	12	0	5	43	12	216	
5:15 PM	0	19	17	9	0	7	6	6	0	6	47	6	0	7	29	7	166	
5:20 PM	0	9	17	2	0	5	10	4	0	4	92	9	0	4	59	15	230	
5:25 PM	0	17	26	5	0	5	13	7	0	6	52	5	0	3	46	8	193	
5:30 PM	0	8	22	5	0	6	10	2	0	7	46	16	0	3	47	6	178	
5:35 PM	0	10	4	3	0	4	5	0	0	7	48	11	0	6	45	6	149	
5:40 PM	0	9	17	2	0	7	10	8	0	6	52	10	0	10	30	7	168	
5:45 PM	0	10	12	3	1	4	7	9	0	3	70	2	0	4	43	12	180	
5:50 PM	0	15	18	6	0	1	10	3	0	6	66	5	0	6	41	9	186	
5:55 PM	0	4	10	11	0	5	6	3	0	2	70	2	0	3	47	12	175	
Count Total	0	276	340	105	1	98	235	144	0	145	1,591	193	1	121	1,062	224	4,536	
Peak Hour	0	150	178	52	0	51	137	81	0	86	845	104	1	62	556	120	2,423	

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	0	7	0	4	11	4:00 PM	0	0	0	0	0	4:00 PM	0	0	0	0	0
4:05 PM	0	5	0	3	8	4:05 PM	0	0	0	0	0	4:05 PM	0	0	0	0	0
4:10 PM	0	5	0	12	17	4:10 PM	0	0	0	0	0	4:10 PM	0	0	0	0	0
4:15 PM	0	4	0	3	7	4:15 PM	0	0	0	0	0	4:15 PM	0	0	0	0	0
4:20 PM	0	8	0	4	12	4:20 PM	0	0	0	0	0	4:20 PM	0	0	0	0	0
4:25 PM	0	7	0	3	10	4:25 PM	0	0	0	0	0	4:25 PM	0	0	0	0	0
4:30 PM	0	9	0	3	12	4:30 PM	0	0	0	0	0	4:30 PM	0	0	0	0	0
4:35 PM	0	12	0	4	16	4:35 PM	0	0	0	0	0	4:35 PM	0	0	0	0	0
4:40 PM	0	1	0	4	5	4:40 PM	0	0	0	0	0	4:40 PM	0	0	0	0	0
4:45 PM	0	5	0	6	11	4:45 PM	0	0	0	0	0	4:45 PM	0	0	0	0	0
4:50 PM	0	3	0	4	7	4:50 PM	0	0	0	0	0	4:50 PM	0	0	0	0	0
4:55 PM	0	4	0	2	6	4:55 PM	0	0	0	0	0	4:55 PM	0	0	0	0	0
5:00 PM	0	7	0	5	12	5:00 PM	0	0	0	0	0	5:00 PM	0	0	0	0	0
5:05 PM	0	5	0	3	8	5:05 PM	0	0	1	0	1	5:05 PM	0	0	0	0	0
5:10 PM	0	8	1	1	10	5:10 PM	0	0	0	0	0	5:10 PM	0	0	0	0	0
5:15 PM	0	3	0	3	6	5:15 PM	0	0	0	0	0	5:15 PM	0	0	0	0	0
5:20 PM	0	7	0	4	11	5:20 PM	0	0	0	0	0	5:20 PM	0	0	0	0	0
5:25 PM	0	4	0	4	8	5:25 PM	2	0	0	0	2	5:25 PM	0	0	0	0	0
5:30 PM	0	4	0	1	5	5:30 PM	0	0	0	0	0	5:30 PM	0	0	0	0	0
5:35 PM	0	7	0	8	15	5:35 PM	0	0	0	0	0	5:35 PM	0	0	0	0	0
5:40 PM	0	4	0	2	6	5:40 PM	0	0	0	0	0	5:40 PM	0	0	0	0	0
5:45 PM	0	6	0	4	10	5:45 PM	0	0	0	0	0	5:45 PM	0	0	0	0	0
5:50 PM	0	6	0	5	11	5:50 PM	0	0	0	0	0	5:50 PM	0	0	0	0	0
5:55 PM	0	9	0	4	13	5:55 PM	0	0	0	0	0	5:55 PM	0	0	0	0	0
Count Total	0	140	1	96	237	Count Total	2	0	1	0	3	Count Total	0	0	0	0	0
Peak Hour	0	68	1	43	112	Peak Hour	2	0	1	0	3	Peak Hour	0	0	0	0	0

Location: 3 SOUTHRIDGE BLVD & RIDGELINE DRIVE PM

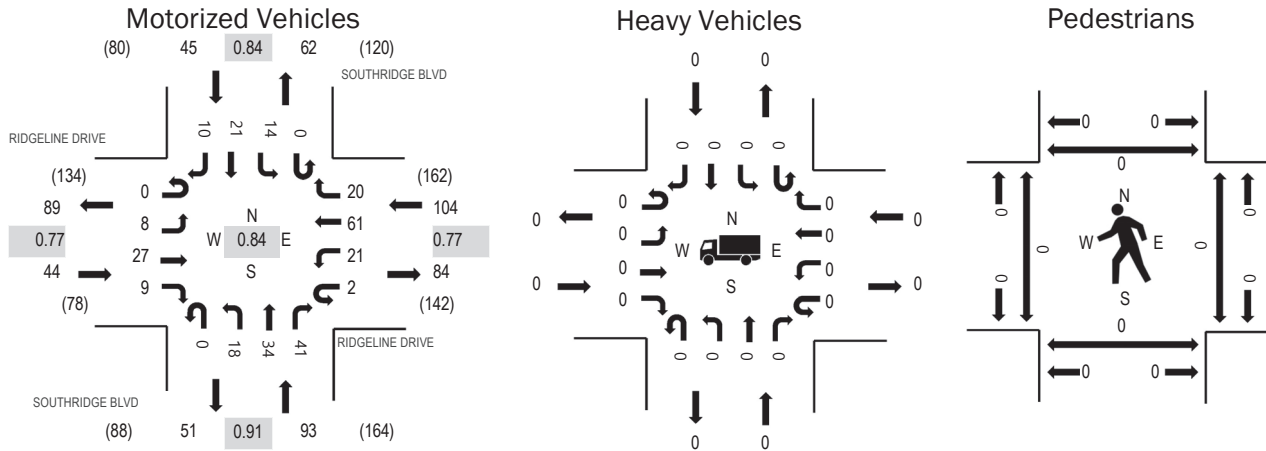
Date: Tuesday, July 23, 2024

Peak Hour: 04:20 PM - 05:20 PM

Peak 15-Minutes: 04:50 PM - 05:05 PM

Exhibit 9

Peak Hour



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	0.0%	0.77
WB	0.0%	0.77
NB	0.0%	0.91
SB	0.0%	0.84
All	0.0%	0.84

Traffic Counts - Motorized Vehicles

Interval Start Time	RIDGELINE DRIVE				RIDGELINE DRIVE				SOUTHRIDGE BLVD				SOUTHRIDGE BLVD				Total	Rolling Hour
	Eastbound				Westbound				Northbound				Southbound					
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right		
4:00 PM	0	0	1	0	0	2	1	0	0	4	5	2	1	2	1	0	19	259
4:05 PM	0	1	1	0	0	1	1	1	0	3	2	0	0	3	0	2	15	273
4:10 PM	0	1	3	0	0	1	2	1	0	1	4	6	0	1	5	2	27	280
4:15 PM	0	0	1	0	0	1	1	1	0	0	7	1	0	0	1	0	13	277
4:20 PM	0	0	1	2	1	2	4	2	0	0	0	4	0	2	1	1	20	286
4:25 PM	0	1	5	0	1	2	5	2	0	3	4	4	0	0	0	0	27	284
4:30 PM	0	0	1	0	0	0	1	0	0	4	0	4	0	1	0	2	13	276
4:35 PM	0	1	0	0	0	3	8	0	0	0	2	5	0	0	2	0	21	281
4:40 PM	0	1	1	0	0	1	5	3	0	0	2	8	0	5	1	0	27	272
4:45 PM	0	1	1	2	0	1	4	5	0	0	5	1	0	0	4	1	25	266
4:50 PM	0	1	4	2	0	5	10	1	0	0	2	3	0	0	1	1	30	253
4:55 PM	0	0	3	0	0	3	4	2	0	0	3	3	0	1	2	1	22	234
5:00 PM	0	1	3	2	0	1	6	1	0	4	3	5	0	3	3	1	33	225
5:05 PM	0	1	4	0	0	0	4	2	0	3	2	2	0	0	4	0	22	
5:10 PM	0	1	2	1	0	3	7	0	0	0	5	2	0	1	1	1	24	
5:15 PM	0	0	2	0	0	0	3	2	0	4	6	0	0	1	2	2	22	
5:20 PM	0	1	2	4	0	1	3	2	0	0	3	2	0	0	0	0	18	
5:25 PM	0	0	1	0	0	4	5	1	0	0	4	2	0	1	1	0	19	
5:30 PM	0	1	2	1	0	4	2	2	0	0	3	1	0	0	0	2	18	
5:35 PM	0	1	2	0	0	0	0	1	0	0	4	3	0	0	0	1	12	
5:40 PM	0	1	2	0	0	2	5	1	0	0	3	2	0	3	0	2	21	
5:45 PM	0	0	3	1	0	1	1	1	0	0	2	2	0	0	0	1	12	
5:50 PM	0	0	1	0	0	1	3	1	0	0	0	1	0	1	2	1	11	
5:55 PM	0	1	2	0	0	2	2	0	0	0	1	3	0	1	1	0	13	
Count Total	0	15	48	15	2	41	87	32	0	26	72	66	1	26	32	21	484	
Peak Hour	0	8	27	9	2	21	61	20	0	18	34	41	0	14	21	10	286	

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	0	0	0	0	0	4:00 PM	0	0	0	0	0	4:00 PM	0	0	0	0	0
4:05 PM	0	0	0	0	0	4:05 PM	0	0	0	0	0	4:05 PM	0	0	0	0	0
4:10 PM	0	0	0	0	0	4:10 PM	0	0	0	0	0	4:10 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0	4:15 PM	0	0	1	0	1	4:15 PM	0	0	0	0	0
4:20 PM	0	0	0	0	0	4:20 PM	0	0	0	0	0	4:20 PM	0	0	0	0	0
4:25 PM	0	0	0	0	0	4:25 PM	0	0	0	0	0	4:25 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0	4:30 PM	0	0	0	0	0	4:30 PM	0	0	0	0	0
4:35 PM	0	0	0	0	0	4:35 PM	0	0	0	0	0	4:35 PM	0	0	0	0	0
4:40 PM	0	0	0	0	0	4:40 PM	0	0	1	0	1	4:40 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0	4:45 PM	0	0	0	0	0	4:45 PM	0	0	0	0	0
4:50 PM	0	0	0	0	0	4:50 PM	0	0	0	0	0	4:50 PM	0	0	0	0	0
4:55 PM	0	0	0	0	0	4:55 PM	0	0	0	0	0	4:55 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0	5:00 PM	0	0	0	0	0	5:00 PM	0	0	0	0	0
5:05 PM	0	0	0	0	0	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	0	0	0	0	0	5:15 PM	0	0	0	0	0	5:15 PM	0	0	0	0	0
5:20 PM	0	0	0	0	0	5:20 PM	0	0	0	0	0	5:20 PM	0	0	0	0	0
5:25 PM	0	0	0	0	0	5:25 PM	0	0	0	0	0	5:25 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0	5:30 PM	0	0	0	0	0	5:30 PM	0	0	0	0	0
5:35 PM	0	0	0	0	0	5:35 PM	0	0	0	0	0	5:35 PM	0	0	0	0	0
5:40 PM	0	0	0	0	0	5:40 PM	0	0	0	0	0	5:40 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0	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	0	1	5:55 PM	0	0	0	0	0	5:55 PM	0	0	0	0	0
Count Total	0	0	1	0	1	Count Total	0	0	2	0	2	Count Total	0	0	0	0	0
Peak Hour	0	0	0	0	0	Peak Hour	0	0	1	0	1	Peak Hour	0	0	0	0	0



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Location: 4 SOUTHRIDGE BLVD & HILDEBRAND BLVD PM

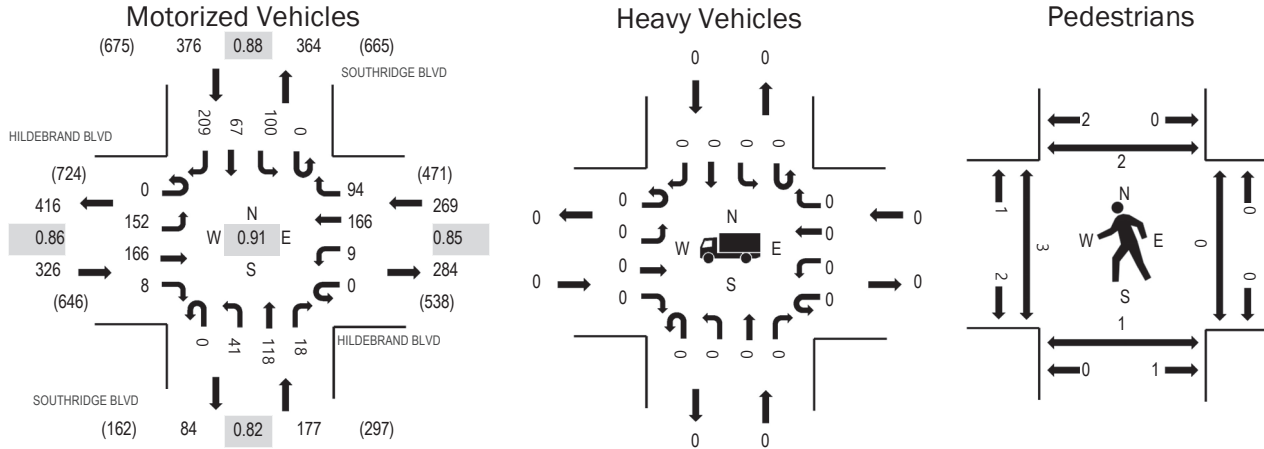
Date: Tuesday, July 23, 2024

Peak Hour: 04:35 PM - 05:35 PM

Peak 15-Minutes: 05:10 PM - 05:25 PM

Exhibit 9

Peak Hour



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	0.0%	0.86
WB	0.0%	0.85
NB	0.0%	0.82
SB	0.0%	0.88
All	0.0%	0.91

Traffic Counts - Motorized Vehicles

Interval Start Time	HILDEBRAND BLVD Eastbound				HILDEBRAND BLVD Westbound				SOUTHRIDGE BLVD Northbound				SOUTHRIDGE BLVD 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	14	15	0	0	3	10	6	0	4	8	1	0	6	9	12	88	1,017
4:05 PM	0	14	12	1	0	0	7	6	0	2	8	0	0	6	4	18	78	1,028
4:10 PM	0	19	14	1	0	1	6	7	0	3	3	0	0	6	6	12	78	1,053
4:15 PM	0	4	12	1	0	0	11	10	0	0	9	0	0	5	7	15	74	1,082
4:20 PM	0	7	20	0	0	1	8	6	0	4	8	1	0	8	2	10	75	1,095
4:25 PM	0	14	21	0	0	0	8	6	0	1	7	0	0	8	8	10	83	1,143
4:30 PM	0	6	14	1	0	1	20	6	0	3	8	2	0	3	5	14	83	1,145
4:35 PM	0	14	12	0	0	0	7	6	0	4	3	1	0	3	3	19	72	1,148
4:40 PM	0	14	16	1	0	0	13	10	0	4	15	0	0	6	5	14	98	1,146
4:45 PM	0	10	10	1	0	0	15	7	0	4	8	1	0	8	8	11	83	1,131
4:50 PM	0	10	17	2	0	3	20	11	0	3	14	2	0	10	10	11	113	1,130
4:55 PM	0	14	15	0	0	1	11	5	0	3	10	2	0	6	4	21	92	1,088
5:00 PM	0	12	14	0	0	1	11	11	0	2	9	3	0	8	3	25	99	1,072
5:05 PM	0	13	6	1	0	1	19	12	0	5	8	1	0	9	12	16	103	
5:10 PM	0	15	15	0	0	2	14	9	0	4	11	5	0	6	6	20	107	
5:15 PM	0	19	16	0	0	0	10	4	0	4	10	0	0	6	4	14	87	
5:20 PM	0	10	20	2	0	1	16	9	0	1	17	3	0	15	5	24	123	
5:25 PM	0	13	14	0	0	0	13	4	0	2	8	0	0	14	3	14	85	
5:30 PM	0	8	11	1	0	0	17	6	0	5	5	0	0	9	4	20	86	
5:35 PM	0	7	9	1	0	0	12	3	0	1	9	0	0	5	4	19	70	
5:40 PM	0	16	14	0	0	0	9	11	0	3	9	1	0	4	3	13	83	
5:45 PM	0	18	14	0	0	1	11	4	0	1	8	1	0	6	6	12	82	
5:50 PM	0	10	17	0	0	0	5	7	0	0	3	0	0	9	4	16	71	
5:55 PM	0	10	13	1	0	2	10	4	0	4	6	2	0	5	5	14	76	
Count Total	0	291	341	14	0	18	283	170	0	67	204	26	0	171	130	374	2,089	
Peak Hour	0	152	166	8	0	9	166	94	0	41	118	18	0	100	67	209	1,148	

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	0	0	0	0	0	4:00 PM	0	1	0	0	1	4:00 PM	0	0	0	0	0
4:05 PM	0	0	0	0	0	4:05 PM	0	0	0	0	0	4:05 PM	0	0	0	0	0
4:10 PM	0	0	0	0	0	4:10 PM	0	0	0	0	0	4:10 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0	4:15 PM	0	0	0	0	0	4:15 PM	0	0	0	0	0
4:20 PM	0	0	0	0	0	4:20 PM	0	0	0	0	0	4:20 PM	0	0	0	0	0
4:25 PM	0	0	0	0	0	4:25 PM	0	0	0	0	0	4:25 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0	4:30 PM	0	0	0	0	0	4:30 PM	0	0	0	0	0
4:35 PM	0	0	0	0	0	4:35 PM	0	0	0	0	0	4:35 PM	0	0	0	0	0
4:40 PM	0	0	0	0	0	4:40 PM	0	0	0	0	0	4:40 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0	4:45 PM	0	0	0	0	0	4:45 PM	0	0	0	0	0
4:50 PM	0	0	0	0	0	4:50 PM	0	0	0	0	0	4:50 PM	0	0	0	0	0
4:55 PM	0	0	0	0	0	4:55 PM	0	0	0	0	0	4:55 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0	5:00 PM	0	0	0	0	0	5:00 PM	0	0	0	0	0
5:05 PM	0	0	0	0	0	5:05 PM	0	0	0	0	0	5:05 PM	1	0	0	2	3
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	0	0	0	0	0	5:15 PM	0	0	0	0	0	5:15 PM	1	1	0	0	2
5:20 PM	0	0	0	0	0	5:20 PM	2	0	0	0	2	5:20 PM	1	0	0	0	1
5:25 PM	0	0	0	0	0	5:25 PM	0	0	0	0	0	5:25 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0	5:30 PM	0	0	0	0	0	5:30 PM	0	0	0	0	0
5:35 PM	0	0	0	0	0	5:35 PM	0	0	0	0	0	5:35 PM	4	0	0	0	4
5:40 PM	0	0	0	0	0	5:40 PM	0	0	0	0	0	5:40 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0	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	0	0	0	5:55 PM	0	0	0	0	0	5:55 PM	0	0	0	0	0
Count Total	0	0	0	0	0	Count Total	2	1	0	0	3	Count Total	7	1	0	2	10
Peak Hour	0	0	0	0	0	Peak Hour	2	0	0	0	2	Peak Hour	3	1	0	2	6



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Location: 5 S ZINTEL WAY & HILDEBRAND BLVD PM

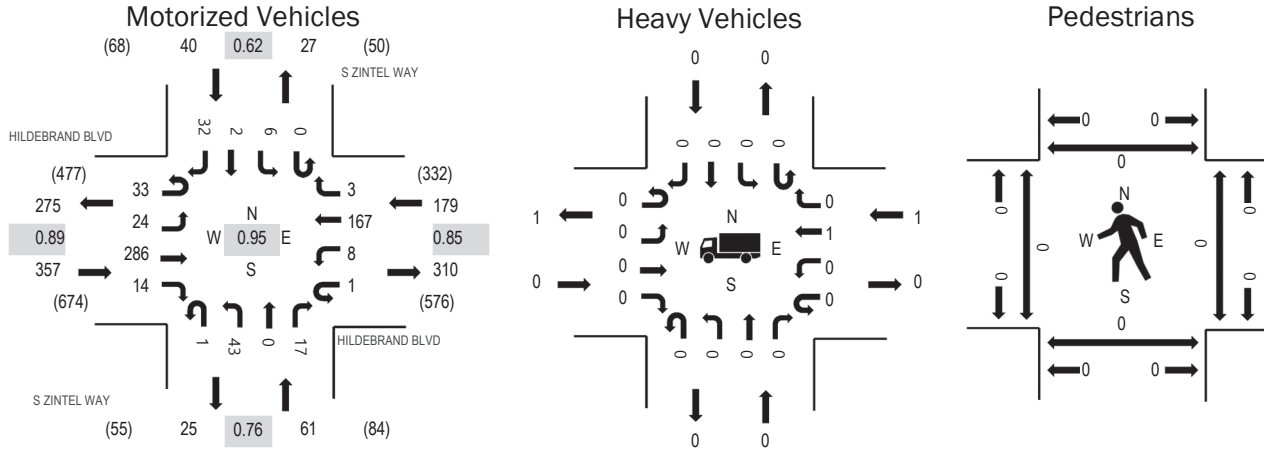
Date: Tuesday, July 23, 2024

Peak Hour: 04:30 PM - 05:30 PM

Peak 15-Minutes: 04:40 PM - 04:55 PM

Exhibit 9

Peak Hour



Traffic Counts - Motorized Vehicles

Interval Start Time	HILDEBRAND BLVD Eastbound				HILDEBRAND BLVD Westbound				S ZINTEL WAY Northbound				S ZINTEL WAY 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	1	1	13	1	0	2	13	0	0	1	0	0	0	0	0	4	36	581
4:05 PM	4	1	18	0	0	2	6	0	0	3	0	1	0	1	1	0	37	588
4:10 PM	9	0	20	1	0	4	8	0	0	1	0	0	0	0	0	2	45	609
4:15 PM	3	5	26	2	0	2	12	0	0	2	0	0	0	0	0	0	52	617
4:20 PM	2	1	28	1	0	2	12	0	0	3	0	0	0	1	0	4	54	609
4:25 PM	0	1	22	2	0	0	8	2	0	0	1	0	0	0	0	2	38	614
4:30 PM	2	1	17	1	0	1	17	0	0	3	0	3	0	0	1	6	52	637
4:35 PM	1	0	22	1	1	0	14	0	1	2	0	3	0	0	0	5	50	636
4:40 PM	4	5	21	1	0	1	13	0	0	2	0	1	0	3	0	2	53	620
4:45 PM	6	1	17	0	0	0	14	0	0	5	0	2	0	1	0	3	49	626
4:50 PM	2	3	31	0	0	0	23	0	0	2	0	0	0	0	1	3	65	619
4:55 PM	1	2	27	0	0	3	11	2	0	2	0	1	0	0	0	1	50	600
5:00 PM	4	2	21	1	0	0	13	0	0	2	0	0	0	0	0	0	43	577
5:05 PM	5	3	19	1	0	0	18	0	0	5	0	2	0	0	0	5	58	
5:10 PM	3	0	29	0	0	0	11	0	0	5	0	1	0	2	0	2	53	
5:15 PM	2	5	21	3	0	0	6	0	0	4	0	3	0	0	0	0	44	
5:20 PM	2	0	26	3	0	2	17	0	0	4	0	1	0	0	0	4	59	
5:25 PM	1	2	35	3	0	1	10	1	0	7	0	0	0	0	0	1	61	
5:30 PM	0	1	28	1	0	0	15	0	0	4	0	0	0	0	0	2	51	
5:35 PM	0	0	20	1	0	1	8	0	1	1	0	0	0	1	0	1	34	
5:40 PM	3	3	28	1	0	1	18	0	0	1	0	1	0	0	0	3	59	
5:45 PM	2	1	17	2	0	0	14	0	0	1	0	1	0	0	0	4	42	
5:50 PM	2	2	27	1	0	0	13	0	0	0	0	0	0	0	0	1	46	
5:55 PM	0	3	12	0	0	1	8	1	0	0	0	1	0	0	0	1	27	
Count Total	59	43	545	27	1	23	302	6	2	60	1	21	0	9	3	56	1,158	
Peak Hour	33	24	286	14	1	8	167	3	1	43	0	17	0	6	2	32	637	

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	0	0	0	0	0	4:00 PM	0	0	0	0	0	4:00 PM	0	0	0	0	0
4:05 PM	0	0	0	0	0	4:05 PM	0	0	0	0	0	4:05 PM	0	0	0	0	0
4:10 PM	0	0	0	0	0	4:10 PM	0	0	0	0	0	4:10 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0	4:15 PM	0	0	0	0	0	4:15 PM	0	0	0	0	0
4:20 PM	0	0	0	0	0	4:20 PM	0	0	0	0	0	4:20 PM	0	0	0	0	0
4:25 PM	0	0	0	0	0	4:25 PM	0	0	0	0	0	4:25 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0	4:30 PM	0	0	0	0	0	4:30 PM	0	0	0	0	0
4:35 PM	0	0	0	0	0	4:35 PM	0	0	0	0	0	4:35 PM	0	0	0	0	0
4:40 PM	0	0	0	0	0	4:40 PM	0	0	0	0	0	4:40 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0	4:45 PM	0	0	0	0	0	4:45 PM	0	0	0	0	0
4:50 PM	0	0	0	0	0	4:50 PM	0	0	0	0	0	4:50 PM	0	0	0	0	0
4:55 PM	0	0	0	0	0	4:55 PM	0	0	0	0	0	4:55 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0	5:00 PM	0	0	2	0	2	5:00 PM	0	0	0	0	0
5:05 PM	0	0	1	0	1	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	1	0	0	1	5:10 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0	5:15 PM	0	0	0	0	0	5:15 PM	0	0	0	0	0
5:20 PM	0	0	0	0	0	5:20 PM	0	0	0	0	0	5:20 PM	0	0	0	0	0
5:25 PM	0	0	0	0	0	5:25 PM	2	0	0	0	2	5:25 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0	5:30 PM	0	0	0	0	0	5:30 PM	0	0	0	0	0
5:35 PM	0	0	0	0	0	5:35 PM	0	0	0	0	0	5:35 PM	0	0	0	0	0
5:40 PM	0	0	0	0	0	5:40 PM	0	0	0	0	0	5:40 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0	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	0	0	0	5:55 PM	0	0	0	0	0	5:55 PM	0	0	0	0	0
Count Total	0	0	1	0	1	Count Total	2	1	2	0	5	Count Total	0	0	0	0	0
Peak Hour	0	0	1	0	1	Peak Hour	2	1	2	0	5	Peak Hour	0	0	0	0	0

Appendix B
In-Process Project Trips



July 6, 2022

Jim Stephens, Executive Managing Director of Acquisitions and Development
Evergreen Housing Development Group LLC
PO Box 2487
Seattle, Washington 98124

Via email: jim@evergreenhd.com

Regarding: Trip Generation and Distribution Letter
Zintel Way Apartments
Tax Parcels 1-1689-401-3188-014
Kennewick, Washington
PBS Project 71969.000

Dear Mr. Stephens:

This trip generation and distribution letter has been prepared for the Zintel Way Apartments project to determine possible traffic impacts, as directed in the City of Kennewick (City) *Development Traffic Impact Analysis Criteria* document.

PROJECT DESCRIPTION

The proposed project is located on Zintel Way northeast of the intersection with Ridgeline Drive. The development will occupy tax parcel 1-1689-401-3188-014. This site is currently designated as "Residential, Medium Density" per the city's zoning map. See Figure 1 for the vicinity map and Figure 2 for the site plan.

Evergreen Housing Development Group provided a current site plan for the project showing the proposed location of the building on the site. The project proposes to construct a 195-unit multi-family apartment complex. The existing land is undeveloped. The project is proposed to be constructed in one phase.

Parking and Site Circulation

Kennewick Municipal Code 18.36.060 states that one-bedroom and studio multi-family housing should provide one parking space per dwelling unit plus five percent of the total, and that two-bedroom multi-family housing should provide one and a half parking spaces per dwelling unit plus five percent of the total. Zintel Way Apartments includes 114 one-bedroom or studio units and 81 two-bedroom apartments, requiring a total of 247 parking spaces. The proposed site plan provides 255 parking spaces. The proposed site plan includes two access points to the site, both on Zintel Way to the north of Ridgeline Drive. No other driveways or intersections are within 300 feet of both proposed driveways.

TRIP GENERATION AND DISTRIBUTION

Proposed Trip Generation

The Institute of Transportation Engineers' (ITE) *Trip Generation Manual*, 11th Edition, was used to estimate the number of net new trips from the proposed project to construct the 195-unit multi-family apartment complex.

Based on the project description, Multifamily Housing Low-Rise (ITE land use code 220) was used for the proposed apartments. The ITE average trip rates were applied, and the independent variable was the number of dwelling units. Table 1 presents the trip generation estimates. Detailed trip generation calculations are attached. No reductions were applied related to transit or other alternative transportation modes.

Table 1. Net New Trip Generation for Zintel Way Apartments Development

Land Use (ITE Code)	Multifamily Housing (Low-Rise) (220)	
Independent Variable	Dwelling Units	
Size	195	
Average Daily Trips (ADT)	1325	
Peak Hour Trips	AM Peak Hour	PM Peak Hour
In	20	66
Out	63	38
Total Trips	83	104

Findings: The low-rise multifamily apartments are anticipated to generate 1325 trips during the average weekday, including 83 trips during the AM peak hour and 104 during the PM peak hour.

Proposed Trip Distribution

The proposed distribution of net new trips is based on a review of the land uses within the study area, on the distribution of existing traffic patterns, and on engineering judgment. The proposed distribution pattern, which was agreed upon with city staff during traffic impacts analysis scoping discussions, is as follows:

- 30% to and from south of the site
 - 20% to and from I-82, west of US 395
 - 10% to and from I-82, east of US 395
- 70% to and from north of the site
 - 20% to and from Hildebrand Boulevard, west of US 395
 - 10% to and from W Canyon Lakes Drive, north of Hildebrand Boulevard
 - 40% to and from US 395, north of Hildebrand Boulevard

The distribution pattern above represents an external distribution of the proposed multifamily apartments trips entering and exiting the study area. The trip distribution of the net new trips at the multifamily apartments are shown on Figure 1.

SIGHT PLAN REVIEW

Sight Distance

The proposed site access driveways do not currently exist, but the existing terrain does not appear to restrict sight distance at the proposed driveways. The area characteristics suggest that adequate sight distances should be achievable through design and construction. All proposed site accesses should be designed in accordance with

Chapter 9.5.3 of the American Association of State Highway and Transportation Officials (AASHTO) policy,¹ based on the accessed roadways' respective posted speeds. Based on the unposted 25 miles per hour speed on Zintel Way, the proposed accesses must have at least 280 feet of intersection sight distance (ISD) to meet the AASHTO recommendations.

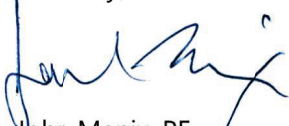
Findings

The following conclusions are based on the Trip Generation and Distribution Letter associated with the proposed Zintel Way Apartments.

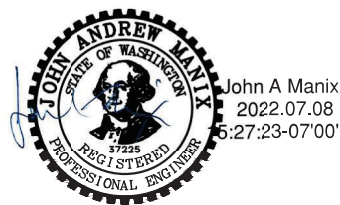
- The proposed low rise multifamily apartments are anticipated to generate 1325 trips during the average weekday, including 83 trips during the AM peak hour and 104 during the PM peak hour.
- The trip distribution pattern for the proposed multi-tenant building is as follows:
 - 30% to and from south of the site
 - 20% to and from I-82, west of US 395
 - 10% to and from I-82, east of US 395
 - 70% to and from north of the site
 - 20% to and from Hildebrand Boulevard, west of US 395
 - 10% to and from W Canyon Lakes Drive, north of Hildebrand Boulevard
 - 40% to and from US 395, north of Hildebrand Boulevard
- Adequate sight distance should be achievable through design and construction, and all proposed site access should be designed to meet AASHTO recommendations.
- Based on City guidelines and consultation with the City Transportation Manager, no additional analysis is required.

Please feel free to contact me at 360.567.2117 or john.manix@pbsusa.com with any questions or comments.

Sincerely,



John Manix, PE
Senior Traffic Engineer

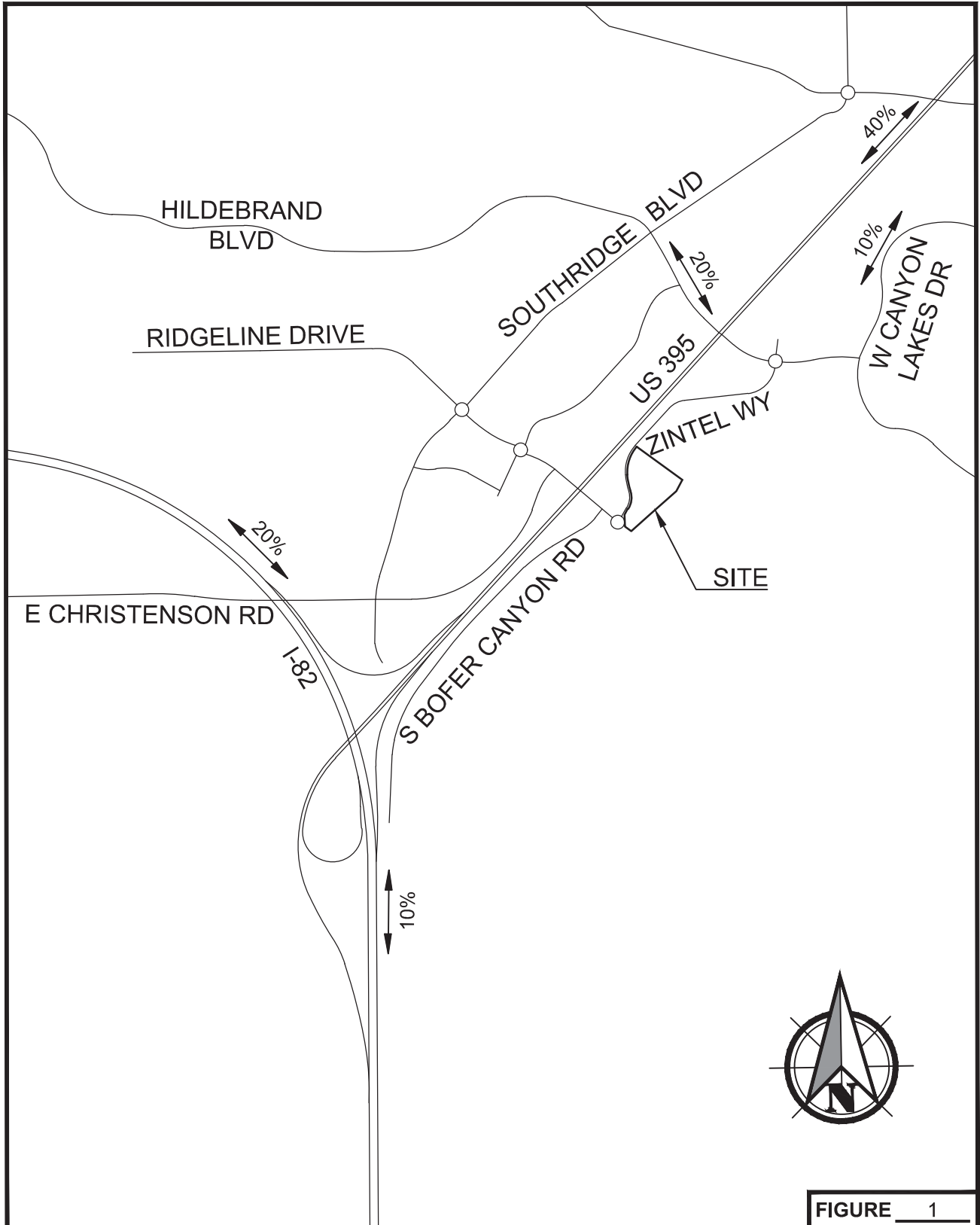


Attachments: Figure 1. Vicinity Map and Trip Distribution
Figure 2. Site Plan
Trip Generation Calculations

ASW:JAM:tl

¹ American Association of State Highway and Transportation Officials (AASHTO). (2018). *A Policy on the Geometric Design of Highways and Streets*, 7th Edition.

FIGURES



Vicinity Map and Trip Distribution
Zintel Way Apartments



TRIP GENERATION CALCULATIONS

Multifamily Housing (Low-Rise) Not Close to Rail Transit (220)

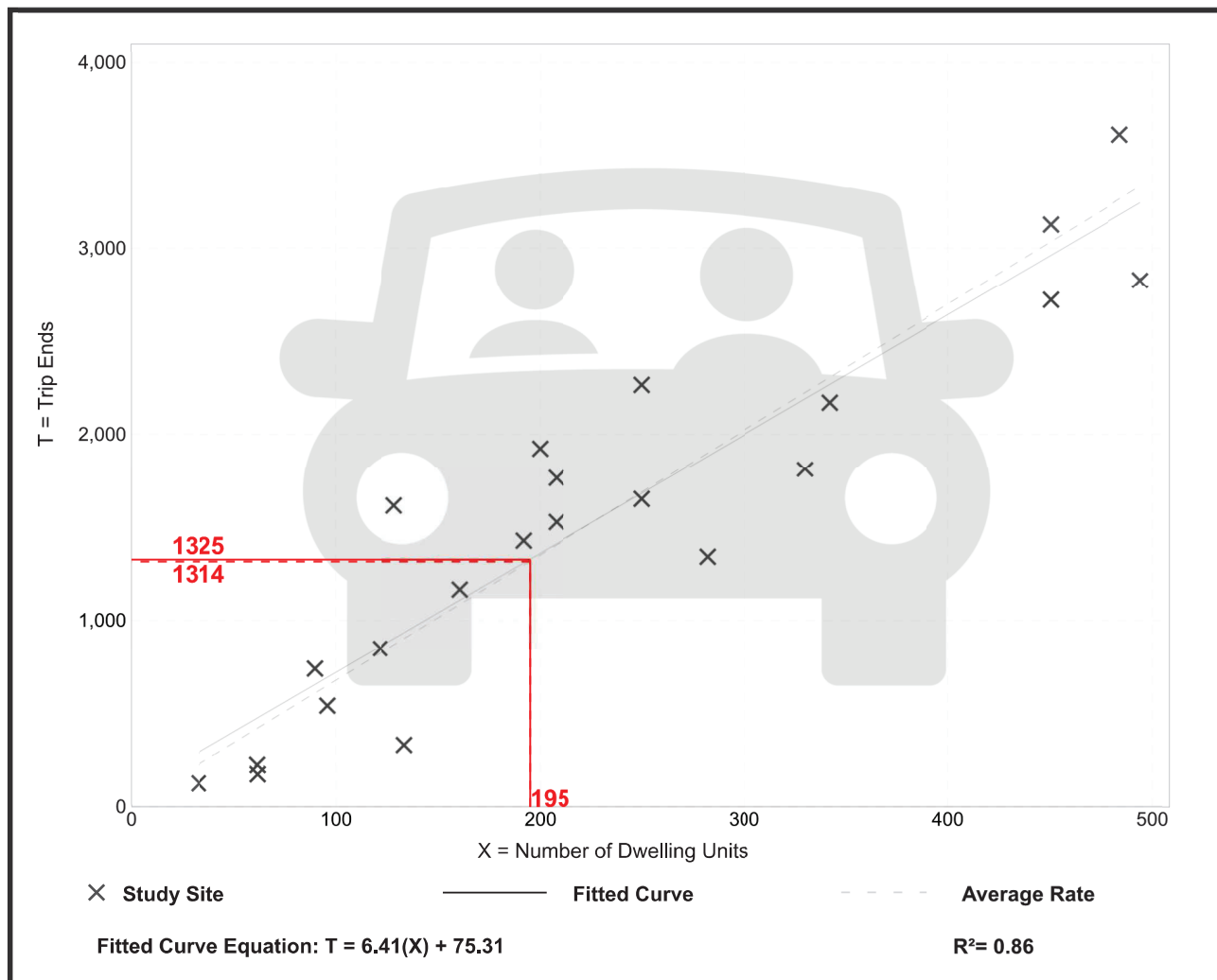
Vehicle Trip Ends vs: Dwelling Units
On a: **Weekday**

Setting/Location: **General Urban/Suburban**
Number of Studies: 22
Avg. Num. of Dwelling Units: 229
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
6.74	2.46 - 12.50	1.79

Data Plot and Equation



Multifamily Housing (Low-Rise) Not Close to Rail Transit (220)

Vehicle Trip Ends vs: Dwelling Units

On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.

Setting/Location: General Urban/Suburban

Number of Studies: 49

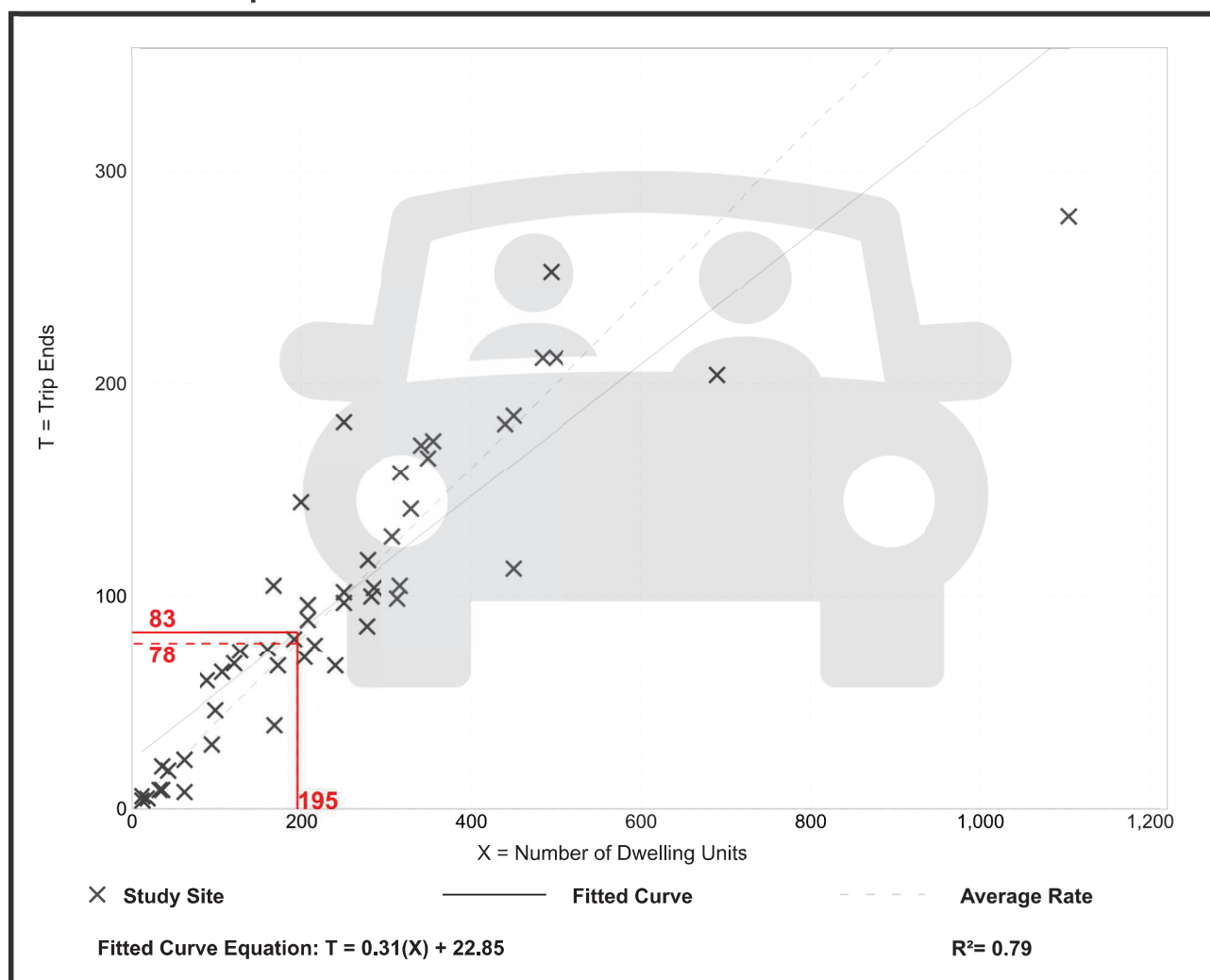
Avg. Num. of Dwelling Units: 249

Directional Distribution: 24% entering, 76% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.40	0.13 - 0.73	0.12

Data Plot and Equation



Multifamily Housing (Low-Rise) Not Close to Rail Transit (220)

Vehicle Trip Ends vs: Dwelling Units

On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.

Setting/Location: General Urban/Suburban

Number of Studies: 59

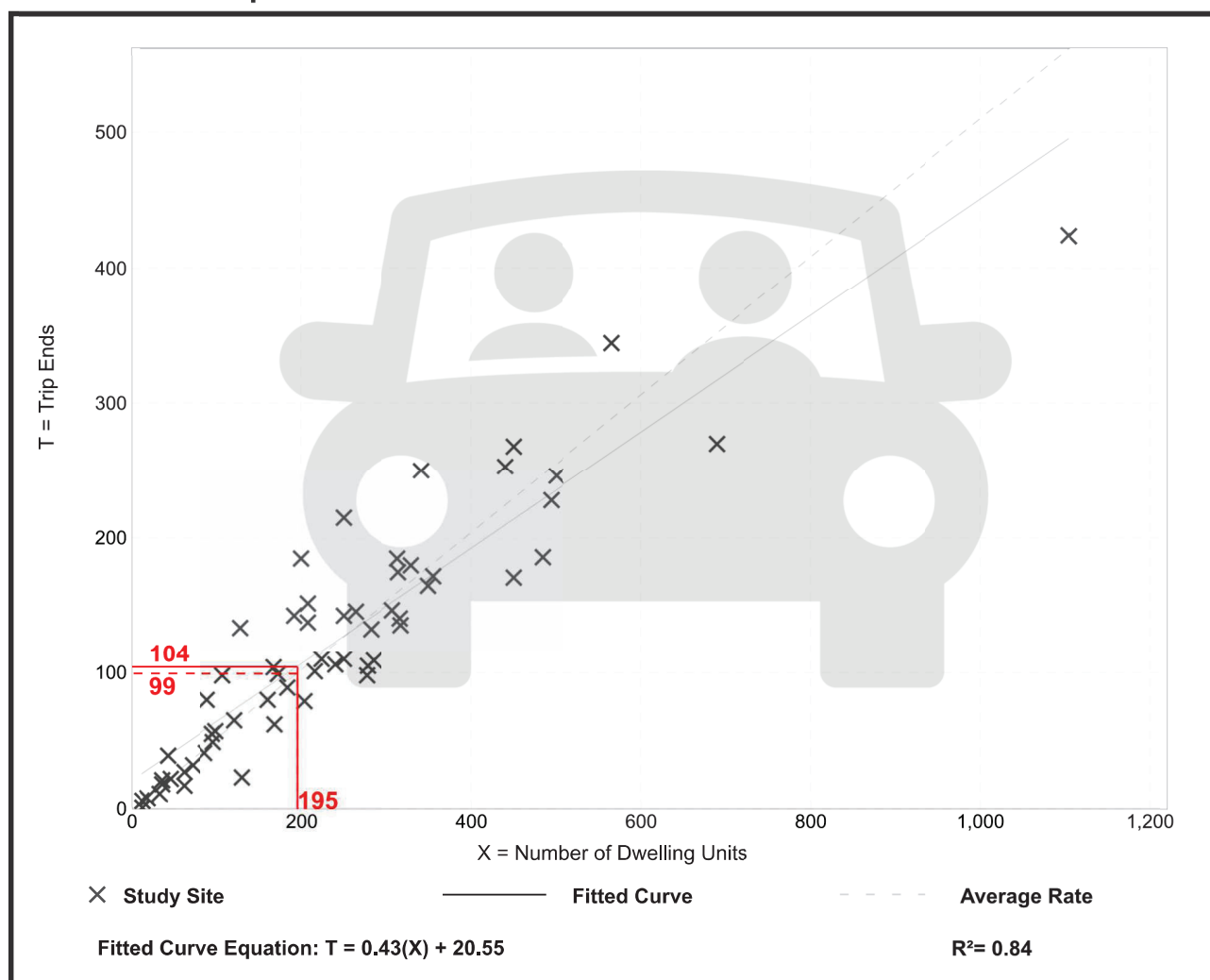
Avg. Num. of Dwelling Units: 241

Directional Distribution: 63% entering, 37% exiting

Vehicle Trip Generation per Dwelling Unit

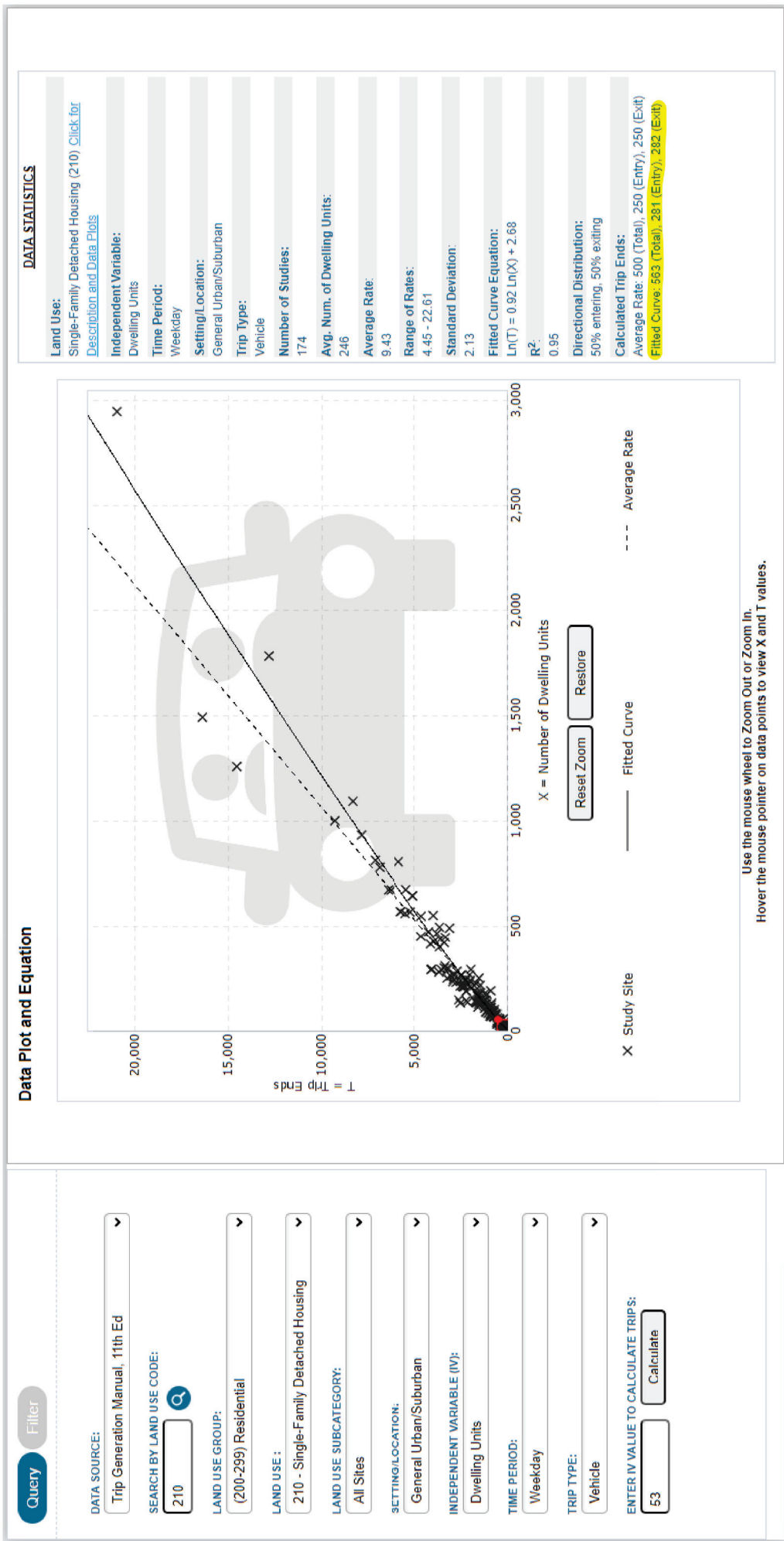
Average Rate	Range of Rates	Standard Deviation
0.51	0.08 - 1.04	0.15

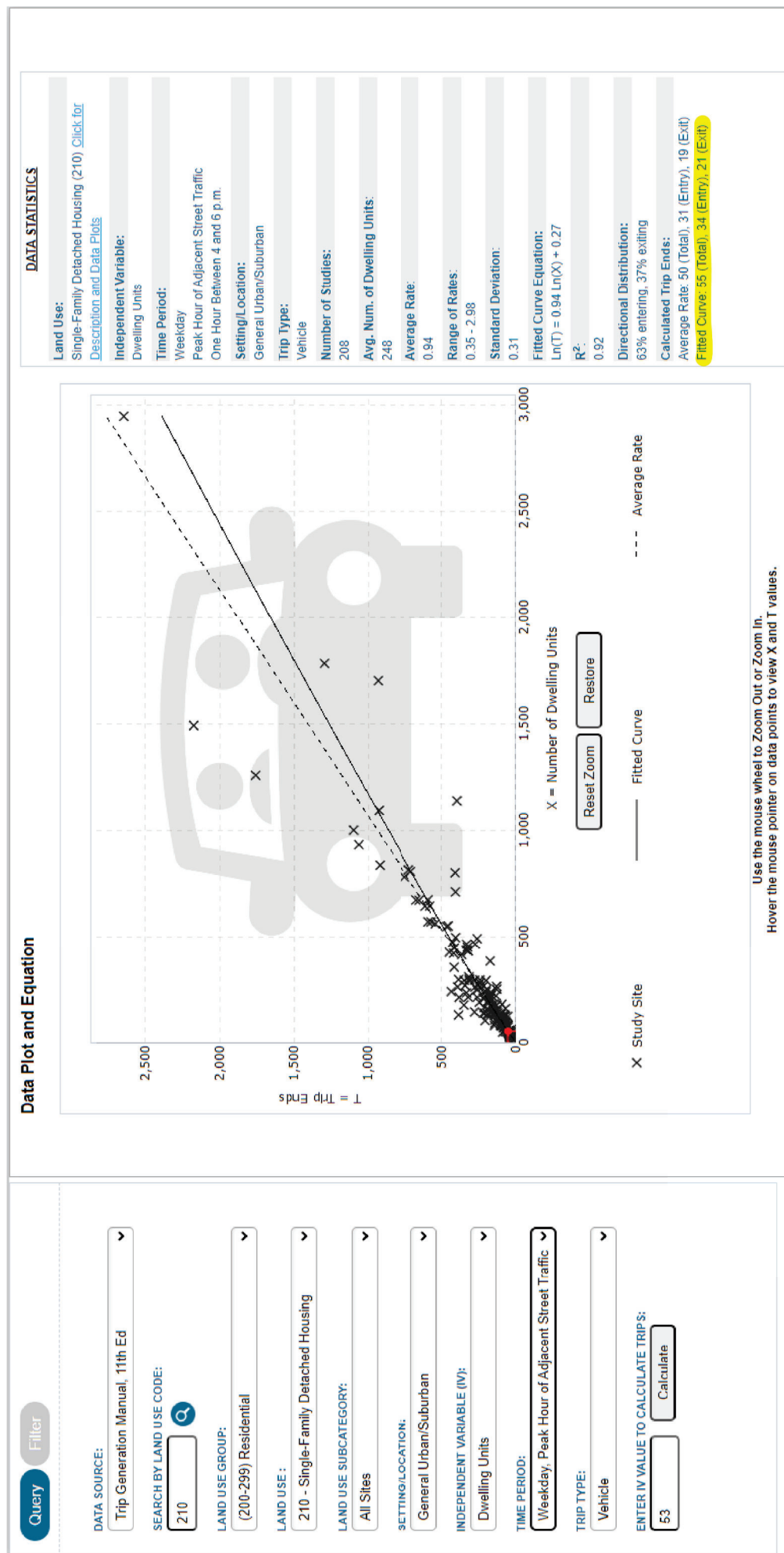
Data Plot and Equation

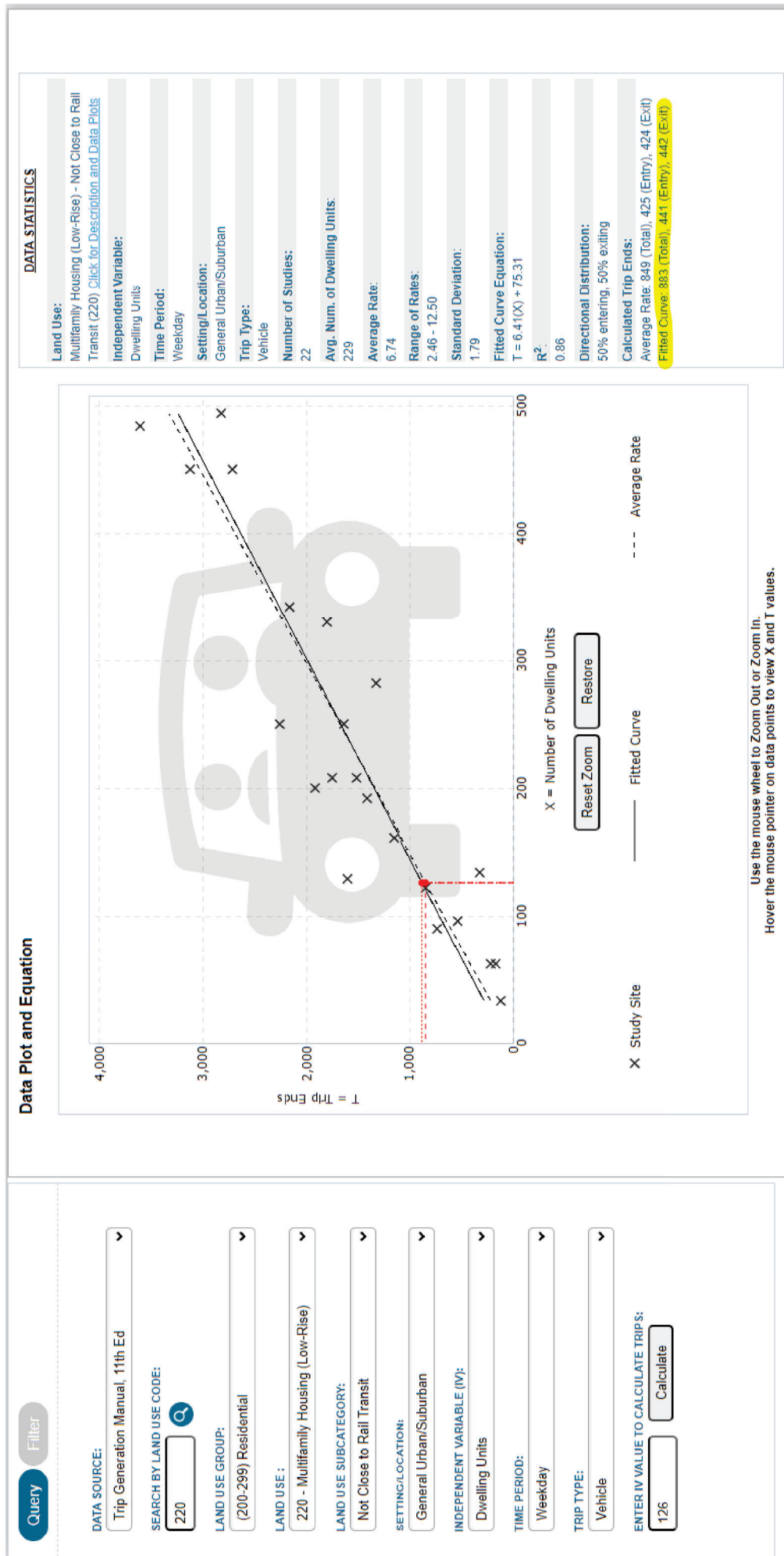


Appendix C

ITE Trip Generation







Query

Filter

DATA SOURCE:

Trip Generation Manual, 11th Ed

SEARCH BY LAND USE CODE:

220

LAND USE GROUP:

(200-299) Residential

LAND USE :

220 - Multifamily Housing (Low-Rise)

LAND USE SUBCATEGORY:

Not Close to Rail Transit

SETTING/LOCATION:

General Urban/Suburban

INDEPENDENT VARIABLE (IV):

Dwelling Units

TIME PERIOD:

Weekday, Peak Hour of Adjacent Street Traffic

TRIP TYPE:

Vehicle

ENTER IV VALUE TO CALCULATE TRIPS:

126

Calculate

Data Plot and Equation

$T = \text{Trip Ends}$

$X = \text{Number of Dwelling Units}$

Reset Zoom Restore

X Study Site — Fitted Curve - - - Average Rate

DATA STATISTICS

Land Use:

Multifamily Housing (Low-Rise) - Not Close to Rail Transit (220) [Click for Description and Data Plots](#)

Independent Variable:

Dwelling Units

Time Period:

Weekday

Peak Hour of Adjacent Street Traffic

One Hour Between 4 and 6 p.m.

Setting/Location:

General Urban/Suburban

Trip Type:

Vehicle

Number of Studies:

59

Avg. Num. of Dwelling Units:

241

Average Rate:

0.51

Range of Rates:

0.08 - 1.04

Standard Deviation:

0.15

Fitted Curve Equation:

$T = 0.43(X) + 20.55$

R²:

0.84

Directional Distribution:

63% entering, 37% exiting

Calculated Trip Ends:

Average Rate: 64 (Total), 40 (Entry), 24 (Exit)

Fitted Curve: 75 (Total), 47 (Entry), 28 (Exit)

Use the mouse wheel to Zoom Out or Zoom In.

Hover the mouse pointer on data points to view X and T values.

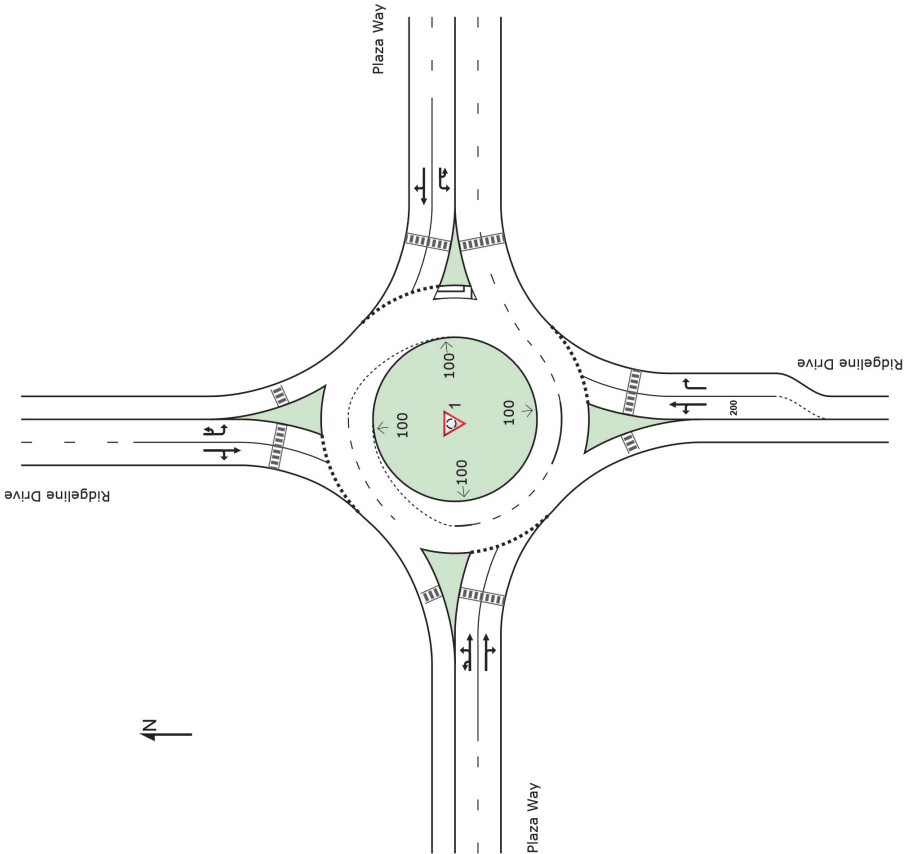
Appendix D
Level of Service Reports

SITE LAYOUT

 Site: 1 [Plaza Way & Ridgeline Drive (Site Folder: 2024 Existing PM)]

2024 Existing Conditions - Weekday PM Peak Hour
Site Category: Existing Design
Roundabout

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



MOVEMENT SUMMARY

 Site: 1 [Plaza Way & Ridgeline Drive (Site Folder: 2024 Existing PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.5.224

2024 Existing Conditions - Weekday PM Peak Hour
Site Category: Existing Design
Roundabout

Vehicle Movement Performance														
Mov ID	Turn	Mov Class	Demand Flows [Total HV]		Arrival Flows [Total HV]		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue [Veh. Dist.]	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
			veh/h	%	veh/h	%	v/c	sec		veh	ft			
South: Ridgeline Drive														
5	L2	All MCs	4	2.0	4	2.0	0.057	8.7	LOS A	0.2	5.3	0.10	0.31	24.9
2	T1	All MCs	80	2.0	80	2.0	0.057	2.8	LOS A	0.2	5.3	0.10	0.31	30.4
12	R2	All MCs	9	2.0	9	2.0	0.009	3.4	LOS A	0.0	0.8	0.12	0.39	24.7
Approach			93	2.0	93	2.0	0.057	3.1	LOS A	0.2	5.3	0.10	0.32	29.4
East: Plaza Way														
3u	U	All MCs	1	0.0	1	0.0	0.006	12.7	LOS B	0.0	0.6	0.23	0.51	26.8
3	L2	All MCs	6	2.0	6	2.0	0.006	5.7	LOS A	0.0	0.6	0.23	0.51	23.3
8	T1	All MCs	11	2.0	11	2.0	0.015	0.3	LOS A	0.1	1.7	0.20	0.14	24.2
18	R2	All MCs	13	2.0	13	2.0	0.015	1.3	LOS A	0.1	1.7	0.20	0.14	26.9
Approach			31	1.9	31	1.9	0.015	2.1	LOS A	0.1	1.7	0.21	0.22	25.3
North: Ridgeline Drive														
1u	U	All MCs	7	0.0	7	0.0	0.013	12.4	LOS B	0.0	1.1	0.09	0.64	28.3
1	L2	All MCs	7	2.0	7	2.0	0.013	8.7	LOS A	0.0	1.1	0.09	0.64	24.7
6	T1	All MCs	100	2.0	100	2.0	0.081	3.1	LOS A	0.3	7.7	0.08	0.33	30.2
16	R2	All MCs	20	2.0	20	2.0	0.081	3.3	LOS A	0.3	7.7	0.08	0.33	27.6
Approach			133	1.9	133	1.9	0.081	3.9	LOS A	0.3	7.7	0.08	0.36	29.1
West: Plaza Way														
7u	U	All MCs	1	0.0	1	0.0	0.017	12.6	LOS B	0.1	1.5	0.20	0.38	18.9
7	L2	All MCs	11	0.2	11	0.2	0.017	5.6	LOS A	0.1	1.5	0.20	0.38	25.7
4	T1	All MCs	9	2.0	9	2.0	0.017	0.7	LOS A	0.1	1.5	0.20	0.38	23.3
14	R2	All MCs	29	2.0	29	2.0	0.021	1.8	LOS A	0.1	1.8	0.19	0.27	24.3

Approach	50	1.6	50	1.6	0.021	2.7	LOS A	0.1	1.8	0.19	0.32	0.19	24.2
All Vehicles	308	1.9	308	1.9	0.081	3.3	LOS A	0.3	7.7	0.12	0.33	0.12	27.8

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
Intersection and Approach LOS values are based on average delay for all movements (v/c not used).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

HCM 6th Signalized Intersection Summary

2: US-395 & Hildebrand Blvd

08/02/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	150	178	52	51	137	81	86	845	104	121	556	62
Future Volume (veh/h)	150	178	52	51	137	81	86	845	104	121	556	62
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	1870	1870	1870	1870	1870	1870	1870	1796	1870	1870	1811	1870
Adj Flow Rate, veh/h	163	193	57	55	162	79	93	918	113	132	604	67
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	7	2	2	6	2
Cap, veh/h	314	677	302	211	594	252	267	1117	137	300	901	415
Arrive On Green	0.09	0.19	0.19	0.06	0.16	0.16	0.08	0.25	0.25	0.09	0.26	0.26
Sat Flow, veh/h	3456	3554	1585	3563	3741	1585	3456	4425	543	3456	3441	1585
Grp Volume(v), veh/h	163	193	57	55	162	79	93	677	354	132	604	67
Grp Sat Flow(s), veh/h/ln	1728	1777	1585	1781	1870	1585	1728	1635	1699	1728	1721	1585
Q Serve(g_s), s	2.8	2.9	1.9	0.9	2.4	2.7	1.6	12.1	12.2	2.2	9.7	2.0
Cycle Q Clear(g_c), s	2.8	2.9	1.9	0.9	2.4	2.7	1.6	12.1	12.2	2.2	9.7	2.0
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	314	677	302	211	594	252	267	825	429	300	901	415
V/C Ratio(X)	0.52	0.29	0.19	0.26	0.27	0.31	0.35	0.82	0.83	0.44	0.67	0.16
Avail Cap(c_a), veh/h	1003	2292	1022	345	2232	946	334	2161	1123	334	1942	895
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.9	21.5	21.1	27.9	22.9	23.1	27.1	21.9	21.9	26.9	20.5	17.6
Incr Delay (d2), s/veh	0.5	1.1	1.4	0.2	1.1	3.2	0.3	0.8	1.6	0.4	0.3	0.1
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	1.1	1.2	0.8	0.4	1.1	1.2	0.6	4.4	4.6	0.9	3.6	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.4	22.5	22.5	28.1	24.1	26.3	27.4	22.7	23.4	27.3	20.8	17.7
LnGrp LOS	C	C	C	C	C	C	C	C	C	C	C	B
Approach Vol, veh/h		413			296			1124			803	
Approach Delay, s/veh		24.4			25.4			23.3			21.6	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.4	23.1	9.2	17.3	11.8	23.7	11.1	15.3				
Change Period (Y+Rc), s	7.0	7.5	5.5	5.5	7.0	7.5	5.5	5.5				
Max Green Setting (Gmax), s	6.0	41.0	6.0	40.0	6.0	35.0	18.0	37.0				
Max Q Clear Time (g_c+l1), s	4.2	14.2	2.9	4.9	3.6	11.7	4.8	4.7				
Green Ext Time (p_c), s	0.0	1.5	0.0	5.7	0.0	0.9	0.0	5.1				

Intersection Summary

HCM 6th Ctrl Delay 23.2

HCM 6th LOS C

Notes

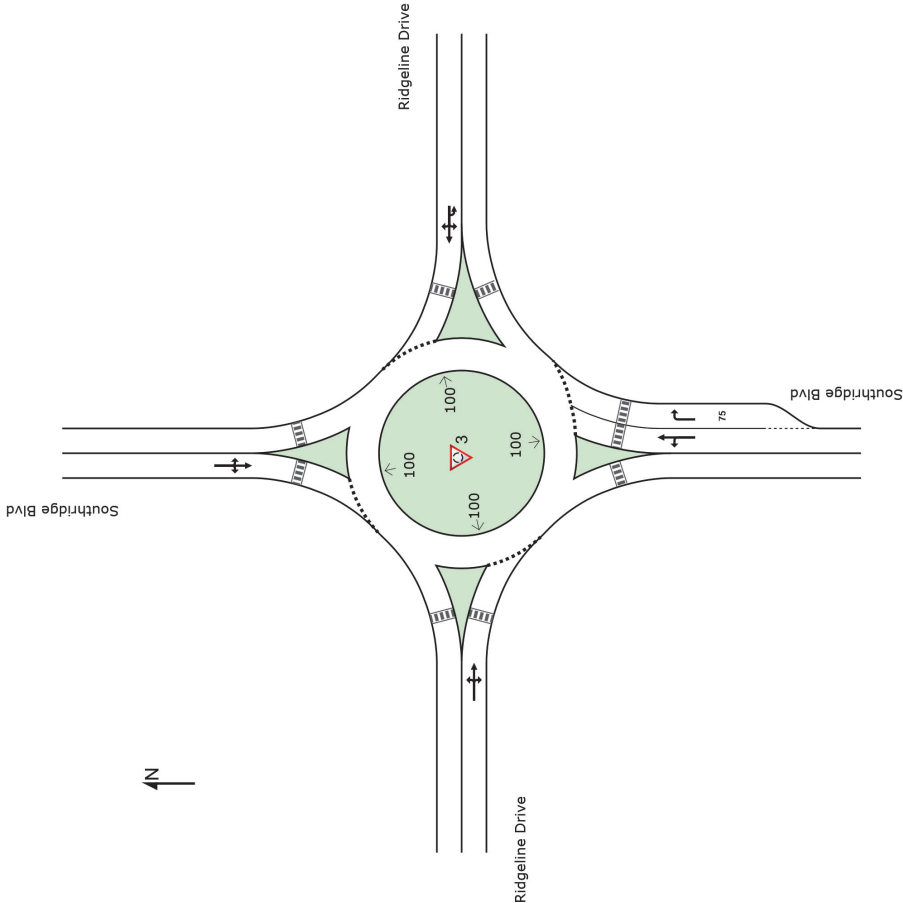
User approved volume balancing among the lanes for turning movement.

SITE LAYOUT

 Site: 3 [Southridge Blvd & Ridgeline Drive (Site Folder: 2024 Existing PM)]

2024 Existing Conditions - Weekday PM Peak Hour
Site Category: Existing Design
Roundabout

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



MOVEMENT SUMMARY

Site: 3 [Southridge Blvd & Ridgeline Drive (Site Folder: 2024 Existing PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.5.224

2024 Existing Conditions - Weekday PM Peak Hour
Site Category: Existing Design
Roundabout

Vehicle Movement Performance														
Mov ID	Turn	Mov Class	Demand Flows [Total HV]		Arrival Flows [Total HV]		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue [Veh. Dist]	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
			veh/h	%	veh/h	%	v/c	sec		veh	ft			
South: Southridge Blvd														
3	L2	All MCs	20	2.0	20	2.0	0.035	5.5	LOS A	0.1	3.7	0.13	0.23	0.13
8	T1	All MCs	38	2.0	38	2.0	0.035	0.2	LOS A	0.1	3.7	0.13	0.23	0.13
18	R2	All MCs	46	2.0	46	2.0	0.032	1.5	LOS A	0.1	3.4	0.14	0.25	0.14
Approach			103	2.0	103	2.0	0.035	1.8	LOS A	0.1	3.7	0.14	0.24	0.14
East: Ridgeline Drive														
1u	U	All MCs	2	0.0	2	0.0	0.084	12.4	LOS B	0.4	9.2	0.17	0.42	0.17
1	L2	All MCs	23	2.0	23	2.0	0.084	8.8	LOS A	0.4	9.2	0.17	0.42	0.17
6	T1	All MCs	68	2.0	68	2.0	0.084	2.9	LOS A	0.4	9.2	0.17	0.42	0.17
16	R2	All MCs	22	2.0	22	2.0	0.084	3.3	LOS A	0.4	9.2	0.17	0.42	0.17
Approach			116	2.0	116	2.0	0.084	4.3	LOS A	0.4	9.2	0.17	0.42	0.17
North: Southridge Blvd														
7	L2	All MCs	11	2.0	11	2.0	0.038	5.7	LOS A	0.2	4.0	0.22	0.24	0.22
4	T1	All MCs	23	2.0	23	2.0	0.038	0.5	LOS A	0.2	4.0	0.22	0.24	0.22
14	R2	All MCs	16	2.0	16	2.0	0.038	1.5	LOS A	0.2	4.0	0.22	0.24	0.22
Approach			50	2.0	50	2.0	0.038	1.9	LOS A	0.2	4.0	0.22	0.24	0.22
West: Ridgeline Drive														
5	L2	All MCs	9	2.0	9	2.0	0.036	8.7	LOS A	0.1	3.7	0.16	0.40	0.16
2	T1	All MCs	30	2.0	30	2.0	0.036	2.9	LOS A	0.1	3.7	0.16	0.40	0.16
12	R2	All MCs	10	2.0	10	2.0	0.036	3.2	LOS A	0.1	3.7	0.16	0.40	0.16
Approach			49	2.0	49	2.0	0.036	4.0	LOS A	0.1	3.7	0.16	0.40	0.16
All Vehicles			318	2.0	318	2.0	0.084	3.1	LOS A	0.4	9.2	0.17	0.33	0.17

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
Intersection and Approach LOS values are based on average delay for all movements (v/c not used).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

HCM 6th Signalized Intersection Summary

4: Southridge Blvd & Hildebrand Blvd

08/02/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	209	67	100	41	118	18	152	166	8	9	166	94
Future Volume (veh/h)	209	67	100	41	118	18	152	166	8	9	166	94
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	227	73	109	45	128	20	165	180	9	10	180	102
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	795	937	836	733	1463	224	279	379	360	251	252	337
Arrive On Green	0.08	0.53	0.53	0.02	0.47	0.47	0.08	0.20	0.20	0.01	0.13	0.13
Sat Flow, veh/h	1781	1777	1585	1781	3088	473	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	227	73	109	45	73	75	165	180	9	10	180	102
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1785	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	4.8	1.5	2.6	0.9	1.7	1.7	5.6	6.3	0.3	0.3	6.8	4.0
Cycle Q Clear(g_c), s	4.8	1.5	2.6	0.9	1.7	1.7	5.6	6.3	0.3	0.3	6.8	4.0
Prop In Lane	1.00		1.00	1.00		0.27	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	795	937	836	733	841	845	279	379	360	251	252	337
V/C Ratio(X)	0.29	0.08	0.13	0.06	0.09	0.09	0.59	0.47	0.02	0.04	0.72	0.30
Avail Cap(c_a), veh/h	795	937	836	769	841	845	279	581	531	373	607	638
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	0.98	0.98	0.98	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.5	8.6	8.9	7.7	10.7	10.7	26.2	26.0	22.2	23.5	30.7	24.5
Incr Delay (d2), s/veh	0.2	0.2	0.3	0.0	0.2	0.2	3.3	0.9	0.0	0.1	3.8	0.5
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	1.7	0.6	0.9	0.3	0.6	0.7	2.7	2.8	0.1	0.1	3.2	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	8.7	8.8	9.2	7.7	10.9	10.9	29.5	27.0	22.3	23.5	34.4	25.0
LnGrp LOS	A	A	A	A	B	B	C	C	C	C	C	C
Approach Vol, veh/h		409			193			354			292	
Approach Delay, s/veh		8.9			10.2			28.0			30.8	
Approach LOS		A			B			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.5	40.0	4.5	20.0	5.5	44.0	9.5	15.0				
Change Period (Y+Rc), s	* 3.7	* 5	* 3.9	5.0	* 3.7	* 5	* 3.9	5.0				
Max Green Setting (Gmax), s	* 5.8	* 21	* 5.6	23.0	* 3.3	* 21	* 5.6	24.0				
Max Q Clear Time (g_c+I1), s	6.8	3.7	2.3	8.3	2.9	4.6	7.6	8.8				
Green Ext Time (p_c), s	0.0	0.7	0.0	0.8	0.0	0.9	0.0	1.1				

Intersection Summary

HCM 6th Ctrl Delay 19.6

HCM 6th LOS B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SITE LAYOUT

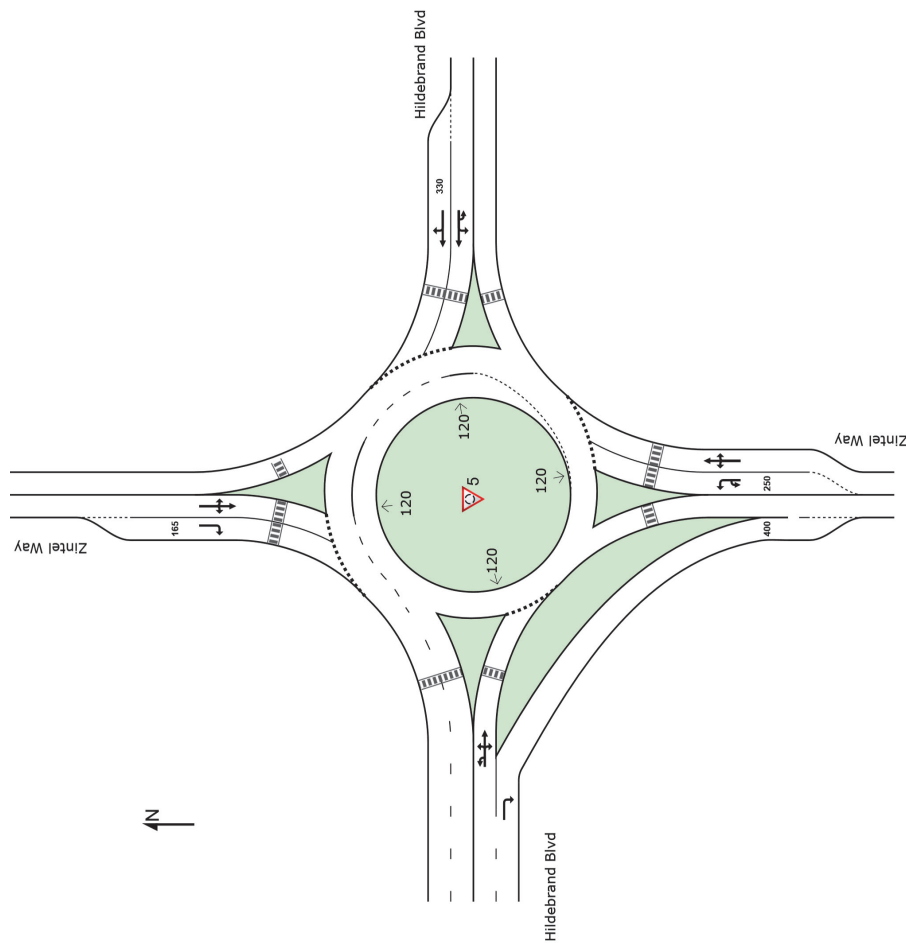
 Site: 5 [Zintel Way & Hildebrand Blvd (Site Folder: 2024 Existing PM)]

2024 Existing Conditions - Weekday PM Peak Hour

Site Category: Existing Design

Roundabout

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



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 Project: L:\Projects\78000178195185-0001\Traffic\Documents\LOS\SIDRA\78195 - All RAB.sip9

MOVEMENT SUMMARY

 Site: 5 [Zintel Way & Hildebrand Blvd (Site Folder: 2024 Existing PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.5.224

2024 Existing Conditions - Weekday PM Peak Hour
Site Category: Existing Design
Roundabout

Exhibit 9

Vehicle Movement Performance														
Mov ID	Turn	Mov Class	Demand Flows [Total HV]		Arrival Flows [Total HV]		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue [Veh. Dist.]	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
			veh/h	%	veh/h	%	v/c	sec		veh	ft			
South: Zintel Way														
5u	U	All MCs	1	0.0	1	0.0	0.027	14.2	LOS B	0.1	3.4	0.47	0.62	25.2
5	L2	All MCs	48	2.0	48	2.0	0.027	10.1	LOS B	0.1	3.6	0.46	0.59	22.7
2	T1	All MCs	1	2.0	1	2.0	0.027	3.6	LOS A	0.1	3.6	0.45	0.54	11.7
12	R2	All MCs	19	2.0	19	2.0	0.027	4.0	LOS A	0.1	3.6	0.45	0.54	24.2
Approach			69	2.0	69	2.0	0.027	8.4	LOS A	0.1	3.6	0.46	0.58	23.0
East: Hildebrand Blvd														
3u	U	All MCs	1	0.0	1	0.0	0.073	12.9	LOS B	0.3	6.9	0.20	0.11	28.4
3	L2	All MCs	9	2.0	9	2.0	0.073	5.4	LOS A	0.3	6.9	0.20	0.11	25.5
8	T1	All MCs	186	2.0	186	2.0	0.073	0.3	LOS A	0.3	6.9	0.20	0.08	24.3
18	R2	All MCs	3	2.0	3	2.0	0.073	1.3	LOS A	0.3	6.9	0.19	0.05	24.6
Approach			199	2.0	199	2.0	0.073	0.6	LOS A	0.3	6.9	0.20	0.08	24.4
North: Zintel Way														
1	L2	All MCs	36	2.0	36	2.0	0.028	8.8	LOS A	0.1	2.5	0.29	0.61	22.2
6	T1	All MCs	2	2.0	2	2.0	0.028	2.7	LOS A	0.1	2.5	0.29	0.61	24.1
16	R2	All MCs	7	2.0	7	2.0	0.008	3.8	LOS A	0.0	0.6	0.33	0.45	23.1
Approach			44	2.0	44	2.0	0.028	7.7	LOS A	0.1	2.5	0.29	0.58	22.4
West: Hildebrand Blvd														
7u	U	All MCs	36	0.0	36	0.0	0.219	12.8	LOS B	1.2	30.7	0.16	0.14	13.4
7	L2	All MCs	27	0.2	27	0.2	0.219	5.2	LOS A	1.2	30.7	0.16	0.14	10.9
4	T1	All MCs	318	2.0	318	2.0	0.219	0.2	LOS A	1.2	30.7	0.16	0.14	24.3
14	R2	All MCs	16	2.0	16	2.0	0.009	0.3	LOS A	0.0	0.0	0.00	0.06	24.8

Approach	396	1.7	396	1.7	0.219	1.6	LOS A	1.2	30.7	0.16	0.13	0.16	22.1
All Vehicles	708	1.8	708	1.8	0.219	2.4	LOS A	1.2	30.7	0.21	0.19	0.21	22.8

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
Intersection and Approach LOS values are based on average delay for all movements (v/c not used).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

 Site: 1 [Plaza Way & Ridgeline Drive (Site Folder: 2025 Without Project PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.5.224

2025 Without Project Conditions - Weekday PM Peak Hour
Site Category: Future Conditions 1
Roundabout

Vehicle Movement Performance														
Mov ID	Turn	Mov Class	Demand Flows [Total HV]		Arrival Flows [Total HV]		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue [Veh. Dist.]	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
			veh/h	%	veh/h	%	v/c	sec		veh	ft			
South: Ridgeline Drive														
5	L2	All MCs	4	2.0	4	2.0	0.057	8.7	LOS A	0.2	5.3	0.10	0.31	24.9
2	T1	All MCs	80	2.0	80	2.0	0.057	2.8	LOS A	0.2	5.3	0.10	0.31	30.4
12	R2	All MCs	9	2.0	9	2.0	0.009	3.4	LOS A	0.0	0.8	0.12	0.39	24.7
Approach			93	2.0	93	2.0	0.057	3.1	LOS A	0.2	5.3	0.10	0.32	29.4
East: Plaza Way														
3u	U	All MCs	1	0.0	1	0.0	0.006	12.7	LOS B	0.0	0.6	0.23	0.51	26.8
3	L2	All MCs	6	2.0	6	2.0	0.006	5.7	LOS A	0.0	0.6	0.23	0.51	23.3
8	T1	All MCs	11	2.0	11	2.0	0.015	0.3	LOS A	0.1	1.7	0.20	0.14	24.2
18	R2	All MCs	13	2.0	13	2.0	0.015	1.3	LOS A	0.1	1.7	0.20	0.14	26.9
Approach			31	1.9	31	1.9	0.015	2.1	LOS A	0.1	1.7	0.21	0.22	25.3
North: Ridgeline Drive														
1u	U	All MCs	7	0.0	7	0.0	0.013	12.4	LOS B	0.0	1.1	0.09	0.64	28.3
1	L2	All MCs	7	2.0	7	2.0	0.013	8.7	LOS A	0.0	1.1	0.09	0.64	24.7
6	T1	All MCs	100	2.0	100	2.0	0.081	3.1	LOS A	0.3	7.7	0.08	0.33	30.2
16	R2	All MCs	20	2.0	20	2.0	0.081	3.3	LOS A	0.3	7.7	0.08	0.33	27.6
Approach			133	1.9	133	1.9	0.081	3.9	LOS A	0.3	7.7	0.08	0.36	29.1
West: Plaza Way														
7u	U	All MCs	1	0.0	1	0.0	0.017	12.6	LOS B	0.1	1.5	0.20	0.38	18.9
7	L2	All MCs	11	0.2	11	0.2	0.017	5.6	LOS A	0.1	1.5	0.20	0.38	25.7
4	T1	All MCs	9	2.0	9	2.0	0.017	0.7	LOS A	0.1	1.5	0.20	0.38	23.3
14	R2	All MCs	29	2.0	29	2.0	0.021	1.8	LOS A	0.1	1.8	0.19	0.27	24.3

Approach	50	1.6	50	1.6	0.021	2.7	LOS A	0.1	1.8	0.19	0.32	0.19	24.2
All Vehicles	308	1.9	308	1.9	0.081	3.3	LOS A	0.3	7.7	0.12	0.33	0.12	27.8

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
Intersection and Approach LOS values are based on average delay for all movements (v/c not used).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

HCM 6th Signalized Intersection Summary2: US-395 & Hildebrand Blvd

09/24/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Traffic Volume (veh/h)	153	195	53	52	148	98	88	862	106	1	148	567
Future Volume (veh/h)	153	195	53	52	148	98	88	862	106	1	148	567
Initial Q (Qb), veh	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	
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
Work Zone On Approach		No			No			No				No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1796	1870		1870	1811
Adj Flow Rate, veh/h	166	212	58	57	188	89	96	937	115		161	616
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92		0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	7	2		2	6
Cap, veh/h	221	358	160	148	294	125	161	2607	319		217	2083
Arrive On Green	0.06	0.10	0.10	0.04	0.08	0.08	0.05	0.59	0.59		0.06	0.61
Sat Flow, veh/h	3456	3554	1585	3563	3741	1585	3456	4426	542		3456	3441
Grp Volume(v), veh/h	166	212	58	57	188	89	96	691	361		161	616
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1781	1870	1585	1728	1635	1699		1728	1721
Q Serve(g_s), s	5.9	7.1	4.2	1.9	6.0	6.8	3.4	13.7	13.7		5.7	10.7
Cycle Q Clear(g_c), s	5.9	7.1	4.2	1.9	6.0	6.8	3.4	13.7	13.7		5.7	10.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.32		1.00	
Lane Grp Cap(c), veh/h	221	358	160	148	294	125	161	1926	1001		217	2083
V/C Ratio(X)	0.75	0.59	0.36	0.38	0.64	0.71	0.60	0.36	0.36		0.74	0.30
Avail Cap(c_a), veh/h	265	673	300	273	709	300	362	1926	1001		362	2083
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
Upstream Filter(I)	0.96	0.96	0.96	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Uniform Delay (d), s/veh	57.1	53.3	52.0	57.9	55.4	55.8	58.0	13.3	13.3		57.1	11.8
Incr Delay (d2), s/veh	9.8	1.1	1.0	1.2	1.7	5.6	2.6	0.5	1.0		3.7	0.4
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
%ile BackOfQ(50%),veh/ln	2.8	3.2	1.7	0.9	2.9	2.9	1.5	4.6	4.9		2.5	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.8	54.4	53.0	59.1	57.2	61.3	60.6	13.8	14.3		60.8	12.1
LnGrp LOS	E	D	D	E	E	E	E	B	B		E	B
Approach Vol, veh/h		436			334			1148				845
Approach Delay, s/veh		59.0			58.6			17.9				21.2
Approach LOS		E			E			B				C
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.8	80.5	10.7	18.0	12.8	82.6	13.4	15.2				
Change Period (Y+Rc), s	7.0	7.5	5.5	5.5	7.0	7.5	5.5	5.5				
Max Green Setting (Gmax), s	13.0	52.5	9.5	23.5	13.0	52.5	9.5	23.5				
Max Q Clear Time (g_c+I1), s	7.7	15.7	3.9	9.1	5.4	12.7	7.9	8.8				
Green Ext Time (p_c), s	0.2	10.7	0.0	1.0	0.1	6.3	0.1	0.9				

Intersection Summary

HCM 6th Ctrl Delay **30.3**

HCM 6th LOS **C**

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

User approved ignoring U-Turning movement.

HCM 6th Signalized Intersection Summary

2: US-395 & Hildebrand Blvd

09/24/2024

Movement	SBR
Lane Configurations	
Traffic Volume (veh/h)	63
Future Volume (veh/h)	63
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	1.00
Parking Bus, Adj	1.00
Work Zone On Approach	
Adj Sat Flow, veh/h/ln	1870
Adj Flow Rate, veh/h	68
Peak Hour Factor	0.92
Percent Heavy Veh, %	2
Cap, veh/h	959
Arrive On Green	0.61
Sat Flow, veh/h	1585
Grp Volume(v), veh/h	68
Grp Sat Flow(s),veh/h/ln	1585
Q Serve(g_s), s	2.2
Cycle Q Clear(g_c), s	2.2
Prop In Lane	1.00
Lane Grp Cap(c), veh/h	959
V/C Ratio(X)	0.07
Avail Cap(c_a), veh/h	959
HCM Platoon Ratio	1.00
Upstream Filter(I)	1.00
Uniform Delay (d), s/veh	10.1
Incr Delay (d2), s/veh	0.1
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(50%),veh/ln	0.8
Unsig. Movement Delay, s/veh	
LnGrp Delay(d),s/veh	10.2
LnGrp LOS	B
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer - Assigned Phs	

MOVEMENT SUMMARY

 Site: 3 [Southridge Blvd & Ridgeline Drive (Site Folder: 2025 Without Project PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.5.224

2025 Without Project Conditions - Weekday PM Peak Hour
Site Category: Future Conditions 1
Roundabout

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total HV]		Arrival Flows [Total HV]		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue [Veh.	Dist.]	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
			veh/h	%	veh/h	%	v/c	sec		veh	ft				
South: Southridge Blvd															
3	L2	All MCs	20	2.0	20	2.0	0.035	5.5	LOS A	0.1	3.7	0.13	0.23	0.13	25.8
8	T1	All MCs	38	2.0	38	2.0	0.035	0.2	LOS A	0.1	3.7	0.13	0.23	0.13	23.9
18	R2	All MCs	46	2.0	46	2.0	0.032	1.5	LOS A	0.1	3.4	0.14	0.25	0.14	25.8
Approach			103	2.0	103	2.0	0.035	1.8	LOS A	0.1	3.7	0.14	0.24	0.14	25.0
East: Ridgeline Drive															
1u	U	All MCs	2	0.0	2	0.0	0.084	12.4	LOS B	0.4	9.2	0.17	0.42	0.17	17.9
1	L2	All MCs	23	2.0	23	2.0	0.084	8.8	LOS A	0.4	9.2	0.17	0.42	0.17	25.1
6	T1	All MCs	68	2.0	68	2.0	0.084	2.9	LOS A	0.4	9.2	0.17	0.42	0.17	29.6
16	R2	All MCs	22	2.0	22	2.0	0.084	3.3	LOS A	0.4	9.2	0.17	0.42	0.17	25.4
Approach			116	2.0	116	2.0	0.084	4.3	LOS A	0.4	9.2	0.17	0.42	0.17	27.4
North: Southridge Blvd															
7	L2	All MCs	11	2.0	11	2.0	0.038	5.7	LOS A	0.2	4.0	0.22	0.24	0.22	25.0
4	T1	All MCs	23	2.0	23	2.0	0.038	0.5	LOS A	0.2	4.0	0.22	0.24	0.22	23.8
14	R2	All MCs	16	2.0	16	2.0	0.038	1.5	LOS A	0.2	4.0	0.22	0.24	0.22	26.3
Approach			50	2.0	50	2.0	0.038	1.9	LOS A	0.2	4.0	0.22	0.24	0.22	24.8
West: Ridgeline Drive															
5	L2	All MCs	9	2.0	9	2.0	0.036	8.7	LOS A	0.1	3.7	0.16	0.40	0.16	26.0
2	T1	All MCs	30	2.0	30	2.0	0.036	2.9	LOS A	0.1	3.7	0.16	0.40	0.16	29.7
12	R2	All MCs	10	2.0	10	2.0	0.036	3.2	LOS A	0.1	3.7	0.16	0.40	0.16	26.3
Approach			49	2.0	49	2.0	0.036	4.0	LOS A	0.1	3.7	0.16	0.40	0.16	28.1
All Vehicles			318	2.0	318	2.0	0.084	3.1	LOS A	0.4	9.2	0.17	0.33	0.17	26.1

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
Intersection and Approach LOS values are based on average delay for all movements (v/c not used).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

HCM 6th Signalized Intersection Summary4: Hildebrand Blvd & Southridge Blvd

09/24/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	155	182	8	9	177	96	42	120	18	213	68	102
Future Volume (veh/h)	155	182	8	9	177	96	42	120	18	213	68	102
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		0.99	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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	170	200	9	10	195	105	46	132	20	234	75	112
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	493	1024	46	486	447	230	471	236	211	496	437	538
Arrive On Green	0.11	0.30	0.30	0.01	0.20	0.20	0.03	0.13	0.13	0.14	0.23	0.23
Sat Flow, veh/h	1781	3464	155	1781	2266	1168	1781	1870	1574	1781	1870	1579
Grp Volume(v), veh/h	170	102	107	10	151	149	46	132	20	234	75	112
Grp Sat Flow(s),veh/h/ln	1781	1777	1842	1781	1777	1657	1781	1870	1574	1781	1870	1579
Q Serve(g_s), s	3.0	1.7	1.8	0.2	3.0	3.2	0.8	2.7	0.5	4.5	1.3	2.0
Cycle Q Clear(g_c), s	3.0	1.7	1.8	0.2	3.0	3.2	0.8	2.7	0.5	4.5	1.3	2.0
Prop In Lane	1.00		0.08	1.00		0.70	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	493	525	544	486	350	327	471	236	211	496	437	538
V/C Ratio(X)	0.34	0.19	0.20	0.02	0.43	0.46	0.10	0.56	0.09	0.47	0.17	0.21
Avail Cap(c_a), veh/h	558	918	951	617	918	856	663	1058	903	496	1104	1100
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.1	10.7	10.7	10.0	14.3	14.4	11.3	16.7	15.4	12.8	12.4	9.5
Incr Delay (d2), s/veh	0.9	0.4	0.4	0.0	1.8	2.1	0.2	4.4	0.4	1.5	0.4	0.4
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	1.0	0.6	0.6	0.0	1.1	1.1	0.3	1.2	0.2	1.5	0.5	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.9	11.1	11.1	10.0	16.1	16.5	11.5	21.1	15.9	14.3	12.8	9.9
LnGrp LOS	B	B	B	A	B	B	B	C	B	B	B	A
Approach Vol, veh/h		379			310			198			421	
Approach Delay, s/veh		11.5			16.1			18.4			12.9	
Approach LOS		B			B			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.0	13.0	9.5	10.1	4.0	17.0	5.1	14.5				
Change Period (Y+Rc), s	* 3.7	* 5	* 3.9	5.0	* 3.7	* 5	* 3.9	5.0				
Max Green Setting (Gmax), s	* 5.8	* 21	* 5.6	23.0	* 3.3	* 21	* 5.6	24.0				
Max Q Clear Time (g_c+I1), s	5.0	5.2	6.5	4.7	2.2	3.8	2.8	4.0				
Green Ext Time (p_c), s	0.1	2.6	0.0	1.2	0.0	1.7	0.0	1.4				

Intersection Summary

HCM 6th Ctrl Delay 14.1

HCM 6th LOS B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

MOVEMENT SUMMARY

 Site: 5 [Zintel Way & Hildebrand Blvd (Site Folder: 2025 Without Project PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.5.224

2025 Without Project Conditions - Weekday PM Peak Hour
Site Category: Future Conditions 1
Roundabout

Vehicle Movement Performance														
Mov ID	Turn	Mov Class	Demand Flows [Total HV]		Arrival Flows [Total HV]		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue [Veh. Dist]	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
			veh/h	%	veh/h	%	v/c	sec		veh	ft			
South: Zintel Way														
5u	U	All MCs	1	0.0	1	0.0	0.027	14.2	LOS B	0.1	3.4	0.47	0.47	25.2
5	L2	All MCs	48	2.0	48	2.0	0.027	10.1	LOS B	0.1	3.6	0.46	0.46	22.7
2	T1	All MCs	1	2.0	1	2.0	0.027	3.6	LOS A	0.1	3.6	0.45	0.45	11.7
12	R2	All MCs	19	2.0	19	2.0	0.027	4.0	LOS A	0.1	3.6	0.45	0.45	24.2
Approach			69	2.0	69	2.0	0.027	8.4	LOS A	0.1	3.6	0.46	0.46	23.0
East: Hildebrand Blvd														
3u	U	All MCs	1	0.0	1	0.0	0.073	12.9	LOS B	0.3	6.9	0.20	0.20	28.4
3	L2	All MCs	9	2.0	9	2.0	0.073	5.4	LOS A	0.3	6.9	0.20	0.20	25.5
8	T1	All MCs	186	2.0	186	2.0	0.073	0.3	LOS A	0.3	6.9	0.20	0.20	24.3
18	R2	All MCs	3	2.0	3	2.0	0.073	1.3	LOS A	0.3	6.9	0.19	0.19	24.6
Approach			199	2.0	199	2.0	0.073	0.6	LOS A	0.3	6.9	0.20	0.20	24.4
North: Zintel Way														
1	L2	All MCs	36	2.0	36	2.0	0.028	8.8	LOS A	0.1	2.5	0.29	0.29	22.2
6	T1	All MCs	2	2.0	2	2.0	0.028	2.7	LOS A	0.1	2.5	0.29	0.29	24.1
16	R2	All MCs	7	2.0	7	2.0	0.008	3.8	LOS A	0.0	0.6	0.33	0.33	23.1
Approach			44	2.0	44	2.0	0.028	7.7	LOS A	0.1	2.5	0.29	0.29	22.4
West: Hildebrand Blvd														
7u	U	All MCs	36	0.0	36	0.0	0.219	12.8	LOS B	1.2	30.7	0.16	0.16	13.4
7	L2	All MCs	27	0.2	27	0.2	0.219	5.2	LOS A	1.2	30.7	0.16	0.16	10.9
4	T1	All MCs	318	2.0	318	2.0	0.219	0.2	LOS A	1.2	30.7	0.16	0.16	24.3
14	R2	All MCs	16	2.0	16	2.0	0.009	0.3	LOS A	0.0	0.0	0.00	0.00	24.8

Approach	396	1.7	396	1.7	0.219	1.6	LOS A	1.2	30.7	0.16	0.13	0.16	22.1
All Vehicles	708	1.8	708	1.8	0.219	2.4	LOS A	1.2	30.7	0.21	0.19	0.21	22.8

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

Roundabout LOS Method: Same as Signalised Intersections.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

Intersection and Approach LOS values are based on average delay for all movements (v/c not used).

Roundabout Capacity Model: SIDRA HCM.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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Project: L:\Projects\78000\78195\78195-000\Traffic\Documents\LOS\SIDRA\78195 - All RAB.sip9

MOVEMENT SUMMARY

 Site: 1 [Plaza Way & Ridgeline Drive (Site Folder: 2025 With Project PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.5.224

2025 With Project Conditions - Weekday PM Peak Hour
Site Category: Future Conditions 2
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total HV]		Arrival Flows [Total HV]		Deg. Satn	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. Dist]	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
			veh/h	%	veh/h	%	v/c			veh	ft			
South: Plaza Way														
5	L2	All MCs	6	2.0	6	2.0	0.012	9.0	LOS A	0.0	1.1	0.23	0.45	23.4
2	T1	All MCs	11	2.0	11	2.0	0.012	3.1	LOS A	0.0	1.1	0.23	0.45	28.5
12	R2	All MCs	13	2.0	13	2.0	0.011	3.8	LOS A	0.0	0.9	0.25	0.42	24.4
Approach			30	2.0	30	2.0	0.012	4.5	LOS A	0.0	1.1	0.24	0.44	25.6
East: Ridgeline Drive														
3u	U	All MCs	66	0.0	66	0.0	0.051	12.4	LOS B	0.2	5.9	0.10	0.65	29.8
3	L2	All MCs	7	2.0	7	2.0	0.051	5.4	LOS A	0.2	5.9	0.10	0.65	26.8
8	T1	All MCs	113	2.0	113	2.0	0.080	0.1	LOS A	0.4	9.6	0.09	0.04	24.6
18	R2	All MCs	22	2.0	22	2.0	0.080	1.1	LOS A	0.4	9.6	0.09	0.04	27.3
Approach			209	1.4	209	1.4	0.080	4.3	LOS A	0.4	9.6	0.09	0.25	26.8
North: Plaza Way														
1u	U	All MCs	1	0.0	1	0.0	0.016	12.9	LOS B	0.1	1.3	0.26	0.61	27.9
1	L2	All MCs	16	2.0	16	2.0	0.016	9.2	LOS A	0.1	1.3	0.26	0.61	24.4
6	T1	All MCs	9	2.0	9	2.0	0.029	3.5	LOS A	0.1	2.5	0.24	0.42	29.3
16	R2	All MCs	30	2.0	30	2.0	0.029	3.7	LOS A	0.1	2.5	0.24	0.42	26.9
Approach			56	2.0	56	2.0	0.029	5.4	LOS A	0.1	2.5	0.24	0.47	26.2
West: Ridgeline Drive														
7u	U	All MCs	1	0.0	1	0.0	0.042	12.5	LOS B	0.1	3.7	0.18	0.15	19.5
7	L2	All MCs	4	2.0	4	2.0	0.042	5.6	LOS A	0.1	3.7	0.18	0.15	26.8
4	T1	All MCs	100	2.0	100	2.0	0.042	0.6	LOS A	0.1	3.8	0.17	0.13	24.2
14	R2	All MCs	9	2.0	9	2.0	0.042	1.7	LOS A	0.1	3.8	0.17	0.12	25.0

Approach	114	2.0	114	2.0	0.042	1.0	LOS A	0.1	3.8	0.17	0.13	0.17	24.3
All Vehicles	408	1.7	408	1.7	0.080	3.5	LOS A	0.4	9.6	0.15	0.26	0.15	26.0

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

Roundabout LOS Method: Same as Signalised Intersections.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

Intersection and Approach LOS values are based on average delay for all movements (v/c not used).

Roundabout Capacity Model: SIDRA HCM.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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Project: L:\Projects\78000\78195\78195-000\Traffic\Documents\LOS\SIDRA\78195 - All RAB.sip9

HCM 6th Signalized Intersection Summary

2: US-395 & Hildebrand Blvd

09/23/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Traffic Volume (veh/h)	153	195	53	52	148	98	88	880	106	1	149	599
Future Volume (veh/h)	153	195	53	52	148	98	88	880	106	1	149	599
Initial Q (Qb), veh	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	
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
Work Zone On Approach		No			No			No				No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1796	1870		1870	1811
Adj Flow Rate, veh/h	166	212	58	57	188	89	96	957	115		162	651
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92		0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	7	2		2	6
Cap, veh/h	221	358	160	148	294	125	161	2613	313		218	2083
Arrive On Green	0.06	0.10	0.10	0.04	0.08	0.08	0.05	0.59	0.59		0.06	0.61
Sat Flow, veh/h	3456	3554	1585	3563	3741	1585	3456	4438	532		3456	3441
Grp Volume(v), veh/h	166	212	58	57	188	89	96	704	368		162	651
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1781	1870	1585	1728	1635	1701		1728	1721
Q Serve(g_s), s	5.9	7.1	4.2	1.9	6.0	6.8	3.4	14.0	14.1		5.7	11.4
Cycle Q Clear(g_c), s	5.9	7.1	4.2	1.9	6.0	6.8	3.4	14.0	14.1		5.7	11.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.31		1.00	
Lane Grp Cap(c), veh/h	221	358	160	148	294	125	161	1925	1001		218	2083
V/C Ratio(X)	0.75	0.59	0.36	0.38	0.64	0.71	0.60	0.37	0.37		0.74	0.31
Avail Cap(c_a), veh/h	265	673	300	273	709	300	362	1925	1001		362	2083
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
Upstream Filter(I)	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Uniform Delay (d), s/veh	57.1	53.3	52.0	57.9	55.4	55.8	58.0	13.4	13.4		57.1	11.9
Incr Delay (d2), s/veh	9.7	1.1	1.0	1.2	1.7	5.6	2.6	0.5	1.0		3.7	0.4
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
%ile BackOfQ(50%),veh/ln	2.8	3.2	1.7	0.9	2.9	2.9	1.5	4.7	5.1		2.5	4.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.7	54.4	53.0	59.1	57.2	61.3	60.6	13.9	14.4		60.8	12.3
LnGrp LOS	E	D	D	E	E	E	E	B	B		E	B
Approach Vol, veh/h		436			334			1168				881
Approach Delay, s/veh		58.9			58.6			17.9				21.1
Approach LOS		E			E			B				C
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.8	80.5	10.7	18.0	12.8	82.6	13.4	15.2				
Change Period (Y+Rc), s	7.0	7.5	5.5	5.5	7.0	7.5	5.5	5.5				
Max Green Setting (Gmax), s	13.0	52.5	9.5	23.5	13.0	52.5	9.5	23.5				
Max Q Clear Time (g_c+I1), s	7.7	16.1	3.9	9.1	5.4	13.4	7.9	8.8				
Green Ext Time (p_c), s	0.2	10.9	0.0	1.0	0.1	6.7	0.1	0.9				

Intersection Summary

HCM 6th Ctrl Delay 30.1

HCM 6th LOS C

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

User approved ignoring U-Turning movement.

HCM 6th Signalized Intersection Summary

2: US-395 & Hildebrand Blvd

09/23/2024

Movement	SBR
Lane Configurations	
Traffic Volume (veh/h)	63
Future Volume (veh/h)	63
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	1.00
Parking Bus, Adj	1.00
Work Zone On Approach	
Adj Sat Flow, veh/h/ln	1870
Adj Flow Rate, veh/h	68
Peak Hour Factor	0.92
Percent Heavy Veh, %	2
Cap, veh/h	959
Arrive On Green	0.61
Sat Flow, veh/h	1585
Grp Volume(v), veh/h	68
Grp Sat Flow(s),veh/h/ln	1585
Q Serve(g_s), s	2.2
Cycle Q Clear(g_c), s	2.2
Prop In Lane	1.00
Lane Grp Cap(c), veh/h	959
V/C Ratio(X)	0.07
Avail Cap(c_a), veh/h	959
HCM Platoon Ratio	1.00
Upstream Filter(I)	1.00
Uniform Delay (d), s/veh	10.1
Incr Delay (d2), s/veh	0.1
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(50%),veh/ln	0.8
Unsig. Movement Delay, s/veh	
LnGrp Delay(d),s/veh	10.2
LnGrp LOS	B
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer - Assigned Phs	

MOVEMENT SUMMARY

Site: 3 [Southridge Blvd & Ridgeline Drive (Site Folder: 2025 With Project PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.5.224

2025 With Project Conditions - Weekday PM Peak Hour
Site Category: Future Conditions 2
Roundabout

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total HV]		Arrival Flows [Total HV]		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue [Veh. Dist]	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed	
			veh/h	%	veh/h	%	v/c	sec		veh	ft			mph	
South: Southridge Blvd															
3	L2	All MCs	20	2.0	20	2.0	0.036	5.5	LOS A	0.2	3.9	0.15	0.23	0.15	25.8
8	T1	All MCs	39	2.0	39	2.0	0.036	0.2	LOS A	0.2	3.9	0.15	0.23	0.15	23.8
18	R2	All MCs	51	2.0	51	2.0	0.036	1.6	LOS A	0.2	3.8	0.16	0.25	0.16	25.7
Approach			110	2.0	110	2.0	0.036	1.8	LOS A	0.2	3.9	0.16	0.24	0.16	25.0
East: Ridgeline Drive															
1u	U	All MCs	2	0.0	2	0.0	0.093	12.4	LOS B	0.4	10.3	0.18	0.41	0.18	17.9
1	L2	All MCs	26	2.0	26	2.0	0.093	8.8	LOS A	0.4	10.3	0.18	0.41	0.18	25.1
6	T1	All MCs	74	2.0	74	2.0	0.093	2.9	LOS A	0.4	10.3	0.18	0.41	0.18	29.6
16	R2	All MCs	24	2.0	24	2.0	0.093	3.3	LOS A	0.4	10.3	0.18	0.41	0.18	25.4
Approach			127	2.0	127	2.0	0.093	4.3	LOS A	0.4	10.3	0.18	0.41	0.18	27.4
North: Southridge Blvd															
7	L2	All MCs	16	2.0	16	2.0	0.041	5.8	LOS A	0.2	4.4	0.23	0.28	0.23	24.8
4	T1	All MCs	23	2.0	23	2.0	0.041	0.5	LOS A	0.2	4.4	0.23	0.28	0.23	23.7
14	R2	All MCs	16	2.0	16	2.0	0.041	1.5	LOS A	0.2	4.4	0.23	0.28	0.23	26.1
Approach			54	2.0	54	2.0	0.041	2.3	LOS A	0.2	4.4	0.23	0.28	0.23	24.6
West: Ridgeline Drive															
5	L2	All MCs	9	2.0	9	2.0	0.043	8.8	LOS A	0.2	4.6	0.17	0.38	0.17	26.1
2	T1	All MCs	40	2.0	40	2.0	0.043	2.9	LOS A	0.2	4.6	0.17	0.38	0.17	29.8
12	R2	All MCs	10	2.0	10	2.0	0.043	3.3	LOS A	0.2	4.6	0.17	0.38	0.17	26.4
Approach			59	2.0	59	2.0	0.043	3.8	LOS A	0.2	4.6	0.17	0.38	0.17	28.4
All Vehicles			350	2.0	350	2.0	0.093	3.1	LOS A	0.4	10.3	0.18	0.33	0.18	26.2

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
Intersection and Approach LOS values are based on average delay for all movements (v/c not used).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

HCM 6th Signalized Intersection Summary

4: Hildebrand Blvd & Southridge Blvd

09/23/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	155	175	8	9	174	99	42	122	18	220	72	102
Future Volume (veh/h)	155	175	8	9	174	99	42	122	18	220	72	102
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		0.99	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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	170	192	9	10	191	109	46	134	20	242	79	112
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	493	1022	48	490	437	238	469	239	213	495	440	540
Arrive On Green	0.11	0.30	0.30	0.01	0.20	0.20	0.03	0.13	0.13	0.14	0.24	0.24
Sat Flow, veh/h	1781	3456	161	1781	2218	1208	1781	1870	1574	1781	1870	1579
Grp Volume(v), veh/h	170	98	103	10	151	149	46	134	20	242	79	112
Grp Sat Flow(s),veh/h/ln	1781	1777	1841	1781	1777	1649	1781	1870	1574	1781	1870	1579
Q Serve(g_s), s	3.0	1.7	1.7	0.2	3.0	3.2	0.8	2.7	0.5	4.7	1.4	2.1
Cycle Q Clear(g_c), s	3.0	1.7	1.7	0.2	3.0	3.2	0.8	2.7	0.5	4.7	1.4	2.1
Prop In Lane	1.00		0.09	1.00		0.73	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	493	525	544	490	350	325	469	239	213	495	440	540
V/C Ratio(X)	0.35	0.19	0.19	0.02	0.43	0.46	0.10	0.56	0.09	0.49	0.18	0.21
Avail Cap(c_a), veh/h	557	915	948	620	915	849	661	1055	900	495	1101	1098
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.1	10.7	10.7	10.0	14.4	14.4	11.3	16.7	15.4	12.9	12.5	9.5
Incr Delay (d2), s/veh	0.9	0.4	0.4	0.0	1.8	2.1	0.2	4.4	0.4	1.6	0.4	0.4
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	1.0	0.5	0.6	0.1	1.1	1.1	0.3	1.2	0.2	1.6	0.5	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	12.0	11.1	11.1	10.0	16.2	16.6	11.5	21.1	15.8	14.5	12.9	9.9
LnGrp LOS	B	B	B	B	B	B	B	C	B	B	B	A
Approach Vol, veh/h		371			310			200			433	
Approach Delay, s/veh		11.5			16.2			18.4			13.0	
Approach LOS		B			B			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.0	13.0	9.5	10.2	4.0	17.1	5.1	14.6				
Change Period (Y+Rc), s	* 3.7	* 5	* 3.9	5.0	* 3.7	* 5	* 3.9	5.0				
Max Green Setting (Gmax), s	* 5.8	* 21	* 5.6	23.0	* 3.3	* 21	* 5.6	24.0				
Max Q Clear Time (g_c+I1), s	5.0	5.2	6.7	4.7	2.2	3.7	2.8	4.1				
Green Ext Time (p_c), s	0.1	2.6	0.0	1.2	0.0	1.6	0.0	1.4				

Intersection Summary

HCM 6th Ctrl Delay 14.1

HCM 6th LOS B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

MOVEMENT SUMMARY

Site: 5 [Zintel Way & Hildebrand Blvd (Site Folder: 2025 With Project PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.5.224

2025 With Project Conditions - Weekday PM Peak Hour
Site Category: Future Conditions 2
Roundabout

Vehicle Movement Performance														
Mov ID	Turn	Mov Class	Demand Flows [Total HV]		Arrival Flows [Total HV]		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue [Veh. Dist]	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			veh/h	%	veh/h	%	v/c	sec		veh	ft			mph
South: Zintel Way														
5u	U	All MCs	1	0.0	1	0.0	0.041	14.2	LOS B	0.2	5.1	0.48	0.64	25.1
5	L2	All MCs	74	2.0	74	2.0	0.041	10.2	LOS B	0.2	5.5	0.47	0.61	22.7
2	T1	All MCs	1	2.0	1	2.0	0.041	3.6	LOS A	0.2	5.5	0.46	0.57	11.7
12	R2	All MCs	26	2.0	26	2.0	0.041	4.1	LOS A	0.2	5.5	0.46	0.57	24.1
Approach			102	2.0	102	2.0	0.041	8.6	LOS A	0.2	5.5	0.47	0.60	23.0
East: Hildebrand Blvd														
3u	U	All MCs	1	0.0	1	0.0	0.079	13.0	LOS B	0.3	7.6	0.23	0.18	28.1
3	L2	All MCs	20	2.0	20	2.0	0.079	5.5	LOS A	0.3	7.6	0.23	0.18	25.2
8	T1	All MCs	189	2.0	189	2.0	0.079	0.4	LOS A	0.3	7.7	0.23	0.11	24.1
18	R2	All MCs	3	2.0	3	2.0	0.079	1.4	LOS A	0.3	7.7	0.22	0.06	24.5
Approach			213	2.0	213	2.0	0.079	0.9	LOS A	0.3	7.7	0.23	0.11	24.3
North: Zintel Way														
1	L2	All MCs	37	2.0	37	2.0	0.030	8.8	LOS A	0.1	2.6	0.31	0.62	22.2
6	T1	All MCs	2	2.0	2	2.0	0.030	2.7	LOS A	0.1	2.6	0.31	0.62	24.0
16	R2	All MCs	7	2.0	7	2.0	0.008	3.9	LOS A	0.0	0.7	0.35	0.46	23.0
Approach			46	2.0	46	2.0	0.030	7.8	LOS A	0.1	2.6	0.31	0.59	22.3
West: Hildebrand Blvd														
7u	U	All MCs	37	0.0	37	0.0	0.225	12.8	LOS B	1.2	31.4	0.18	0.14	13.4
7	L2	All MCs	27	0.2	27	0.2	0.225	5.2	LOS A	1.2	31.4	0.18	0.14	10.9
4	T1	All MCs	324	2.0	324	2.0	0.225	0.2	LOS A	1.2	31.4	0.18	0.14	24.2
14	R2	All MCs	60	2.0	60	2.0	0.037	0.3	LOS A	0.0	0.0	0.00	0.06	24.8

Approach	448	1.7	448	1.7	0.225	1.6	LOS A	1.2	31.4	0.16	0.13	0.16	22.2
All Vehicles	809	1.8	809	1.8	0.225	2.6	LOS A	1.2	31.4	0.22	0.21	0.22	22.9

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

Roundabout LOS Method: Same as Signalised Intersections.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

Intersection and Approach LOS values are based on average delay for all movements (v/c not used).

Roundabout Capacity Model: SIDRA HCM.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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Appendix E

Queuing Reports

Queuing and Blocking Report
Weekday PM Peak Hour - 2024 Existing Volumes

08/06/2024

Intersection: 1: Plaza Way & Ridgeline Drive

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	ULT	R	ULT	R	LT	R	UL	TR
Maximum Queue (ft)	27	9	32	3	12	18	12	36
Average Queue (ft)	2	0	2	0	1	1	1	3
95th Queue (ft)	13	5	14	3	7	9	7	19
Link Distance (ft)	531	531	514		446			1620
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)				150		180	150	
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 2: US-395 & Hildebrand Blvd

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB
Directions Served	L	L	T	T	R	L	L	T	TR	R	L	L
Maximum Queue (ft)	86	98	127	89	63	26	49	83	93	62	45	84
Average Queue (ft)	34	53	59	20	22	4	19	31	41	21	10	34
95th Queue (ft)	72	88	106	59	50	17	43	64	76	51	33	68
Link Distance (ft)			1276	1276				478	478			
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	350	350			200	260	260			250	350	350
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 2: US-395 & Hildebrand Blvd

Movement	NB	NB	NB	SB	SB	SB	SB	SB
Directions Served	T	T	TR	L	L	T	T	R
Maximum Queue (ft)	280	277	232	97	63	211	230	48
Average Queue (ft)	158	150	111	46	15	104	116	5
95th Queue (ft)	236	232	198	88	44	181	193	26
Link Distance (ft)	1557	1557	1557			2562	2562	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)				300	300			260
Storage Blk Time (%)	0						0	
Queuing Penalty (veh)	0						0	

Queuing and Blocking Report
Weekday PM Peak Hour - 2024 Existing Volumes

08/06/2024

Intersection: 3: Southridge Blvd & Ridgeline Drive

Movement	EB	WB	NB	NB	SB
Directions Served	LTR	ULTR	LT	R	LTR
Maximum Queue (ft)	17	38	31	17	34
Average Queue (ft)	1	5	2	1	3
95th Queue (ft)	8	24	15	8	19
Link Distance (ft)	1443	531	1307		2683
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)				75	
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 4: Southridge Blvd & Hildebrand Blvd

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	R	L	T	R
Maximum Queue (ft)	103	70	36	24	71	108	84	142	40	223	177	69
Average Queue (ft)	38	19	5	3	22	45	29	72	12	113	44	30
95th Queue (ft)	83	49	23	17	56	90	66	123	37	193	115	54
Link Distance (ft)		950	950		1276	1276		2683			728	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	250			175			150		100	150		150
Storage Blk Time (%)							0	4		7	0	
Queuing Penalty (veh)							0	2		12	0	

Intersection: 5: Zintel Way & Hildebrand Blvd

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	ULTR	R	ULT	TR	UL	LTR	LTR	R
Maximum Queue (ft)	73	9	38	27	30	25	39	3
Average Queue (ft)	17	0	7	2	3	1	6	0
95th Queue (ft)	58	9	29	14	17	12	27	4
Link Distance (ft)	478	478	816	816		996	307	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)					250		165	
Storage Blk Time (%)								
Queuing Penalty (veh)								

Network Summary

Network wide Queuing Penalty: 15

Queuing and Blocking Report
Weekday PM Peak Hour - 2025 Without Project Volumes

08/06/2024

Intersection: 1: Plaza Way & Ridgeline Drive

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	ULT	R	ULT	R	LT	R	UL	TR
Maximum Queue (ft)	30	3	25	12	26	20	21	32
Average Queue (ft)	2	0	1	1	1	1	1	3
95th Queue (ft)	16	3	12	7	11	10	9	20
Link Distance (ft)	531	531	514		446	446	1619	1619
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)				150				
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 2: US-395 & Hildebrand Blvd

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB
Directions Served	L	L	T	T	R	L	L	T	TR	R	L	L
Maximum Queue (ft)	91	109	127	74	67	24	46	86	100	64	47	85
Average Queue (ft)	38	56	59	23	21	4	17	34	45	20	10	36
95th Queue (ft)	76	91	106	58	49	16	40	68	83	51	32	69
Link Distance (ft)			1276	1276				478	478			
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	350	350			200	260	260			250	350	350
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 2: US-395 & Hildebrand Blvd

Movement	NB	NB	NB	SB	SB	SB	SB	SB
Directions Served	T	T	TR	UL	L	T	T	R
Maximum Queue (ft)	270	257	222	115	86	203	233	46
Average Queue (ft)	162	153	117	54	23	102	115	5
95th Queue (ft)	237	233	206	98	61	171	192	24
Link Distance (ft)	1557	1557	1557			2562	2562	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)				300	300			260
Storage Blk Time (%)	0						0	
Queuing Penalty (veh)	0						0	

Queuing and Blocking Report
Weekday PM Peak Hour - 2025 Without Project Volumes

08/06/2024

Intersection: 3: Southridge Blvd & Ridgeline Drive

Movement	EB	WB	NB	NB	SB
Directions Served	LTR	ULTR	LT	R	LTR
Maximum Queue (ft)	32	36	34	31	39
Average Queue (ft)	2	4	2	2	2
95th Queue (ft)	16	21	16	13	18
Link Distance (ft)	1443	531	1307		2683
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)				75	
Storage Blk Time (%)			0		
Queuing Penalty (veh)			0		

Intersection: 4: Southridge Blvd & Hildebrand Blvd

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	R	L	T	R
Maximum Queue (ft)	100	81	53	20	72	127	76	141	42	226	232	120
Average Queue (ft)	39	20	6	3	24	47	27	73	12	121	55	36
95th Queue (ft)	81	55	28	16	59	97	63	126	38	209	180	108
Link Distance (ft)		950	950		1276	1276		2683			728	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	250			175			150		100	150		150
Storage Blk Time (%)								4		12		0
Queuing Penalty (veh)								2		20		1

Intersection: 5: Zintel Way & Hildebrand Blvd

Movement	EB	EB	WB	WB	NB	NB	SB
Directions Served	ULTR	R	ULT	TR	UL	LTR	LTR
Maximum Queue (ft)	88	20	41	32	30	32	50
Average Queue (ft)	19	1	9	3	2	2	10
95th Queue (ft)	64	12	32	17	15	17	36
Link Distance (ft)	478	478	816	816		996	307
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)					250		
Storage Blk Time (%)							
Queuing Penalty (veh)							

Network Summary

Network wide Queuing Penalty: 23

Queuing and Blocking Report
Weekday PM Peak Hour - 2025 With Project Volumes

09/23/2024

Intersection: 1: Plaza Way & Ridgeline Drive

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	ULT	TR	UL	TR	LT	R	UL	TR
Maximum Queue (ft)	6	12	49	68	23	11	22	41
Average Queue (ft)	0	0	28	36	2	1	1	3
95th Queue (ft)	7	6	46	56	15	7	11	21
Link Distance (ft)		616	554	554		487	1662	1662
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	525				200			
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 2: US-395 & Hildebrand Blvd

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB
Directions Served	L	L	T	T	R	L	L	T	TR	R	L	L
Maximum Queue (ft)	123	139	162	138	64	56	78	120	147	122	91	121
Average Queue (ft)	54	72	86	45	21	13	35	58	74	27	16	57
95th Queue (ft)	103	119	144	103	49	41	69	106	126	79	50	104
Link Distance (ft)			1271	1271				533	533			
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	230	230			200	185	185			280	240	240
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 2: US-395 & Hildebrand Blvd

Movement	NB	NB	NB	SB	SB	SB	SB	SB
Directions Served	T	T	TR	UL	L	T	T	R
Maximum Queue (ft)	266	247	193	131	148	174	198	39
Average Queue (ft)	161	137	67	71	56	95	106	10
95th Queue (ft)	239	223	157	120	114	154	177	29
Link Distance (ft)	1558	1558	1558			793	793	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)				300	300			270
Storage Blk Time (%)	1						0	
Queuing Penalty (veh)	1						0	

Queuing and Blocking Report
Weekday PM Peak Hour - 2025 With Project Volumes

09/23/2024

Intersection: 3: Southridge Blvd & Ridgeline Drive

Movement	EB	WB	NB	NB	SB
Directions Served	LTR	ULTR	LT	R	LTR
Maximum Queue (ft)	28	24	25	18	43
Average Queue (ft)	2	3	3	1	4
95th Queue (ft)	16	15	16	11	22
Link Distance (ft)	1500	616	1355		2731
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)				75	
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 4: Hildebrand Blvd & Southridge Blvd

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	R	L	T	R
Maximum Queue (ft)	95	65	37	30	89	130	57	116	30	144	101	68
Average Queue (ft)	41	20	6	4	27	49	21	57	10	71	40	29
95th Queue (ft)	80	51	22	18	66	102	49	98	31	125	80	54
Link Distance (ft)		950	950		1271	1271		2731			728	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	250			175			145		90	145		145
Storage Blk Time (%)								2		1		0
Queuing Penalty (veh)								1		1		0

Intersection: 5: Zintel Way & Hildebrand Blvd

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	ULT	R	ULT	TR	UL	LTR	LTR	R
Maximum Queue (ft)	175	37	40	29	25	24	41	11
Average Queue (ft)	31	1	9	3	4	2	9	0
95th Queue (ft)	105	16	33	17	18	13	32	6
Link Distance (ft)	533	533	847			430	337	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)				330	250		165	
Storage Blk Time (%)								
Queuing Penalty (veh)								

Appendix F

Collision Data and Rate Calculations

Intersection:

Plaza Way / Ridgeline Drive

 Date 9/24/2024

Average Daily cars passing Through intersection		
PM Peak Hour	NB	270
Movement Counts	SB	450
	EB	850
	WB	1,200
	ADT	2,770
Millions of Entering Vehicles for a five-year period =		5.06

Collision Rate

Number of Collisions =	2
Number of years =	5
Collision Rate =	0.40

Collision Rate Goal: Less than 1.0 per MEV

ADT = 2024 PM Count X 10
PM Peak Hour = Approx. 10% of ADT
MEV = Million Entering Vehicles

Intersection:

US Route 395 (US-395) / Hildebrand Boulevard

 Date 9/24/2024

Average Daily cars passing Through intersection		
PM Peak Hour	NB	10,350
Movement Counts	SB	7,390
	EB	3,800
	WB	2,690
	ADT	24,230
Millions of Entering Vehicles for a five year period =		44.22

Collision Rate

Number of Collisions =	18
Number of years =	5
Collision Rate =	0.41

Collision Rate Goal: Less than 1.0 per MEV

ADT = 2024 PM Count X 10
PM Peak Hour = Approx. 10% of ADT
MEV = Million Entering Vehicles

Intersection:

Southridge Boulevard / Ridgeline Drive

 Date 9/24/2024

Average Daily cars passing Through intersection		
PM Peak Hour	NB	930
Movement Counts	SB	450
	EB	440
	WB	1,040
	ADT	2,860
Millions of Entering Vehicles for a five year period =		5.22

Collision Rate

Number of Collisions =	0
Number of years =	5
Collision Rate =	0.00

Collision Rate Goal: Less than 1.0 per MEV

ADT = 2024 PM Count X 10
PM Peak Hour = Approx. 10% of ADT
MEV = Million Entering Vehicles

Intersection:

Southridge Boulevard / Hildebrand Boulevard

 Date 9/24/2024

Average Daily cars passing Through intersection		
PM Peak Hour	NB	1,770
Movement Counts	SB	3,760
	EB	3,260
	WB	2,690
	ADT	11,480
Millions of Entering Vehicles for a five year period =		20.95

Collision Rate

Number of Collisions =	16
Number of years =	5
Collision Rate =	0.76

Collision Rate Goal: Less than 1.0 per MEV

ADT = 2024 PM Count X 10
PM Peak Hour = Approx. 10% of ADT
MEV = Million Entering Vehicles

Intersection:

Hildebrand Boulevard / Zintel Way

 Date 9/24/2024

Average Daily cars passing Through intersection		
PM Peak Hour	NB	610
Movement Counts	SB	400
	EB	3,570
	WB	1,790
	ADT	6,370
Millions of Entering Vehicles for a five year period =		11.63

Collision Rate

Number of Collisions =	3
Number of years =	5
Collision Rate =	0.26

Collision Rate Goal: Less than 1.0 per MEV

ADT = 2024 PM Count X 10
PM Peak Hour = Approx. 10% of ADT
MEV = Million Entering Vehicles

From: [Chad Bagley](#)
To: [Steve Donovan](#)
Cc: [Scott Shumaker](#); [Jason L. Mattox](#)
Subject: PRD-2024-0001
Date: Saturday, December 14, 2024 8:22:19 AM
Attachments: [CA Report with 3 attachments.pdf](#)
[GEO Report Canyon View Estates..pdf](#)
[2024-12-13_OPEN-SPACE-DIAGRAM-PRD 1.pdf](#)
[2484.landscape-L-201.pdf](#)
[2484.landscape-L-501.pdf](#)
[78195_Canyon View PRD Plan 20241213.pdf](#)

Steve,

Comments on first review PRD-2024-0001

- (#1) Slopes 15% and erosion hazard areas are addressed in the Geotechnical Engineering Study provided by Baer Testing and Engineering dated April 16th 2024. I have attached the Critical area report for the certified shrub Steppe by White Bluffs Consulting.
- (#1) On the Proposed open space pedestrian path see attached revised drawing with pathway only under BPA lines. Pathways in other areas grades are too steep to allow for pathways. They also affect Shrub steppe restoration. There are pedestrian sidewalks along the Ridge Line and in front of all residential lots providing access.
- (#2) The pedestrian path on the east side is being removed from the project as slopes are too steep, and we already have pedestrian path along Ridgeline.
- (#3) See below proposal.
- (#4) We will coordinate with the city Surveyor on crossing multiple parcels. We have already talked with the Kennewick School District, and Evergreen Housing Development Group LLC and both are on board. We just need to know what is needed by the City Surveyor.

Phasing and Fire access road.

There has been confusion and unclear requirements for this road as part of the road is in the city and part in the county. Below is what we would propose to help clear up timing and what standard the road would be finished and at what time to get the conversation going on the exact requirements.

- Fire Comments state Secondary emergency vehicle access (SEVA) is acceptable during phasing. However, when the final phase is completed the access road shall remain and be designed and construction to COK Standards.
- Phase 2 will be the last of the residential lots. The First Plat will include the Multi Family and Phase one SFH lots. The Final Plat will be what is labeled as Phase 2 SFH lots. The intent would be the MF and 42 lots of the SFH would be available to build in the first Plat due to constructability of the property and infrastructure. At first Plat the Gravel Road with 6" crushed rock not to exceed road slope requirements will be constructed in the existing access easement out to Bofer Canyon Rd.
- Final Plat 11 SFH lots. After looking into width requirements, on other developments, and talking with the city of Kennewick Traffic Engineering on what they have done with other developments, this is what we would propose for the final road. Also keep

in mind that the lot to the South of us will be developed in the future so this road will have to be replaced when supporting infrastructure is installed by that developer. County Fire has a minimum requirement of 20' this also lines up with my conversation with Kevin in Traffic for other developments with similar situations. We would propose the finished road be 20' wide with 6" base rock, and 2" HMA at the final Plat with grades on the road not exceeding standard specs. Current easement will accommodate road construction with needed slopes to meet grades.

Thank You,
Chad Bagley, President
Bagley Landscape Construction, Inc.
509-546-2449 Office
509-544-9656 Fax
Chad@bagleylandscape.com

1418 E Saint Helens St, Pasco, WA 99301



**CITY OF KENNEWICK
DETERMINATION OF NON-SIGNIFICANCE**

FILE/PROJECT NUMBER: ED-2024-0025

DESCRIPTION OF PROPOSAL: A Planned Residential Development and Preliminary Plat consisting of 53 single-family lots, 3 open space tracts, 21 multi-family structures (126 units) and a community building.

PROPONENT: PBS Engineering, c/o Scott Shumaker, 400 Bradley Boulevard, Suite 106, Richland, WA 99352

LOCATION OF PROPOSAL, INCLUDING STREET ADDRESS, IF ANY: Located in the north half of the northeast quarter of Section 21, Township 8 North, Range 29 East of the Willamette Meridian, Parcel No.1-2189-100-0002-000. East of the Ridgeline Road US 395 Interchange.

LEAD AGENCY: City of Kennewick

DETERMINATION: The City of Kennewick has determined that this proposal does not have a probable significant adverse impact on the environment. An Environmental Impact Statement (EIS) will not be 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 City. This information is available to the public on request. Application for other required permits may require further review under SEPA procedures.

- ☒ There is no comment period for this DNS.
- ☐ This DNS is issued after using the optional DNS process in WAC 197-11-355. There is no further comment period on the DNS.
- ☐ This DNS is issued under 197-11-340(2); the City will not act on this proposal for fifteen days from the date below. Comments must be submitted by _____. After the review period has elapsed, all comments received will be evaluated and the DNS will be retained, modified, or withdrawn as required by SEPA regulations.

RESPONSIBLE OFFICIAL: Anthony Muai, AICP

POSITION/TITLE: Planning Director

ADDRESS: 210 W 6th Ave., P.O. Box 6108, Kennewick, WA 99336

PHONE: (509) 585-4386

☐ Changes, modifications and/or additions to the checklist have been made on the attached Environmental Checklist Review.

This DNS is subject to the attached conditions:

- ☒ No conditions.
- ☐ See attached condition(s).

Date: January 9, 2025

Signature: _____

Appeal: An appeal of this determination must be submitted to the Community Planning Department within fourteen (14) calendar days after the date issued (1/09/25), no later than **4:30 p.m. on January 23, 2025**. This appeal must be written and make specific factual objections to the City's threshold determination. Appeals shall be conducted in conformance with Section 4.12.090(9) of the Kennewick Municipal Code and the required fees pursuant to the City's adopted Fee Schedule shall be paid at time of appeal submittal.

Copies of this DNS were mailed to:

Dept. of Ecology
WA Dept. of Fish & Wildlife
WSDOT
Yakama Nation
CTUIR
ED-2024-0025 File



NOTICE OF MAILING

I, Steve Donovan, on 2/20, 2025
mailed 7 copies of NPH
for PRD-2024-0001
to surrounding properties within 300 feet
as shown on the attached list.


Signature



NOTICE OF PUBLIC HEARING – MARCH 10, 2025, 6:00 P.M.

Proposal: A 29.5-acre, 54 lot and 3 tract Planned Residential Development. The project will consist of single-family and multi-family residences. The applicant is requesting a 5% density bonus for an additional 8 lots. The project is generally located SE of the Ridgeline Drive and US 395 interchange. The site is zoned Residential, Low (RL). The file number is PRD-2024-0001. **PRD MAP ON BACK**

Open Record Hearing: The City of Kennewick Hearing Examiner will conduct an open record hearing at **6:00 p.m. on March 10, 2025 at 210 W 6th Avenue, City Hall Council Chambers**. The meeting will be conducted in a hybrid format, which allows in person or virtual participation. To participate in the meeting virtually, use the link found at www.go2kennewick.com/244/Hearing-Examiner.

Environmental Documents and/or Studies Applicable to this Proposal: Determination of Non-significance, ED-2024-0025, was issued on January 9, 2025.

Determination of Completeness: The application was determined complete on October 3, 2024 for processing.

Project Permits Associated with this Proposal: N/A

Preliminary Determination of Regulations Used for Project Mitigation: Title 18 (Zoning), Title 17 (Subdivision), Title 4 (Administrative Procedures) of the Kennewick Municipal Code and the land use policies contained in the Kennewick Comprehensive Plan.

Estimated Date of Decision: Within 10 business days of the Hearing Date of March 10, 2025.

To Receive Notification of the Decision: Contact the Development Services Division at 210 W. 6th Avenue, Kennewick, WA 99336 or via telephone at (509) 585-4280.

Appeal: Any person aggrieved by the decision of the Kennewick Hearing Examiner on this proposal may appeal to the Superior Court of Benton County within twenty-one (21) days of the date of decision.

Steve Donovan, Planning Manager

The City of Kennewick welcomes full participation in public meetings by all citizens. No qualified individual with a disability shall be excluded or denied the benefit of participating in such meetings. If you wish to use auxiliary aids or require assistance to comment at this public meeting, please contact Steve Donovan at (509) 585-4361 or through the Washington Relay Service Center TTY by dialing 711, at least ten days prior to the date of the meeting to make arrangements for special needs.

37
BRL DDEVELOPMENT
PO BOX 7287
KENNEWICK, WA 99336

37
EVERGREEN ZINTEL, LLC
66 S HANFORD ST, STE 300
SEATTLE, WA 98134

37
KENNEWICK SCHOOL DISTRICT #17
1000 W 4TH AVENUE
KENNEWICK, WA 99336

37
NOWAK TRUSTEE L LOUISE
C/O MICHAEL NOWAK
1914 FLOWER DRIVE
PALM BEACH GARDEN, FL 33410

37
SIDIBE AISSATA
101103 E SIDIBE PR SE
KENNEWICK, WA 99337

37
DRESS TRUSTEE GEORGE W
845 N COLUMBIA CENTER BLVD
KENNEWICK, WA 99336

37
LUND TRUSTEE LLOYD
300 COLUMBIA POINTDR, UNIT G-128
RICHLAND, WA 99352



MEMORANDUM

PUBLIC WORKS DEPARTMENT

To: Steve Donovan, Planning Manager
 From: Kristin Stowe, Development Review Supervisor
 Date: October 3, 2024
 Re: Public Works Utility Comments
 Project: PRD-2024-0001 – Canyon View Estates

1. Civil plans shall show any proposed phasing for construction and the type of building use and number of floors.
2. Developer will be required to provide construction of public/private roads, sidewalks, streetlights, storm drainage, and designate sidewalk and utility easements, all in conformance with the latest City of Kennewick (COK) Standard Specifications and Details.
3. Sidewalks shall be widened an additional 18-inches when adjoining a wall, or fence, per COK Detail 2-9, Sheet 9 of 10(6).
4. The maximum street grade per KMC 5.56.275 is 12%. Show grades on the street centerline profile.
5. Coordinate the extension of Ridgeline Dr with the Kennewick School District (KSD).
6. Permanent structures shall not be located over COK utilities, or within any easement.
7. Provide water and sanitary sewer services for each proposed lot or dwelling per Kennewick Municipal Code KMC 14.13.020, 14.22.020(1), KMC 17.13.095(1), KMC 17.12.055 and fire flow as required by the Fire Department.
8. Water and sewer services to be constructed per City of Kennewick (COK) Detail 3-6.
9. There is an existing 16-inch water main (Zone 5) located north of the property in future Ridgeline Dr. See COK Record Drawings E-3076 and E-3190.
10. There is an existing 16-inch water main (Zone 4) stubbed past the intersection of Bofer Canyon Rd and Ridgeline Dr. See COK Record Drawing E-3190.
11. Both Zone 4 and Zone 5 water may need to be extended to serve the development depending on finished floor elevations.
12. Maximum static water pressure not to exceed 100 psi.
13. The Developer shall provide and install one metered water service for each proposed dwelling or lot at their own expense per COK Standard Detail 3-6. The meter shall be placed as close to the main line as possible (not in a driveway or parking area) per KMC 14.12.080.
14. Contractor will be required to install the meter box and tail pipe when they install the water service to the building/parcel. The City will provide the meter box and tail pipe when requested.
15. All proposed water main extensions must conform to the adopted City master plan, as amended and must conform to an overall program for a grid system, with provisions made for extensions of looping for circulation where at all possible per KMC 14.10.030.

PUBLIC WORKS DEPARTMENT

1010 S. Chemical Drive * PO Box 6108* Kennewick, WA 99336-0108
 509-585-4419 * 509-585-4451 Fax

16. Looping may be required based on hydraulic need to support maximum required fire flow at minimum residuals (per NFPA), as well as ensure sufficient turn over for water quality. If the applicant can demonstrate required fire flow is met, and water quality turnover is achieved, looping may not be required.
17. Provide backflow prevention assemblies on the building side of the water meter per KMC 15.41.70. Contact Cross-Connect Specialist Bob Plucker at (509) 585-4307 with any questions.
18. The developer shall provide a complete water main system serving the development, increasing the water line size, as needed, to meet all pressure requirements as defined within the WAC 246-290-230 (MD, PH, & MD + FF) and fire flow required by the Fire Department. Include a Comprehensive Water Plan for the Subdivision on the plans meeting KMC 14.10.010. Comprehensive Plan can be submitted with the preliminary civil plan review. Comprehensive water plan and hydraulic report needs to be approved by the City for the entire plat prior to approval of Phase 1 construction plans.
19. Provide water lines and hydrants as required by Fire Department to meet fire protection.
20. Fire Line connections shall be designed per COK Standard Drawing 4-25 when required by the Building Official and the Fire Department.
21. Hydraulic modeling may be required based on fire flow requirements.
22. Provide a "fire flow requirement" signature block on the master utility. Fire flow block will call out the type of construction material for the building, the required fire flow and duration based on that type of construction, a fire sprinkler indication, any reduction in fire flow as allowed by the IFC, and the net required fire flow remaining.
23. City potable water is not available for irrigation purposes unless special permission is given by the Public Works Director. Contact the Kennewick Irrigation District in order to provide irrigation water to irrigate the parcels. Extension of irrigation lines will be at the developer's expense.
24. There is an existing 15-inch dry sewer line located in Ridgeline Dr which is not currently connected to the system. See COK Record Drawing E-3190.
25. A sewer mainline shall be extended across S Zintel Way connecting to the existing dry line and extended across the frontage of the property to be developed with this project. The sewer extension is required to be a 15-inch line with replacement of the existing 12-inch stub at sewer manhole 16894MH0040. The sewer profile and depth shall match the previous design done by COK. Contact Senior Design Engineer, Ryan Durham at Ryan.Durham@ci.kennewick.wa.us with any questions regarding the existing sewer design.
26. Sanitary sewer extension will be required at Developer expense. On the plans, provide a Sewer Comprehensive Plan with for the subdivision meeting KMC 12.22.040. Comprehensive Plan can be submitted with the preliminary civil plan review. Comprehensive sewer plan will need to be approved by the City for the entire plat prior to approval of Phase 1 construction drawings.
27. 6-inch diameter or larger private sewer laterals or service lines are required for commercial and multi-tenant buildings and shall connect to the public sewer mainline at a City standard manhole, per COK Standard Specification 3-4.01. 6-inch private sewer service lines may serve a multi-tenant building or collect flows from multiple 4-inch service lines serving separate dwellings.
28. All required infrastructure must be substantially completed prior to final plat approval per KMC 17.13.095(2).
29. Provide easements centered over all City of Kennewick water, sewer, and storm mainlines located outside of the right-of-way. Easement width shall be 15-feet wide centered on the utility, or 20-feet for two utilities, or 25-feet for three utilities. 7.5-feet of clearance shall be maintained from the easement edge to the utility. These easements must extend over new water mains up to the meter and five feet beyond hydrant runs.
30. Provide a Comprehensive Stormwater plan for the subdivision per KMC 14.28.045, City Standard Specifications Section 5-9 and Storm Management Manual of Eastern Washington (SMMEW).

PUBLIC WORKS DEPARTMENT

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509-585-4419 * 509-585-4451 Fax

Design must include erosion control and conveyance of the upstream storm flow through the site as well as overflows at low points and the effect on downstream capacity.

31. Infiltration tests are required at the location and depth of the planned infiltration structures along with a soils log to 5 feet below that point. Surface infiltration is the preferred method (ponds). All underground infiltration structures must be designed and installed to meet the Washington State Underground Injection Control (UIC) Rule. Provide an assessment of the design against the UIC pretreatment requirements. Provide UIC registration numbers on the plans prior seeking the City's signature.
32. All drywells or infiltration structures serving the public right of way shall be installed behind the curb and gutter, and may not be installed under the street pavement. Contact Martin Nelson at (509) 585-4306 with any questions.
33. All plans showing existing utilities shall call out the Record Drawing set number that installed the utilities. All plans need to clearly identify the size and type of water/sewer utility that is being proposed or connected to (i.e. "Existing 8-inch Water" or similar). Label private lines "Private".
34. As part of all development construction plans, there shall be a separate schematic drawing which at a minimum, shows the power source(s), wiring diagram street light pole spacing and street permanent signing per COK Standard Specifications 6-1 and 6-2 and 7-10. Combine Signing, Striping, and Illumination Plans onto the same drawing with other elements left off.
35. Any off site tracts, easements or agreements required for the project shall be submitted with the civil plans for review. Before a permit can be issued for the project, the easements or agreements shall be recorded at Benton County and a copy shall be provided to Public Works. The Auditor File Number shall be added to the Record Drawings before seeking City signature.
36. Civil Plans will need to include a signature line for Bonneville Power Administration and Williams Gas Company for approval of work in easements.
37. Civil Plans will also need to include a signature line for Benton County for approval of project located outside of City limits in the County.
38. This site requires a separate DPW permit. You may apply for this by submitting the information below for Civil Plan Review through the City of Kennewick's [Citizen Self Service Portal](#):
 - a. PDF copy of the Application for Civil Review and Storm Calculations.
 - b. One full size (24"x36") PDF copy of the construction plans.
39. Construct all projects using current City Survey Data. After project completion, Record Drawings showing improvements made on the property will be required prior to acceptance of the construction permit(s). For detailed information on Kennewick Survey Data and Record Drawings go to COK website at <https://www.go2kennewick.com/314/Civil-Plan-Review>.

PUBLIC WORKS DEPARTMENT

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509-585-4419 * 509-585-4451 Fax



MEMORANDUM

Traffic Engineering Division

To: Steve Donovan, Planning Manager
 From: Kevin Biersner, Assistant Traffic Engineer
 Date: October 15, 2024
 Re: Traffic Engineering Comments for 4501 S Zintel Way
 Project: PDR-2024-0001

Project Description

Extending Ridgeline Drive east from S Bofer Canyon Road and building a new street south off of the new ridgeline drive extension. A 53 single family development and 126 multi-family units is proposed along with the roads

KMC 13.16 Transportation Impact Fees

1. The Transportation Impact Fee (TIF) is a one-time charge for direct impacts caused by the traffic generated from the proposed development and used to pay for transportation projects needed to address said impacts. The TIF amendment on June 5 2018 (effective June 14 2018) created Traffic Impact Fee Districts, which allows fees be remitted to projects congruent with the area where the impact is realized.
2. The estimated TIF for Single Family housing for District 1 is \$1,604.79 per unit. The estimate TIF is \$85,053.87. The TIF for the multi-family is \$907.76 per unit. The estimated TIF is \$114,377.76.
3. The final TIF fee assessed at the time of building permit issuance, (or in shell structures, at the tenant improvement application), is due prior to Certificate of Occupancy issuance.

Traffic Operations

1. Traffic Impact Analysis has been completed and approved.
2. Coordinate with the Kennewick School district on their planned entrance.
3. A portion of Ridgeline Drive is located on others property. Will need to work with them to dedicate Right-of-Way for the road.

Proposed Roadway

1. Please refer to KMC 5.56.275(1)'s roadway centerline requirements.

5.56.275: - Street Radii and Grade.



- (1) Local Streets: Unless otherwise approved by the Deputy Director of Public Works, local streets shall be constructed with centerline radii which meet the following standards. On minor loop streets and cul-de-sac streets, where the street makes a 90-degree plus or minus five-degree turn, the minimum centerline radius shall be 50 feet. On all other minor loop street and cul-de-sac street curves, the minimum centerline radius shall be 150 feet. On all local through streets, other than minor loop streets, as determined by the Deputy Director of Public Works, the minimum centerline radius shall be 200. Unless otherwise approved by the Deputy Director of Public Works, the maximum grade on local streets shall be 12 percent.

2. Please refer to KMC Standard Drawing No. 2-8 for intersection design guidelines.
3. Please refer to the table below for the design rate of vertical curvature, K, values for vertical curves at the proposed roadway design speed.

Table 3-34. Design Controls for Crest Vertical Curves Based on Stopping Sight Distance

Design Speed (km/h)	Metric		U.S. Customary			
	Stopping Sight Distance (m)	Rate of Vertical Curvature, K ^a		Design Speed (mph)	Rate of Vertical Curvature, K ^a	
		Calculated	Design		Calculated	Design
20	20	0.6	1	15	80	3.0
30	35	1.9	2	20	115	6.1
40	50	3.8	4	25	155	11.1
50	65	6.4	7	30	200	18.5
60	85	11.0	11	35	250	29.0
70	105	16.8	17	40	305	43.1
80	130	25.7	26	45	360	60.1
90	160	38.9	39	50	425	83.7
100	185	52.0	52	55	495	113.5
110	220	73.6	74	60	570	150.6
120	250	95.0	95	65	645	192.8
130	285	123.4	124	70	730	246.9
				75	820	311.6
				80	910	383.7

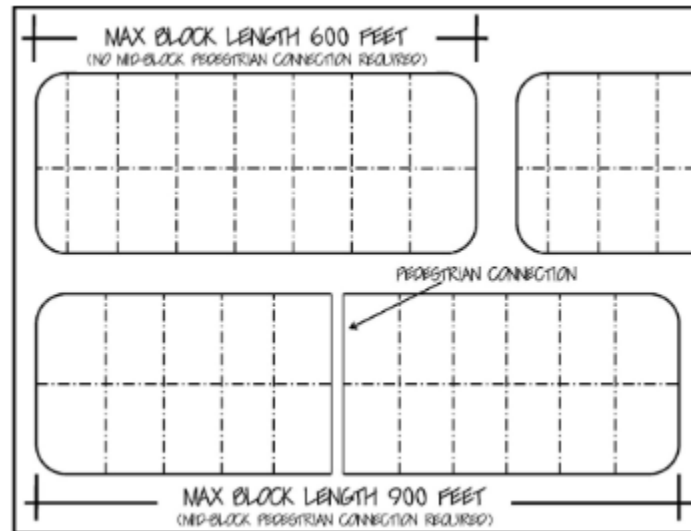
^a Rate of vertical curvature, K, is the length of curve per percent algebraic difference in intersecting grades (A), $K = L/A$.

Table 3-36. Design Controls for Sag Vertical Curves

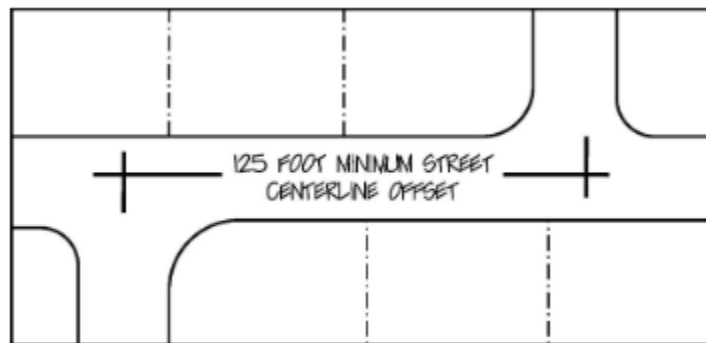
Design Speed (km/h)	Metric		U.S. Customary			
	Stopping Sight Distance (m)	Rate of Vertical Curvature, K ^a		Design Speed (mph)	Rate of Vertical Curvature, K ^a	
		Calculated	Design		Calculated	Design
20	20	2.1	3	15	80	9.4
30	35	5.1	6	20	115	16.5
40	50	8.5	9	25	155	25.5
50	65	12.2	13	30	200	36.4
60	85	17.3	18	35	250	49.0
70	105	22.6	23	40	305	63.4
80	130	29.4	30	45	360	78.1
90	160	37.6	38	50	425	95.7
100	185	44.6	45	55	495	114.9
110	220	54.4	55	60	570	135.7
120	250	62.8	63	65	645	156.5
130	285	72.7	73	70	730	180.3
				75	820	205.6
				80	910	231.0

^a Rate of vertical curvature, K, is the length of curve (m) per percent algebraic difference intersecting grades (A), $K = L/A$.

4. Please note that sightline setback triangles are required for all intersections per KMC 13.12.020(5) No view obstruction(s) between 36 inches and 90 inches above the roadway surface for both sides of the setback triangles, except as allowed in Section 13.12.020(6).
5. KMC 17.20.010(2)(a) – Streets greater than 1,200 feet in continuous uninterrupted length will need traffic calming measure. Provide adequate right-of-way for traffic calming device.
6. KMC 17.20.010(3)(b) – Mid-block pedestrian crossings



7. KMC 17.20.010(2)(I) – Residential streets shall be aligned at the center line or be offset a minimum of 125' while intersection with arterial or collector streets shall have a minimum centerline offset of 300'.



Right of Way and Easement

1. Ridgeline Drive and Street 1 will be classified as Minor Arterials. See City of Kennewick Std. Dwg. 2-4 for more details.
2. Ridgeline Drive and Street 1 will have 52' for Right-of-Way dedicated.
3. Ridgeline Drive and Street 1 will need to provide a 15' sidewalk, utility and irrigations easement.
4. Proposed streets in development will be classified as Residential. See City of Kennewick std. dwg 2-1.
5. Residential streets will need to dedicate 40' of Right-of-Way.
6. Residential streets will need to provide a 18' sidewalk, utility and irrigations easement.

Proposed Driveways

1. New driveway to be constructed to City of Kennewick standards.
2. Sight triangles need to follow COK code 18.27.060(3).

American Disability Act (ADA) Compliance

1. All proposed pedestrian facilities within the public right of way and easement, including but not limited to pedestrian route's private to public connection, driveways, sidewalks, curb ramps, etc., shall be ADA compliant to maintain Pedestrian Accessibility Route (PAR) accessibility, continuity and connectivity.

Street Lighting

1. Street lights will need to be designed and installed per City of Kennewick Standard Drawings 6-1 and 6-2 on Ridgeline Drive, Street 1 and residential streets. Ridgeline Drive and Street 1 are classified as a Minor Arterial. Residential streets will be classified as residential.
2. The civil plans will need to include roadway lighting plan sheet. Please note that per CoK Standard Specifications 6-1.02, the roadway lighting plan needs to include call-outs for the power source, meter locations, junction boxes, conduits and conduits.



State of Washington
Department of Fish and Wildlife
2620 North Commercial Avenue, Pasco, WA 99301
Phone: (509) 312-8117, E-mail: Troy.Maikis@dfw.wa.gov

December 20, 2024

Steve Donovan
Planning Manager
City of Kennewick
Community Planning Department
PO Box 6108
Kennewick, WA 99336

Re: Canyon View Planned Residential Development (PRD-2024-0001),

The Washington Department of Fish and Wildlife (WDFW) has reviewed relevant maps and documents for the proposed Canyon View Planned Residential Development (PRD-2024-0001).

The proposed project covers 29.5 acres and per Kennewick Municipal Code 18.63.010 is classified as a Fish and Wildlife Habitat Conservation Area and is identified as Benton County Shrubsteppe within WDFW's Priority Habitat and Species Program (PHS). The site abuts the large continuous stand of shrubsteppe habitat to the south of Kennewick.

WDFW agrees with the majority of the findings in the Critical Habitat and Species Report as well as the Memorandum dated December 4, 2024. WDFW agrees that a 2:1 mitigation ratio would be appropriate for this site. However, WDFW does have concerns regarding the "open space" that is to be set aside as part of this project.

WDFW is supportive of the creation of a wildlife corridor to connect the drainages to the east and west of the proposed project area. However, an area with a potentially heavily utilized paved trail abutting a heavily utilized parking area, the side of a road, and an area of very narrow width between houses does not adequately retain the functions and values of the undeveloped shrubsteppe habitat that currently exists at the site. But, as noted in the December 4 Memorandum, there is an opportunity to bring these areas from an early seral stage shrubsteppe community with a large cheatgrass component to a later seral stage shrubsteppe community. With this in mind, WDFW would like to make the following recommendations:

1. WDFW would prefer this area be preserved, as outlined in Kennewick Municipal Code 18.58.160. If it is determined that avoidance will not be possible, we propose that a 2:1 mitigation ratio be applied for all lands that are converted from shrubsteppe habitat and that the project be required to provide mitigation equal to a least 59 acres of habitat containing equal or greater shrubsteppe functions and values.

2. WDFW is supportive of preserving, protecting, and enhancing 5 acres of “open space” as outlined in the Memorandum dated December 4, 2024. If the preservation, protection, **and** enhancement of this area is completed as outlined in the Memorandum, WDFW recommends that it be recorded as 10 acres of the 59 acres of recommended mitigation.
3. WDFW mitigation Policy (POL-M5002) prioritizes onsite mitigation, but since this is not possible for this project, we recommend that off-site mitigation, either in kind and out of kind, or an in-lieu fee be required. WDFW is supportive of the approach towards offsite mitigation as outlined in the Memorandum dated December 4, 2024.
4. WDFW recommends any grading or vegetation removal occur outside the nesting season (February 1- July 31) and that a nesting bird survey (including raptors) be conducted within 1 week prior to the start of activities on the site as well as prior to each portion of the project that occurs following a break in activity between February 1 and July 31. If a nest becomes active during construction or is observed to be active during the survey, please contact Troy Maikis at troy.maikis@dfw.wa.gov or (509) 312-8117 to identify if any additional measures may be appropriate.

WDFW has worked on a variety of similar projects throughout the Tri-Cities as well as in Benton and Franklin Counties where PHS resources were permanently impacted, and we look forward to working with The City and the project to address mitigation for this project as well as other future projects within the adjacent shrubsteppe habitat.

WDFW looks forward to working with the City of Kennewick on this project to ensure the best outcome for the city, its residents, and our local wildlife.

Sincerely,



Troy Maikis
Area Habitat Biologist; Benton and Franklin Counties
Washington Department of Fish & Wildlife
2620 Commercial Ave
Pasco, WA 99301
(509) 312-8117
Troy.Maikis@dfw.wa.gov

cc: Scott Downes, Fish & Wildlife Habitat Regional Land Use Lead, Region 3, Yakima

From: [Castle,Angela C \(CONTR\) - TERR-PASCO](#)
To: [Steve Donovan](#)
Cc: [Kinch,James L \(BPA\) - TERR-BELL-1](#)
Subject: RE: [EXTERNAL] PRD-2024-0001 - ED-2024-0025
Date: Friday, October 4, 2024 8:14:31 AM
Attachments: [image001.png](#)
[image002.png](#)

In reply refer to:

Tract Nos.: ABH-11-A-3
Line Names: Franklin-Badger Canyon No. 1 and McNary-Badger Canyon No. 1
Structure No's. 11/4 and 24/4

Steve,

Bonneville Power Administration (BPA) has had the opportunity to review the proposed Planned Residential Development and its relationship to BPA's transmission line easements this plan impacts.

BPA easements are taken with certain restrictions on the underlying land. In order to maintain operation and safety criteria, all activities planned within the BPA easement need to be approved by BPA prior to their occurrence. Activities that block maintenance crews (such as the installation of fences) or safety concerns (such as buildings, driveways, utilities, or small structures) need to be addressed prior to construction in order to avoid later modification, at the landowner's expense.

In addition, BPA needs the opportunity to review the location of proposed roads to ascertain whether or not the clearance here allows for safe passage of vehicles (per National Electric Safety Code). This process takes up to 9 months to complete and is typically initiated by a land use application that the developer or landowner submits to BPA.

Whether or not this property is subdivided and/or this plat approved, the owner will need to submit a land use application, the associated application fee and acquire a Land Use Agreement from BPA, along with the county's building permit for any portion of the owner's development plans that lie within BPA's easement.

If you have any questions regarding this request or need additional information, please feel free to contact BPA Realty Specialist, Luke Kinch at (509) 468-3095 or by email at JLKinch@bpa.gov.

Thank you for the opportunity to review this application.

Thank You

Angela Castle

(Contractor) Actalent

Realty Technician II

BPA, TERR

ACCastle@BPA.gov

O: 509-544-4747 C: 564-236-5124

2211 N Commercial Ave
Pasco WA 99301

From: Steve Donovan <Steve.Donovan@ci.kennewick.wa.us>
Sent: Thursday, October 3, 2024 7:59 AM
To: Rodgers, Deborah (CONTR) - TERR-TRI CITIES RMHQ <dxrodgers@bpa.gov>; Cummings, Nicole M (BPA) - TERR-TRI CITIES RMHQ <NMCummings@bpa.gov>; Castle, Angela C (CONTR) - TERR-PASCO <ACCastle@bpa.gov>;
Subject: [EXTERNAL] PRD-2024-0001 - ED-2024-0025

Attached is a proposed Planned Residential Development and SEPA Checklist. The proposal will consist a multi-family apartment complex and single-family lots.
The comment period begins on 10/3/24 and ends at 4:30 p.m. on 10/18/24.

Let me know if you have any questions.

Steve

Steve Donovan, AICP
City of Kennewick
Community Planning/Planning Manager
O: 509.585.4361
Steve.Donovan@ci.kennewick.wa.us

From: [Smull, Eric](#)
To: [Steve Donovan](#)
Cc: [Klinginsmith, Skyler](#); [Cockrum, Braden](#); [Encroachments](#); [Ashley, Greg](#)
Subject: RE: PRD-2024-0001
Date: Thursday, December 19, 2024 2:45:41 PM
Attachments: [image001.png](#)
[image002.png](#)
[image004.png](#)
[image005.png](#)
[image006.png](#)
[image007.png](#)
[image008.png](#)
[image009.png](#)
[image011.png](#)

Steve,

We are aware of this development and have been working with Chad Bagley starting Q1 2024 when he reached out to us . Currently, we need more information to approve a pending encroachment permit for the two road crossings as well as utilities required for this development. Williams had contract surveyor go to site to identify Williams's assets, information from this was passed directly to the engineering firm that Chad had hired early in the process.

High level, it appears that all the properties are off the ROW and the plan to landscape our ROW will be acceptable to an extent. Certain trees, shrubs, permanent structures are not allowed on Williams ROW.

Once we have all the details, and approve them, for exact crossing locations of all utilities and roads Williams will sign off on our portion of this work.

Eric Smull- Williams – Pasco Team Supervisor –

Creating a People Centered Culture-System Aim

Office: 509-544-2916 | Cell: 509-290-0379 | eric.smull@williams.com



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2015 South Ely Street
Kennewick, WA 99337
Phone 509-586-9111
FAX 509-586-7663
www.kid.org

December 18, 2024

Steve Donovan, AICP, Planning Manager
City of Kennewick - Development Services Division
PO Box 6108
Kennewick, WA 99336

Subject: PRD-2024-0001 - ED-2024-0025 Canyon View Estates

Dear Mr. Donovan:

The Kennewick Irrigation District has received a Planned Residential Development and SEPA Checklist submitted by Chad Bagley of Canyon View Estates LLC for the planned residential development of Canyon View Estates. This project is generally located southeast of the SR 395, Ridgeline Interchange in Kennewick, WA. The parcel number is 1-2189-100-0002-000.

1. This Parcel is outside the Kennewick Irrigation District (KID) boundaries and is not considered irrigable lands; therefore, the Kennewick Irrigation District does not assess them.
2. A portion of the Plat lies above The Division IV Main Canal. Without adequate mitigation, increased runoff resulting from the proposed residential development increases the likelihood of a canal embankment breach requiring significant repairs to portions of the canal. Should a canal embankment breach occur near this development, there is additional potential for the public safety to be at risk without additional drainage measures or reinforcement. To mitigate these risks, KID will require:
 - a. Stormwater systems for the project shall be designed to retain, at minimum, a 100-year storm event above the Division IV Main Canal and minimize the introduction of water into the soils up-gradient of the canal. Please provide KID with a map of the flow path of stormwater leaving the site. Depending on the path, KID review and approval of all stormwater plans is required prior to final plat approval.

If you have any questions regarding these comments, please contact me at the address/phone number listed below.

Sincerely,

Daniel Tissell, P.E.
Engineering Manager

cc: LB\correspondence\File: 21-8-29
Applicant via mail – Canyon View Estates LLC, 1418 E St. Helens Street, Pasco WA, 99301



**Washington State
Department of Transportation**

South Central Region
2809 Rudkin Road
Union Gap, WA 98903-1648
509-577-1600 / FAX: 509-577-1603
TTY: 1-800-833-6388
www.wsdot.wa.gov

October 17, 2024

City of Kennewick Development Services
P.O. Box 6108
Kennewick, WA 99336

Attention: Steve Donovan, AICP

Subject: PRD-2024-0001 - ED-2024-0025, Canyon View Estates
US 395 milepost 13.76 Rt, Ridgeline Dr vicinity

We have reviewed the proposed project and have the following comments.

- The subject property is in the vicinity to U.S. Highway 395 (US 395), a fully controlled limited access facility with a posted speed limit of 55 miles per hour. WSDOT has acquired all access rights to the highway. Direct access to US 395 or within the limits of our access control boundary is prohibited.
- Any outdoor advertising or motorist signing considered for this project will need to comply with state criteria. The applicant should contact Tanya Joblonski of the WSDOT Headquarters Traffic Office for specifics. She can be reached at (360) 705-7294.
- Any proposed lighting should be directed down towards the site and away from US 395 and I-82.

Thank you for the opportunity to review and comment on this proposal. If you have any questions regarding our comments, please contact Jacob Prilucik at (509) 577-1635.

Sincerely,

Stephen P. (Phil) Nugent

Digitally signed by Stephen P. (Phil)
Nugent
Date: 2024.10.17 15:29:56 -07'00'

Stephen P. (Phil) Nugent
Region Planning Manager

SPN: jjp/akh

cc: SR 395, File #2024_008



BENTON CLEAN AIR AGENCY

December 16, 2024

Re: PRD-2024-0001

Steve Donovan, AICP
Community Planning
PO Box 6108
Kennewick, WA 99336

Dear Mr. Donovan:

It has come to our attention that you are reviewing a proposal for the above named applicant in which a parcel or parcels will be disturbed for development. Because these activities may cause possible fugitive dust emissions, we would like to take this opportunity to provide information to ensure that the applicant takes reasonable steps to control the dust from his/her project.

The Benton Clean Air Agency (BCAA) requires the applicant submit a Proof of Contact: Soil Destabilization Notification for this project prior to any excavation/construction taking place. This will insure that the proponent has the ability and resources to control fugitive dust emissions that may be created as a result of construction activities. This will also inform them of the regulations and requirements of the BCAA. Additionally, a written dust control plan must be developed and maintained for all soil destabilization projects, and must be readily available upon request by the BCAA. Part of this plan is submitting the name of at least one person for the project so that the BCAA has a point of contact should we receive any dust complaints from the project. The Soil Destabilization Notification form can be found and submitted on our website, www.bentoncleanair.org.

Thank you for the opportunity to comment on this proposal. If you have any questions, or would like further information on this subject, please contact us at (509) 783-1304.

Sincerely,

Deon Steichen

Deon Steichen
Inspector



AGENDA

**MONDAY, MARCH 10, 2024
6:00 P.M.**

**CITY OF KENNEWICK
HYBRID COUNCIL CHAMBERS & VIRTUAL MEETING
210 W. 6TH AVE, KENNEWICK, WA 99336**

Procedure for Participation

- Please register and sign in to Zoom if you wish to receive a copy of the decision when it is issued and if you plan to give testimony virtually.
- When recognized by the Examiner, state your name, address and whether you are representing only yourself or others.
- All remarks, comments, and questions should be addressed to the Hearing Examiner and not to the audience or parties. You may offer written comments or other items (such as photographs) to the Hearing Examiner as an exhibit for the permanent record. Please provide at least three (3) copies of each item submitted: one copy for the Hearing Examiner, one for the Official Record, and one for Staff). During an Appeal Hearing, if the appellant and the applicant are different parties, then a fourth copy of all documentation is requested.

I. CALL TO ORDER

II. PROCEDURAL INFORMATION

III. PUBLIC HEARING

- A. Planned Residential Development (PRD-2024-0001), "Canyon View Estates" proposing 53 single-family lots, 3 open space tracts, one lot with 21 multi-family structures (126 units), and a community building on 29.5 acres generally located SE of US-HWY 395 and Ridgeline Drive interchange. The site is currently zoned Residential, Low Density (RL). The applicant is Scott Shumaker, PBS Engineering & Environmental, 400 Bradley Blvd., Ste. 106, Richland, WA 99352. Property owner is Chad Bagley, Canyon View Estates, LLC, 1418 E. Saint Helens Street, Pasco, WA 99301.
- B. Preliminary Plat (SUB-2024-0003), "Sunny Meadows" proposing to subdivide 23.46 acres into 76 lots located and 3 tracts located at 240 E 49th Avenue. The site is currently zoned Residential, Low Density (RL), the Comprehensive Plan designation is Low Density Residential. The applicant is Paul Knutzen, Knutzen Engineering, 5401 Ridgeline Dr. #160, Kennewick, WA 99338. Property owner is RP Development, 105609 Wiser Pkwy., Kennewick, WA 99338.

IV. ADJOURN



COMMUNITY PLANNING DEPARTMENT
STAFF REPORT AND RECOMMENDATION TO
THE HEARING EXAMINER

FILE No: SUB-2024-0003

Staff Report Date:	25 February 2025
Public Hearing Date and Location:	10 March 2025, City Council Chambers / Online Hybrid
Report Prepared By:	Matt Halitsky, AICP, Senior Planner
Report Reviewed By:	Steve Donovan, AICP, Planning Manager
Summary Recommendation:	The City of Kennewick RECOMMENDS APPROVAL with conditions of Preliminary Plat SUB-2024-0003.
Summary of Proposal:	A Preliminary Plat proposed to subdivide 23.46 acres into 76 lots and 3 tracts.
Proposal Location:	240 E 49 th Avenue Parcel Number 1-1980-201-3729-002
Legal Description:	LOT 2, SHORT PLAT 3729, RECORDED IN VOLUME 01 OF SHORT PLATS 3729, RECORDS OF BENTON COUNTY, WASHINGTON. AF# 2022-008466
Property Owner(s):	RP Development 105609 Wiser Pkwy Kennewick, Washington 99338
Applicant & Engineer:	Knutzen Engineering 5401 Ridgeline Drive #160 Kennewick, Washington 99338

Approval Criteria:

1. Comprehensive Plan – Land Use
2. Kennewick Municipal Code (KMC) Title 18 – Zoning
3. KMC Title 17 – Subdivisions
4. KMC Section 5.56 – Public Works Construction Standards
5. Washington State Environmental Policy Act

Preliminary Plat Key Application Processing Dates:

Pre-Application/Feasibility Meeting	15 January 2020
Application Submittal	12 February 2024
Determination of Completeness Issued	14 February 2024
Notice of Application	14 February 2024
Property Posting Sign	20 February 2025
City Department Review Meeting	N/A
SEPA Threshold Determination Issued	6 March 2024
SEPA Appeal Period Ends	20 March 2024
Date of Published Notice of Public Hearing	23 February 2025
Date of Mailed Notice of Public Hearing	20 February 2025

Exhibits:

1. Staff Report
2. Preliminary Plat
3. Notice of Public Hearing, 300-ft. mailing list and mailing affidavit
4. Public Works Department comments 1/30/2025
5. Traffic Engineering Division comments 2/28/2024
6. Building Division comments 2/23/2024
7. WA Dept of Archaeology & Historic Preservation concurrence 6/11/2024
8. WA Department of Ecology concurrence 2/20/2024
9. Kennewick Irrigation District comments 3/5/2024
10. Benton PUD comments 2/14/2024
11. Environmental Determination – DNS 3/6/2024
12. Geotechnical Report 7/16/2021
13. Trip Generation Letter 2/12/2024
14. Cultural Resources Report 7/2023 REDACTED
15. Critical Area Report (Wetlands) 6/17/2021
16. Shrub Steppe Mitigation Plan 10/31/2023
17. Kennewick School District comments 8/5/2024
18. Public Comment – Kathryn Lommers 3/6/2024, 7/25/2024
19. Public Comment – Bryan & Julie Denise 3/11/2024

- 20. Public Comment – John LaFemina 3/12/2024
- 21. Public Comment – Connie Bennett 3/12/2024
- 22. Public Comment – John Bennett 3/13/2024, 8/1/2024, 8/4/2024, 8/15/2024
- 23. Public Comment – Jeff Bennett 3/13/2024
- 24. Public Comment – Richard & Lisa Hempel 5/29/2024
- 25. Public Comment – Alexa & Jake Chaffee 5/28/2024
- 26. Public Comment – Barbara & Kevin Ekstrom 7/30/2024

Staff Analysis of Proposal & Discussion:

The proposed Preliminary Plat (SUB-2024-0003) is a request for the subdivision of 23.46-acres into 76 lots and three tracts. The project is generally located at 240 E 49th Avenue. The subject property is currently vacant. The plat is proposed as Sunny Meadows.

The site has a Comprehensive Plan Land-Use Designation of Low Density Residential and is zoned Residential, Low Density (RL). The minimum lot size in the RL zone is 7,500 square feet.

A Preliminary Plat (KMC 17.10) is the first step in a subdivision process for subdivisions with more than nine (9) lots and is an approval for overall lot layout and compliance with land use regulations. A Final Plat is required to create lots from preliminary plats and is the last phase in the subdivision process, and must be recorded prior to the creation of individual lots. Final plat approval is based on the Preliminary Plat conditions of approval. A civil permit with a detailed review of street, utility and stormwater construction standards, and street and utility construction or bonding for incomplete work is required prior the final plat approval. Additionally, the City of Kennewick's Residential Design Standards apply to this project.

Property History:

The City of Kennewick annexed the property and zoned it Residential, Low Density (RL) in June 2007 via Ordinance 5183. A Short Plat (SP-2022-0033) was recorded in 2022 separating off the existing home at 212 E 49th Avenue and creating the subject property.

Density/Lot Size:

Per the Table of Residential Development Standards (KMC 18.12.010 A.2), the RL zoning district has a minimum lot size requirement of 7,500 square feet.

The proposed development has a minimum residential lot area of 7,500 square feet, a maximum residential lot area of 24,383 square feet, with an overall lot average of 10,546 square feet (Exhibit 2).

As proposed, the preliminary plat meets the Residential Development Standards pursuant to KMC 18.12.010(A.2), and is subject to the Residential Design Standards, Single-Family.

Traffic:

In Exhibit 5, the Traffic Engineering Division provided comments on the proposal. A trip generation letter was provided with the application (Exhibit 13). The applicant is required to dedicate a 40-foot right-of-way along S Washington Street, E 49th Avenue, as well as public streets internal to the development. In addition, an 18-foot public sidewalk, utility, and

EXHIBIT 1

irrigation easement is required along lot frontages. All pedestrian facilities within public rights-of-way and easements are required to be ADA compliant. Additionally, traffic calming measures are required on residential streets with more than 1,200-feet of continuous, uninterrupted length. A Transportation Impact Fee (TIF), currently calculated at \$93,745.08, is required for the proposed development. TIF is assessed at building permit issuance and due prior to issuance of a Certificate of Occupancy.

Storm Water:

Storm water design, construction and post construction must meet the requirements of KMC Section 14.28.045 and COK Standard Specification 5-9.

Streets & Utilities:

Proposed public roads, water services and sewer services must be constructed to applicable City of Kennewick Standard Specifications and Drawings. In Exhibit 4, the Public Works Department addresses water and sewer requirements.

Parks:

The proposed development is in Service Area 2. Pursuant to Ordinance 5736, Park Impact Fees will be assessed per Single-Family Unit. The impact fee is assessed at building permit application and due prior to issuance of a Certificate of Occupancy by the City.

Critical Areas:

In a letter dated 6 April 2023 from a prior application, the Washington Department of Archaeology and Historic Preservation (DAHP) indicated the subject property is located in an area with a moderate to high probability of encountering cultural resources. Further, a professional archaeological survey was recommended of the project site. This survey took place in April 2023. The survey report (Exhibit 14) dated July 2023 that followed indicated no cultural resources were discovered on the subject property. These results were shared with both DAHP and the Confederated Tribes of the Umatilla Indian Reservations (CTUIR), and DAHP offered concurrence with the findings in a letter dated 11 June 2024. An Inadvertent Discovery Plan (IDP) was recommended to be in place prior to ground disturbing activities, which is a proposed condition of this approval. No correspondence was received from CTUIR.

Pursuant to RCW 42.56.300, this cultural resources report (Exhibit 14) has been redacted from the staff report.

A preliminary review of the mapped critical areas on the City's GIS platform indicates the possible presence of wetlands, as well as steep slopes in excess of 15 percent on the subject property. In addition, a review of the Washington Department of Fish and Wildlife (WDFW), Fish and Wildlife Habitat Conservation Areas (FWHCAs), indicated the potential presence of shrub steppe habitat on the property. As such, critical area reports that include on-site investigation were required for all three (Exhibits 12, 15, & 16).

A Critical Habitat Report prepared by PBS Engineering dated 17 June 2021 details the findings of the on-site habitat investigation (Exhibit 15). The report indicates that although areas on the subject property were identified as potential wetlands on US Fish and Wildlife Service National Wetland Inventory (NWI) maps, and these maps are used to help inform the WDFW Priority Habitat and Species (PHS) maps, these NWI maps are created from aerial photography and are not meant to formally define wetland areas or waterbodies. Identification and delineation of these areas require on-site investigation and field work. As

EXHIBIT 1

indicated in Exhibit 15, a site visit was conducted on 12 June 2021 by PBS Engineering wetland scientists. The results of the on-site investigation revealed that although some vegetation associated with wetland habitats were present on site, the area lacked both the hydrology and hydric soils necessary to meet the US Army Corps of Engineer's definition of a wetland. These findings were shared with both the Washington Department of Ecology and the Washington Department of Fish and Wildlife for comment. The Department of Ecology concurred with the findings that no wetlands were present on site in an email dated 20 February 2024 (Exhibit 8). WDFW did not respond to repeated requests for comment.

Although wetlands were not identified on site, PBS Engineering scientists did confirm the presence of critical shrub steppe habitat on the subject property (Exhibit 16). Specifically, 15.64 acres of shrub steppe habitat were identified in the project area. Of that, 11.57 acres of habitat will be directly impacted by the proposed development, necessitating 23.14 acres (2:1 ratio) of shrub-steppe habitat off-site placed in a conservation easement as mitigation for the loss. In the event this acreage cannot be identified, alternative mitigation must be approved by the applicant and the City. One potential alternative, if acreage cannot be identified, is a fee-in-lieu program administered by the Benton Conservation District for the acquisition and enhancement of existing shrub steppe habitat in Benton County and surrounding areas.

Finally, steep slopes in excess of 15 percent, as well as erosion hazards, have been identified on site. A geotechnical report prepared by PBS Engineering dated 16 July 2021 confirmed the steep slopes on site and provides recommendations for site grading. As site layout and building design were not yet available at the time of the report, a more detailed analysis may be required prior to the issuance of grading, civil, or building permits. The Public Works Department will review these recommendations during the Civil plan review and approval.

Schools:

The boundary schools for the proposed development are Cascade Elementary (Bussing Zone), Horse Heaven Hills Middle School (Bussing Zone) and Kennewick High School (Bussing Zone).

Per a letter from the Kennewick School District (Exhibit 17) dated 5 August 2024, the District has the capacity to add students at all levels and at all three schools referenced above. In addition, the School District requests that considerations are made for school bus access and pick-up zones within the subdivision.

Surrounding Property:

A new residential development is currently proposed to the west of the subject property, and is zoned Residential, Low Density (RL). Established neighborhoods to the north and further west are also zoned RL. Land to the east and south is located outside of the city limits in unincorporated Benton County, and is a mix of residential and agricultural uses.

The proposed Preliminary Plat is consistent with the existing residential neighborhoods to the north and west in terms of lot size and density. All proposed lots are consistent with the established standards of the underlying zone. Development of the site is subject to the Residential Design Standards.

Provisions for Public Health, Safety, and Welfare:

The proposed development will be constructed to City of Kennewick Residential Design Standards and the applicable requirements of the Kennewick Municipal Code.

Appropriate provisions have been made for, but are not limited to, the public health, safety, and general welfare; for open spaces, drainage ways, streets or roads, alleys, public sidewalks, utility easements and other public ways, transit stops, potable water supplies, sanitary wastes, parks and recreation areas, playgrounds, schools and school grounds, and the proposed subdivision has considered all other relevant facts and other planning features that assure safe walking conditions for students who walk to and from school.

Comprehensive Plan:

Staff is of the opinion that this request is consistent with and generally conforms to the City's Comprehensive Plan, and it will implement goals and policies of the Comprehensive Plan. Particularly the following:

RESIDENTIAL GOAL 1: Provide for attractive, walkable, and well-designed residential neighborhoods, with differing densities and compatible with neighboring areas.

The proposed Preliminary Plat is consistent with the Comprehensive Plan Land Use and complies with development standards for the Residential, Low Density (RL) zoning district. The applicant intends to develop a single-family residential neighborhood.

RESIDENTIAL GOAL 2: Provide appropriate public facilities supporting residential areas.

POLICY1: Ensure provision of parks, schools, drainage, transit, water, sanitation, infrastructure and pedestrian in new residential developments.

POLICY 2: Encourage irrigation service throughout residential areas, when available, to support and maintain healthy landscaping.

POLICY 3: Deny residential developments if concurrency is not met for transportation, water, and sewer, or appropriately condition.

The proposed development will be constructed with the required infrastructure improvements that meet applicable standards.

RESIDENTIAL GOAL 3: Promote a variety of residential densities with a minimum density target of 3 units per acre as averaged throughout the urban areas.

POLICY 2: Residential Low Density: Place lands constrained by sensitive areas, those intended to provide transition to the rural area, or those appropriate for larger lot housing within the Residential Low Density land use designation to allow for a range of lifestyles.

As proposed, the development meets Goal 3 and Policy 2 by providing a low density transition from the neighborhoods to the north and the unincorporated county lands to the south and east.

The City of Kennewick hereby RECOMMENDS that Preliminary Plat SUB-2024-0003 be APPROVED with the following conditions:

1. Comply with City of Kennewick regulatory controls, policies and codes, including the Residential Design Standards – Single-Family Residential.
2. A landscape plan must be submitted for approval for all common areas, open spaces and rights-of-way not left in a natural state, listing the number, location, and species of trees, sizes of plant material, and ground cover prior to final plat approval. Street trees shall be placed at 40-foot intervals and within five feet of the back of sidewalk for curb tight sidewalks. The landscape plan shall be prepared by a licensed landscape architect or licensed landscape installer drawn to a legible scale.
3. Provide a bond or cash deposit for incomplete sidewalks and applicable landscaping prior to final plat approval. Trees for the individual residential lots shall be planted prior to receiving certificate of occupancy for each new home.
4. All fees required by the City shall be paid prior to approval of the final plat.
5. All development of the plat shall be in conformance and consistent with the plat drawing which was admitted as Exhibit 2.
6. Comply with the memorandum from the Building Division dated 23 February 2024 (Exhibit 6).
7. Comply with the memorandum from the Public Works Department dated 30 January 2025 (Exhibit 4).
8. Comply with the Traffic Engineering Division comments dated 28 February 2024 (Exhibit 5).
9. An Inadvertent Discovery Plan (IDP) shall be in place prior to any ground disturbing activities.
10. Comply with the comments submitted by the Benton PUD dated 14 February 2024 (Exhibit 10).
11. Additional geotechnical analysis may be required if requested by the Public Works or Community Planning Departments.
12. Comply with the proposed mitigation contained within the Shrub Steppe Mitigation Plan dated 31 October 2023, to include at least 23.14 acres of shrub-steppe habitat identified and placed in a conservation easement off-site. The size and location of all proposed mitigation must be reviewed and approved by the City prior to being placed in a conservation easement to satisfy the mitigation requirement for loss of critical habitat. In the event alternative mitigation is necessary, this alternative must be approved by the applicant and the City.
13. Comply with the requirements of the Kennewick Irrigation District dated 5 March 2024 (Exhibit 9).
14. Comply with the comments submitted by the Kennewick School District dated 5 August 2024 (Exhibit 17), and work with the School District to locate adequate school bus access and pick-up zones within the development.
15. Provide dust control method(s) such as hydro seeding for all areas of the site that are disturbed.
16. The applicant and/or all of its successors must execute a written agreement to the satisfaction of the City Attorney, which will allow the City to establish enforceable arrangements for maintenance of any common areas, open spaces, private roads

EXHIBIT 1

and common landscape areas, should the Homeowner's Association fail or refuse to maintain these areas.

17. The Preliminary Plat (SUB-2024-0003) expires 5 years from the approval date. The City may grant an extension, but any extension application must be applied for before the approved preliminary plat expires.

No.	REVISIONS	DATE	DESIGN	CHNO	APND
1	QTY COMMENTS	05/16/24	RAM	PTK	PTK
2	QTY COMMENTS	05/16/24	RAM	PTK	PTK
3	CLIENT REVISION	06/12/24	N/B	RAM	PTK
4	QTY COMMENTS	01/02/25	RAM	PTK	PTK
5	CLIENT COMMENTS	01/27/25	N/B	RAM	PTK

PRELIMINARY PLAT

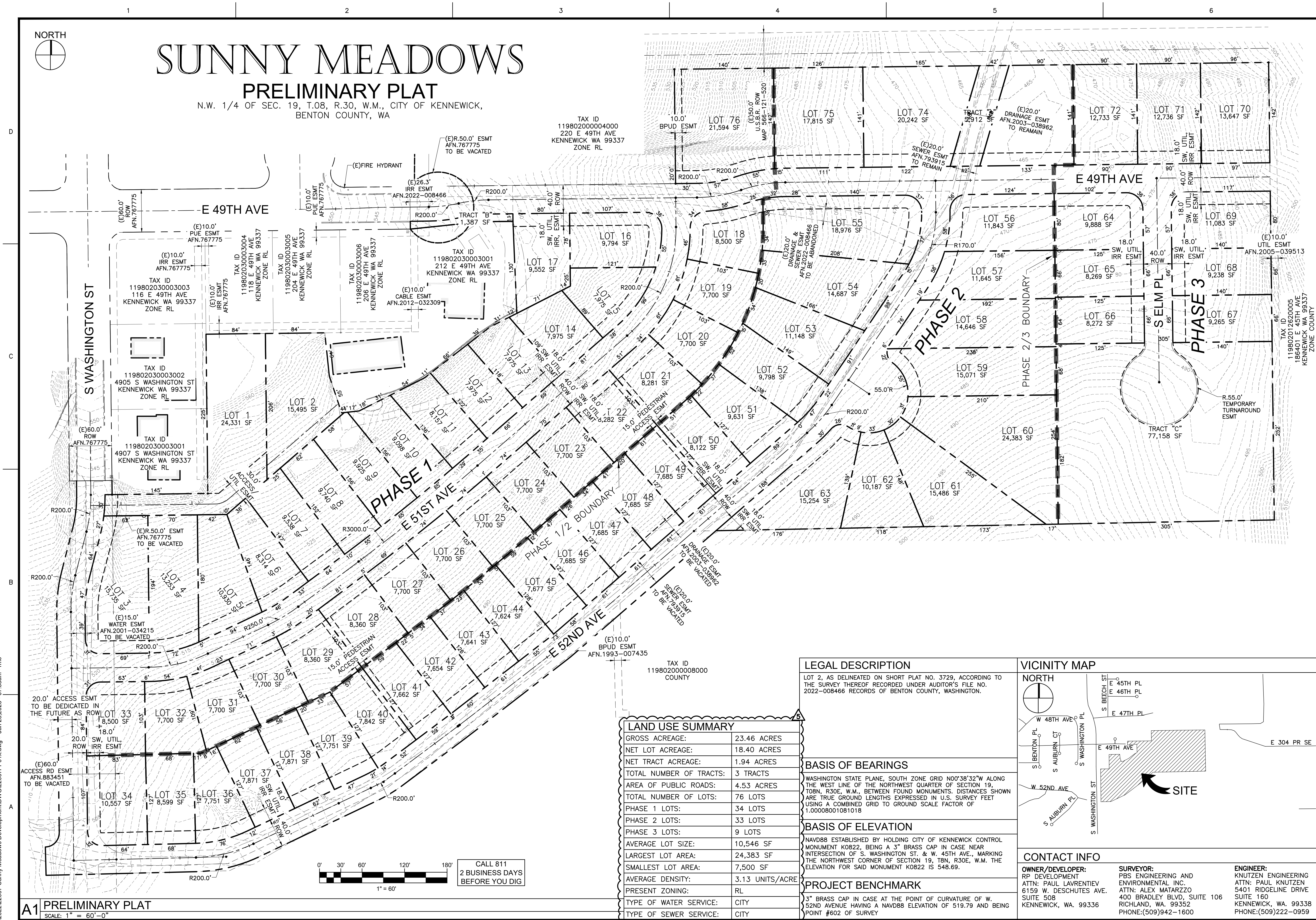
RP DEVELOPMENT
SUNNY MEADOWS
340 E 40TH AVE KENNEWICK WA 98337

APPROVAL		
DESIGN	JAW	05/16/24
CHECKED	RAM	05/16/24
APPROVED	PTK	05/16/24

SCALE: AS NOTED	
CADFILE: 22067PP01x	
JOB No. 22067	REV. 

DWG. No.

PP01





NOTIFICATION OF MAILING

I, Matt Halitsky, on 20 February, 2025

Mailed 52 copies of Notice of Public Hearing

for SUB-2024-0003

to property owners within 300' and parties of record to date.

as shown on the attached list.

Signature



**NOTICE OF PUBLIC HEARING****PLAT MAP ON BACK**

Proposal: Knutzen Engineering, on behalf of RP Development, submitted a preliminary plat application to subdivide 23.46 acres into 76 lots and 3 tracts, located at 240 E 49th Avenue. The Comprehensive Plan Land Use Designation for the site is Low Density Residential. The site is zoned Residential, Low Density (RL), and is subject to the Residential Design Standards. The file number is SUB-2024-0003.

Open Record Hearing: The City of Kennewick Hearing Examiner will conduct an open record hearing at **6:00 p.m. on 10 March 2025 at 210 W 6th Avenue, City Hall Council Chambers**. The meeting will be conducted in a hybrid format, which allows in-person or virtual participation. To participate in the meeting virtually, use the link found at www.go2kennewick.com/244/Hearing-Examiner.

Submitting Written Comments

- The City asks all members of the public that would like to comment regarding the Public Hearing to fill out an online form at <https://www.go2kennewick.com/244/Hearing-Examiner> no later than 5:00 p.m. on Friday, February 28th to be included in the Hearing Examiner packet for the record.
- Interested parties may also submit written comments to P.O. Box 6108, Kennewick, WA 99336; or e-mail matt.halitsky@ci.kennewick.wa.us no later than 5:00 p.m. on Friday, February 28th to be included in the Hearing Examiner packet for the record. Comments received after that date will be presented at the hearing.

Commenting at the Meeting

- If you wish to comment during the Public Hearing, please register at <https://www.go2kennewick.com/244/Hearing-Examiner>. Registrations must be received by 4:00 p.m. on Monday, March 10th.

Determination of Completeness: The application was determined complete for processing on 14 February 2024.

Project Permits Associated with this Proposal: Civil

Preliminary Determination of Regulations Used for Project Mitigation: Title 18 (Zoning), Title 17 (Subdivision), Title 4 (Administrative Procedures) of the Kennewick Municipal Code and the land use policies contained in the Kennewick Comprehensive Plan.

Estimated Date of Decision: Within 10 business days of the Hearing Date of 10 March 2025.

To Receive Notification of the Decision: Contact the Development Services Division at 210 W. 6th Avenue, Kennewick, WA 99336 or via telephone at (509) 585-4280.

Appeal: Any person aggrieved by the decision of the Kennewick Hearing Examiner on this proposal may appeal to the Superior Court of Benton County within twenty-one (21) days of the date of decision.

Matthew Halitsky, Senior Planner

The City of Kennewick welcomes full participation in public meetings by all citizens and does not discriminate on the basis of disability, pursuant to the requirements of the American with Disabilities Act of 1990, pub. L 101-336. No qualified individual with a disability shall be excluded or denied the benefit of participating in such meetings. If you wish to use auxiliary aids or require assistance to comment at this public meeting, please contact the City of Kennewick, Matt Halitsky, Development Services Department at (509) 585-4416 or the Washington Relay Service Center TTY at #711 at least ten days prior to the date of the meeting to make arrangements for special needs.

210 W. Sixth Avenue / PO Box 6108, Kennewick WA 99336



37
KENNETH D & BEVERLY A MEY
220 E 47TH PL
KENNEWICK, WA 99337

37
NOE FIGUEROA
4910 S WASHINGTON ST
KENNEWICK, WA 99337

37
SHARILEE APRIL TERPENING
4907 S WASHINGTON PL
KENNEWICK, WA 99337

37
JAY R & JILL GOEMMER
4902 S WASHINGTON ST
KENNEWICK, WA 99337

37
DENNIS A & DENISE M CLAPP
4808 S WASHINGTON ST
KENNEWICK, WA 99337

37
BRIAN K & LISA K GIFFORD
4907 S WASHINGTON ST
KENNEWICK, WA 99337

37
LEANDRO V & VICKY CASTANEDA
4905 S WASHINGTON ST
KENNEWICK, WA 99337

37
MICHAEL E DOYLE JR
116 E 49TH AVE
KENNEWICK, WA 99337

37
ROBERT STEPHEN FLOWERS
118 E 49TH AVE
KENNEWICK, WA 99337

37
PATRICK J SCHMITT
204 E 49TH AVE
KENNEWICK, WA 99337

37
JOSE & SONIA RODRIGUEZ
206 E 49TH AVE KENNEWICK
KENNEWICK, WA 99337

37
JUDY A LUGENBEAL
115 E 49TH AVE KENNEWICK
KENNEWICK, WA 99337

37
KEVIN A & BARBARA A ESKSTROM
4807 S BEECH CT KENNEWICK
KENNEWICK, WA 99337

37
SOUTH HIGHLAND ORCHARDS INC
3911 W 27TH AVE, KENNEWICK
KENNEWICK, WA 99337

37
CHARLES & EMMA ANDREWS
4911 S AUBURN PL
KENNEWICK, WA 99337

37
MIRON I & YEKATERINA KOSOVAN
4907 S AUBURN PL
KENNEWICK, WA 99337

37
BRYAN W & ANGEL C TINNIN
7 W 49TH AVE
KENNEWICK, WA 99337

37
GERALD D & MONICA L HATCHER
4900 S WASHINGTON PL
KENNEWICK, WA 99337

37
ROGER P & MARY A KURZAWA
4906 S WASHINGTON PL
KENNEWICK, WA 99337

37
TRAVIS R & JAMILYNN LEWIS
4910 S WASHINGTON PL
KENNEWICK, WA 99337

37
BOB JOE TALLENT
4914 S WASHINGTON PL
KENNEWICK, WA 99337

37
ELIZABETH & HERIBERTO VALENCIA JR
4918 S WASHINGTON PL
KENNEWICK, WA 99337

37
JAMES L & MEREDITH SEXTON
4917 S WASHINGTON PL
KENNEWICK, WA 99337

37
VALARIE YODER TRUSTEE
4911 WASHINGTON PL
KENNEWICK, WA 99337

37
SHARILEE APRIL TERPENING
4907 S WASHINGTON PL
KENNEWICK, WA 99337

37
MICHAEL & SHANNON RASMUSSEN
4901 S WASHINGTON PL
KENNEWICK, WA 99337

37
GARY J & RUTH C HONOLD
4813 S WASHINGTON PL
KENNEWICK, WA 99337

37
JOHN C PRINGLE TRUSTEE
5701 S GARFIELD ST
KENNEWICK, WA 99337

37
TRI COUNTY PARTNERS HABITAT FOR
HUMANITY
PO BOX 721
RICHLAND, WA 99352

37
WITTKOPF FARMS LLC
5215 S WASHINGTON ST
KENNEWICK, WA 99337

EXHIBIT 3

37 DAVID & AMY BUTTS 30206 S 1877 PR SE KENNEWICK, WA 99337	37 LUCAS R & JACQUELINE T IVES 110 W 52ND AVE KENNEWICK, WA 99337	37 LEWIS J & KATHRYN D LOMMERS 104 W 52ND AVE KENNEWICK, WA 99337
37 JACOB & ALEXA CHAFFEE 100 W 52ND AVE KENNEWICK, WA 99337	37 DANIEL K & AMY M GOODRICH 91 W 52ND AVE KENNEWICK, WA 99337	37 GIANNI A & ANNA CONTI 5205 S AUBURN PL KENNEWICK, WA 99337
37 PATRICK J & SHAYLA K MCINTYRE 5209 S AUBURN PL KENNEWICK, WA 99337	37 JAMES A & SUSAN L CRESS TRUSTEES 5213 S AUBURN PL KENNEWICK, WA 99337	37 JEAN M ALEXANDER 5215 S AUBURN PL KENNEWICK, WA 99337
37 RICHARD & LISA HEMPEL 5214 S AUBURN PL KENNEWICK, WA 99337	37 WESTON D & JOYCE A FARRIS 5210 S AUBURN PL KENNEWICK, WA 99337	37 DCNP HOLDINGS BOISE PROPERTY LLC 5204 S AUBURN PL KENNEWICK, WA 99337
37 TONY D & LYND SAY M MCCULLOUGH 201 W 53RD AVE KENNEWICK, WA 99337	37 RAINIER RIDGE LLC PO Box 6998 KENNEWICK, WA 99337	37 RICHARDSON RANCH LLC 3911 W 24TH AVENUE, #101-7D KENNEWICK, WA 99337
37 JOHN C PRINGLE TRUSTEE 5400 S GARFIELD ST KENNEWICK, WA 99337	37 DEAN P & NICOLE I DENNIS 5221 S AUBURN PL KENNEWICK, WA 99337	37 RUSSELL S & SUSAN M MENDENHALL 5227 S AUBURN PL KENNEWICK, WA 99337
37 John Bennett 4608 S Fisher Pl KENNEWICK, WA 99337	37 Jeff Bennett	37 Bryan & Julie Denise 249 W 53rd Ave KENNEWICK, WA 99337
37 John LaFemina 230 W 52nd Ave KENNEWICK, WA 99337	37 Connie Bennett 4608 S Fisher Pl KENNEWICK, WA 99337	37
37	37	37
37	37	37

MEMORANDUM**PUBLIC WORKS DEPARTMENT**

To: Matt Halitsky, Senior Planner

From: Kristin Stowe, Development Review Supervisor

Date: January 30, 2025

Re: Public Works Development Comments

Project: SUB-2024-0003 - Sunny Meadows Preliminary Plat

1. All Civil Plan submittals shall be submitted online through the Citizen Self Service ([CSS](#)) portal.
2. Civil plans shall show any proposed phasing for construction and the type of building use and number of floors.
3. Water, Sewer and Storm Comprehensive plans shall be submitted prior to first phase approval and shall include pipe sizes on their proposal.
4. Permanent structures shall not be located over COK utilities, or within any easement. A separate building permit is required for the review and inspection of any proposed retaining wall(s).
5. Developer will be required to provide construction of streets, private roads, sidewalks, streetlights, storm drainage, and designate sidewalk and utility easements, all in conformance with the latest City of Kennewick (COK) Standard Specifications and Details. This applies within the City limits as well as within the Urban Growth Area.
6. The maximum street grade per KMC 5.56.275 is 12%. Show grades on the street centerline profile.
7. Sidewalks shall be widened an additional 18-inches when adjoining a wall, or fence, per COK Standard Detail 2-10, Sheet 1 of 8, note 4.
8. As part of all residential development construction plans, there shall be a separate schematic drawing which at a minimum, shows the power source(s), wiring diagram street light pole spacing and street permanent signing per COK Standard Specifications 6-02 and Specifications 7-10. Combine Signing, Striping, and Illumination Plans onto the same drawing with other elements left off.
9. Provide water and sanitary sewer services for each proposed lot per Kennewick Municipal Code KMC 14.13.020, 14.22.020(1), KMC 17.13.095(1), KMC 17.12.055 and fire flow as required by the Fire Department.
10. Water and sewer services to be constructed per City of Kennewick (COK) Detail 3-6.
11. E. 49th Ave. and S. Washington St. both have a Pavement Condition Index (PCI) rating below 75 and will require the following per KMC 5.56.215: Any trenching done on pavement with a PCI rating of less than 75 will require a minimum 6-foot wide patch and half width of each travel lane or shoulder disturbed.

PUBLIC WORKS DEPARTMENT

1010 S. Chemical Drive * PO Box 6108* Kennewick, WA 99336-0108
509-585-4419 * 509-585-4451 Fax

12. 8-inch water for Zone 2 is available at the south end of S. Washington St.; see COK Record Drawings B-4001_04&05 and C-4026_09. 6-inch water for Zone 2 is available at the east end of W. 49th Ave.; see COK Record Drawings B-4001_02.
13. Provide easements centered over all City of Kennewick water, sewer, and storm mainlines located outside of the right-of-way. Easement width shall be 15-feet wide centered on the utility, or 20-feet for two utilities, or 25-feet for three utilities. 7.5-feet of clearance shall be maintained from the easement edge to the utility. These easements must extend over new water mains up to the meter and five feet beyond hydrant runs.
14. The Developer shall provide and install one metered water service for each proposed dwelling or building at their own expense per COK Standard Detail 3-6. The meter shall be placed as close to the main line as possible (not in a driveway or parking area) per KMC 14.12.080.
15. All proposed water main extensions must conform to the adopted City master plan, as amended and must conform to an overall program for a grid system, with provisions made for extensions and looping for circulation where at all possible per KMC 14.10.030. This includes provisions for the connection of the parcel to the south of the site.
16. Submit a Comprehensive Water Plan for the Subdivision on the plans meeting KMC 14.10.010 for review and approval. Hydraulic analysis may be required to ensure adequate fire protection for the proposed development.
17. Provide water lines and hydrants as required by Fire Department to meet fire protection.
18. On private development projects, all hydrants within 100-feet of the project limits shall be updated to current standards per COK Standard Specification 4-5.01.
19. Design Fire Line connections to serve buildings per COK Standard Drawing 4-25.
20. Provide a "fire flow requirement" signature block on the master utility. Fire flow block will call out the type of construction material to for the building, the required fire flow and duration based on that type of construction, a fire sprinkler indication, any reduction in fire flow as allowed by the IFC, and the net required fire flow remaining.
21. Potable water is not available for irrigation purposes. Contact KID in order to provide irrigation water to irrigate the proposed plat.
22. There is an existing sanitary sewer main located along the southern and eastern boundaries of this property. The southern portion of the sewer main is 8-inch, with the northeastern portion at 12-inches in diameter; see COK Record drawing C-4005.
23. There is an existing 8-inch sanitary sewer main located in S. Washington St.; see COK Record Drawing B-4002_01.
24. Every proposed dwelling shall be separately connected with the public sewer, unless such connection is six inch diameter sewer pipe or larger per KMC 14.22.030(10).
25. Provide 15-foot wide easements or tracts centered over all sewer mains outside of the right-of-way.
26. All proposed sanitary sewer extensions will be required at Developer expense. Provide a Sewer Comprehensive Plan for the site meeting KMC 14.22.040. This includes provisions for the connection of the parcel to the south of the site.
27. Provide a Storm Water Site Plan (drainage report) and storm design to retain and dispose of a 25-year 24-hour storm on site following the Storm Water Management Manual for Eastern Washington (SMMEW) and COK Standard Specification Section 5-9. Infiltration tests are required at the location and depth of the planned infiltration structures along with a soils log to 5 feet below that point. An evaluation of the 100-year storm retention is also required. Provide an assessment of the design against the Underground Injection Control (UIC) pretreatment requirements found in section 5-6 of

PUBLIC WORKS DEPARTMENT

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the SMMEW. Provide UIC registration numbers on the plans prior seeking the City's signature. This includes provisions for the connection of the parcel to the south of the site & E 49th Ave. Contact Martin Nelson at (509)585-4306 with any questions.

28. Collect and convey uphill runoff and irrigation overflows through development per COK Standard Specification section 5-9.
29. All plans showing existing utilities shall call out the Record Drawing set number that installed the utilities. All plans need to clearly identify the size and type of water/sewer utility that is being proposed or connected to (i.e. "Existing 8-inch Water" or similar). Label private lines "Private".
30. This site requires a Public Works Construction Permit. You may apply for this by submitting the information below for Civil Plan Review through the Citizen Self Service Portal ([CSS](#)):
 - a. PDF copy of the Application for Civil Review and Storm Calculations to retain the Stormwater on site.
 - b. One full size (24"x36") PDF copy of the construction plans.
31. Construct all projects using current City Survey Data. After project completion, Record Drawings showing improvements made on the property will be required prior to acceptance of the construction permit(s). For detailed information on Kennewick Survey Data and Record Drawings go to COK website at <https://www.go2kennewick.com/314/Civil-Plan-Review>.



MEMORANDUM**Traffic Engineering Division**

To: Steve Donovan, Planning Manager
From: Josh Hazlett, Engineering Tech
Date: February 28, 2024
Re: Traffic Engineering Comments for 240 E 49TH AVE. 78 Lot Subdivision
Project: SUB-2024-0003

Project Description

78 - lot subdivision

KMC 13.16 Transportation Impact Fees

1. The Transportation Impact Fee (TIF) is a one-time charge for direct impacts caused by the traffic generated from the proposed development and used to pay for transportation projects needed to address said impacts. The TIF amendment on June 5 2018 (effective June 14 2018) created Traffic Impact Fee Districts, which allows fees be remitted to projects congruent with the area where the impact is realized.
2. The 2024 District 3 TIF is \$1,201.86/Dwelling Unit for Single-Family Detached Housing. Estimated TIF is \$93,745.08 for all 78 Dwelling units.
3. TIF will be assessed at building permit issuance is due prior to Certificate of Occupancy issuance.

Proposed Roadways

1. Please note that per KMC 17.20.010(2)(a), streets greater than 1,200 feet in continuous uninterrupted length will need traffic calming measure.
2. Please note that per KMC 17.20.010(3)(b), streets greater than 600 feet in continuous uninterrupted length will need mid-block pedestrian crosswalks with shoulder mounted signs for the street.
3. Please note that the proposed street network is required to meet KMC 5.56.275(1)'s minimum centerline radius of 200'

Traffic Engineering Division

1010 E. Chemical Drive * PO Box 6108 * Kennewick, WA 99336
Kevin Biersner – 509-585-4524 * Josh Hazlett – 509-585-4342

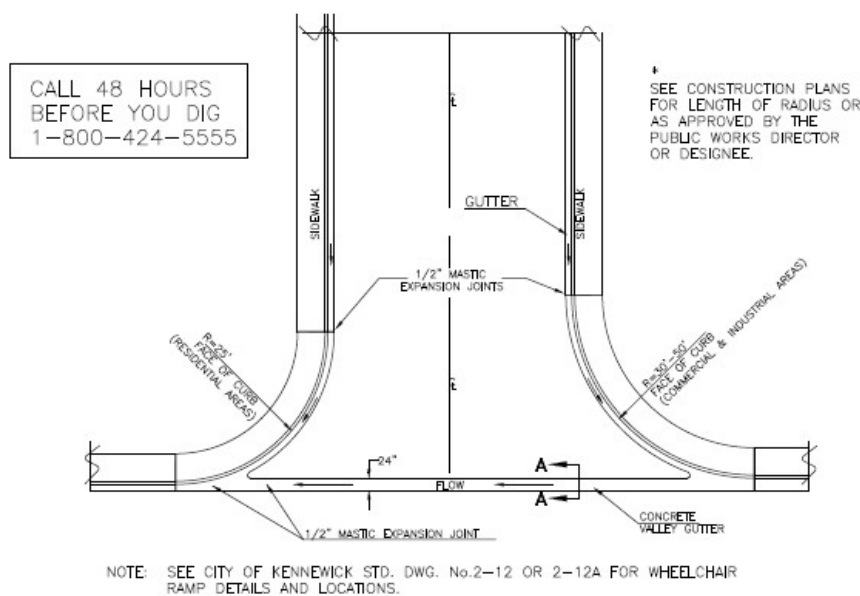
SUB-2024-0003

5.56.275: - Street Radii and Grade.



- (1) Local Streets: Unless otherwise approved by the Deputy Director of Public Works, local streets shall be constructed with centerline radii which meet the following standards. On minor loop streets and cul-de-sac streets, where the street makes a 90-degree plus or minus five-degree turn, the minimum centerline radius shall be 50 feet. On all other minor loop street and cul-de-sac street curves, the minimum centerline radius shall be 150 feet. On all local through streets, other than minor loop streets, as determined by the Deputy Director of Public Works, the minimum centerline radius shall be 200. Unless otherwise approved by the Deputy Director of Public Works, the maximum grade on local streets shall be 12 percent.

4. Please refer to KMC Standard Drawing No. 2-9 for intersection design guidelines.



5. Please provide plan/profile for the proposed street network. Refer to the table below for the design rate of vertical curvature, K , values for vertical curves at the proposed roadway design speed. Please note that public roadway's maximum longitudinal slope is 12%.

Table 3-34. Design Controls for Crest Vertical Curves Based on Stopping Sight Distance

Metric				U.S. Customary			
Design Speed (km/h)	Stopping Sight Distance (m)	Rate of Vertical Curvature, K^a		Design Speed (mph)	Stopping Sight Distance (ft)	Rate of Vertical Curvature, K^a	
		Calculated	Design			Calculated	Design
20	20	0.6	1	15	80	3.0	3
30	35	1.9	2	20	115	6.1	7
40	50	3.8	4	25	155	11.1	12
50	65	6.4	7	30	200	18.5	19
60	85	11.0	11	35	250	29.0	29
70	105	16.8	17	40	305	43.1	44
80	130	25.7	26	45	360	60.1	61
90	160	38.9	39	50	425	83.7	84
100	185	52.0	52	55	495	113.5	114
110	220	73.6	74	60	570	150.6	151
120	250	95.0	95	65	645	192.8	193
130	285	123.4	124	70	730	246.9	247
				75	820	311.6	312
				80	910	383.7	384

^a Rate of vertical curvature, K , is the length of curve per percent algebraic difference in intersecting grades (A), $K = L/A$.

Table 3-36. Design Controls for Sag Vertical Curves

Metric				U.S. Customary			
Design Speed (km/h)	Stopping Sight Distance (m)	Rate of Vertical Curvature, K^a		Design Speed (mph)	Stopping Sight Distance (ft)	Rate of Vertical Curvature, K^a	
		Calculated	Design			Calculated	Design
20	20	2.1	3	15	80	9.4	10
30	35	5.1	6	20	115	16.5	17
40	50	8.5	9	25	155	25.5	26
50	65	12.2	13	30	200	36.4	37
60	85	17.3	18	35	250	49.0	49
70	105	22.6	23	40	305	63.4	64
80	130	29.4	30	45	360	78.1	79
90	160	37.6	38	50	425	95.7	96
100	185	44.6	45	55	495	114.9	115
110	220	54.4	55	60	570	135.7	136
120	250	62.8	63	65	645	156.5	157
130	285	72.7	73	70	730	180.3	181
				75	820	205.6	206
				80	910	231.0	231

^a Rate of vertical curvature, K , is the length of curve (m) per percent algebraic difference intersecting grades (A), $K = L/A$.

Traffic Engineering Division

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Kevin Biersner – 509-585-4524 * Josh Hazlett – 509-585-4342

6. Please note that corner parcels at public roadway intersections will need to meet minimum Corner Clearance requirements per KAC 13-46-110.
7. Please note that KMC 17.20.010(3)(l) require minimum separations between proposed intersections.
8. Please note that street intersection sightline setback triangles, per KMC 13.12.020(5), with no view obstruction between 36 inches and 90 inches above the roadway surface are required for both sides of the intersection, except as allowed in Section 13.12.020(6).

Right of Way and Easement

1. The proposed S. Washington St southerly extension must be designed to Residential/local road Standards, See COK Std 2-1. Include of a full width roadway with frontage improvements (Street lights, Curb, Gutter and Sidewalk).
2. Please note that the proposed street network, including S. Washington St. and E 49th Ave., is required, per KMC 5.56.065, to provide full-width street improvements, including right of way dedication of the roadway, public sidewalk, utility and irrigation easement per City of Kennewick Standard Drawing 2-1
3. Require the extensions of E 49th Ave. to be paved to full width, including Curb on the North side of 49th Ave. into existing pavement.
4. Any proposed shared access will require recorded mutual Access Easement or shown and recorded as part of the final plat map. Identify all shared access easement(s) on all submitted the plans.
5. Please Note: All of E 52nd Ave Requires ROW dedication and shall be 40 feet per COK STD Plate 2-1. Public streets cannot be placed on any easement of any kind.
6. S Elm Pl Cul-De-Sac must be designed to provide sidewalks within the Subdivisions boundaries. Please show a Cul-De-Sac design that will provide enough room to include Curb, Gutter, and sidewalk within the subdivisions boundary line.

American Disability Act (ADA) Compliance

1. All proposed pedestrian facilities within the public right of way and easement, including but not limited to driveways, sidewalks, curb ramps, etc., shall be ADA compliant to maintain Pedestrian Accessibility Route (PAR) accessibility, continuity and connectivity.
2. Provide asphalt transition ramps at all proposed sidewalk termini, or match into existing sidewalks for ADA compliance.

Street Lights

1. Per KMC 5.53, Public Works Construction Standard Chapter 6, design and install street lighting per City of Kennewick Standard Drawings 6-1 and 6-2 along E 47th PL, S Washington St. and all proposed internal streets.
2. Roadway lighting plan sheet. – Per COK Standard Specifications 6-1.02, the plan needs to include call-outs for the power source, meter locations, junction boxes and conduits.

**Building Safety Division**

210 West 6th Avenue

Kennewick, WA 99336

Phone: (509) 585-4276

onestop@ci.kennewick.wa.us**Date:** 02/23/2024**Subj.** SUB-2024

Residential Subdivision Building Comments

1. All residential structures shall be designed and built in compliance with the 2018 International Building Code, Uniform Plumbing Code, Washington State Energy Code and all applicable Municipal Ordinances.
2. Effective March 15, 2024 the State amended 2021 codes will be in effect.
3. All **complete** submittals received on or before June 30th, 2023 will be vested in the 2018 codes.
4. Partial submittals will not be accepted.
5. Any applications received after midnight June 30, 2023, will be vested in the 2021 codes.
6. Effective along with the 2021 code update EV charging requirements of section 309.6 of the IRC will be required.

Tony Ostoja ICC CBO

Building Official

Tony.Ostoja@ci.kennewick.wa.us

(509) 585-4387



The solemn duty of a Building Official, is the protection of health, safety and welfare of the public by creating safe buildings and communities



Allyson Brooks Ph.D., Director
State Historic Preservation Officer

June 11, 2024

Matthew Halitsky
Planner
City of Kennewick
210 W 6th Ave
Kennewick, WA 99336

In future correspondence please refer to:
Project Tracking Code: 2024-02-01452
Property: City of Kennewick_Sunny Meadows Subdivision (ED-2024-0006)
Re: Concur with Survey

Dear Matthew Halitsky:

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. 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.

We concur with the results and recommendations made in the survey report. Specifically, as no cultural resources were found during the survey, we do not recommend direct archaeological supervision of the project. However, we ask that an Inadvertent Discovery Plan (IDP) be included as part of the construction permit.

Please note that the recommendations provided in this letter reflect only the opinions of DAHP. Any interested Tribes may have different recommendations. We appreciate receiving any correspondence or comments from Tribes or other parties concerning cultural resource issues that you receive.

Thank you for the opportunity to comment on this project. Please ensure that the DAHP project Tracking Number is attached to any future communications about this project.

Should you have any questions, please feel free to contact me.

Sincerely,

Sydney Hanson, M.A.
Local Government Archaeologist
(360) 280-7563
Sydney.Hanson@dahp.wa.gov



From: [Anderson, Ryan \(ECY\)](#)
To: [Matt Halitsky](#)
Subject: RE: ED-2024-0006
Date: Tuesday, February 20, 2024 10:43:02 AM

Hi Matt,

Based on the data provided I concur. The area of interest appears to be an area that has enough water gathered to support vegetation often found in wetlands, but the well drained soils do not seem to hold onto the water long enough to form hydric conditions. Let me know if you have any questions or if you would like any further review of this from us, but, otherwise I'm comfortable with the memo. Thanks,

Ryan

Ryan Anderson (he/him)
Washington Department of Ecology
Shorelands, Wetlands, and Federal Permit Coordinator
(509)379-1917

From: Matt Halitsky <Matt.Halitsky@ci.kennewick.wa.us>
Sent: Tuesday, February 20, 2024 8:59 AM
To: Anderson, Ryan (ECY) <rand461@ECY.WA.GOV>
Subject: RE: ED-2024-0006

External Email

Hi Ryan

Here you go. Please let us know whether Ecology concurs with the findings or comes to a different determination.

Best,

Matt H.

From: Anderson, Ryan (ECY) <rand461@ECY.WA.GOV>
Sent: Tuesday, February 20, 2024 8:53 AM
To: Matt Halitsky <Matt.Halitsky@ci.kennewick.wa.us>
Subject: ED-2024-0006

Good morning Matt,

Did the applicant complete a Wetland determination for this site as part of their critical area review? If so, I would be curious to see it. Thanks,

Ryan

Ryan Anderson (he/him)
Washington Department of Ecology
Shorelands, Wetlands, and Federal Permit Coordinator
(509)379-1917



2015 South Ely Street
 Kennewick, WA 99337
 Customer Service 509-586-9111
 Business 509-586-6012
 FAX 509-586-7663
www.kid.org

March 5, 2024

Matthew Halitsky, AICP, Senior Planner
City of Kennewick - Development Services Division
 PO Box 6108
 Kennewick, WA 99336

Subject: Amendment No. 1 to the Review Comments for Preliminary Plat of Sunny Meadows (SUB-2023-0003)

Dear Mr. Halitsky:

This letter provides Kennewick Irrigation District (KID) **final** review comments on Preliminary Plat No. SUB-2023-0003 submitted by RP Development ("Applicant"¹). The plat (dated 1/17/2024) has been revised by the developer and resubmitted to the City for review. This letter supersedes the preliminary review comment letter dated February 15th, 2024. The properties are generally located at 240 East 49th Avenue, Kennewick, in the Northwest Quarter of Section 19, Township 8 North, Range 30 East, W.M., Kennewick, Benton County, Washington, and includes the following parcels:

- 119802013729002 (23.46 **irrigable** acres)

The properties identified on the proposed preliminary plat are located within KID boundaries. The property within this preliminary plat is classified as irrigable land and consists of 23.46 irrigable acres. 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. Dedicate to KID an irrigation easement 10 feet in width via a recorded deed to match irrigation system components, centered on an irrigation pipeline.
 - b. 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 of each lot. An irrigation easement may be included within the 'sidewalk and utility' easement if one is proposed, denoting the easement as a

¹ Reference to the "Applicant" throughout this comment letter shall refer to the property owner and/or developer of the proposed plat.

“Sidewalk, Utility, and Irrigation Easement.”

- 2) KID utilizes the existing drainage easements that are shown on the plat, which are proposed to be vacated. The applicant will be required to provide mitigation for drainage from KID irrigation facilities as a condition of easement vacation approval.
- 3) Stormwater systems for the project shall be designed to retain, at minimum, a 100-year storm event. On-site storm drainage less than the 100-year storm event may not be introduced into off-site natural storm drainage flows passing through the subject property.
- 4) The Applicant is required to install an irrigation system that conforms to the most recent edition of the KID Standard Specifications pursuant to Resolution 86-15-A. This includes providing distribution pipelines adequate to provide individual pressurized irrigation services to each lot within the preliminary plat. This system will be dedicated to KID upon completion, at the time of final plat.
 - a. KID Standard Specifications require a storage pond facility be constructed and sized appropriately for this plat application. Please dedicate this storage facility as a tract of land deeded to KID. In addition, the KID Standard Specifications require a pump station facility be constructed and sized appropriately for this plat application.
 - i. The KID point of connection or irrigation water source for this development will be the KID Division IV Main Canal between the 32.9 turnout and 33.3 milepost (see enclosed Exhibit ‘A’).
 - b. **As an alternative** to a pond, pump station, and other “on-site” construction requirements per KID Standards Specifications, the Applicant and KID may mutually agree that it is in each of their best interests that other “off-site” improvements may be made to allow for the delivery of pressurized irrigation water to the plat. The other improvements would be proportionate and equal to the “on-site” requirements and may include:
 - i. Contributions made towards a regional pump facility.
 - ii. The installation of pipelines off site.
- 5) Design of the required irrigation system must be approved by KID prior to installation. The Applicant is required to submit an irrigation plan designed by a professional engineer for review and approval by KID. The plan may be hand drawn or computer drafted. The plan shall be accurate and to a scale not to exceed one (1) inch = 50 feet. This is a vital step of the approval process. In addition to compliance with condition 2 above, the plan must ensure all reasonable measures are taken to protect any easements, rights-of-way, and facilities. Please contact Daniel Tissell at 586-6012 for more information regarding this irrigation plan.
- 6) Completion of all the facilities, consistent with an irrigation plan approved by KID, is required prior to KID signature on the final plat.

- a. In the event any KID facilities are damaged during construction, the damage must be fully repaired to KID's then-existing standards.
 - b. For each phase of the plat, KID review and approval of construction and grading plans is required to allow KID to assure all reasonable measures to protect any easements and rights-of-way. Such review and approval will be coordinated as part of City review and the final plat approval process.
 - c. KID must inspect any new irrigation system installations or modifications. The Applicant shall contact KID to schedule an inspection at least two business days in advance of the desired inspection date.
 - d. As an alternative to immediate construction prior to approval of the final plat, the Applicant may choose to delay installation of the irrigation system by entering into an irrigation facilities installation agreement with KID. The Applicant must still provide KID with an irrigation system design that conforms to the most recent addition of the KID standard specifications. This irrigation system may be bonded and delayed for up to five years. The facility installation agreement charge is \$350.00. The Applicant must establish an approved bonding mechanism with KID in an amount approved by KID.
- 7) The wetlands described and delineated for this project are located within and along an irrigation drainage feature. Discharges to this feature are prohibited without permission from KID.

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 conditions of approval that KID deems to be necessary as a result:

- 8) There exists KID Right-of-Way (ROW) along the northerly line of the plat (Highlift Canal). The Applicant must show this ROW on the preliminary plat. A copy of the ROW map is 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. To mitigate these risks, KID requires the following:
- a. 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."
 - b. 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. KID ROW signage to be installed by the Applicant along the ROW that has been approved by KID prior to final plat approval of each phase abutting the ROW.
- 9) 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 review and final plat approval process.

- 10) 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.”
- 11) 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).
- 12) 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:

- 13) Prior to approval of each phase, the current year’s assessment must be paid. If the final plat is submitted for review after May 31st of a given year or submitted for review prior to May 31st but not submitted for final approval prior to June 15th, the next year’s estimated assessment (125% of the current year’s assessment) must be paid prior to plat approval.
- 14) Prior to approval of the first phase, the United States Bureau of Reclamation (USBR) construction loan payoff for **all parcels** owned by the property owner within the boundaries of the KID must be paid. According to KID records, the following parcels are currently under the ownership of “SG Land Management LLC”:
 - a. Parcel #: 113971000001000 (131.60 irrigable acres-new lands)
 - b. Parcel #: 119802013729002 (23.46 irrigable acres-old lands)
 - c. The current construction loan payoff rates provided by the USBR is \$12.01/acre (old lands) and \$13.20/acre (new lands). **The total construction loan payoff amount for this project is \$2,018.87.**
- 15) 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 \$825.00 which must be paid prior to scheduling for final plat approval at a KID Board meeting for the first phase.
 - b. For each phase an inspection fee of \$350 for the first 20 lots/tracts plus \$25 per lot/tract after 20 lots/tracts.
 - c. Final plat review fee for each phase of \$225.00.

- 16) Per KID Policy 4.17, "Irrigable Land Recalibration Principles," as land within the plat is subdivided or developed, KID will remove the irrigation water allocation from the impermeable surfaces, such as streets, from the plats.
- 17) In order to receive KID irrigation water delivery, a water master (or point of contact) for the subdivision must be appointed. This water master can be appointed by the Homeowners Association (or similar organization) officers or must be elected from among the property owners within the boundary of this proposed subdivision. If no HOA (or similar organization) is organized, then an election method similar to the attached document is required.
- 18) Prior to approval of each phase, an electronic file (AutoCAD 2018 format or later) and hard copy (6-mil mylar, sealed by a professional engineer) of construction as-builts must be provided to KID.
- 19) Please include the following irrigation title block on future final plats related to the proposed preliminary plat:
 - a. I HEREBY CERTIFY THAT THE PROPERTY DESCRIBED HEREIN IS LOCATED WITHIN THE BOUNDARIES OF THE KENNEWICK IRRIGATION DISTRICT, AND THAT THE IRRIGATION EASEMENTS SHOWN ON THIS FINAL PLAT ARE ADEQUATE TO SERVE ALL LOTS SHOWN HEREON. I FURTHER CERTIFY THAT THOSE LOTS WHICH ARE ENTITLED TO IRRIGATION WATER UNDER THE OPERATING RULES AND REGULATIONS OF THE DISTRICT HAVE SATISFIED THE REQUIREMENTS OF RCW 58.17.310, AND THAT ALL ASSESSMENTS HAVE BEEN PAID THROUGH THE YEAR 20____ A.D.
- 20) 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 to be considered at that meeting.

KID reserves the following rights regarding future review of the plat:

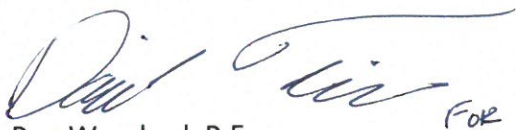
- 21) KID reserves the right to provide review comments under RCW 58.17.330(1) and RCW 58.17.330(2) in response to future design submittals by the Applicant prior to final plat approval. The scope of these reviews will be limited to phases that are adjacent to the District's ROW. KID review of construction plans will be consistent with the City plan review timelines.
- 22) KID reserves the right to review and comment on the Applicant's plat line revisions for potential additional revisions to protect KID system components for phases that are adjacent to KID's easements or ROW.

23) 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.

24) KID reserves the right to submit additional comments during the City review process under the State Environmental Policy Act (SEPA).

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,

 FOR BEN WOODARD
Ben Woodard, P.E.
Engineering & Operations Manager

Enc: Sample Water Master Information
Exhibit 'A' – (Irrigation Water Source Connection Location)

cc: LB\correspondence\File: [19-8-30]
Applicant via mail - ATTN: Paul Lavrentiev, 6159 West Deschutes Avenue, Suite 508, Kennewick, WA 99336

Sample Watermaster Election Process

That the Water Users are deemed to agree as a condition of water delivery as follows::

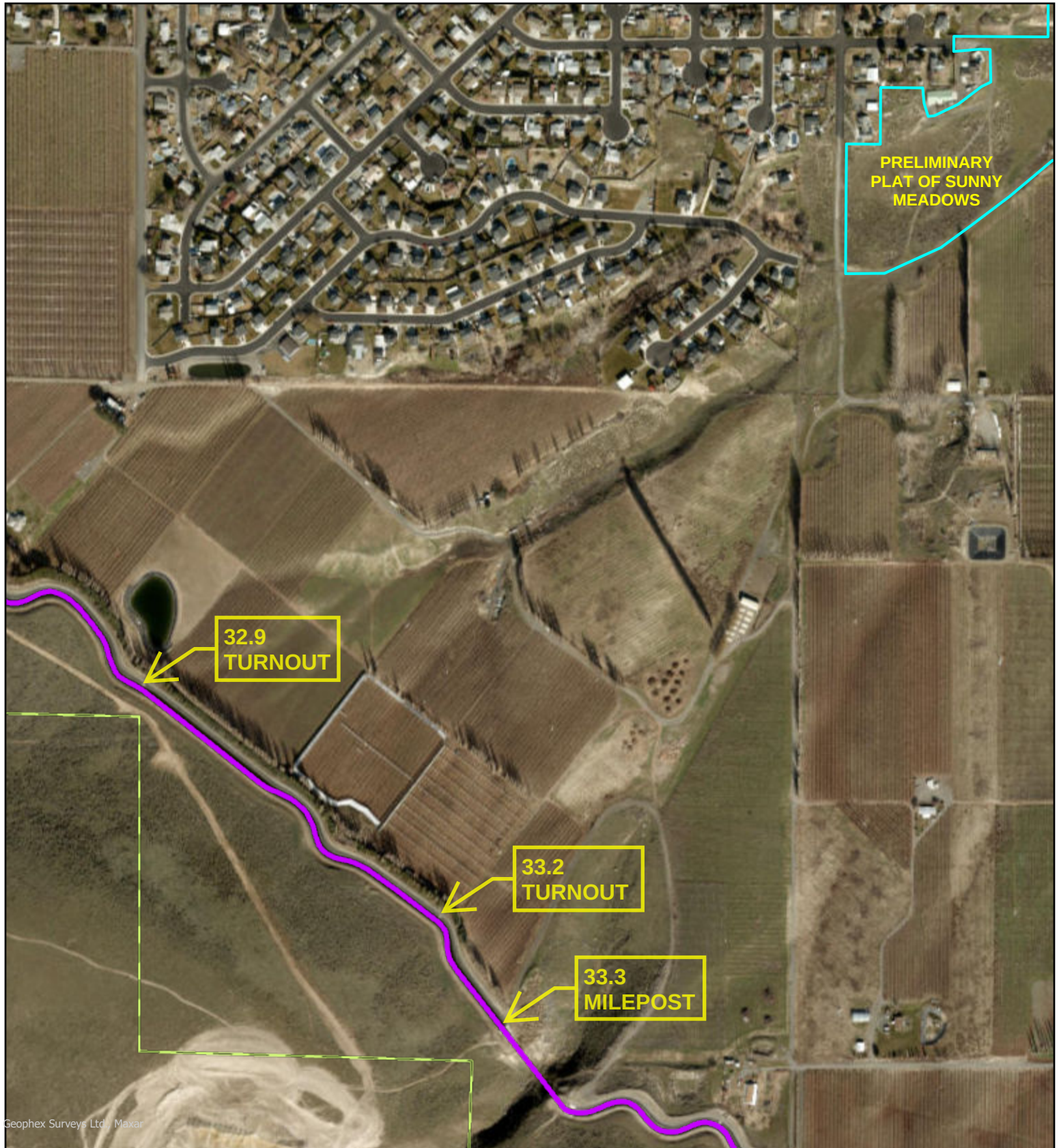
- i. The LID participants will elect a Watermaster from among themselves, as follows:
 - a. Election of First Watermaster. The first Watermaster shall be elected prior to April 1, 2011, and shall be elected as described in paragraph d. below.
 - b. Resignation of Watermaster. If the Watermaster resigns, the parties shall meet at a place and time designated by the resigning Watermaster in a written notice and elect a new Watermaster, or if the Watermaster does not designate a time and a place for such a meeting, the parties shall meet at a time and a place first designated in writing by two of the parties hereto to elect a new Watermaster.
 - c. Death or Incapacity of Watermaster. If the Watermaster dies or becomes incapacitated, the parties shall meet at a time and a place first designated in writing by two of the parties hereto to elect a new Watermaster.
 - d. Elections and Replacement of Watermaster. The Watermaster shall be assigned by the elected members of the Royal Ann Estates Homeowner Association Board of Directors. If the Homeowner's Association defaults or stops functioning, the Watermaster shall be elected by and may be replaced by a sixty percent (60%) majority of the Water Users participating in the LID at an election called for by a majority of the properties that are subject hereto. Each property shall have one (1) vote. If more than one person owns a property, the owners of the property shall designate in writing the person who shall have the right to vote for that property. If the owners of the property cannot agree on the person who shall vote for the property, that property shall have no vote in the election. The owners' properties which are calling for an election or replacement of a new Watermaster shall give or cause the other parties to be given a written notice stating the place and time of the election. Any notice required under this paragraph, which notice shall be mailed by U.S. Mail as certified mail to the common address identified above for the property not more than thirty days and not less than ten days

prior to the election. Any election held hereunder shall be held in Benton County, Washington, between 6:00 p.m. and 9:00 p.m.

- ii. Powers and Duties of Watermaster. The Watermaster shall have the power and it shall be his or her duty to take all actions reasonably necessary to fulfill the purposes of this agreement, including but not limited to:
 - a. Provide a primary point of contact for KID to communicate system problems, outages, schedules, drought mitigation measures, etc.
 - b. Assist KID in providing the LID participants information regarding system problems, outages, water schedules, drought mitigation measures, etc.
- iii. Qualified Immunity of Watermaster from Liability. The Watermaster shall not be liable for any damages caused to the parcels or persons subject hereto so long as the Watermaster acts in good faith.
- iv. No water delivery unless a Watermaster is performing duties. If at any time a Watermaster no longer is performing his/her duties, as outlined above, for more than 30 days, KID will stop water delivery to the participants of the LID until a new Watermaster has been elected.
- v. Alternate Watermaster. An alternate Watermaster may be elected in the same manner as described above for the Watermaster. This alternate Watermaster can function as Watermaster for a limited time, not to exceed 60 days, in case of the elected Watermaster being unavailable.

EXHIBIT 'A'

Exhibit 9

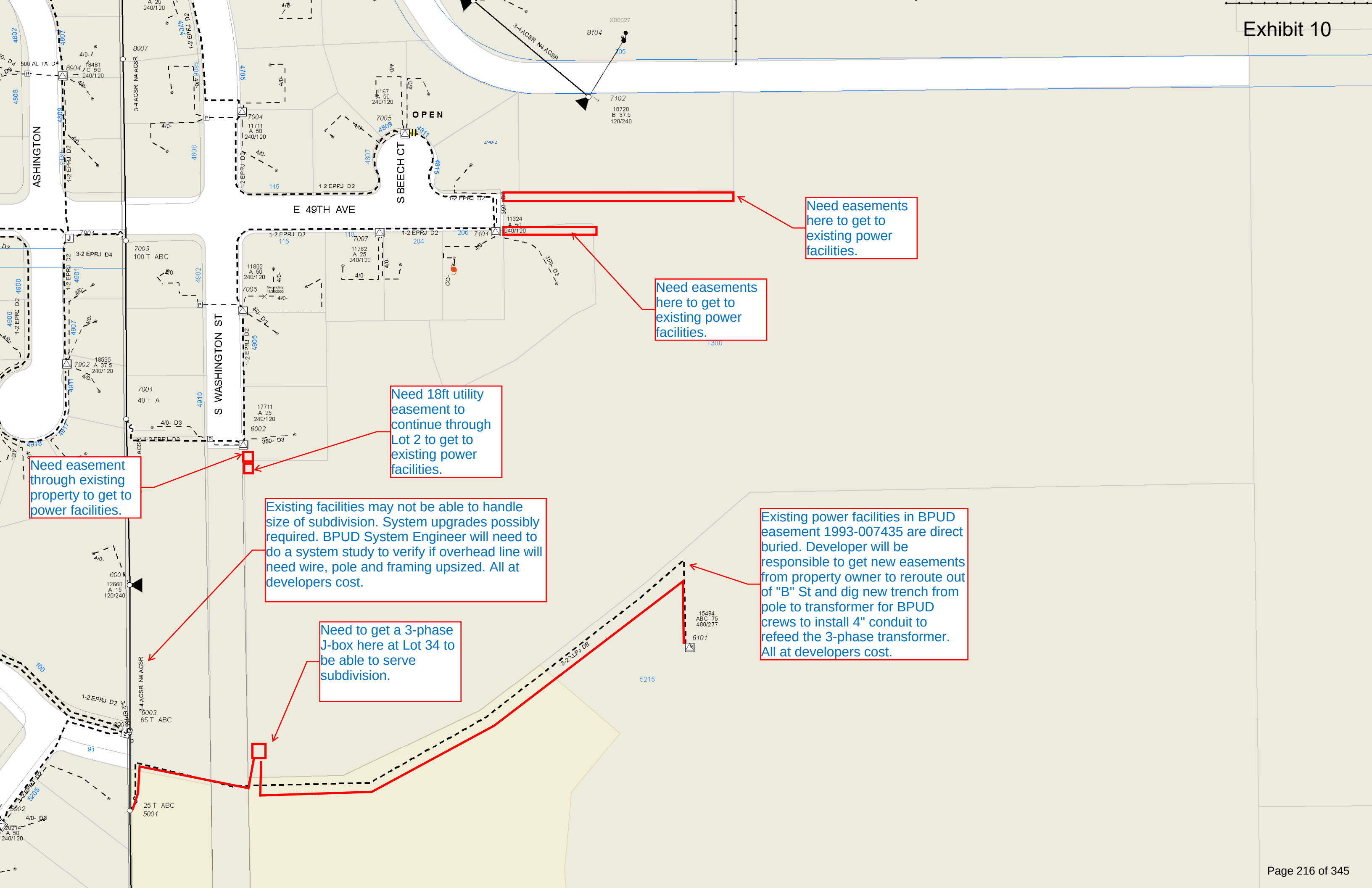


Geophex Surveys Ltd., Maxar



Kennewick Irrigation District does not warrant, guarantee, or accept any liability for accuracy, precision, or completeness of any information shown hereon or for any inferences made there from. Any use made of this information is solely at the risk of the user and is prepared for presentation purposes only.







Community Planning Department

210 West 6th Avenue

Kennewick, WA 99336

Phone: (509) 585-4280

cedinfo@ci.kennewick.wa.us

DETERMINATION OF NON-SIGNIFICANCE

FILE/PROJECT NUMBER: ED-2024-0006

DESCRIPTION OF PROPOSAL: Subdivide 24.13 acres into 78 lots and 2 tracts.

PROPONENT: Knutzen Engineering

LOCATION OF PROPOSAL, INCLUDING STREET ADDRESS, IF ANY: 240 E 49th Ave

LEAD AGENCY: City of Kennewick

DETERMINATION: The City of Kennewick has determined that this proposal does not have a probable significant adverse impact on the environment. An Environmental Impact Statement (EIS) will not be 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 City. This information is available to the public on request. Application for other required permits may require further review under SEPA procedures.

- ☒ There is no comment period for this DNS.
- ☐ This DNS is issued after using the optional DNS process in WAC 197-11-355. There is no further comment period on the DNS.
- ☐ This DNS is issued under 197-11-340(2); the City will not act on this proposal for fifteen days from the date below. Comments must be submitted by ___. After the review period has elapsed, all comments received will be evaluated and the DNS will be retained, modified, or withdrawn as required by SEPA regulations.

RESPONSIBLE OFFICIAL: Anthony Muai, AICP

POSITION/TITLE: Community Planning Director

ADDRESS: 210 W 6th Ave., P.O. Box 6108, Kennewick, WA 99336

PHONE: (509) 585-4361

- ☒ Changes, modifications and /or additions to the checklist have been made on the attached Environmental Checklist Review.

This DNS is subject to the following conditions:

1. All contractors shall be familiar with the Inadvertent Discovery Plan (IDP) in place prior to any ground disturbing activities.

Date: 6 March 2024

Signature: _____

Appeal: An appeal of this determination must be submitted to the Community Planning Department within fourteen (14) calendar days after the date issued. This appeal must be written and make specific factual objections to the City's threshold determination. Appeals shall be conducted in conformance with Section 4.12.090(9) of the Kennewick Municipal Code and the required fees pursuant to the City's adopted Fee Schedule shall be paid at time of appeal submittal.

July 16, 2021

Paul Lavrentiev
Pro Made Construction
6159 W Deschutes Avenue, Suite 508
Kennewick, Washington 99336

Via email: paul@infinityhomesofwa.com

Regarding: Geologically Hazardous Critical Areas Investigation
South Kennewick Short Plat
212 E 49th Avenue
Kennewick, Washington
64812.000

Dear Mr. Laventiev:

PBS Engineering and Environmental Inc. (PBS) is pleased to submit this report summarizing the results of our slope reconnaissance located at 212 E 49th Avenue Kennewick, Washington (site). This letter report has been prepared to satisfy the requirements of City of Kennewick Code Chapter 18.62 – Geologically Hazardous Areas Investigation.¹ At the time of this report, development and grading plans for the site had not been developed or reviewed by the PBS geotechnical engineering group.

PROJECT UNDERSTANDING

PBS understands the client plans to subdivide the property to create two lots, including one lot around the existing residence and a second, larger parcel for possible future development. The larger parcel may be sold to Pro Made Construction. Review of the City of Kennewick GIS layers indicates the site is classified as consisting of “steep” slopes (inclinations exceeding 15%) and erosion hazards.² As such, the City of Kennewick has requested a critical areas investigation be completed for the identified geologically hazardous areas to support the development.

SITE CONDITIONS

Surface Description

The site is located in Kennewick, Washington, and is positioned within a ravine that dissects a Pleistocene age terrace. The ravine is a near-linear, southwest to northwest oriented drainage that collects surface water from the terrace and uplands that delivered water to the Columbia River prior to the development of Lake Elliot (located northeast of the site), which now impounds surface water runoff from the upslope areas located off site. The site is bordered to the west and north by low density residential parcels and to the east and south by agricultural orchards. The site slopes are sparsely vegetated with sage brush and densely vegetated within the floor of the ravine.

¹ City of Kennewick. Critical Areas – Geologically Hazardous Areas. City Code Chapter 18.62, https://library.municode.com/wa/kennewick/codes/code_of_ordinances?nodeId=TIT18ZO_CH18.62CRAREOHAAR

² City of Kennewick. Maps & GIS. Accessed June 2021 from Website: <https://www.go2kennewick.com/778/Maps-GIS>

LiDAR Analysis

PBS acquired a light detection and ranging (LiDAR) bare earth digital terrain model (DTM) from the Washington Department of Natural Resources LiDAR Portal.³ Hillshade, slope shade, and elevation contours were generated using the ESRI ArcMap 3D analyst toolset to review site geomorphic conditions and assess site elevations.

Elevations and Slopes

The site hillsides are approximately 85 feet in maximum height above the floor of the ravine. The terrace surface elevations above the ravine range from 564 feet above mean sea level (amsl) to 551 feet amsl to the northwest, and 551 feet to 545 feet to the southeast (NAVD88; Figure 3). The ravine floor decreases in elevation from southwest to northeast, ranging from 489 feet amsl to 466 feet amsl.

Slopes having less than 15% slope do not meet the criteria of geologically hazardous areas under City Code 18.62.020 and are therefore not identified on Figure 4 or considered in this study. The unmodified northwest slope ranges from 15% to 30%. The steepest slopes along the northwest hillside generally coincide with surface modifications such as grading of roads, with the exception of the northwest corner identified on Figure 3 and Figure 4, which has a slope of 20% to 30% and a south-facing cut slope that exceeds 45%.

The unmodified southeast slope located within the site is generally less steep than the northwest hillside, with slope inclinations of 15% to 20% (Figure 4).

Site Geology

The site is mapped as underlain by Pleistocene age outburst flood sediments.⁴ These sediments were deposited by cyclical catastrophic flooding as a result of ice dam breaches of Glacial Lake Missoula and transported downstream. The resulting deposits are described as gravel with fine sand to boulder sized particles that decrease in size away from the primary flood channel and contain beds of fine sediment. Sediments consistent with the mapped geology were observed at the time of our reconnaissance within the "Road Cut/Outcrop" identified on Figure 3.

Slope Reconnaissance

A licensed engineering geologist (LEG) performed a walking site reconnaissance of the property slopes on June 24, 2021. The purpose of this reconnaissance was to perform a visual assessment of the slopes to look for visual indications of slope movement, indications of severe erosion, or grading and placement of undocumented fill that could impact future development.

At the time of our reconnaissance, we did not observe geologically hazardous conditions that would present a risk to future development of the site. Site slopes are generally gentle and lack the morphology of slope failures such as hummocks, scarps, debris deposits, or tension cracks. In addition, slopes are generally less than 2H:1V (horizontal to vertical). Approximately 10 to 15 feet of loose silty sand to sandy silt was observed overlying a 2- to 3-foot-thick layer of moderately cemented gravel and sand in a cut slope outcrop created from surface modification at an unknown time (Figure 3). PBS has identified three locations where geotechnical drilling and a slope stability analysis should be performed prior to development to evaluate the impact slope modifications may have on neighboring upslope parcels (Figure 3; Figure 4).

³ Washington Department of Natural Resources (WADNR) Washington Lidar Portal [Interactive Map]. (2021). Washington Department of Natural Resources. Accessed July 2021, from <http://lidarportal.dnr.wa.gov/>.

⁴ Reidel, Stephen P., Fecht, Karl R. (1994). Geologic Map the Richland 1:100,000 Quadrangle, Washington State Division of Geology and Earth Resources.

Morphology consistent with severe erosion, such as extensive rills, gullies, and fresh soil exposures, was not observed at the time of our reconnaissance. During our reconnaissance we observed one gully with a total depth of approximately 1.5 feet. The lack of stream morphology within the ravine floor suggests surface water rarely makes it to the ravine floor under current climate conditions. Alternatively, the development of an access road positioned in the ravine floor may have overprinted stream morphology.

SUMMARY

Based on the results of our slope reconnaissance, PBS has summarized our findings as follows:

- On-site soils consist of loose silty sand to sandy silt with trace gravel in float. A gravel bed was observed in outcrop at one location indicated on Figure 3, and gravel observed in float elsewhere on the site is likely the result of erosion exposing the bed throughout the adjacent ravine slopes.
- Site slopes are currently sparsely vegetated with grasses and sage brush.
- The steepest slopes observed on site coincide with surface modifications performed at an unknown time.
- Seasonal stream morphology was not observed in the floor of the ravine. The presence of an access road consisting of 12 to 18 inches of 4- to 6-inch angular rock may have overprinted any stream morphology. No obvious signs of recent movement were observed within site slopes at the time of our reconnaissance.
- Springs and groundwater seeps were not observed within the proposed development area during our reconnaissance.
- Bedrock outcrops were not observed within the proposed development at the time of our reconnaissance.
- Severe erosion such as the development of abundant rills was not observed within the proposed development area at the time of our reconnaissance.

CONCLUSIONS AND RECOMMENDATIONS

PBS recommends the following considerations as the client moves forward with subdividing the site:

- Modification of the slopes for development may cause localized erosion during a typical rainy season by exposing fresh soil void of vegetation. Revegetation of slopes in conjunction with temporary erosion control measures is recommended following site grading to reduce the risk of erosion. The PBS geotechnical engineering group should be notified if extensive vegetation is to be removed for site grading.
- The three slopes identified on Figure 3 should not be modified without being evaluated by a geotechnical engineer or engineering geologist to reduce the risk of instability impacting neighboring parcels.
- Cut slopes of 2H:1V or flatter are commonly incorporated into site grading design to reduce the risk of slope instability. However, the PBS geotechnical engineering group should be engaged once site grading plans have been developed and should be allowed to review and comment prior to completing design or beginning construction.
- Due to the loose silty sand to sandy silt soils observed, we recommend future site grading consider engineered slopes on the order of 2H:1V or 3H:1V.
- Collection and diversion of surface water away from site slopes may be required depending on the proposed site grading.

ADDITIONAL SERVICES AND CONSTRUCTION OBSERVATIONS

In most cases, other services beyond completion of a final geologically hazardous critical areas investigation or geotechnical engineering report are necessary or desirable to complete the project. This report is limited to the evaluation of critical areas as identified by the City of Kennewick code, and did not include site-specific exploration, engineering analyses, or the development of design recommendations. All these services will be required prior to development and construction. PBS offers a range of environmental, geological, geotechnical, and construction services to suit the varying needs of our clients.

LIMITATIONS

This study is limited to visual observations and professional judgement. Site plans and proposed building layouts had not been developed at the time of this assessment. Geotechnical explorations such as test pits or borings were not performed during this phase and will be required in a future phase. Slope conditions may change at any given time without warning. Devegetation, large precipitation events, seismic shaking, and modification of the slope can lead to slope failures (landslides) or erosion.

CLOSING

We trust this letter meets your current needs. Please feel free to Shaun Cordes at 503.935.5517 or shaun.cordes@pbsusa.com with any questions or comments.

Prepared By:

Reviewed By:



Exp. 7/1/2022

Shaun E. Cordes

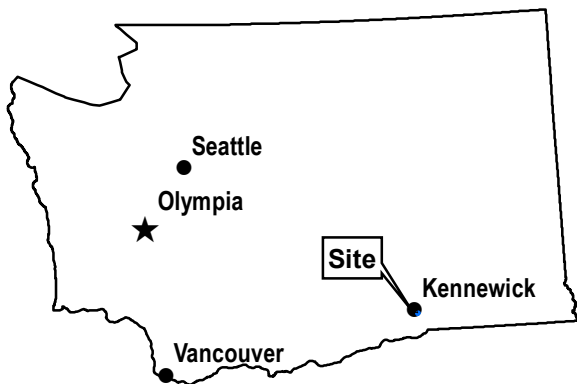
Shaun Cordes, LG, LEG
 Senior Engineering Geologist
 PBS Engineering and Environmental Inc.

Ryan White, PE, GE (OR)
 Principal Geotechnical Engineer
 PBS Engineering and Environmental Inc.

Attachments:

- Figure 1. Vicinity Map
- Figure 2. Site Plan
- Figure 3. LiDAR Hillshade
- Figure 4. Slope Map

SC:RW:rg



VICINITY MAP

GEOLOGICALLY HAZARDOUS CRITICAL AREAS INVESTIGATION KENNEWICK, WASHINGTON

DATE: JULY 2021 · PROJECT: 64812.000



FIGURE

1

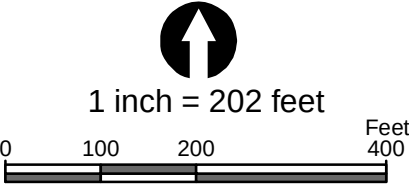
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EXPLANATION

- ▲ Elevation (feet; NAVD88)
- Approximate site boundary

SOURCES: Google Earth 2018



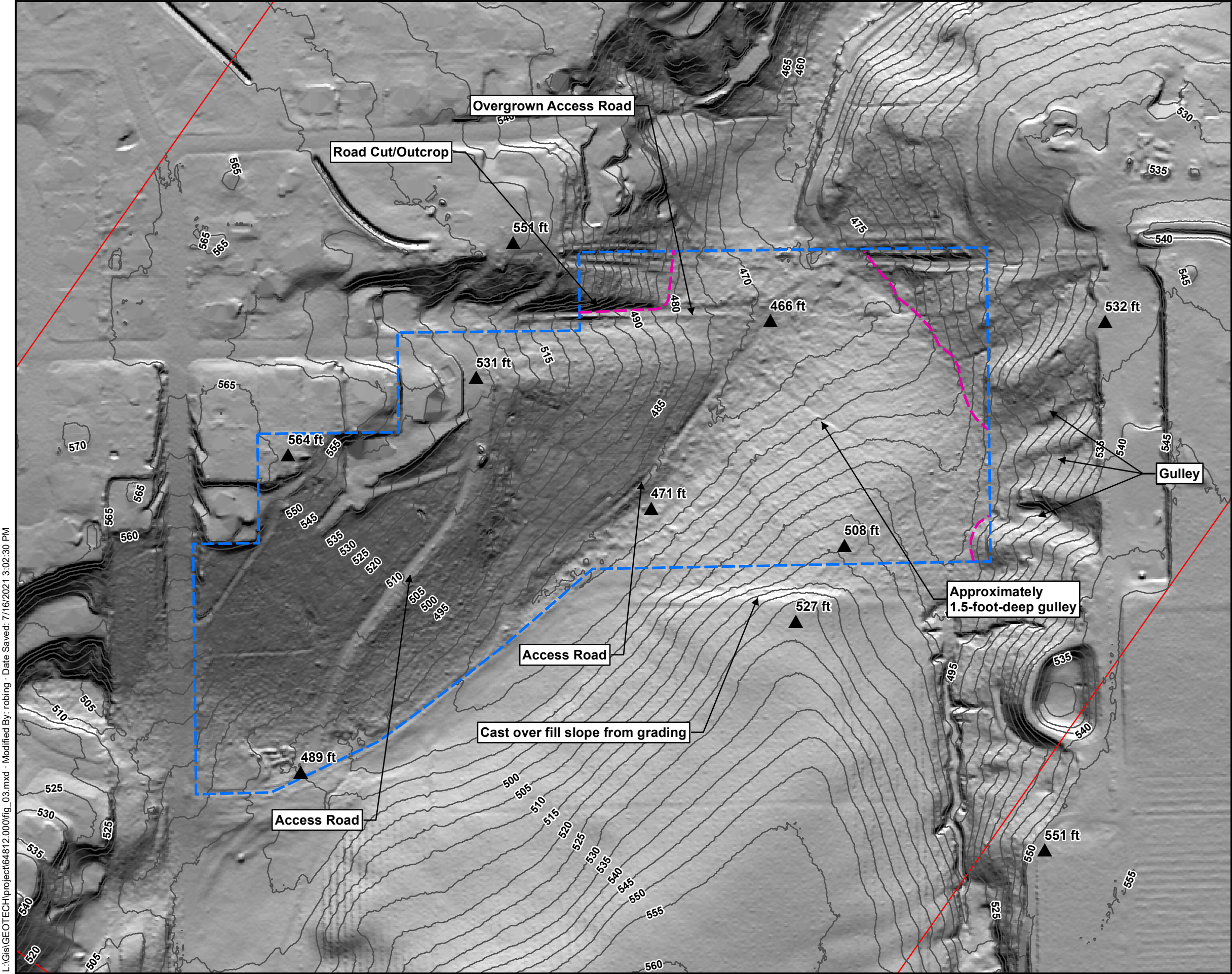
SITE PLAN

GEOLOGICALLY HAZARDOUS
CRITICAL AREAS INVESTIGATION
KENNEWICK, WASHINGTON

DATE: JULY 2021 · PROJECT: 64812.000



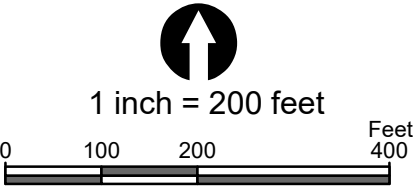
FIGURE
2



EXPLANATION

- ▲ Elevation (feet; NAVD88)
- Slope requiring geotechnical drilling and slope stability analysis
- Approximate site boundary
- 5-ft elevation contour (NAVD 88)
- Extent of area reviewed for LiDAR analysis

SOURCES: Google Earth 2018; elevation contours and hillshade derived from LiDAR data of the Wallula area (2013).



LIDAR HILLSHADE

GEOLOGICALLY HAZARDOUS
CRITICAL AREAS INVESTIGATION
KENNEWICK, WASHINGTON

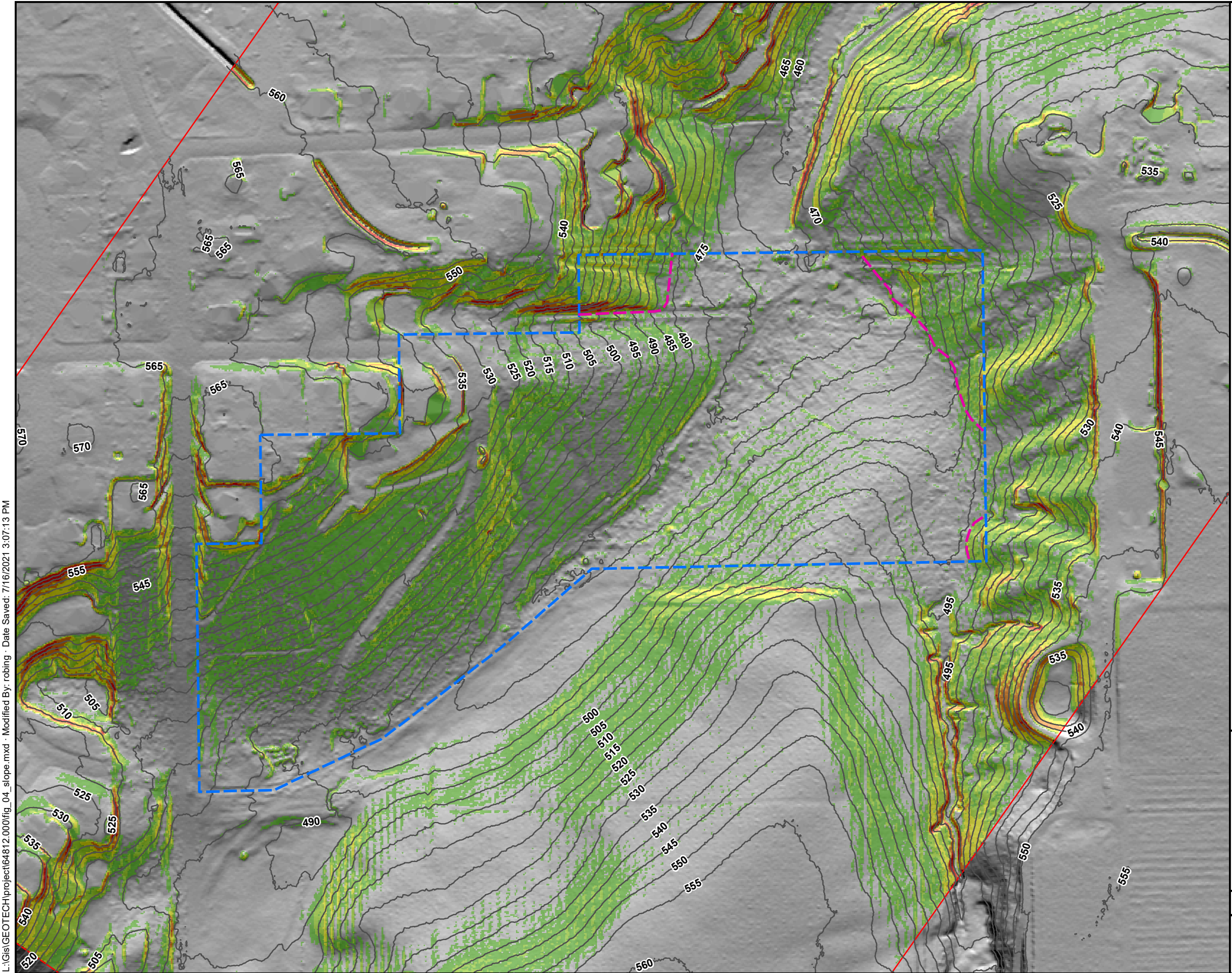
DATE: JULY 2021 · PROJECT: 64812.000



FIGURE

3

L:\GIS\GEOTECH\project\64812.000\fig_04_slope.mxd · Modified By: robing · Date Saved: 7/16/2021 3:07:13 PM



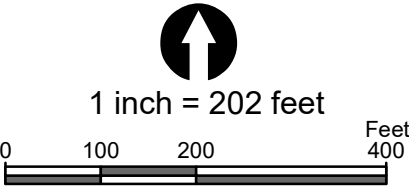
EXPLANATION

- setback
- Approximate site boundary
- 5-ft elevation contour (NAVD 88)
- Extent of area reviewed for LiDAR analysis

Slope Inclination (percent)

- 15 - 21
- 21 - 31
- 31 - 45
- 45 - 63
- 63 - 162

SOURCES: Google Earth 2018; elevation contours, hillshade, and slope shade derived from LiDAR data of the Wallula area (2013).



SLOPE MAP

GEOLOGICALLY HAZARDOUS
CRITICAL AREAS INVESTIGATION
KENNEWICK, WASHINGTON

DATE: JULY 2021 · PROJECT: 64812.000



FIGURE

4



February 12, 2024

Kevin Biersner
City of Kennewick
Streets & Traffic
1010 E Chemical Dr
Kennewick, WA 99336

RE: Sunny Meadows / Trip Accounting Calculation

Dear Mr. Biersner:

This trip accounting letter estimates the number of vehicular trips to be generated by the proposed Sunny Meadows development located at 212 E 49th Ave, Kennewick, WA 99337.

The Sunny Meadows Development proposes 78 single-family dwelling units on Lot 1 of Short Plat No. 2740, recorded under Auditor's File NO. 2003-038962. The preliminary plat for the proposed development is attached for reference.

SUNNY MEADOWS – TRIP GENERATION

The trip generation calculations for the proposed Sunny Meadows development are based on land use code 210, "Single-Family Detached Housing," of the Institute of Transportation Engineers' (ITE) Trip Generation Manual, 11 Edition (2021). See *Table 1* for the average daily trips (ADT), weekday AM peak hour trips, and weekday PM peak hour trips. Trip generation calculations are attached for reference.

Table 1. Sunny Meadows Trip Generation			
Land Use (ITE Code)	210 - Single-Family Detached Housing		
Independent Variable	Dwelling Units		
Quantity	78		
Peak Hour Trips	ADT	AM	PM
Entering	368	14	46
Exiting	368	41	27
Total (Unadjusted)	736	55	73

After full project completion, the Sunny Meadows project is anticipated to generate approximately 736 average daily weekday trips, including 55 new vehicle trips in the AM peak hour and 73 new trips during the PM peak hour.

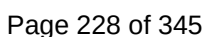
Please feel free to contact me at (509) 222-0959 or robert@knutzenengineering.com with any questions or concerns.

Sincerely,

A handwritten signature in black ink, appearing to read "Robert McLeod". The signature is fluid and cursive, with the first name "Robert" and last name "McLeod" clearly distinguishable.

Robert McLeod, EIT
Project Engineer

Attachments: *Sunny Meadows Preliminary Plat*
Sunny Meadows Trip Generation Calculations



Project: Sunny Meadows Development

Project Number: 22067

Land Use Code(ITE): 210 - Single-Family Detached Housing

Quantity 78 Dwelling Units

Calculations Completed By: Robert McLeod, EIT

Date: 12-Feb-24

Day / Period	Total Trips	Pass-By Trips	Avg Rate	Min Rate	Max Rate	Std Dev	Avg Size	% Enter	% Exit	Equation	R ²
Weekday Average Daily Trips Source: ITE Trip Generation Manual, 11th Edition	736	0	9.43	4.45	22.61	2.13	246	50	50	$\ln(T) = 0.92\ln(X) + 2.68$	0.95
Weekday AM Peak Hour of Adjacent Street Traffic Source: ITE Trip Generation Manual, 11th Edition	55	0	0.7	0.27	2.27	0.24	226	26	74	$\ln(T) = 0.91\ln(X) + 0.12$	0.90
Weekday PM Peak Hour of Adjacent Street Traffic Source: ITE Trip Generation Manual, 11th Edition	73	0	0.94	0.34	2.98	0.31	248	63	37	$\ln(T) = 0.94\ln(X) + 0.27$	0.92

MEMORANDUM

DATE: June 17, 2021

TO: Paul Lavrentiev
Pro Made Construction
6159 W. Deschutes Ave., suite 508
Kennewick, WA 9936

Via Email: Paul@infinityhomesofwa.com

FROM: Brian Bieger, Sr. Scientist/ Project Manager

PROJECT: South Kennewick Short Plat

REGARDING: Critical Areas Assessment – Wetlands and Fish and Wildlife Habitat Conservation Areas

Introduction

PBS Engineering and Environmental (PBS) was contracted by Pro Made Construction to conduct a critical areas assessment for a property slated to be short platted for eventual residential development. The project site is located within the City of Kennewick in Benton County, Washington (Figure 1). The purpose of the critical areas assessment was to identify and delineate any jurisdictional wetlands and/or fish and wildlife habitat conservation areas within or directly adjacent to the project area.

Through the course of the assessment, no wetlands or identifiable stream channels with ordinary high-water marks were identified within the project area. The results of the investigation are detailed below.

Methods

The method used to determine the presence or absence of wetlands on the site followed the routine approach of the US Army Corps of Engineers (USACE) *Wetlands Delineation Manual* (Environmental Laboratory, 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region Supplement* (Version 2.0) (Supplement) (US Army Corps of Engineers, 2010). Soils, vegetation, and indicators of hydrology were recorded at sample plot locations on standard wetland determination data forms. Wetland plant ratings were assigned based on the *2016 National Wetland Plant List* (Lichvar et al., 2016). No modification of the standard methodologies was necessary during the field work. Sample plot locations were recorded in the field using a Trimble Geo7X handheld GPS unit with a standard accuracy of plus or minus 2 feet.

The presence or absence of Ordinary High Water Marks (OHWM) was determined using the indicators within the USACE *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States Manual* (US Army Corps of Engineers, 2008).

Background Information

A review of available existing information was completed prior to completing a site visit. This included a review of United State Geological Service (USGS) topographic maps, WDFW Online Priority Habitat and Species (PHS) maps, US Fish and Wildlife Service national wetland inventory (NWI) maps, Natural Resource Conservation Service (NRCS) soil maps, recent aerial photographs and historic aerial photographs.

The topography of the project area is characterized by moderately steep slopes that drain to the approximate center of the site that is a broad bottomland that drains to the northeast (Figure 2). The USGS topographic map indicates the presence of a perennial pond a short distance northeast of the site. This feature is listed as Ben Blair Pond on various street maps and Elliot Lake on other online mapping applications.

The NWI maps for the project area list both intermittent streams and wetlands on the property (Figure 3). The mapped features include the following (USFWS, 2021):

- R4SBC- Riverine, Intermittent, Streambed, Seasonally Flooded
- PSS1C - Palustrine, Shrub/Scrub, Broad-leaved Deciduous, Seasonally Flooded
- PSS/EMC1C - Palustrine, Shrub/Scrub, Emergent, Broad-leaved Deciduous, Seasonally Flooded

None of these features were identified in the field. The palustrine shrub/scrub wetland vegetation was identified in the northeast portion of the project area, but further investigation revealed that these areas did not constitute wetlands. It should be noted that NWI maps are created from aerial photograph interpretation and are not meant to formally define wetland areas or waterbodies.

The NRCS soil map of the site indicates four different soil types on the property (NRCS, 2021) (Figure 4). These are:

- FfE—Finley stony fine sandy loam, 0 to 30 percent slopes
 The Finley component makes up 90 percent of the map unit. Slopes are 0 to 30 percent. This component is on terraces, flood plains. The parent material consists of alluvium. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. This soil does **not** meet hydric criteria.
- KeE3—Kennewick silt loam, 15 to 30 percent slopes, severely eroded
 The Kennewick component makes up 100 percent of the map unit. Slopes are 15 to 30 percent. This component is on terraces. The parent material consists of lacustrine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is very high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. This soil does **not** meet hydric criteria.
- WfE2—Warden very fine sandy loam, 15 to 30 percent slopes, eroded
 The Warden component makes up 100 percent of the map unit. Slopes are 15 to 30 percent. This component is on terraces. The parent material consists of loess over lacustrine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. Organic matter content in the surface horizon is about 2 percent. This soil does **not** meet hydric criteria.

- WdE3—Warden silt loam, 15 to 30 percent slopes, severely eroded the Warden component makes up 100 percent of the map unit. Slopes are 15 to 30 percent. This component is on terraces. The parent material consists of loess over lacustrine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This soil does **not** meet hydric criteria.

None of the mapped soils are listed in the Benton County soil survey as hydric soils. The mapped soils consist of silt loams and sandy silt loams that are well drained, have low amounts of organic matter, and high water movement capabilities.

The WDFW priority habitat and species maps (WDFW, 2021) indicate the potential presence of two priority habitats in the form of freshwater wetlands. These habitats were added to the WDFW database based on their occurrence within the NWI maps of the area and not through identification of these resources in the field. The boundaries of these wetland polygons are identical to those shown in Figure 3.

Historic aerial photographs of the immediate area surrounding the project site indicate that land use has not changed around the site in the past 15 years. The areas to the west are being utilized for high density residential developments and the areas to the east are in agricultural uses. The amount of residential development upslope of the project site rapidly increased in the late 1990's. Over 100 individual homes were built between 1996 and 2004 (Google Earth, 2021). It should be noted that residential developments and associated pavement and storm water infrastructure may disrupt the natural flow of water within a drainage.

Following the background investigation, a site visit was completed on June 12, 2021 by Senior Scientist Brian Bieger in order to evaluate and document the conditions of the project area. Mr. Bieger has a bachelors of science in wildlife science and over 15 years of professional experience in natural resource assessments.

Existing Conditions

The 24-acre project area is located at 212 E. 49th Avenue near the southern municipal boundary of the City of Kennewick (Figure 1). The project area is comprised of one tax lot (119802012740001). The site exists as degraded shrublands and a small swath of deciduous trees and shrubs in the lower elevations of the property. The property has a single family residence in the western portion of the property and there is a public utility line and gravel access/maintenance road that follows the lowest contours of the property. Photograph 1 below shows the general vegetation and development patterns of the site.



Photograph 1- Project Area Facing North

Vegetation on the hillsides is dominated by big sagebrush (*Artemisia tridentata*), kochia (*Bassia scoparia*), Canada thistle (*Cirsium arvense*), and cheatgrass (*Bromus tectorum*). The lower elevations of the property that follow the maintenance road are vegetated with forest and shrub vegetation that is typically located within riparian areas in the eastern portions of Washington. These areas have an overstory of black cottonwood (*Populus balsamifera*), Russian olive (*Elaeagnus angustifolia*), and willow (*Salix sp.*) trees. Shrub level vegetation was limited to smaller Russian olive and willow shrubs. Emergent layer vegetation is dominated by non-native perennial grasses and forbs such as common reed (*Phragmites australis*), Virginia creeper (*Parthenocissus quinquefolia*), Canada thistle, broadleaved pepperweed (*Lepidium latifolium*), sweet clover (*Melilotus officinalis*), and showy milkweed (*Asclepias speciosa*). A representative photograph of this area is presented in Photograph 2 below.



Photograph 2- Forested Portion Facing South

Wetland Presence

A total of four wetland sample plots were established to determine the presence or absence of wetland indicators (Figure 5). Data sheets 1-4 are attached to this report. While wetland vegetation criteria were met at each plot, none of the plots met the primary or secondary indicators of wetland hydrology or wetland soil indicators. Soils consisted of shallow silt loams generally underlain by silty sand. Soil profiles indicated silty soils that were likely washed off the adjacent hill sides and deposited in the lower lying areas. Some of the soil profiles appeared to be somewhat disturbed as soil colors and depths were generally more variable than is typically observed on a single site. There were areas where soil colors lower in the soil profile would meet wetland criteria (5Y 5/1 with 10YR 5/8 redox) but they were overlaid by higher chroma color soil matrices (10YR 5/3) which meant that they did not meet hydric soil criteria.

The dominance of wetland vegetation in the lower portions of the property adjacent to the maintenance/access road indicates that these areas have higher amounts of soil moisture and may experience very short duration ponding during precipitation events. Water is likely moving towards this portion of the site via overland runoff. This would allow for wetland vegetation such as cottonwood and willow to become established. However, the very well drained nature of the coarse soils that contain little organic matter would result in rapid drying following the cessation of precipitation events. If water was present in these areas for longer durations then hydric soils indicators would likely have been observed at sample plot locations.

It is difficult to predict the effects of adjacent development on hydrology without long term studies but it is reasonable to speculate that development in the general area and within the project area has the ability to affect water flow through the site. The access/maintenance road and the sewer line that is under it were very recently constructed. Linear utility lines are known to drain subsurface waters unless specific construction practices are put in place. Additionally, the installation of these utilities can redistribute soils within the immediate area and may be the cause of the somewhat irregular soil profiles observed within wetland sample plots. It is possible, if not likely, that the installation of the sewer line is causing subsurface water to be intercepted and transported along porous gravels and sands that utility lines are usually bedded in.

Riparian Habitat

Despite the mapped potential presence of stream channels shown in the NWI maps, no evidence of channelized water flow was observed. There were a few portions on the west side of the access road that appeared to be briefly inundated at one time (dried leaf pattern, sparse vegetation). There were no observable signs of water flow such as drift lines, hydrologically sorted sediments, vegetation patterns, or dramatic changes in topography. If an intermittent stream was within these areas, it stands to reason that there would be observable signs. In addition to the absence of flowing water indicators, no infrastructure designed to convey surface waters was observed (culverts, canals).

Summary

PBS was hired to complete a critical areas assessment for a planned short plat project. Through the course of this assessment, it was determined that no wetlands or riparian areas are located on the property. Despite potential wetlands being mapped on the site, sample plots established in probable locations for these features indicate that they do not meet established USACE criteria as wetlands. Additionally, no evidence of intermittent or perennial surface waters were identified on the site.

If you have any further questions or comments or need further clarification please feel free to contact me.



Brian Bieger
Senior Scientist/ Project Manager

Attachment(s): *Figures 1-5, Data sheets 1-4.*

Literature Cited

Environmental Laboratory. 1987. *Corps of Engineers Wetlands Delineation Manual*. Technical Report Y-87-1. U.S. Department of the Army, Corps of Engineers, Waterways Experiment Station, Vicksburg, Mississippi.

Google Earth. 2021. Desktop GIS application. Aerial photographs accessed June 19, 2021.

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NRCS. 2021. Natural Resources Conservation Service, U.S. Department of Agriculture. Web Soil Survey. Available online at: <http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>. Accessed June 19, 2021.

U.S. Army Corps of Engineers. 2008. *A field guide to the identification of the Ordinary High Water Mark (OHWM) in the Arid west Region of the western United States* ed. Lichvar, R.W., S.M. McColley. ERDC/CRREL TR-08-12. Hanover, NH. U.S. Army Corps of Engineer Research and Development Center.

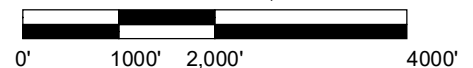
U.S. Army Corps of Engineers. 2010. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)*. ed. J.S. Wakeley, R.W. Lichvar, and C.V. Noble. ERDC/EL TR-08-28. Vicksburg, MS. U.S. Army Corps of Engineer Research and Development Center.

USFWS. 2021. U.S. Fish and Wildlife Service National Wetland Inventory. Wetlands Mapper. Available online at: <https://www.fws.gov/wetlands/Data/Mapper.html>. Accessed June 19, 2021.

WDFW. 2021. Washington Department of Fish and Wildlife Priority Habitats and Species. PHS on the Web. Available online at: <http://wdfw.wa.gov/mapping/phs/>. Accessed June 19, 2021.



SCALE: 1" = 2,000'



PREPARED FOR: Pro Made Construction.

Legend

 Project Area

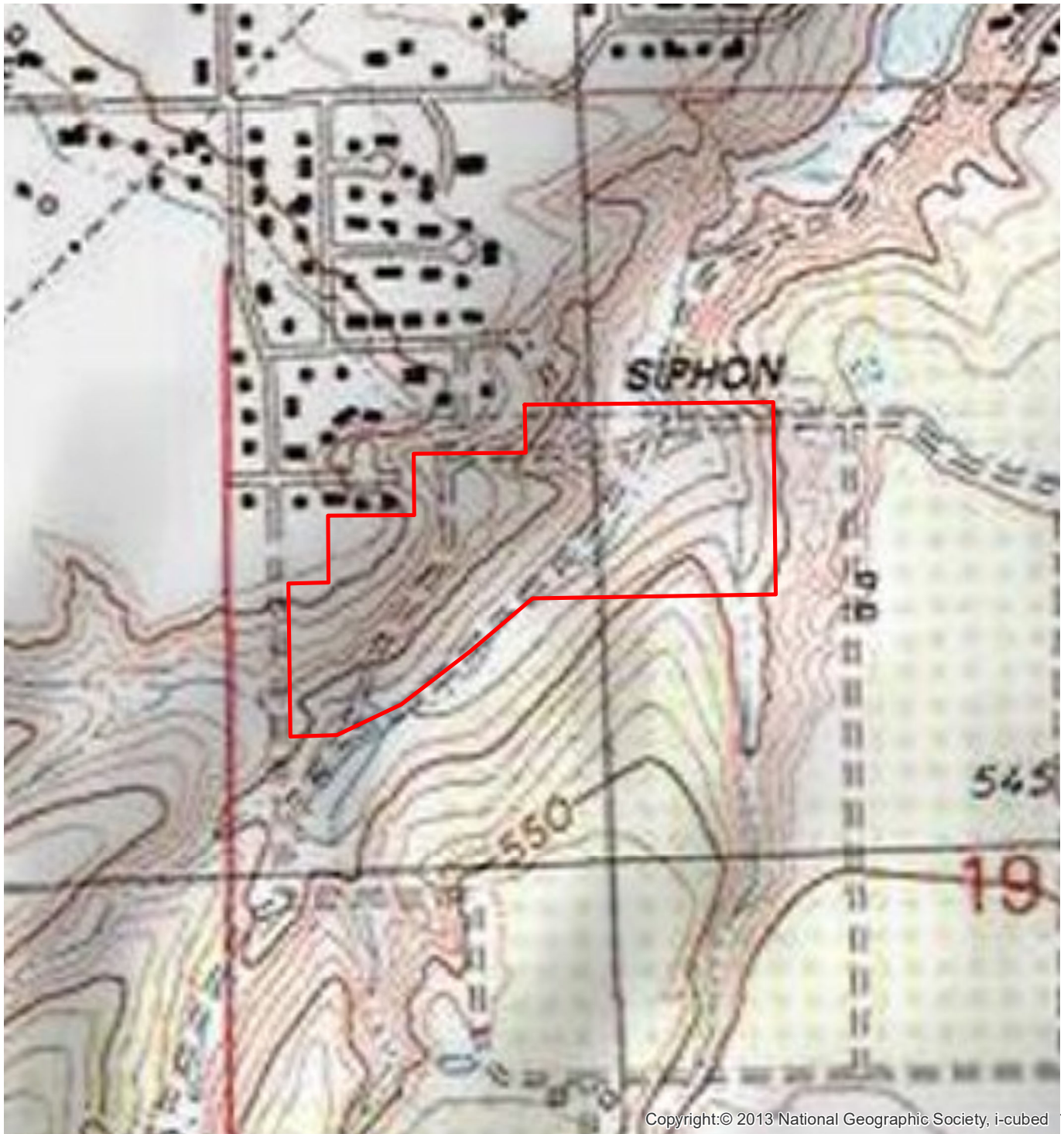


Pro Made Short Plat Project
City of Kennewick, WA

JUNE 2021
66321.000

FIGURE

1

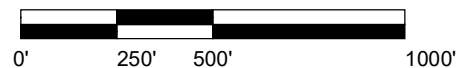


Legend

 Project Area



SCALE: 1" = 500'



PREPARED FOR: Pro Made Construction.



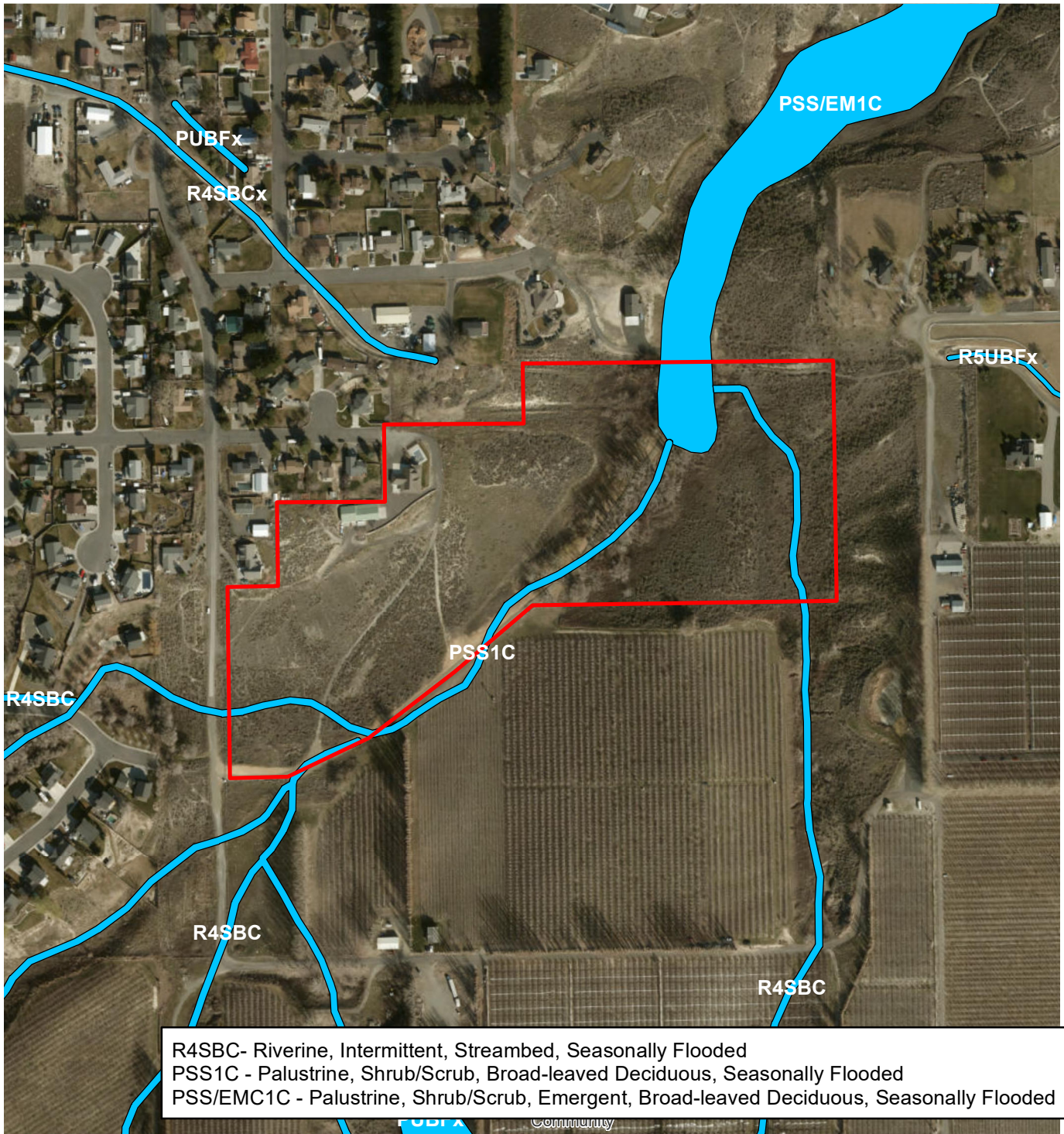
TOPOGRAPHIC MAP

Pro Made Short Plat Project
City of Kennewick, WA

JUNE 2021
66321.000

FIGURE

2

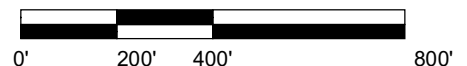


Legend

- Project Area
- Wetland Polygons



SCALE: 1" = 400'



PREPARED FOR: Pro Made Construction.



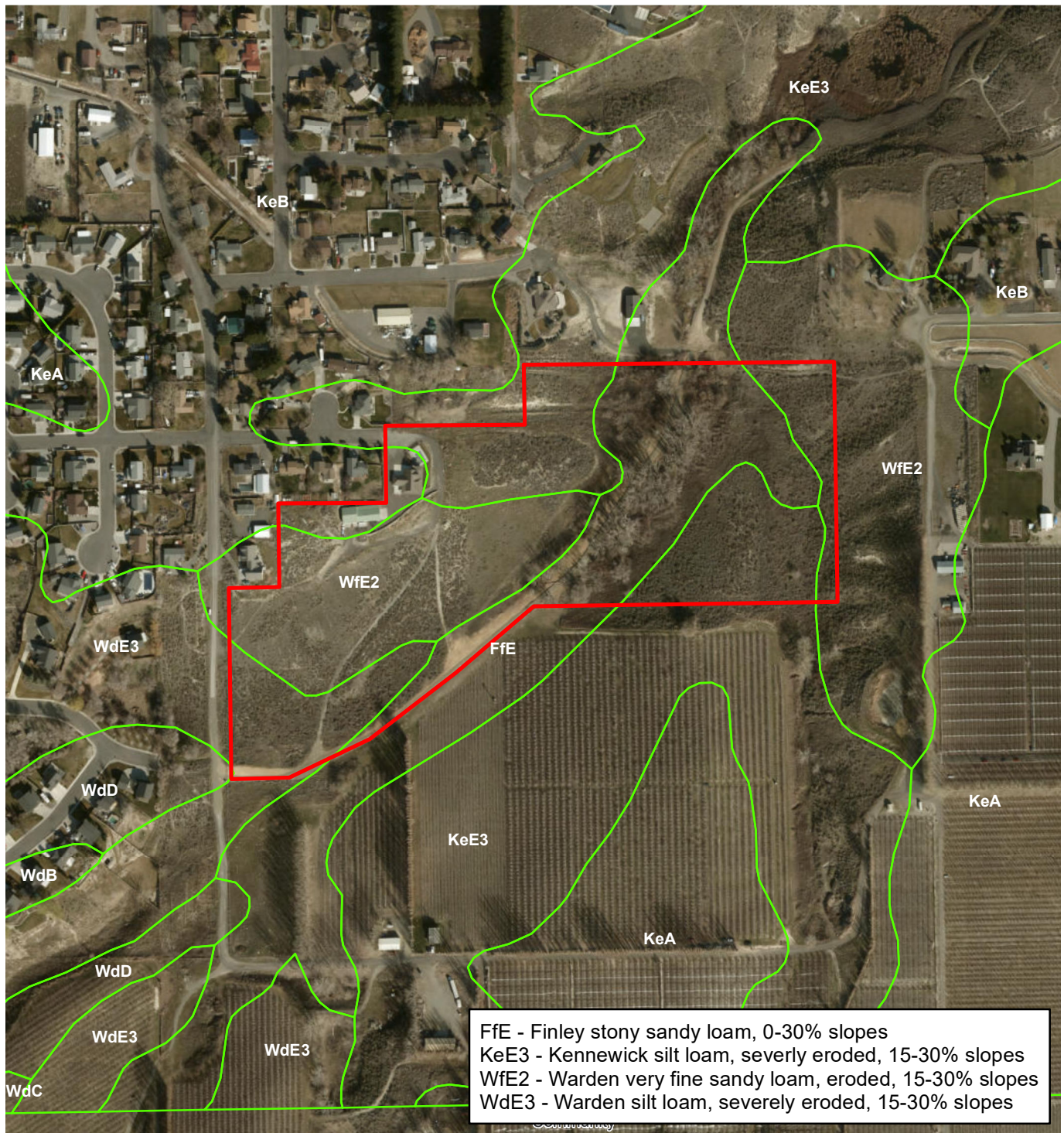
NATIONAL WETLAND INVENTORY MAP

Pro Made Short Plat Project
City of Kennewick, WA

JUNE 2021
66321.000

FIGURE

3



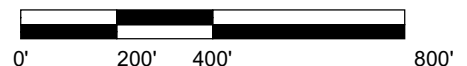
FfE - Finley stony sandy loam, 0-30% slopes
 KeE3 - Kennewick silt loam, severely eroded, 15-30% slopes
 WfE2 - Warden very fine sandy loam, eroded, 15-30% slopes
 WdE3 - Warden silt loam, severely eroded, 15-30% slopes

Legend

- Project Area
- NRCS Soil Units



SCALE: 1" = 400'



PREPARED FOR: Pro Made Construction.



NRCS SOILS MAP

Pro Made Short Plat Project
 City of Kennewick, WA

JUNE 2021
 66321.000

FIGURE

4

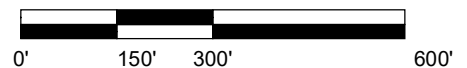


Legend

- Project Area
- Sample Plots



SCALE: 1" = 300'



PREPARED FOR: Pro Made Construction.



AERIAL PHOTO
Pro Made Short Plat Project
City of Kennewick, WA

JUNE 2021
66321.000

FIGURE

5

Project/Site: Pro Made Construction Short Plat City/County: Kennewick /Benton Sampling Date: June 12, 20221
 Applicant/Owner: Pro Made Construction State: WA Sampling Point: 1
 Investigator(s): Bieger Section/Township/Range: Section 19, T8N, R30E
 Landform (hillslope, terrace etc.): Terrace Local relief: Slope Slope (%): 0.02
 Subregion (LRR): Cascade Mountains Eastern Slope Lat: 46.164812° Long: -119.113135 Datum: WGS84
 Soil Map Unit Name: Finley Sandy loam NWI Classification: None

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

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u> </u>	Is the Sampled Area within a wetland? Yes <u> </u> No <u>X</u>
Hydric Soil Present?	Yes <u> </u>	No <u>X</u>	
Wetland Hydrology Present?	Yes <u> </u>	No <u>X</u>	

Remarks:

VEGETATION

Tree Stratum (Plot size: 30' r)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>67%</u> (A/B)
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
Total Cover:	<u>0</u>			
Sapling/Shrub Stratum (Plot size: 30' r)				Prevalence Index worksheet: Total % Cover of: <u> </u> Multiply by: <u> </u> OBL species <u>0</u> x 1 = <u> </u> FACW species <u>0</u> x 2 = <u> </u> FAC species <u>30</u> x 3 = <u>90</u> FACU species <u>10</u> x 4 = <u>40</u> UPL species <u>0</u> x 5 = <u> </u> Column Totals: <u>40</u> (A) <u>130</u> (B) Prevalence Index = B/A = <u>3.25</u>
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
Total Cover:	<u>0</u>			
Herb Stratum (Plot size: 5' r)				Hydrophytic Vegetation Indicators: X Dominance Test is >50% <u> </u> Prevalence Index is ≤3.0 ¹ <u> </u> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Cirsium arvense</u>	<u>10</u>	<u>Yes</u>	<u>FACU</u>	
2. <u>Parthenocissus quinquefolia</u>	<u>20</u>	<u>Yes</u>	<u>FAC</u>	
3. <u>Asclepias speciosa</u>	<u>10</u>	<u>Yes</u>	<u>FAC</u>	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
Total Cover:	<u>40</u>			
Woody Vine Stratum (Plot Size: 30' r)				¹ Indicators of hydric soil and wetland hydrology must be present.
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
Total Cover:	<u>0</u>			
% Bare Ground in Herb Stratum <u>60</u>	% Cover of Biotic Crust <u>0</u>			Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>

Remarks:

SOIL

Sampling Point: 1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (in.)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-5	10YR3/2	100					SL	
5-9	10YR 2/2	100					SCL	
9-18	5Y2.5/1	100					SCL	
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS = Covered or Coated Sand Grains							² Location: PL=Pore Lining, M=Matrix.	
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)							Indicators for Problematic Hydric Soils³:	
_____ Histosol (A1)			_____ Sandy Mucky Mineral (S1)			_____ Depleted Dark Surface (F7)		
_____ Histic Epipedon (A2)			_____ Sandy Gleyed Matrix (S4)			_____ Redox Depressions (F8)		
_____ Black Histic (A3)			_____ Sandy Redox (S5)			_____ Vernal Pools (F9)		
_____ Hydrogen Sulfide (A4)			_____ Stripped Matrix (S6)			_____ 1 cm Muck (A19) (LRR C)		
_____ Stratified Layers (A5) (LRRC)			_____ Loamy Mucky Mineral (F1)			_____ 2 cm Muck (A10) (LRR B)		
_____ 1 cm Muck (A9) (LRRD)			_____ Loamy Gleyed Matrix (F2)			_____ Reduced Vertic (F18)		
_____ Depleted Below Dark Surface (A11)			_____ Depleted Matrix (F3)			_____ Red Parent Material (TF2)		
_____ Thick Dark Surface (A12)			_____ Redox Dark Surface (F6)			_____ Other (Explain in Remarks)		
³ Indicators of hydrophytic vegetation and wetland hydrology must be present								
Restrictive Layer (if present):							Hydric Soil Present?	
Type: _____							Yes _____ No <u> x </u>	
Depth (inches): _____								
Remarks: _____ Strange soil color encountered at 9" (5y 2.5/1). No redox								
HYDROLOGY								
Wetland Hydrology Indicators:								
<u>Primary Indicators (any one indicator is sufficient)</u>					<u>Secondary Indicators (2 or more required)</u>			
_____ Surface Water (A1)			_____ Biotic Crust		_____ Drift Deposits (B2) (Riverine)			
_____ High Water Table (A2)			_____ Aquatic Invertebrates (B13)		_____ Drainage Patterns (B10)			
_____ Saturation (A3)			_____ Hydrogen Sulfide Odor (C1)		_____ Dry-Season Water Table (C2)			
_____ Water Marks (B1) (Nonriverine)			_____ Oxidized Rhizospheres along Living Roots (C3)		_____ Crayfish Burrows (C8)			
_____ Sediment Deposits (B2) (Nonriverine)			_____ Presence of Reduced Iron (C4)		_____ Saturation Visible on Aerial Imagery (C9)			
_____ Drift Deposits (B3) (Nonriverine)			_____ Recent Iron Reduction in Tilled Soils (C6)		_____ Shallow Aquitard (D3)			
_____ Surface Soil Cracks (B6)			_____ Thin Muck Surface (C7)		_____ FAC-Neutral Test (D5)			
_____ Inundation Visible on Aerial Imagery (B7)			_____ Other (Explain in Remarks)					
_____ Water-Stained Leaves (B9)			_____ Water Marks (B1) (Riverine)					
_____ Salt Crust (B11)			_____ Sediment Deposits (B2) (Riverine)					
Field Observations:							Wetland Hydrology Present?	
Surface Water Present?		Yes _____ No <u> x </u>	Depth (in): _____		Yes _____ No <u> x </u>			
Water Table Present?		Yes _____ No <u> x </u>	Depth (in): _____					
Saturation Present?		Yes _____ No <u> x </u>	Depth (in): _____					
(includes capillary fringe)								
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:								
Remarks: _____ No FAC neutral 2nd indicators.								

Project/Site: Pro Made Construction Short Plat City/County: Kennewick /Benton Sampling Date: June 12, 20221
 Applicant/Owner: Pro Made Construction State: WA Sampling Point: 2
 Investigator(s): Bieger Section/Township/Range: Section 19, T8N, R30E
 Landform (hillslope, terrace etc.): Terrace Local relief: Slope Slope (%): 0.02
 Subregion (LRR): Cascade Mountains Eastern Slope Lat: 46.164812° Long: -119.113135 Datum: WGS84
 Soil Map Unit Name: Finley Sandy loam NWI Classification: None

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

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u> </u>	Is the Sampled Area within a wetland? Yes <u> </u> No <u>X</u>
Hydric Soil Present?	Yes <u> </u>	No <u>X</u>	
Wetland Hydrology Present?	Yes <u> </u>	No <u>X</u>	

Remarks:

VEGETATION

Tree Stratum (Plot size: 30' r)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1. <u>Populus balsamifera</u>	<u>30</u>	<u>Yes</u>	<u>FAC</u>	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Prevalence Index worksheet: Total % Cover of: <u> </u> Multiply by: <u> </u> OBL species <u>0</u> x 1 = <u> </u> FACW species <u>100</u> x 2 = <u>200</u> FAC species <u>50</u> x 3 = <u>150</u> FACU species <u>0</u> x 4 = <u> </u> UPL species <u>0</u> x 5 = <u> </u> Column Totals: <u>150</u> (A) <u>350</u> (B) Prevalence Index = B/A = <u>2.33</u>
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Hydrophytic Vegetation Indicators: X <u> </u> Dominance Test is >50% <u> </u> Prevalence Index is ≤3.0 ¹ <u> </u> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
Total Cover: <u>30</u>				¹ Indicators of hydric soil and wetland hydrology must be present.
Sapling/Shrub Stratum (Plot size: 30' r)				
1. <u>Salix exigua</u>	<u>20</u>	<u>Yes</u>	<u>FACW</u>	Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
Total Cover: <u>20</u>				
Herb Stratum (Plot size: 5' r)				
1. <u>Phragmites australis</u>	<u>80</u>	<u>Yes</u>	<u>FACW</u>	
2. <u>Parthenocissus quinquefolia</u>	<u>20</u>	<u>No</u>	<u>FAC</u>	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
Total Cover: <u>110</u>				
Woody Vine Stratum (Plot Size: 30' r)				
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
Total Cover: <u>0</u>				
% Bare Ground in Herb Stratum <u>-10</u>		% Cover of Biotic Crust <u>0</u>		

Remarks:

SOIL

Sampling Point: 2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (in.)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-7	10YR 5/3	100					SSL	
7-10	10YR 5/3	90	10YR 5/8	10	c	m	SCL	
10-15	2.5Y 5/2	100					SCL	
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS = Covered or Coated Sand Grains							² Location: PL=Pore Lining, M=Matrix.	
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)							Indicators for Problematic Hydric Soils³:	
☐ Histosol (A1)			☐ Sandy Mucky Mineral (S1)			☐ Depleted Dark Surface (F7)		
☐ Histic Epipedon (A2)			☐ Sandy Gleyed Matrix (S4)			☐ Redox Depressions (F8)		
☐ Black Histic (A3)			☐ Sandy Redox (S5)			☐ Vernal Pools (F9)		
☐ Hydrogen Sulfide (A4)			☐ Stripped Matrix (S6)			☐ 1 cm Muck (A19) (LRR C)		
☐ Stratified Layers (A5) (LRRC)			☐ Loamy Mucky Mineral (F1)			☐ 2 cm Muck (A10) (LRR B)		
☐ 1 cm Muck (A9) (LRRD)			☐ Loamy Gleyed Matrix (F2)			☐ Reduced Vertic (F18)		
☐ Depleted Below Dark Surface (A11)			☐ Depleted Matrix (F3)			☐ Red Parent Material (TF2)		
☐ Thick Dark Surface (A12)			☐ Redox Dark Surface (F6)			☐ Other (Explain in Remarks)		
³ Indicators of hydrophytic vegetation and wetland hydrology must be present								
Restrictive Layer (if present):							Hydric Soil Present?	
Type: _____							Yes _____ No ☒ x	
Depth (inches): _____								
Remarks: none								
HYDROLOGY								
Wetland Hydrology Indicators:								
<u>Primary Indicators (any one indicator is sufficient)</u>					<u>Secondary Indicators (2 or more required)</u>			
☐ Surface Water (A1)	☐ Biotic Crust				☐ Drift Deposits (B2) (Riverine)			
☐ High Water Table (A2)	☐ Aquatic Invertebrates (B13)				☐ Drainage Patterns (B10)			
☐ Saturation (A3)	☐ Hydrogen Sulfide Odor (C1)				☐ Dry-Season Water Table (C2)			
☐ Water Marks (B1) (Nonriverine)	☐ Oxidized Rhizospheres along Living Roots (C3)				☐ Crayfish Burrows (C8)			
☐ Sediment Deposits (B2) (Nonriverine)	☐ Presence of Reduced Iron (C4)				☐ Saturation Visible on Aerial Imagery (C9)			
☐ Drift Deposits (B3) (Nonriverine)	☐ Recent Iron Reduction in Tilled Soils (C6)				☐ Shallow Aquitard (D3)			
☐ Surface Soil Cracks (B6)	☐ Thin Muck Surface (C7)				☒ FAC-Neutral Test (D5)			
☐ Inundation Visible on Aerial Imagery (B7)	☐ Other (Explain in Remarks)							
☐ Water-Stained Leaves (B9)	☐ Water Marks (B1) (Riverine)							
☐ Salt Crust (B11)	☐ Sediment Deposits (B2) (Riverine)							
Field Observations:							Wetland Hydrology Present?	
Surface Water Present?		Yes _____ No ☒ x	Depth (in): _____		Yes _____ No ☒ x			
Water Table Present?		Yes _____ No ☒ x	Depth (in): _____					
Saturation Present?		Yes _____ No ☒ x	Depth (in): _____					
(includes capillary fringe)								
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:								
Remarks:								

Project/Site: Pro Made Construction Short Plat City/County: Kennewick /Benton Sampling Date: June 12, 20221
 Applicant/Owner: Pro Made Construction State: WA Sampling Point: 3
 Investigator(s): Bieger Section/Township/Range: Section 19, T8N, R30E
 Landform (hillslope, terrace etc.): Terrace Local relief: Slope Slope (%): 0.02
 Subregion (LRR): Cascade Mountains Eastern Slope Lat: 46.164812° Long: -119.113135 Datum: WGS84
 Soil Map Unit Name: Finley Sandy loam NWI Classification: None

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

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u> </u>	Is the Sampled Area within a wetland? Yes <u> </u> No <u>X</u>
Hydric Soil Present?	Yes <u> </u>	No <u>X</u>	
Wetland Hydrology Present?	Yes <u> </u>	No <u>X</u>	

Remarks:

VEGETATION

Tree Stratum (Plot size: 30' r)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)
1. <u>Populus balsamifera</u>	<u>20</u>	<u>Yes</u>	<u>FAC</u>	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
Total Cover: <u>20</u>				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
Sapling/Shrub Stratum (Plot size: 30' r)				
1. <u>Elaeagnus angustifolia</u>	<u>25</u>	<u>Yes</u>	<u>FAC</u>	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Prevalence Index worksheet: Total % Cover of: <u> </u> Multiply by: OBL species <u>0</u> x 1 = <u> </u> FACW species <u>0</u> x 2 = <u> </u> FAC species <u>115</u> x 3 = <u>345</u> FACU species <u>0</u> x 4 = <u> </u> UPL species <u>0</u> x 5 = <u> </u> Column Totals: <u>115</u> (A) <u>345</u> (B) Prevalence Index = B/A = <u>3.00</u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
Total Cover: <u>25</u>				
Herb Stratum (Plot size: 5' r)				
1. <u>Lepidium latifolium</u>	<u>70</u>	<u>Yes</u>	<u>FAC</u>	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Hydrophytic Vegetation Indicators: X Dominance Test is >50% Prevalence Index is ≤3.0 ¹ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present.
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
Total Cover: <u>70</u>				
Woody Vine Stratum (Plot Size: 30' r)				
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
Total Cover: <u>0</u>				
% Bare Ground in Herb Stratum <u>30</u>	% Cover of Biotic Crust <u>0</u>			

Remarks:

SOIL

Sampling Point: 3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (in.)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-3	10YR 4/2	100					SL	
3-10	10YR 5/3	100					SCL	
10-16	5Y 5/1	100					SCL	
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS = Covered or Coated Sand Grains							² Location: PL=Pore Lining, M=Matrix.	
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)							Indicators for Problematic Hydric Soils³:	
_____ Histosol (A1)			_____ Sandy Mucky Mineral (S1)			_____ Depleted Dark Surface (F7)		
_____ Histic Epipedon (A2)			_____ Sandy Gleyed Matrix (S4)			_____ Redox Depressions (F8)		
_____ Black Histic (A3)			_____ Sandy Redox (S5)			_____ Vernal Pools (F9)		
_____ Hydrogen Sulfide (A4)			_____ Stripped Matrix (S6)			_____ 1 cm Muck (A19) (LRR C)		
_____ Stratified Layers (A5) (LRR C)			_____ Loamy Mucky Mineral (F1)			_____ 2 cm Muck (A10) (LRR B)		
_____ 1 cm Muck (A9) (LRRD)			_____ Loamy Gleyed Matrix (F2)			_____ Reduced Vertic (F18)		
_____ Depleted Below Dark Surface (A11)			_____ Depleted Matrix (F3)			_____ Red Parent Material (TF2)		
_____ Thick Dark Surface (A12)			_____ Redox Dark Surface (F6)			_____ Other (Explain in Remarks)		
³ Indicators of hydrophytic vegetation and wetland hydrology must be present								
Restrictive Layer (if present):							Hydric Soil Present?	
Type: _____							Yes _____ No <u> x </u>	
Depth (inches): _____								
Remarks: No redox, 5/3 soil at least 6" above 5/1 layer.								
HYDROLOGY								
Wetland Hydrology Indicators:								
<u>Primary Indicators (any one indicator is sufficient)</u>					<u>Secondary Indicators (2 or more required)</u>			
_____ Surface Water (A1)		_____ Biotic Crust			_____ Drift Deposits (B2) (Riverine)			
_____ High Water Table (A2)		_____ Aquatic Invertebrates (B13)			_____ Drainage Patterns (B10)			
_____ Saturation (A3)		_____ Hydrogen Sulfide Odor (C1)			_____ Dry-Season Water Table (C2)			
_____ Water Marks (B1) (Nonriverine)		_____ Oxidized Rhizospheres along Living Roots (C3)			_____ Crayfish Burrows (C8)			
_____ Sediment Deposits (B2) (Nonriverine)		_____ Presence of Reduced Iron (C4)			_____ Saturation Visible on Aerial Imagery (C9)			
_____ Drift Deposits (B3) (Nonriverine)		_____ Recent Iron Reduction in Tilled Soils (C6)			_____ Shallow Aquitard (D3)			
_____ Surface Soil Cracks (B6)		_____ Thin Muck Surface (C7)			_____ FAC-Neutral Test (D5)			
_____ Inundation Visible on Aerial Imagery (B7)		_____ Other (Explain in Remarks)						
_____ Water-Stained Leaves (B9)		_____ Water Marks (B1) (Riverine)						
_____ Salt Crust (B11)		_____ Sediment Deposits (B2) (Riverine)						
Field Observations:								
Surface Water Present?		Yes _____	No <u> x </u>	Depth (in): _____		Wetland Hydrology Present? Yes _____ No <u> x </u>		
Water Table Present?		Yes _____	No <u> x </u>	Depth (in): _____				
Saturation Present?		Yes _____	No <u> x </u>	Depth (in): _____				
(includes capillary fringe)								
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:								
Remarks: No FAC neutral 2nd indicators.								

Project/Site: Pro Made Construction Short Plat City/County: Kennewick /Benton Sampling Date: June 12, 20221
 Applicant/Owner: Pro Made Construction State: WA Sampling Point: 4
 Investigator(s): Bieger Section/Township/Range: Section 19, T8N, R30E
 Landform (hillslope, terrace etc.): Terrace Local relief: Slope Slope (%): 0.02
 Subregion (LRR): Cascade Mountains Eastern Slope Lat: 46.164812° Long: -119.113135 Datum: WGS84
 Soil Map Unit Name: Finley Sandy loam NWI Classification: None

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

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u> </u>	Is the Sampled Area within a wetland? Yes <u> </u> No <u>X</u>
Hydric Soil Present?	Yes <u> </u>	No <u>X</u>	
Wetland Hydrology Present?	Yes <u> </u>	No <u>X</u>	

Remarks:

VEGETATION

Tree Stratum (Plot size: 30' r)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)
1. <u>Populus balsamifera</u>	<u>40</u>	<u>Yes</u>	<u>FAC</u>	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
Total Cover: <u>40</u>				Prevalence Index worksheet: Total % Cover of: <u> </u> Multiply by: <u> </u> OBL species <u>0</u> x 1 = <u> </u> FACW species <u>40</u> x 2 = <u>80</u> FAC species <u>80</u> x 3 = <u>240</u> FACU species <u>0</u> x 4 = <u> </u> UPL species <u>0</u> x 5 = <u> </u> Column Totals: <u>120</u> (A) <u>320</u> (B) Prevalence Index = B/A = <u>2.67</u>
Sapling/Shrub Stratum (Plot size: 30' r)				
1. <u>Salix exigua</u>	<u>40</u>	<u>Yes</u>	<u>FACW</u>	Hydrophytic Vegetation Indicators: X Dominance Test is >50% <u> </u> Prevalence Index is ≤3.0 ¹ <u> </u> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	¹ Indicators of hydric soil and wetland hydrology must be present.
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Remarks:
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
Total Cover: <u>40</u>				
Woody Vine Stratum (Plot Size: 30' r)				
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
Total Cover: <u>0</u>				
% Bare Ground in Herb Stratum <u>60</u>	% Cover of Biotic Crust <u>0</u>			

Remarks:

SOIL

Sampling Point: 4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)									
Depth (in.)	Matrix		Redox Features				Texture	Remarks	
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²			
0-4	10YR 4/2	100					SL		
4-10	10YR 5/3	100					SCL		
10-16	5Y 5/1	100					SCL		
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS = Covered or Coated Sand Grains							² Location: PL=Pore Lining, M=Matrix.		
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)							Indicators for Problematic Hydric Soils³:		
☐ Histosol (A1)			☐ Sandy Mucky Mineral (S1)			☐ Depleted Dark Surface (F7)			
☐ Histic Epipedon (A2)			☐ Sandy Gleyed Matrix (S4)			☐ Redox Depressions (F8)			
☐ Black Histic (A3)			☐ Sandy Redox (S5)			☐ Vernal Pools (F9)			
☐ Hydrogen Sulfide (A4)			☐ Stripped Matrix (S6)			☐ 1 cm Muck (A19) (LRR C)			
☐ Stratified Layers (A5) (LRRC)			☐ Loamy Mucky Mineral (F1)			☐ 2 cm Muck (A10) (LRR B)			
☐ 1 cm Muck (A9) (LRRD)			☐ Loamy Gleyed Matrix (F2)			☐ Reduced Vertic (F18)			
☐ Depleted Below Dark Surface (A11)			☐ Depleted Matrix (F3)			☐ Red Parent Material (TF2)			
☐ Thick Dark Surface (A12)			☐ Redox Dark Surface (F6)			☐ Other (Explain in Remarks)			
³ Indicators of hydrophytic vegetation and wetland hydrology must be present									
Restrictive Layer (if present):							Hydric Soil Present?		
Type: _____							Yes _____ No ☒ x		
Depth (inches): _____									
Remarks: No redox, 5/3 soil at least 6" above 5/1 layer.									
HYDROLOGY									
Wetland Hydrology Indicators:									
Primary Indicators (any one indicator is sufficient)					Secondary Indicators (2 or more required)				
☐ Surface Water (A1)	☐ Biotic Crust				☐ Drift Deposits (B2) (Riverine)				
☐ High Water Table (A2)	☐ Aquatic Invertebrates (B13)				☐ Drainage Patterns (B10)				
☐ Saturation (A3)	☐ Hydrogen Sulfide Odor (C1)				☐ Dry-Season Water Table (C2)				
☐ Water Marks (B1) (Nonriverine)	☐ Oxidized Rhizospheres along Living Roots (C3)				☐ Crayfish Burrows (C8)				
☐ Sediment Deposits (B2) (Nonriverine)	☐ Presence of Reduced Iron (C4)				☐ Saturation Visible on Aerial Imagery (C9)				
☐ Drift Deposits (B3) (Nonriverine)	☐ Recent Iron Reduction in Tilled Soils (C6)				☐ Shallow Aquitard (D3)				
☐ Surface Soil Cracks (B6)	☐ Thin Muck Surface (C7)				☒ FAC-Neutral Test (D5)				
☐ Inundation Visible on Aerial Imagery (B7)	☐ Other (Explain in Remarks)								
☐ Water-Stained Leaves (B9)	☐ Water Marks (B1) (Riverine)								
☐ Salt Crust (B11)	☐ Sediment Deposits (B2) (Riverine)								
Field Observations:							Wetland Hydrology Present?		
Surface Water Present?		Yes _____ No ☒ x	Depth (in): _____		Yes _____ No ☒ x				
Water Table Present?		Yes _____ No ☒ x	Depth (in): _____						
Saturation Present?		Yes _____ No ☒ x	Depth (in): _____						
(includes capillary fringe)									
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:									
Remarks:									

Critical Area Mitigation Plan Sunny Meadows Project

City of Kennewick, Washington

Prepared for:

Pro Made Construction, LLC
105609 W Wisher Parkway
Kennewick, Washington 99338

October 31, 2023
PBS Project 78165.000



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Figure 2. Topographic Map

Figure 3. WDFW Priority Habitat and Species Map

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Figure 6. Shrub-Steppe Impacts

APPENDICES

Appendix A. Project Area Photographs

Appendix B. Wetland Determination Report

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PROJECT OVERVIEW

Applicant:	Pro Made Construction
Site Address:	240 E 49th Avenue (see Figure 1)
Project Area Size:	23.46 acres
Kennewick Parcel IDs:	119802012740001
Township and Range:	NW ¼ of Section 19, Township 8N, Range 30E
Proposed Project:	Single-Family Residential Development
Critical Areas Present:	Fish and Wildlife Habitat Conservation Areas

1 INTRODUCTION

PBS Engineering and Environmental Inc. (PBS) was contracted by Pro Made Construction, LLC (Client) to complete a critical areas mitigation plan for the Sunny Meadows Project located within the city of Kennewick, Washington. The purpose of this critical areas mitigation plan is to detail the existing extent of critical areas, proposed impacts, and mitigation measures designed to offset impacts to shrub-steppe habitats.

PBS previously completed a wetland delineation and assessment of the project area and concluded that although wetlands and waterways are identified on National Wetland Inventory (NWI) maps, none of the areas within the project area met all three wetland criteria (wetland soils, hydrophytic vegetation, and wetland hydrology). It appears that the construction of the sewer utility line that runs through the southern/central portion of the project area negatively affected wetland hydrology at the site. The results of that investigation are summarized in the PBS Wetland Assessment Memo dated June 17, 2021.

An assessment of the project site by PBS biologist for the presence of regulated Fish and Wildlife Habitat Conservation Areas (FWHCAs) revealed that portions of the project area contain shrub-steppe habitats. Due to the nature of the residential development project and the extent of necessary grading, impacts to the on-site shrub-steppe habitats will be required. Mitigation for these impacts will take the form of conserving off-site shrub-steppe habitats at a 2:1 ratio.

2 PREPARER

The mitigation plan was prepared by Brian Bieger, PBS Professional Wetland Scientist. Mr. Bieger has a bachelor of science in wildlife science and over 23 years of consulting experience in nature resource assessment and permitting.

3 STUDY AREA

The study area for this project includes the 23.46-acre project area which is limited to tax lot 119802012740001 and a buffer of 200 feet. This buffer is required by the City of Kennewick (City) to ensure that buffers extending from off-site critical areas are not affected by the proposed project. The total study area is 49.6 acres in size. The project area tax lot has a legal address of 240 East 49th Avenue (Figure 1).

4 DEFINITIONS

The study area was found to contain FWHCAs. The City of Kennewick Code of Ordinances (Code) provides definitions for FWHCAs in Section 18.630.010.

4.1 Fish and Wildlife Habitat Conservation Areas

Section 18.63.010 of the Code defines FWHCAs. The types of FWHCAs found within the study area are shown in bold:

- (a) Areas where state or federal designated endangered, threatened, and sensitive species have a primary association.
 - (i) Federal designated endangered and threatened species are those fish, wildlife, and plant species identified by the U.S. Fish and Wildlife Service and the National Marine Fisheries Service that are in danger of extinction or threatened to become endangered. The U.S. Fish and Wildlife Service and the National Marine Fisheries Service should be consulted as necessary for current listing status.
 - (ii) State designated endangered, threatened, and sensitive species are those fish, wildlife and plant species native to the state of Washington identified by the state Department of Fish and Wildlife, that are in danger of extinction, threatened to become endangered, vulnerable, or declining and are likely to become endangered or threatened in a significant portion of their range within the state without cooperative management or removal of threats. State designated endangered, threatened, and sensitive species are periodically recorded in WAC 232-12-014 (state endangered species), and WAC 232-12-011 (state threatened and sensitive species). The state Department of Fish and Wildlife maintains the most current listing and should be consulted as necessary for current listing status.
- (b) **State Priority Habitats and Areas Associated With State Priority Species. Priority habitats and species are considered to be priorities for conservation and management. Priority species require protective measures for their perpetuation due to their population status, sensitivity to habitat alteration, and/or recreational, commercial, or tribal importance. Priority habitats are those habitat types or elements with unique or significant value to a diverse assemblage of species. A priority habitat may consist of a unique vegetation type or dominant plant species, a described successional stage, or a specific structural element. Priority habitats and species are identified by the state Department of Fish and Wildlife.**
- (c) Habitats and Species of Local Importance. Habitats and species of local importance are those identified by the City, including those that possess unusual or unique habitat warranting protection because of qualitative species diversity or habitat system health indicators (see map, Exhibit 1, or the latest revision of this map and Appendix A, both on file in the Kennewick Planning Department).
- (d) Naturally Occurring Ponds Under 20 Acres. Naturally occurring ponds are those ponds under 20 acres and their submerged aquatic beds that provide fish or wildlife habitat, including those artificial ponds intentionally created from dry areas in order to mitigate impacts to ponds. Naturally occurring ponds do not include ponds deliberately designed and created from dry sites, such as canals, detention facilities, wastewater treatment facilities, farm ponds, temporary construction ponds, and landscape amenities, unless such artificial ponds were intentionally created for mitigation.
- (e) Waters of the State. Waters of the state includes lakes, rivers, ponds, streams, inland waters, underground waters, salt waters, and all other surface waters and watercourses within the jurisdiction of the state of Washington, as classified in WAC 222-16-031.
- (f) Lakes, ponds, streams, and rivers planted with game fish by a governmental or tribal entity.
- (g) State natural area preserves and natural resource conservation areas. Natural area preserves and natural resource conservation areas are defined, established, and managed by the state Department of Natural Resources.
- (h) Land essential for preserving eco-connectivity between habitat blocks and open spaces.

Priority habitats and shrub-steppe are further defined by the Code as follows:

18.58.010(85) Priority Habitat means habitat type or elements with unique or significant value to one or more species as classified by the Department of Fish and Wildlife. A priority habitat may consist of

a unique vegetation type or dominant plant species, a described successional stage, or a specific structural element (WAC 173-26-020(34)).

18.58.010(105) Shrub-Steppe are vegetative communities consisting of one or more layers of perennial grass with a conspicuous but discontinuous over-story layer of shrubs have been termed "shrubsteppe." In Washington, these communities usually contain big sagebrush (*Artemisia tridentata*) in association with bunchgrasses, although other associations are found (Dobler et al, 1996).

4.2 WDFW Shrub-steppe Definition

The WDFW has the following definition of shrub-steppe. It should be noted that its definition of shrub-steppe was amended in 2020 to include areas where shrubs were eliminated due to naturally occurring wildfires.

A non-forested vegetation type consisting of one or more layers of perennial bunchgrasses and a conspicuous but discontinuous layer of shrubs. Although big sagebrush is the most widespread shrubsteppe shrub, other dominant (or codominant) shrubs include antelope bitterbrush, three-tip sagebrush, scabland sagebrush, and dwarf sagebrush. Dominant bunchgrasses include (but are not limited to) Idaho fescue, bluebunch wheatgrass, Sandberg bluegrass, Thurber's needlegrass, and needle-and thread. Sites can also have a layer of algae, mosses, or lichens. In areas with greater precipitation or on soils with higher moisture-holding capacity, shrubsteppe can also support a dense layer of forbs (i.e., broadleaf herbaceous flora). Shrubsteppe contains various habitat features, including diverse topography, riparian areas, and canyons. Another important component is habitat quality (i.e., degree to which a tract resembles a site potential natural community), which may be influenced by soil condition and erosion; and the distribution, coverage, and vigor of native shrubs, forbs, and grasses. At some more disturbed sites, non-natives such as cheatgrass or crested wheatgrass may be co-dominant species. Fire disturbance is an ecological component of shrubsteppe. Shrubsteppe disturbed by fire may lack the aforementioned habitat components during periods of post-fire recovery. (WDFW 2008)

5 BACKGROUND INVESTIGATION

5.1 Landscape Position

The study area is located in the extreme southeastern portion of the City. This area is located between high-density urban residential areas to the west and commercial agriculture areas to the east. Other natural resources in the area include Elliot Lake, which is a small artificial lake that is apparently fed by natural springs and overland runoff. Outside of the residential developments and agricultural land, vegetation is limited to shrub lands that have been subject to various levels of disturbance.

5.2 Topography

The study area comprises moderate to steep slopes that drain to the south and north. The only flat or low relief areas of the site are located in the southern section of the study area (Figure 2). There is currently a quarry spall road in this flatter area. This road was constructed on top of a sewer trunk line.

5.3 Mapped Critical Areas

The WDFW priority habitat and species (PHS) maps indicate the potential presence of several critical areas within the project area (WDFW, 2023). The PHS report for the project areas can be found in Appendix A. In addition to the NWI mapped wetlands that were previously found not to exist on the site, the PHS maps indicate the potential presence of the following.

5.3.1 Presumptive Shrub Steppe

Figure 3 indicates the location of presumptive shrub-steppe as mapped by the WDFW. Presumptive shrub-steppe layers have been mapped using satellite vegetation data compiled by LandFire. The WDFW points out the following about the algorithm utilized to map presumptive shrub-steppe mapped areas (Folkers et al., 2023): "We have less certainty that locations classified as 'Presumptive Shrubsteppe' or 'Presumptive Eastside Steppe' contain Shrubsteppe or Eastside Steppe vegetation than we do in locations identified as Shrubsteppe or Eastside Steppe. In other words, it is less likely that locations identified as 'Presumptive' actually contain Shrubsteppe or Eastside Steppe vegetation."

It is therefore important for the reader that "presumptive shrub-steppe" means that an area has been identified as possibly containing shrub-steppe but has not been formally mapped.

5.3.2 Townsend's Ground Squirrel (*Spermophilus townsendii*)

The study area is located within an area where the Townsend's ground squirrel (*Spermophilus townsendii*) is documented to occur within the vicinity at a Township scale. To PBS' knowledge, there have been no formal surveys that have been conducted to determine their presence or absence on the property.

The Townsend's ground squirrel is a small burrowing ground squirrel found only in Washington State in the Columbia Basin west of the Columbia River in Klickitat, Benton, Yakima, and Kittitas counties. This species typically inhabits low-elevation shrub-steppe, native grasslands, pastures, orchards, vineyards, highway margins, vacant lots, and banks of irrigation canals (WDFW, 2013).

Their diet is largely composed of green vegetation, with Sandberg's bluegrass (*Poa secunda*), crested wheatgrass (*Agropyron cristatum*), western tansy mustard (*Descurainia pinnata*), lupine (*Lupinus laxiflorus*) and woollypod milkvetch (*Astragalus purshii*) occurring most frequently in the diet. Habitat disturbance typically reduces forb diversity of arid landscapes, converting sites to shrub-steppe with cheatgrass and other non-native forb dominance. Cheatgrass tends to outcompete native forbs and is not a reliable food source for small wildlife such as ground squirrels.

The squirrels maintain a complex system of burrows that are typically grouped in colonies, but individual burrows have also been observed (Howard, 1996). These burrows have multiple entrances to allow escape from predators. Townsend's ground squirrel spends the majority of the year in estivation, which is a state of prolonged inactivity or torpor. The squirrels enter their dens after grass cover has dried up and remain in their dens until late winter when they emerge to feed on emerging green vegetation (Howard, 1996). This strategy allows the squirrels to deal with high temperatures and lack of food in summer through early winter. The burrow entrances for Townsend's ground squirrels in southeastern Idaho ranged from 2.6 to 3.8 inches horizontally and from 1.7 to 2.5 inches vertically (Lauder, 1989).

Reasons for species decline include habitat fragmentation, past and current pest control programs (poisoning and shooting) where the squirrel may be an intended or unintended target, and reduction of food sources due to habitat conversion.

5.3.3 Wolverine (*Gulo gulo*)

The wolverine (*Gulo gulo*) has also been identified as potentially occurring on the site on a township level. Wolverines commonly occur in boreal forest, taiga, and tundra ecosystems. In Washington, they occupy alpine and subalpine forest habitats. There is no wolverine habitat remotely near the study area.

6 EXISTING CONDITIONS

A site visit was completed on October 13, 2023, to survey and record the conditions of the study area. The entire site was traversed on foot, and notes on dominant vegetation were recorded. Evidence of wildlife usage such as tracks, scat, or burrows were identified and noted. Photographs of the project area are included in Appendix B.

Vegetation within the study area comprises shrub lands, disturbed grasslands, and large swaths of invasive vegetation. The majority of the site is an understory of invasive cheat grass (*Bromus tectorum*). The areas with shrub coverage had dominant species that include big sagebrush (*Artemisia tridentata*), rabbit brush (*Ericameria nauseosa*), and wormwood (*Artemisia absinthium*). While the understory in these areas is dominated by cheatgrass, other emergent species include Idaho fescue (*Festuca idahoensis*), Russian thistle (*Kali tragus*), arrowleaf balsamroot (*Balsamorhiza sagitata*), scattered blue-bunch wheat grass (*Pseudoroegneria spicata*), rush skeleton weed (*Chondrilla juncea*), spotted knapweed (*Centaurea stoebe*), and woollypod milkvetch (*Astragalus purshii*).

The areas adjacent to the rock sewer line easement had been cleared and subsequently colonized by large amounts of invasive vegetation. Species in this area include tumble mustard (*Sisymbrium altissimum*), kochia (*Bassia scoparia*), Russian thistle, rush skeleton weed, Canada thistle (*Cirsium arvense*), and knapweed.

There was minimal animal scat observed at the site. The only fecal matter observed was coyote scat that appeared to be several weeks old. There were several burrows observed in the eastern portion of the site, but they were too small to be utilized by ground squirrels and likely belong to voles or common field mice. It should be noted that the study areas outside of the project area were not surveyed on foot as permission to enter was not acquired prior to the site visit. The conditions of these areas were recorded through observation from within the bounds of the project area.

6.1 Shrub-Steppe Habitat

The outlines of the shrub-steppe habitat were walked and recorded in the field. Aerial photographs of the project area were recorded with a Mavic 3E Pro drone for assistance in refining shrub stub boundaries in the office. Mapping of these shrub-steppe habitats indicate that there is a total of 15.64 acres of habitat within the study area (Figure 4).

6.2 Townsend's Ground Squirrel

No Townsend's ground squirrels were observed during the field visit, but they would not be active at this time of year. There is slight potential that the Townsend's ground squirrel may be present within the project area even though no burrows were observed.

The proposed project site is within the known range of this species and the vegetation is marginally suitable to support this species. Food sources may be limited due to the dominance of cheatgrass, which is a poor food for ground squirrels, over much of the site. If present, opportunities for dispersal are limited due to surrounding land use development and fragmented suitable habitat, especially to the north where high-density residential subdivisions are the dominant land use. Due to the overall rarity of the species, lack of evidence of site utilization, and poor habitat quality it seems unlikely that the project area currently supports Townsend's ground squirrels. This could only be definitively proven through the completion of surveys conducted at a time of the year when the squirrels would be active (February through April).

7 AVOIDANCE AND MINIMIZATION OF IMPACTS

The proposed plans call for the construction of a residential subdivision and attendant utilities. The proposed subdivision layout is presented in Figure 5.

7.1 Avoidance and Minimization

Section 18.58.170 (1-6) of the Code specifies the required mitigation sequencing where applicants are required to show that all reasonable efforts to avoid, minimize, and compensate for critical area impacts in the order presented below. The mitigation sequencing and project specific factors for each of the mitigation sequences are as follows:

- (1) *Avoiding the impact altogether by not taking a certain action or parts of an action; minimizing impacts by limiting the degree or magnitude of the action and its implementation, by using appropriate technology, or by taking affirmative steps, such as project redesign, relocation, or timing, to avoid or reduce impacts;*

The proposed development comprises a residential subdivision that includes utilities, circulation roads, fire access, stormwater collection and treatment, and residential lots that meet minimum size requirements. Project site restraints include existing utilities (sewer and water) that cross the site in addition to a challenging topography.

The shrub-steppe habitat is currently dispersed throughout a large portion of the property that makes avoiding all impacts impractical. Furthermore, the site has a challenging topography that will require extensive grading and filling to obtain the proposed building sites. This grading will ultimately impact a large portion of the shrub-steppe on the site. It was determined that reducing the overall size of the proposed development would ultimately result in small, isolated pockets of shrub-steppe habitat. It was determined that the best course of action would be to maximize the developable area of the site and conserve shrub-steppe habitats in an off-site location that will provide for greater habitat value.

- (2) *Rectifying the impact to wetlands, critical aquifer recharge areas, frequently flooded areas, and habitat conservation areas by repairing, enhancing, or restoring the affected environment to the historical conditions, or pre-development, or the conditions existing at the time of the initiation of the project;*

All of the proposed impacts are permanent in nature, and therefore repairing, enhancing, or restoring shrub-steppe impacted by the project is not feasible.

- (3) *Minimizing or eliminating the hazard by restoring or stabilizing the hazard area through approval engineered or other methods;*

This criteria is specific to geologic hazard areas. The proposed project will not result in the destabilization of any geologic hazard areas.

- (4) *Reducing or eliminating the impact or hazard over time by preservation and maintenance operations during the life of the action;*

The proposed impacts to shrub-steppe habitats will be single and complete. Maintenance operations or standard procedures for the proposed development would not lessen the proposed impacts.

- (5) *Compensating for the impact to wetlands, critical aquifer recharge areas, frequently flooded areas, and fish and wildlife habitat, and vegetation conservation areas by replacing, enhancing, or providing substitute resources or environments; and*

The applicant is proposing to complete mitigation that will replace the habitat functions and values lost from the on-site shrub-steppe impacts through the conservation of off-site shrub-steppe habitats. This mitigation follows the recommendations of the WDFW and for every acre of shrub-steppe habitat impacted, the applicant will preserve two acres of equivalent habitat.

- (6) *Monitoring the hazard or other required mitigation for a reasonable period of time and taking remedial action when necessary.*

This step does not apply to this project as there is no ongoing hazard and the proposed mitigation measures will not require long-term monitoring to ensure success.

8 IMPACTS

8.1 Shrub-Steppe Impacts

A total of 11.57 acres of shrub-steppe will be directly impacted by the project (Figure 6). Impacts will result from the grading and construction of required roads, utilities, and residential lots. None of the adjacent shrub-steppe habitat will be impacted by the proposed project as the Code does not specify buffers for shrub-steppe habitats.

9 SHRUB-STEPPE MITIGATION

Section 8.58.090 of the Code provides the following:

Any mitigation action taken pursuant to this Title shall result in equivalent or greater functions and values of the critical areas associated with the proposed action, as determined by the best available science. All actions and developments shall be designed and constructed in accordance with Mitigation Sequencing requirements in Section 18.58.170 to avoid, minimize and restore all adverse impacts.

Applicants must first demonstrate an inability to avoid or reduce impacts, before restoration and compensation of impacts will be allowed. No activity or use shall be allowed that results in a net loss of the functions or values of critical areas.

The avoidance, reduction, and minimization of impacts have been addressed in the Avoidance and Minimization of Impacts section above. Based on the distribution of shrub-steppe habitats across the site, total avoidance is not feasible. While the site does contain a shrub-steppe habitat it should be noted that this habitat is located within the urban growth boundary of the City, and the site is located between high-density residential developments and agricultural land. This location severely limits the potential of the site to provide a habitat for wildlife species that depend on shrub-steppe habitats.

The applicant is proposing to place a conservation covenant on intact shrub-steppe habitats that are in a rural, off-site location. This type of mitigation is approved by the WDFW.

9.1 Mitigation Accounting

The WDFW recommends that conservation of off-site shrub-steppe occur at a 2:1 ratio (Azerrad, 2011). This means that for every acre of shrub-steppe habitat that is impacted, two acres must be placed in a conservation covenant running with the land. The language of the conservation covenant dictates that the land will be preserved in perpetuity and cannot be developed in the future.

The off-site mitigation area has not yet been chosen. Table 1 below presents the mitigation accounting for the project.

Table 1. Mitigation Accounting

Impact Type	Shrub-steppe Impacts (acres)	Mitigation Ratio	Conservation Required (acres)
Direct	11.57	2:1	23.14
Indirect	0	0	0
TOTAL			23.14

10 CONCLUSIONS

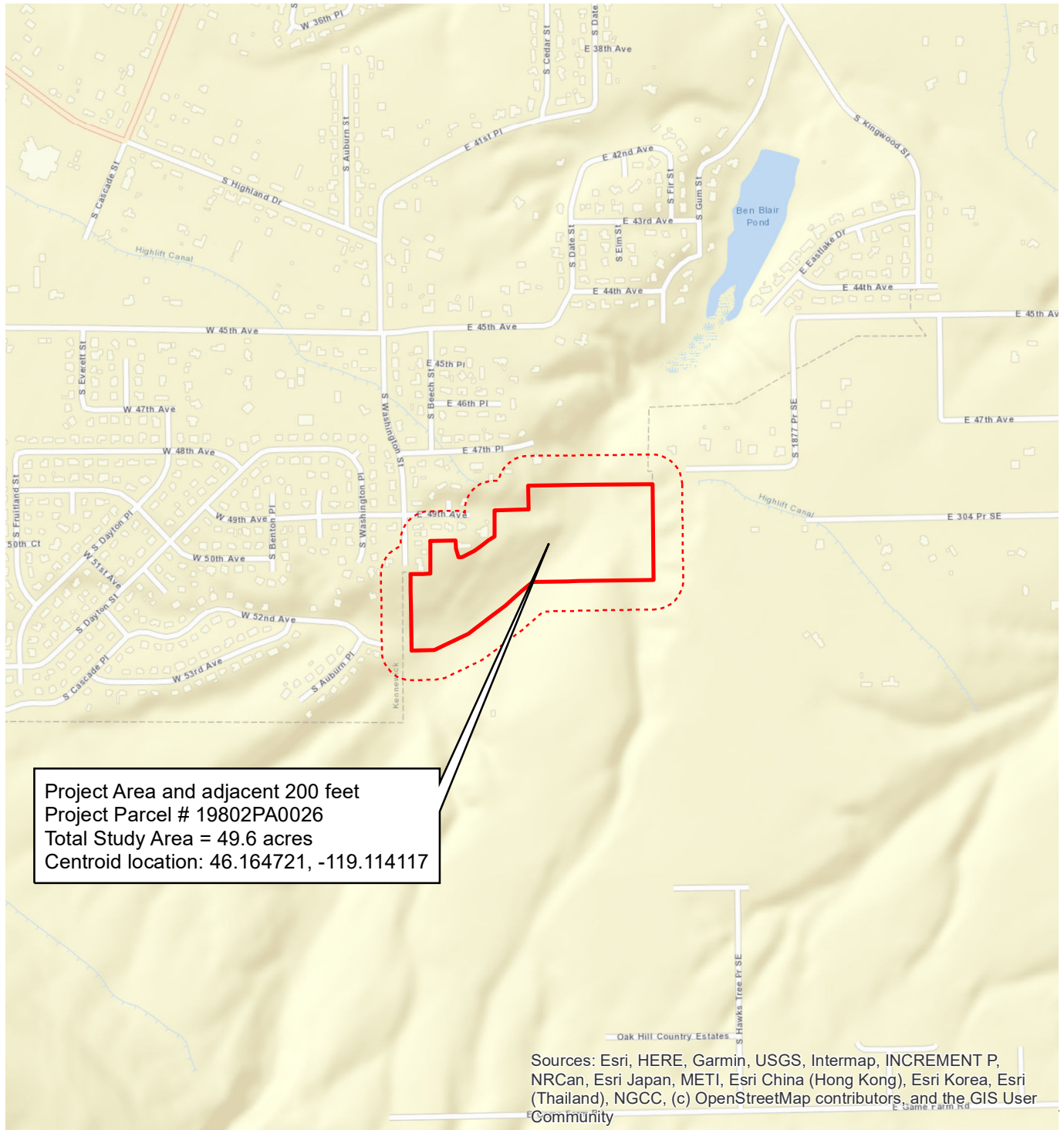
The proposed project involves the construction of a residential subdivision on currently undeveloped land. A critical areas assessment was conducted in order to determine if the site contains regulated Fish and Wildlife Habitat Conservation Areas (FWHCAs). The site was found to contain 11.57-acres of shrub-steppe habitat which meets the WDFW definition of a priority habitat and is therefore regulated as a FWHCA by the City.

Due to the amount of earthwork that will be required to complete the proposed project and the dispersed nature of the on-site shrub-steppe, complete avoidance of impacts is not feasible. As the site contains degraded shrub-steppe that offers little potential for wildlife habitat due to surrounding land uses, it was determined that FWHCA functions would be best served by impacts shrub-steppe on this site and the conservation of twice the area of shrub-steppe offsite. As a result of a total of 11.57 acres of shrub-steppe habitat impacts, the applicant will preserve 23.14 -acres of equal or higher functioning shrub-steppe offsite.

11 REFERENCES

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- WDFW (Washington Department of Fish and Wildlife). (2023). Species Profile Townsend's ground squirrel. Available online at: <https://wdfw.wa.gov/species-habitats/species/uroditellus-townsendii-townsendii#:~:text=Ecology%20and%20life%20history,the%20lower%20edges%20of%20forest>.

Figures



Legend

- Study Area
- Project Area



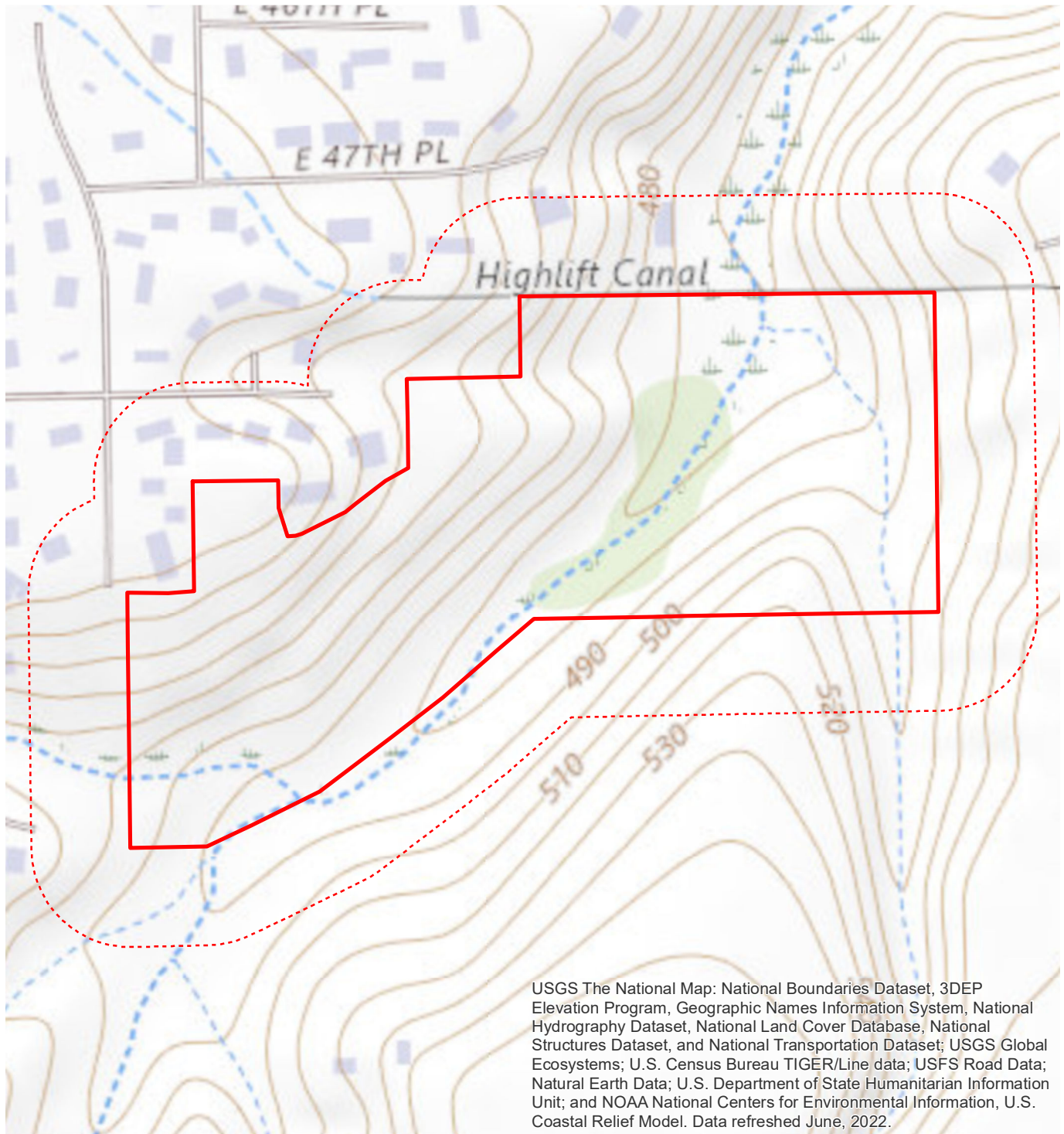
Location Map

Critical Areas Assessment
City of Kennewick, Washington

OCT 2023
78165.000

FIGURE

1



Legend

- Study Area
- Project Area



SCALE: 1" = 300'



PREPARED FOR: Pro Made Construction .

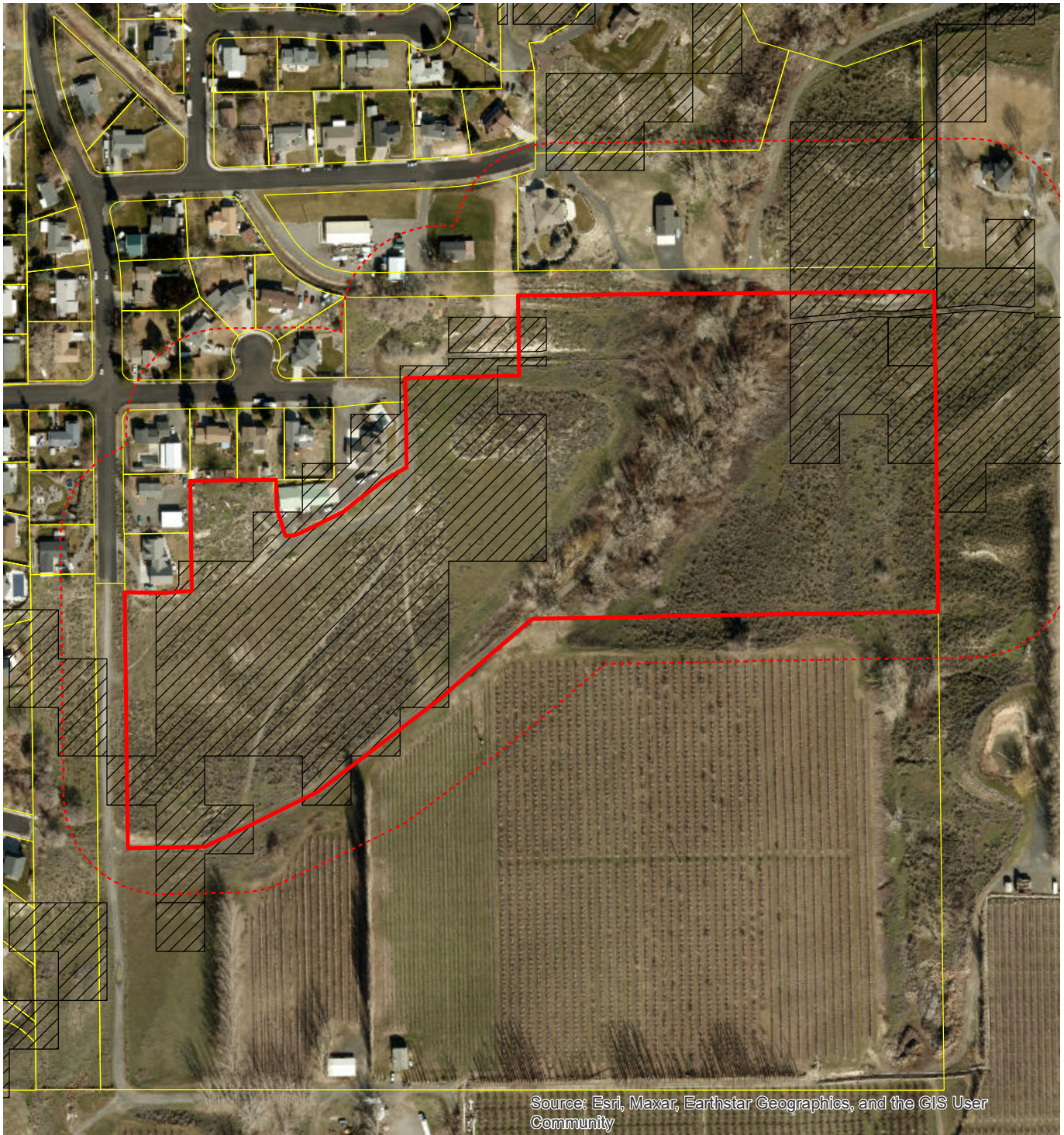


Topographic Map
Critical Areas Assessment
City of Kennewick, Washington

OCT 2023
78165.000

FIGURE

2



Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

SOURCE: .

Legend

- Study Area
- Project Area
- WDFW Presumptive shrub-steppe



SCALE: 1" = 300'



PREPARED FOR: Pro Made Construction.



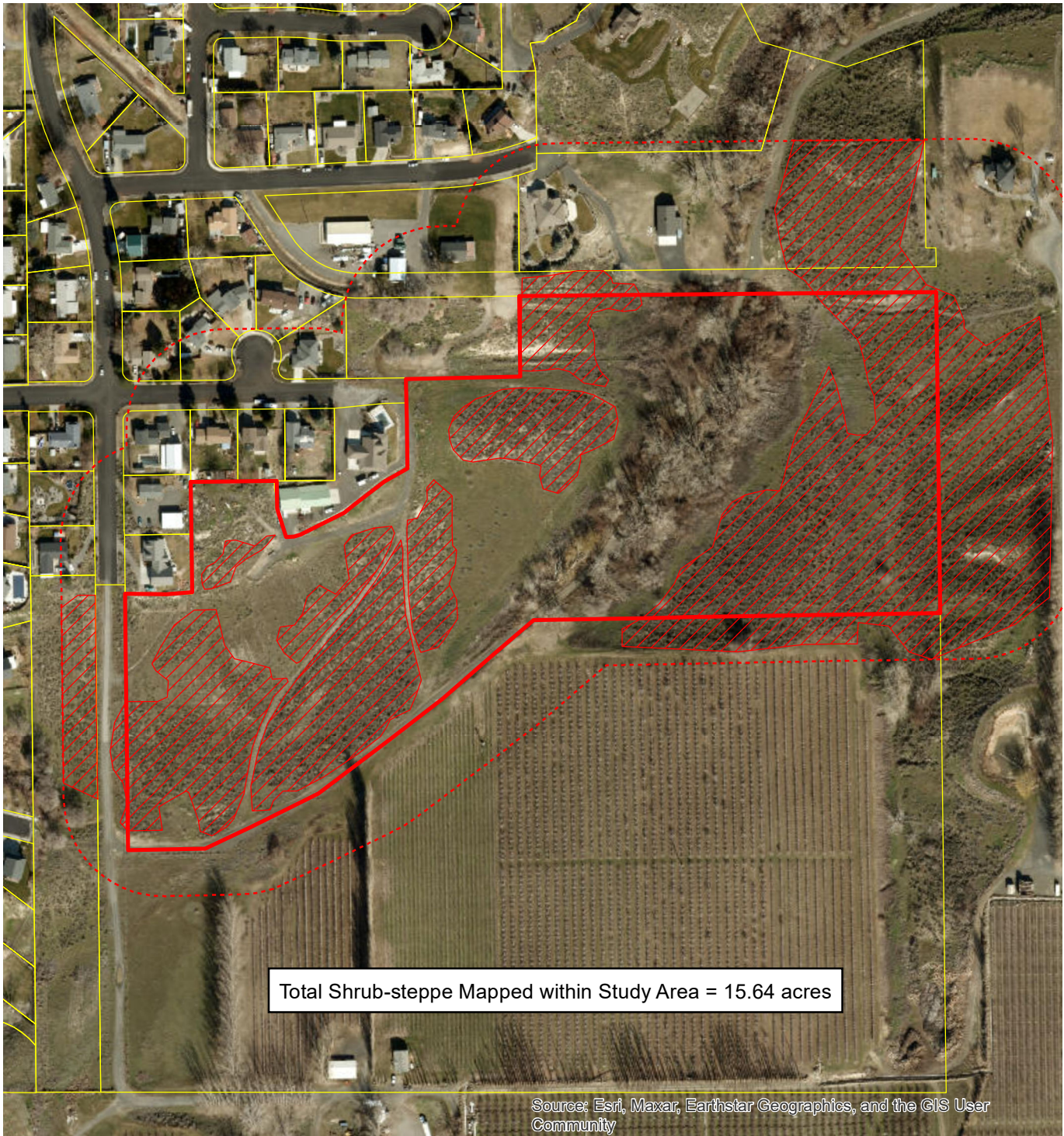
WDFW Priority Habitat and Species Map

Critical Areas Assessment
City of Kennewick, Washington

OCT 2023
78165.000

FIGURE

3



Total Shrub-steppe Mapped within Study Area = 15.64 acres

Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

SOURCE: .

Legend

- Study Area
- Project Area
- Tax Lots
- Existing Shrub-steppe



SCALE: 1" = 300'



PREPARED FOR: Pro Made Construction.



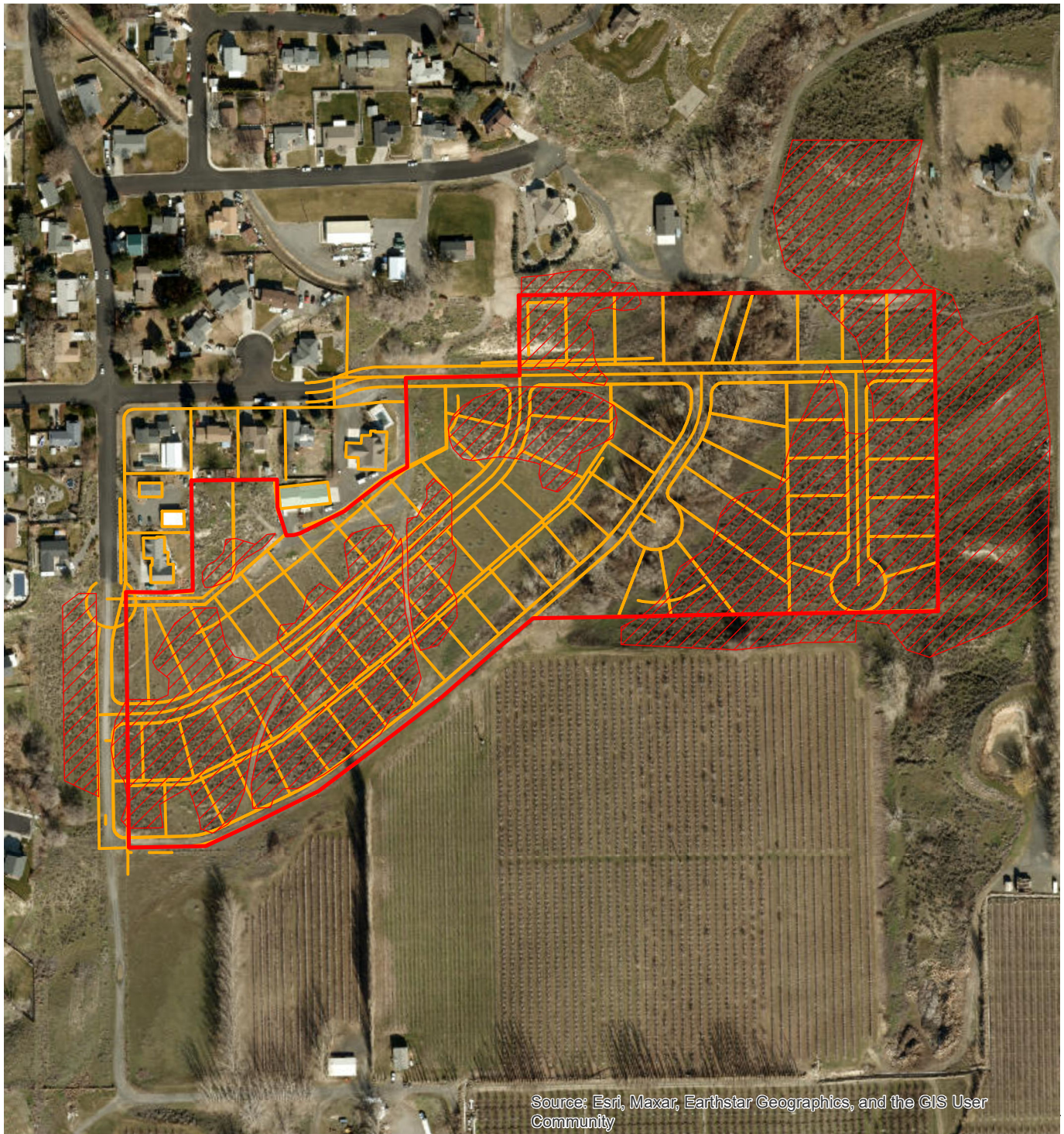
Onsite Shrub-Steppe

Critical Areas Assessment
City of Kennewick, Washington

OCT 2023
78165.000

FIGURE

4



Legend

- Project Area
- Existing Shrub-steppe
- Proposed Layout



SCALE: 1" = 300'



PREPARED FOR: Pro Made Construction.

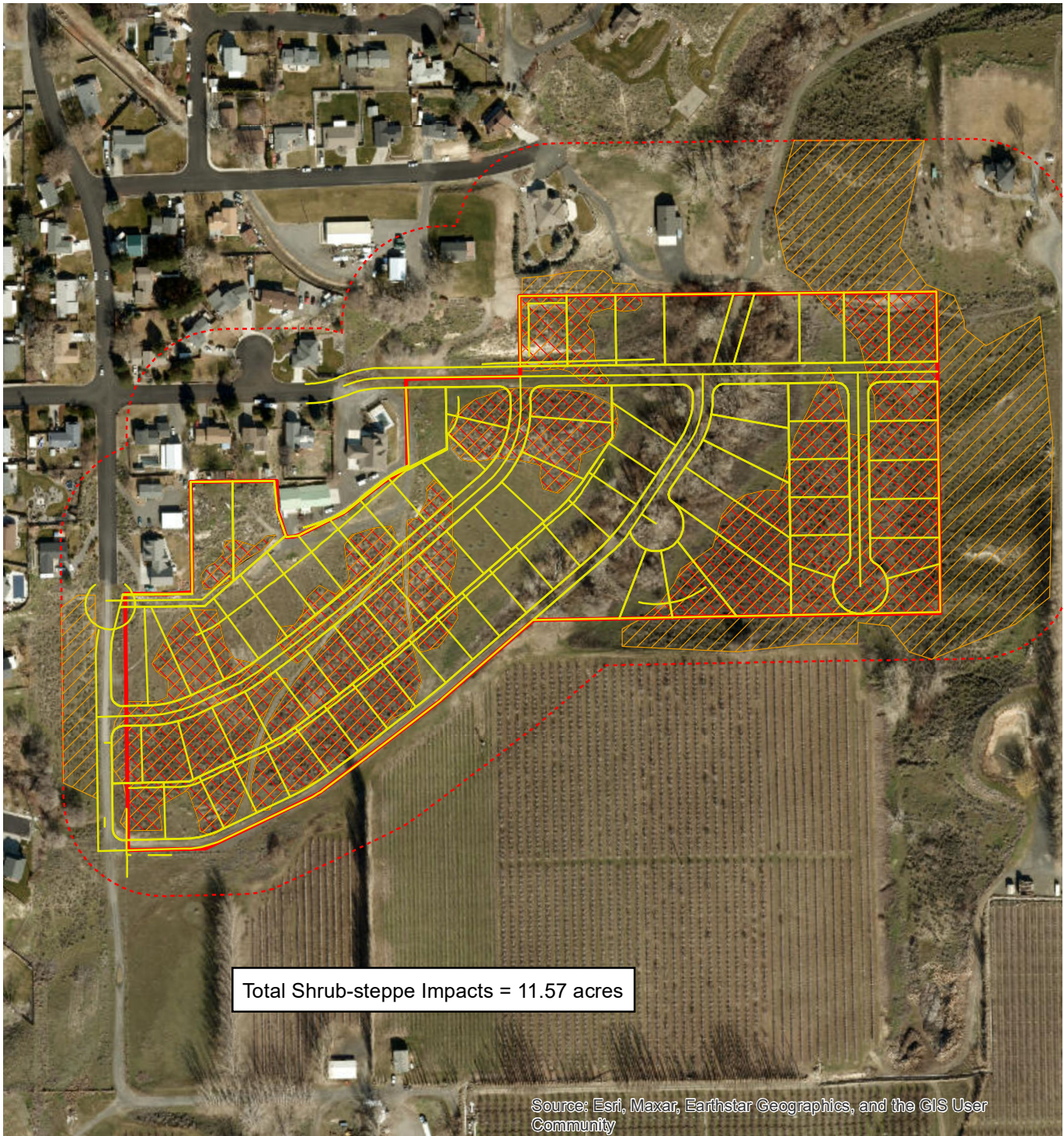


Proposed Plans
Critical Areas Assessment
City of Kennewick, Washington

OCT 2023
78165.000

FIGURE

5



Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

SOURCE: .

Legend

- Project Area
- Study Area
- Existing Shrub-steppe
- Impacts



SCALE: 1" = 300'



PREPARED FOR: Pro Made Construction.



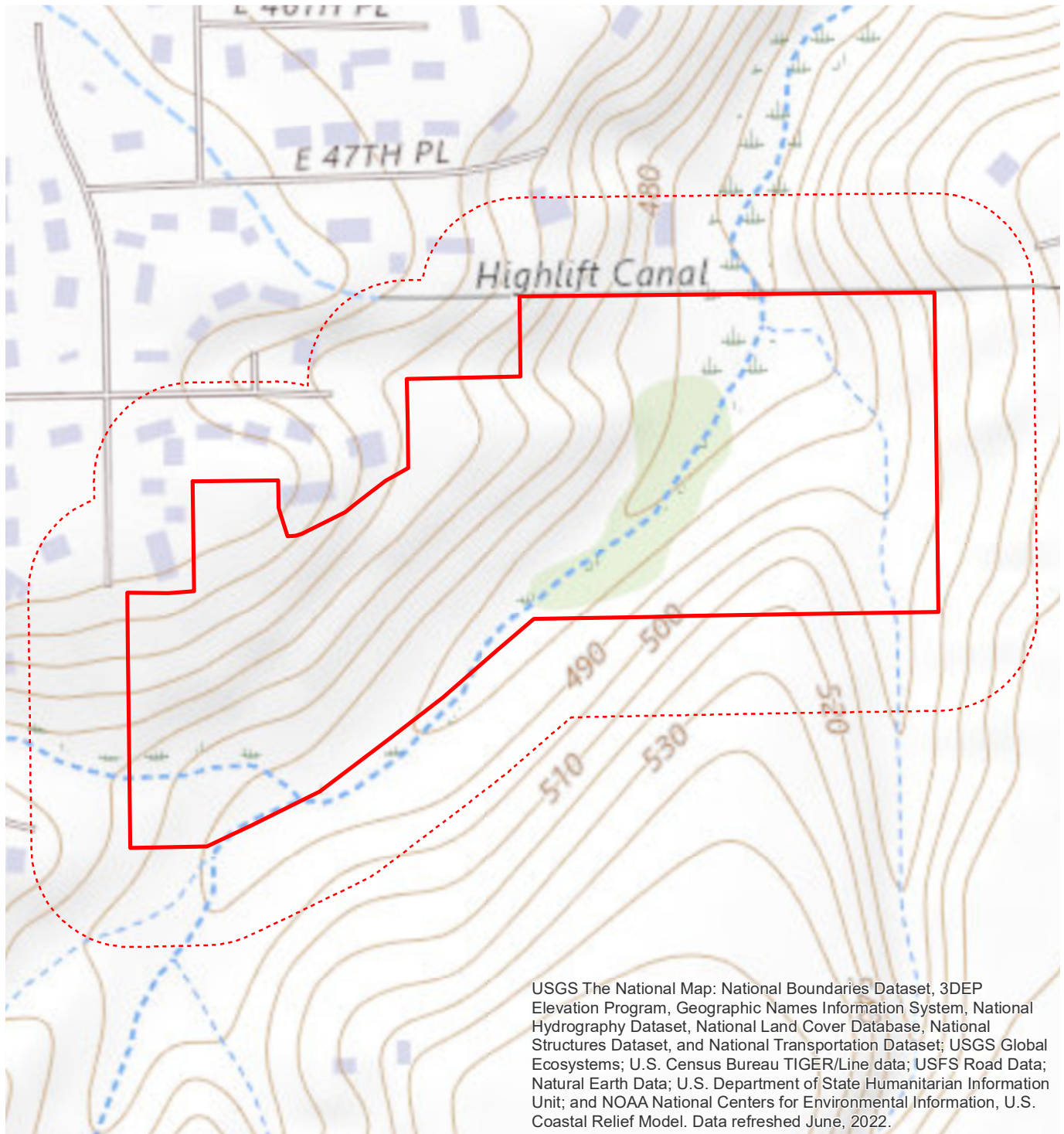
Shrub-Steppe Impacts

Critical Areas Assessment
City of Kennewick, Washington

OCT 2023
78165.000

FIGURE

6



Legend

- Study Area
- Project Area



SCALE: 1" = 300'



PREPARED FOR: Pro Made Construction .

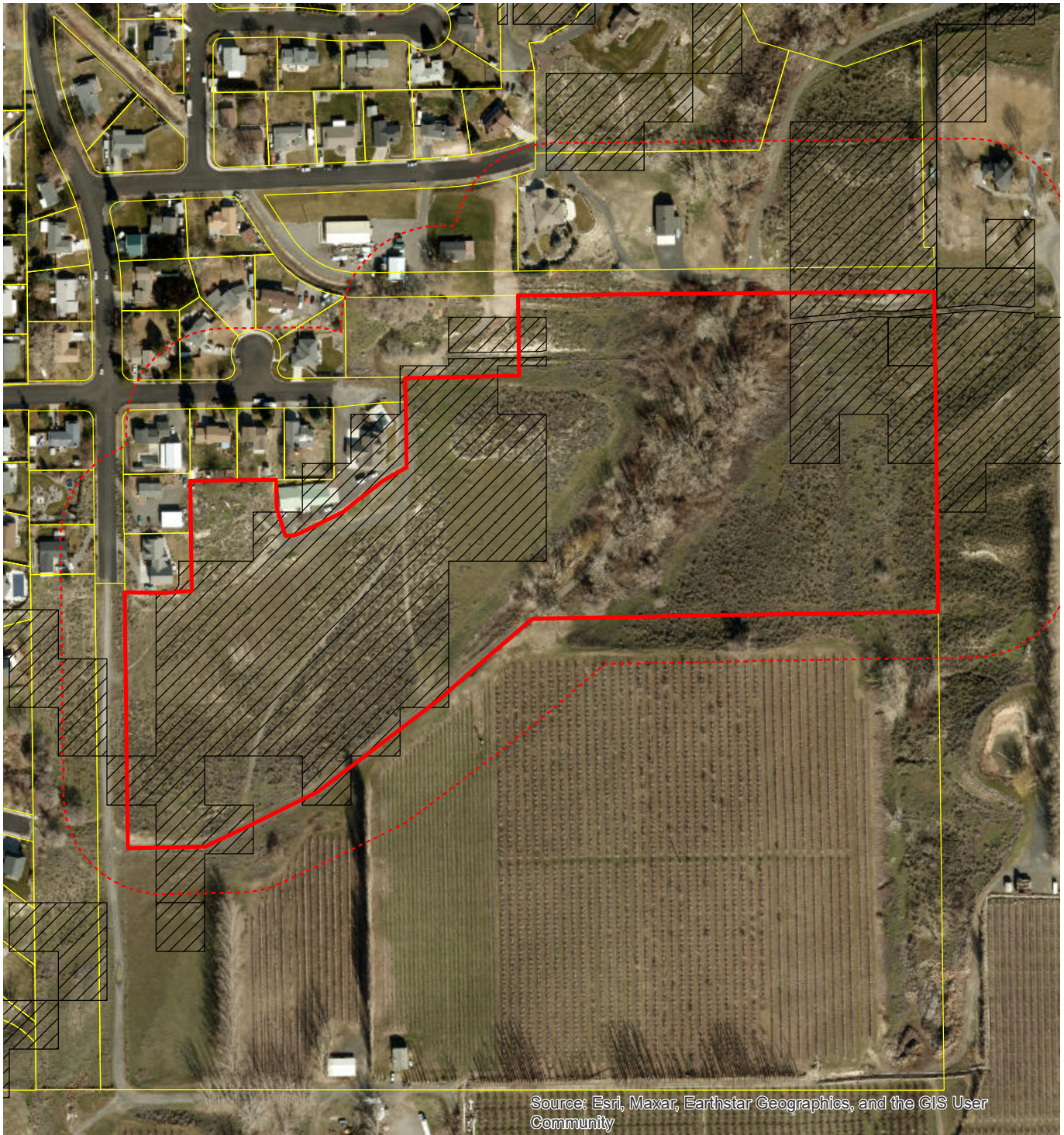


Topographic Map
Critical Areas Assessment
City of Kennewick, Washington

OCT 2023
78165.000

FIGURE

2



Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

SOURCE: .

Legend

- Study Area
- Project Area
- WDFW Presumptive shrub-steppe



SCALE: 1" = 300'



PREPARED FOR: Pro Made Construction.



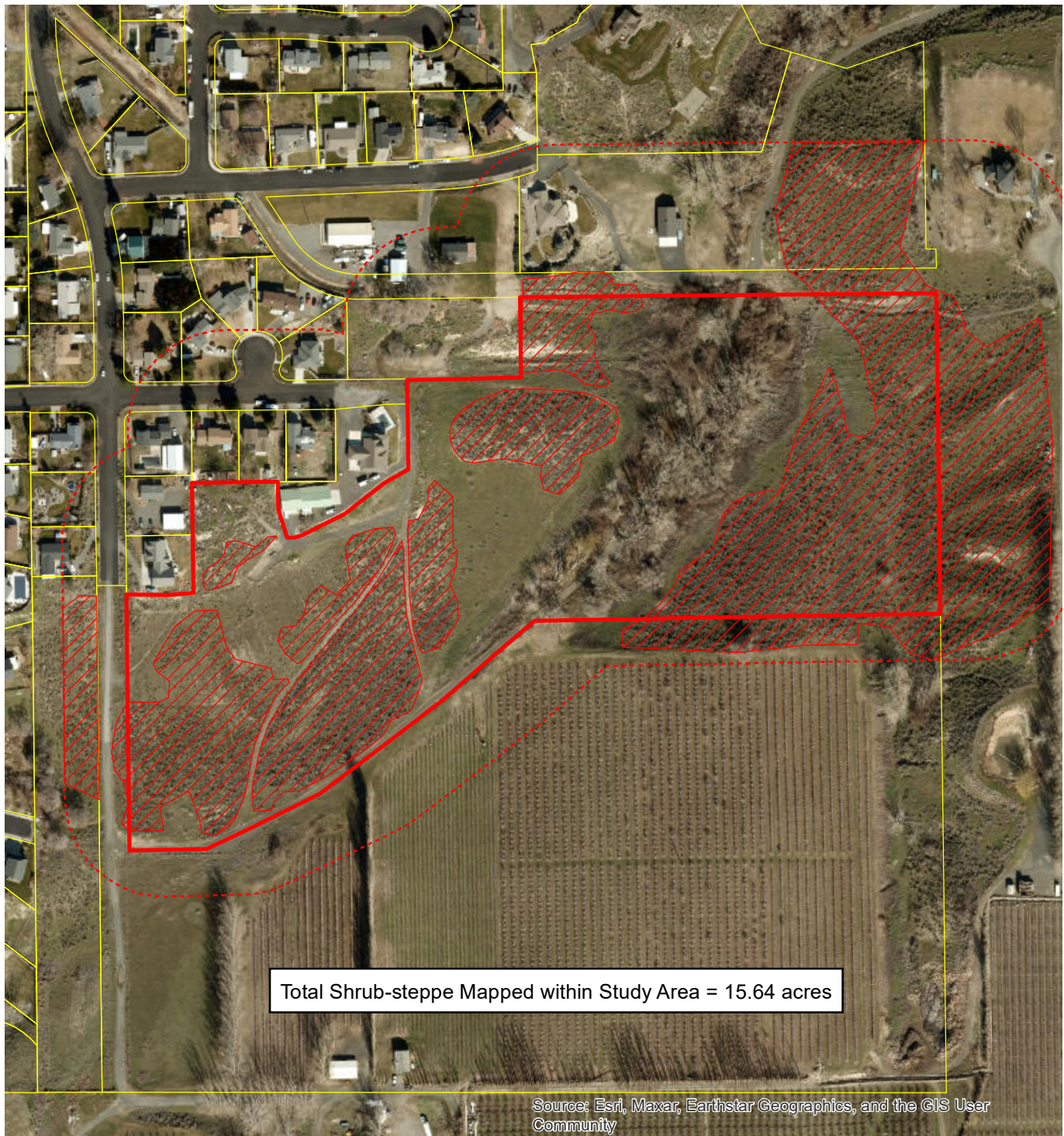
WDFW Priority Habitat and Species Map

Critical Areas Assessment
City of Kennewick, Washington

OCT 2023
78165.000

FIGURE

3



Total Shrub-steppe Mapped within Study Area = 15.64 acres

Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

SOURCE: .

Legend

- Study Area
- Project Area
- Tax Lots
- Existing Shrub-steppe



SCALE: 1" = 300'



PREPARED FOR: Pro Made Construction.



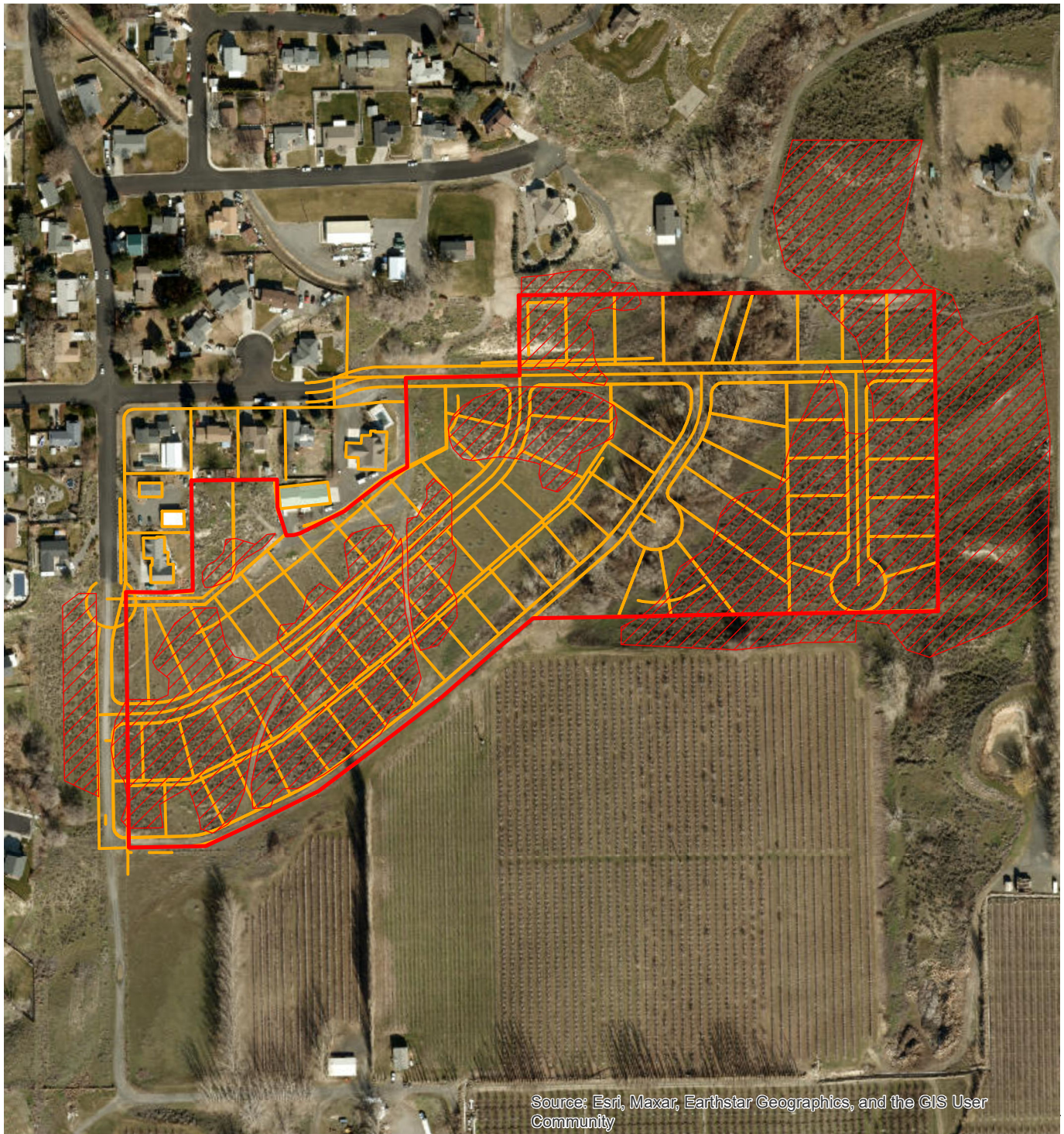
Onsite Shrub-Steppe

Critical Areas Assessment
City of Kennewick, Washington

OCT 2023
78165.000

FIGURE

4



Legend

- Project Area
- Existing Shrub-steppe
- Proposed Layout



SCALE: 1" = 300'



PREPARED FOR: Pro Made Construction.

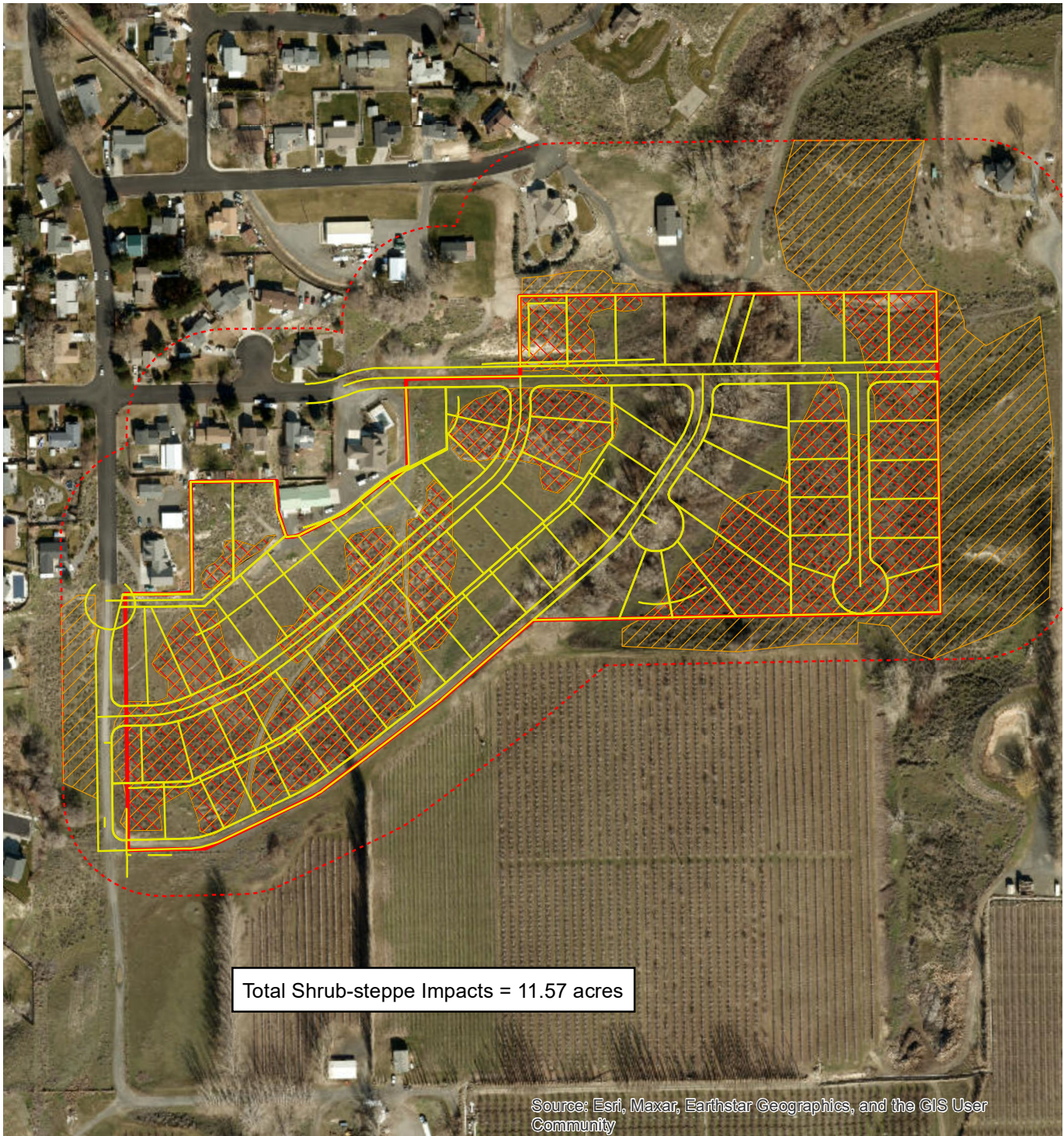


Proposed Plans
Critical Areas Assessment
City of Kennewick, Washington

OCT 2023
78165.000

FIGURE

5



SOURCE: .

Legend

- Project Area
- Study Area
- Existing Shrub-steppe
- Impacts



SCALE: 1" = 300'



PREPARED FOR: Pro Made Construction.



Shrub-Steppe Impacts

Critical Areas Assessment
City of Kennewick, Washington

OCT 2023
78165.000

FIGURE

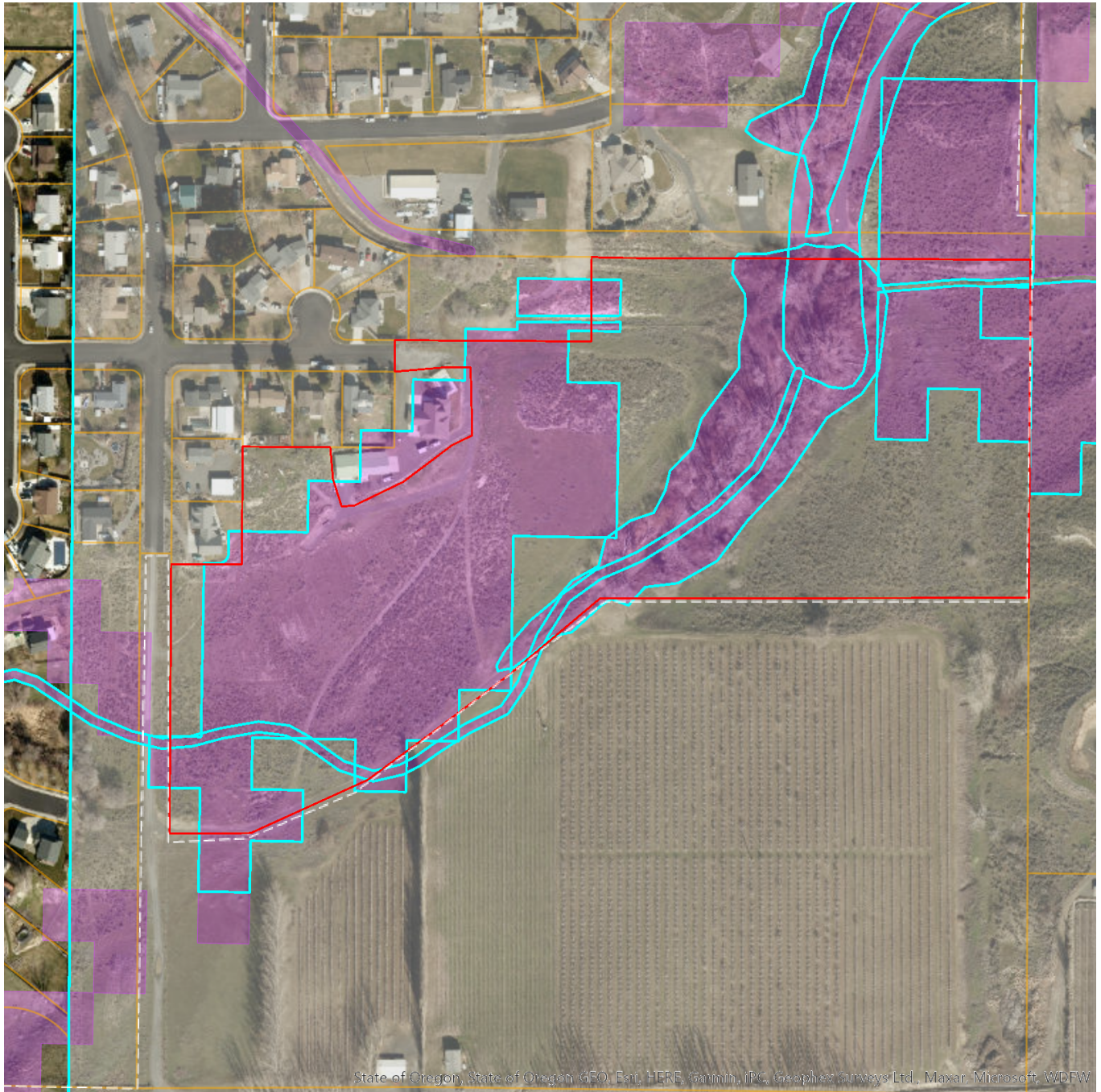
6

Appendix A

WDFW PHS Report



Priority Habitats and Species on the Web



Report Date: 10/06/2023, Parcel ID: [119802013729002](#)

PHS Species/Habitats Overview:

Occurrence Name	Federal Status	State Status	Sensitive Location
Wetlands	N/A	N/A	No
Freshwater Forested/Shrub Wetland	N/A	N/A	No
Shrubsteppe	N/A	N/A	No
Townsend's Ground Squirrel - townsendii	N/A	Candidate	Yes
Wolverine	Candidate	Candidate	Yes

PHS Species/Habitats Details:

Wetlands	
Priority Area	Aquatic Habitat
Site Name	ELLIOT LAKE
Accuracy	1/4 mile (Quarter Section)
Notes	UNOS-ELLIOT LAKE-A SPRING FED LAKE LOCATED IN RESIDENTIAL AREA CONTAINING WATERFOWL, FEEDING RAPTORS, FURBEARING ANIMALS, UPLAND BIRDS, NON GAME BIRDS, WETLANDS
Source Record	902909
Source Dataset	PHSREGION
Source Name	MCINTOSH, JOHN
Source Entity	WA Dept. of Fish and Wildlife
Federal Status	N/A
State Status	N/A
PHS Listing Status	PHS Listed Occurrence
Sensitive	N
SGCN	N
Display Resolution	AS MAPPED
ManagementRecommendations	http://www.ecy.wa.gov/programs/sea/wetlands/bas/index.html
Geometry Type	Polygons

Freshwater Forested/Shrub Wetland	
Priority Area	Aquatic Habitat
Site Name	N/A
Accuracy	NA
Notes	Wetland System: Freshwater Forested/Shrub Wetland - NWI Code: PSS/EM1C
Source Dataset	NWIIWetlands
Source Name	Not Given
Source Entity	US Fish and Wildlife Service
Federal Status	N/A
State Status	N/A
PHS Listing Status	PHS Listed Occurrence
Sensitive	N
SGCN	N
Display Resolution	AS MAPPED
ManagementRecommendations	http://www.ecy.wa.gov/programs/sea/wetlands/bas/index.html
Geometry Type	Polygons

Freshwater Forested/Shrub Wetland	
Priority Area	Aquatic Habitat
Site Name	N/A
Accuracy	NA
Notes	Wetland System: Freshwater Forested/Shrub Wetland - NWI Code: PSS1C
Source Dataset	NWIIWetlands
Source Name	Not Given
Source Entity	US Fish and Wildlife Service
Federal Status	N/A
State Status	N/A
PHS Listing Status	PHS Listed Occurrence
Sensitive	N
SGCN	N
Display Resolution	AS MAPPED
ManagementRecommendations	http://www.ecy.wa.gov/programs/sea/wetlands/bas/index.html
Geometry Type	Polygons

Shrubsteppe	
Priority Area	Habitat Feature
Site Name	Benton County Presumptive Shrubsteppe
Accuracy	NA
Notes	General location of Shrubsteppe. Confirm or refute with site-scale info. WDFW recommends using site-scale info to inform site-scale land use decisions. Expect that on-the-ground conditions (e.g., boundaries) will vary from the map.
Source Record	920858
Source Name	Keith Folkerts, WDFW
Source Entity	WA Dept. of Fish and Wildlife
Federal Status	N/A
State Status	N/A
PHS Listing Status	PHS LISTED OCCURRENCE
Sensitive	N
SGCN	N
Display Resolution	AS MAPPED
Geometry Type	Polygons

Shrubsteppe	
Priority Area	Habitat Feature
Site Name	Benton County Presumptive Shrubsteppe
Accuracy	NA
Notes	General location of Shrubsteppe. Confirm or refute with site-scale info. WDFW recommends using site-scale info to inform site-scale land use decisions. Expect that on-the-ground conditions (e.g., boundaries) will vary from the map.
Source Record	920858
Source Name	Keith Folkerts, WDFW
Source Entity	WA Dept. of Fish and Wildlife
Federal Status	N/A
State Status	N/A
PHS Listing Status	PHS LISTED OCCURRENCE
Sensitive	N
SGCN	N
Display Resolution	AS MAPPED
Geometry Type	Polygons

Shrubsteppe	
Priority Area	Habitat Feature
Site Name	Benton County Presumptive Shrubsteppe
Accuracy	NA
Notes	General location of Shrubsteppe. Confirm or refute with site-scale info. WDFW recommends using site-scale info to inform site-scale land use decisions. Expect that on-the-ground conditions (e.g., boundaries) will vary from the map.
Source Record	920858
Source Name	Keith Folkerts, WDFW
Source Entity	WA Dept. of Fish and Wildlife
Federal Status	N/A
State Status	N/A
PHS Listing Status	PHS LISTED OCCURRENCE
Sensitive	N
SGCN	N
Display Resolution	AS MAPPED
Geometry Type	Polygons

Shrubsteppe	
Priority Area	Habitat Feature
Site Name	Benton County Presumptive Shrubsteppe
Accuracy	NA
Notes	General location of Shrubsteppe. Confirm or refute with site-scale info. WDFW recommends using site-scale info to inform site-scale land use decisions. Expect that on-the-ground conditions (e.g., boundaries) will vary from the map.
Source Record	920858
Source Name	Keith Folkerts, WDFW
Source Entity	WA Dept. of Fish and Wildlife
Federal Status	N/A
State Status	N/A
PHS Listing Status	PHS LISTED OCCURRENCE
Sensitive	N
SGCN	N
Display Resolution	AS MAPPED
Geometry Type	Polygons

Shrubsteppe	
Priority Area	Habitat Feature
Site Name	Benton County Presumptive Shrubsteppe
Accuracy	NA
Notes	General location of Shrubsteppe. Confirm or refute with site-scale info. WDFW recommends using site-scale info to inform site-scale land use decisions. Expect that on-the-ground conditions (e.g., boundaries) will vary from the map.
Source Record	920858
Source Name	Keith Folkerts, WDFW
Source Entity	WA Dept. of Fish and Wildlife
Federal Status	N/A
State Status	N/A
PHS Listing Status	PHS LISTED OCCURRENCE
Sensitive	N
SGCN	N
Display Resolution	AS MAPPED
Geometry Type	Polygons

Shrubsteppe	
Priority Area	Habitat Feature
Site Name	Benton County Shrubsteppe
Accuracy	NA
Notes	General location of Shrubsteppe. Confirm or refute with site-scale info. WDFW recommends using site-scale info to inform site-scale land use decisions. Expect that on-the-ground conditions (e.g., boundaries) will vary from the map.
Source Record	920859
Source Name	Keith Folkerts, WDFW
Source Entity	WA Dept. of Fish and Wildlife
Federal Status	N/A
State Status	N/A
PHS Listing Status	PHS LISTED OCCURRENCE
Sensitive	N
SGCN	N
Display Resolution	AS MAPPED
Geometry Type	Polygons

Townsend's Ground Squirrel - townsendii	
Scientific Name	<i>Urocitellus townsendii townsendii</i>
Notes	This polygon mask represents one or more records of the above species or habitat occurrence. Contact PHS Data Release at phsproducts@dfw.wa.gov for obtaining information about masked sensitive species and habitats.
State Status	Candidate
PHS Listing Status	PHS Listed Occurrence
Sensitive	Y
SGCN	Y
Display Resolution	QTR-TWP

Townsend's Ground Squirrel - townsendii	
Scientific Name	<i>Urocitellus townsendii townsendii</i>
Notes	This polygon mask represents one or more records of the above species or habitat occurrence. Contact PHS Data Release at phsproducts@dfw.wa.gov for obtaining information about masked sensitive species and habitats.
Federal Status	N/A
State Status	Candidate
PHS Listing Status	PHS LISTED OCCURRENCE
Sensitive	Y
SGCN	Y
Display Resolution	QTR-TWP

Wolverine	
Scientific Name	<i>Gulo gulo</i>
Notes	This polygon mask represents one or more records of the above species or habitat occurrence. Contact PHS Data Release at phsproducts@dfw.wa.gov for obtaining information about masked sensitive species and habitats.
Federal Status	Candidate
State Status	Candidate
PHS Listing Status	PHS Listed Occurrence
Sensitive	Y
SGCN	Y
Display Resolution	TOWNSHIP

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

Appendix B

Site Photographs



Photo 1. Eastern shrub-steppe facing east



Photo 2. Western shrub-steppe facing west



Photo 3. Shrub-steppe and invasive vegetation facing north



Photo 4. Heavy amounts of invasive vegetation



Photo 9. Invasive vegetation along sewer line road.



Photo 10. Wildlife tracks



RYAN JONES ▪ CAPITAL PROJECTS MANAGER
5501 W. METALINE AVE. ▪ KENNEWICK, WA 99336
P: (509) 222-6810 ▪ F: (509) 222-5057
RYAN.JONES@KSD.ORG ▪ WWW.KSD.ORG

Exhibit 17

August 5, 2024

Matt Halitsky
Senior Planner
Community Planning Department

Re: Sunny Meadows Subdivision SUB-2024-0003

Mr. Halitsky,

This memo is in regard to your request for the Kennewick School District #17 to submit comments for the following:

Sunny Meadows Subdivision SUB-2024-0003

The boundary schools for this development are Cascade Elementary (Walking Zone), Horse Heaven Hills Middle School (Bussing Zone) and Kennewick High School (Bussing Zone).

The Kennewick School District has a Ten-Year Plan in place that forecasts future growth. It is impossible to know exactly where pockets of growth may occur, but the District works closely with the City of Kennewick and Benton County to make sure that we own property near projected areas of growth. Having property near potential growth areas allows us to add schools where the students are living, and to avoid additional bussing or redistricting of our boundaries. We do occasionally have to redistrict to keep our schools within our preferred enrollment numbers.

The Kennewick School District has the capacity to add students at all levels and at the three schools mentioned in this letter. Forecasted growth in additional boundary areas of the Kennewick School District makes it difficult to know if any redistricting could result because of this proposed development.

Residential development has had a significant impact on public utility capacity (i.e. City of Kennewick, Kennewick Irrigation District, etc.), roads, and traffic. The impact on utility and road infrastructure directly and indirectly affects our schools and students. The District expects the level of current utility capacity to District facilities to be maintained. We request the city to ensure that developers are contributing toward utility infrastructure development and upgrades, safe walking routes, safe crosswalks, including flashing beacons, etc. Given likelihood of this development having students of all ages, and that it falls in the bussing zone for two of the three schools, the Kennewick School District would like to request that considerations are made for school bus access and pick-up/drop-off zones.

Sincerely,



Ryan Jones

From: [kathy lommers](#)
To: [Matt Halitsky](#)
Subject: Re: Sunny Meadows subdivision
Date: Thursday, July 25, 2024 3:37:32 PM

On Thu, Jul 25, 2024 at 3:33 PM kathy lommers <kdlommers@gmail.com> wrote:



Matt and Alisha,

The city of Kennewick has proposed development of 78 homes that will abut several homes in the Orchard Crest neighborhood. I am concerned that opening the east end of W 52nd Ave to S. Washington Street to potentially 156 cars from Sunny Meadows subdivision will negatively impact the wild and domestic animals in our neighborhood. I have included a photo of nesting mallards that nest in the neighborhood pond every year. I request that you do not open the east end of W 52nd Avenue to protect the habitats of wild and domestic animals in our neighborhood.

Sincerely,

Kathryn Lommers
104 W 52nd Ave
Kennewick, WA

From: [Alisha Piper](#)
To: [Matt Halitsky](#)
Subject: FW: Public Notice to Build on S. Washington St. Kennewick
Date: Thursday, March 7, 2024 8:26:40 AM

From: kathy lommers <kdlommers@gmail.com>
Sent: Wednesday, March 6, 2024 4:59 PM
To: Alisha Piper <Alisha.Piper@ci.kennewick.wa.us>
Subject: Fwd: Public Notice to Build on S. Washington St. Kennewick

----- Forwarded message -----

From: **kathy lommers** <kdlommers@gmail.com>
Date: Wed, Mar 6, 2024 at 4:56 PM
Subject: Public Notice to Build on S. Washington St. Kennewick
To: <Alisha.Piper@ci.kennewick.wa>

Alisha,

The City of Kennewick is processing the application of a proposed development for 15 Habitat for Humanity houses and 76 other houses along S. Washington Street. I am concerned about the development changing the dead end at W. 52nd Ave. to a through road to S. Washington St. for the following reasons:

1. The increased traffic and noise in Orchard Crest neighborhood will affect the safety and habitat of nesting mallards in irrigation pond, owls in wooded areas, deer, rabbits and other wildlife.
2. The increased traffic in Orchard Crest neighborhood will also affect the safety of domestic animals and young children.

In the interest of our wildlife and children, I propose that you retain the current dead end at W. 52nd Avenue and funnel traffic through S. Washington and 49th Street.

I appreciate your consideration.

Kathryn Lommers
104 W. 52nd Ave.
Kennewick, WA. 99337

From: [Alisha Piper](#)
To: [Matt Halitsky](#)
Subject: FW: Orchard Crest / Habitat for Humanity
Date: Monday, March 11, 2024 1:23:03 PM

-----Original Message-----

From: Bryan Denise <navyboats99@yahoo.com>
Sent: Sunday, March 10, 2024 12:47 PM
To: Alisha Piper <Alisha.Piper@ci.kennewick.wa.us>
Subject: Orchard Crest / Habitat for Humanity

Good Afternoon Alisha,

My name is Bryan Denise. My wife (Julie) and I live in the Orchard Crest development and are very concerned with the new proposed development at the end of 52nd st. The property value decline, increased traffic, probable gang activity, and effect to our irrigation/utilities are among our top concerns. We would both like to be included in all discussions involving this new development or Sunny Meadows in general. We look forward to attending the public meeting to further express our concerns.

I appreciate your attention,
Bryan Denise
249 W 53rd Ave.
Kennewick, Wa 99337
Bryan- (509)619-5927
Julie- (509)619-5844

From: [Alisha Piper](#)
To: [Matt Halitsky](#)
Subject: FW: Orchard Crest Neighborhood - Habitat for Humanity Houses
Date: Tuesday, March 12, 2024 2:15:58 PM

From: John LaFemina <jlafemina6@gmail.com>
Sent: Tuesday, March 12, 2024 11:55 AM
To: Alisha Piper <Alisha.Piper@ci.kennewick.wa.us>
Subject: Orchard Crest Neighborhood - Habitat for Humanity Houses

Good afternoon,

I am writing to you as a resident of the Orchard Crest neighborhood, who lives on 52nd Avenue, to voice my strong opposition to the proposed development by Habitat for Humanity for 15 low income houses along South Washington Street as well as my strong opposition to the other proposed development across the street from the Habitat for Humanity houses, which would consist of 78 homes. As a home-owner who lives on 52nd Avenue and has two young children, I worry about the increased traffic along our street (a street where a number of neighborhood children and families ride their bikes, take walks, walk their dogs, etc.). The increased traffic poses a safety concern for all families who chose to buy their homes on a quiet street in a quiet neighborhood.

The increased road noise, in addition to increased noise in general (i.e. barking dogs) will be detrimental to the mental wellbeing and health of the residents of Orchard Crest. Again, the home-owners chose to purchase their homes in this neighborhood largely because it is out of the way, quiet, and off of any main roads. Turning 52nd Avenue and South Washington Street into main roads completely negates these appealing aspects of the neighborhood.

As previously noted, the canyon north of 52nd Avenue is an irrigation overflow. The gravel portion of South Washington, and the proposed area of construction for the Habitat for Humanity houses, are regularly washed out and have water flowing through them. This will undoubtedly cause foundation issues for any structures built there.

The disparity of the proposed lot sizes, home square footage, and density of the dwellings with surrounding properties is another concern. Adding this many small homes, packed in tightly together on small lots, will have a negative impact on the property values of the existing homes in the Orchard Crest neighborhood.

The southern portion of South Washington Street and the surrounding Canyon (where the proposed build would take place) is all natural habitat to a number of animal and plant species. Further development will only continue to disseminate the landscape and natural habitat of these animals, further displacing them and increasing the instances of wildlife interactions with people. Rattle snakes, coyotes, pheasant, quail, moles, etc. will all be displaced. Have environmental studies been done of this area to ensure that no protected or endangered animal and plant life will be destroyed during the necessary development of this canyon?

In addition, your flier states to check out the sign at the dead end on East 49th for where to send comments. That sign indicates that there will be no comment period, and does not give an

email for where to send any comments. Please consider fixing this and giving residents a chance to voice their opinions on the additional proposal.

In closing, as a long time resident of the Orchard Crest neighborhood, I STRONGLY oppose the proposed development by Habitat for Humanity for 15 low income houses along South Washington Street. I also STRONGLY oppose the additional proposal for a development across the street from the Habitat for Humanity houses, which would consist of 78 homes.

Thank you,

John LaFemina

From: [Connie](#)
To: [Matt Halitsky](#)
Cc: [Alisha Piper](#)
Subject: NOTICE OF BUILDING PROJECT SUB-2024-0004 and ED-2024-0006
Date: Tuesday, March 12, 2024 7:19:11 PM

Matt Halitsky,

This Morning I was made aware of the Subdivision being proposed at the absolute end of S. Washington Street, Kennewick, File #SUB-2024-0001. I was also made aware of the Subdivision site at the end of 49th Ave which Knudsen Construction File #ED-2024-0006 is planning homes along the Canyon/ Ravine both sides.

Amazing this area is being considered as a densely populated home building area. Do you realize what you will be destroying if you continue on with your plans? This Canyon/Ravine area is considered a WETLAND AREA all of the way down to Elliott Lake. It is also identified as a FISH & WILDLIFE Habitat Conservation Area! There is a TOAD that lives in that area that is considered ENDANGERED! There are numerous COYOTES, DEER, BEAVER, HERRING and EAGLES! Awhile back there was an EAGLET. There needs to be a re-assessment of the Environmental Impact in this area before going ahead!

Someone is looking at this area strictly from a financial point of view! Whoever did the Study has not spent time there. This has already been declared a WETLAND! There are Environmental Maps in the Planning Department that show this Canyon/Ravine area to be a WETLAND AREA. This issue was addressed a few years ago. These homes cannot be built along this Canyon. The runoff would fill this Canyon/Ravine up with silt, not to mention the building instability for these homes as water seeps up. Also, there would be disruption to the Wildlife. That would be the end of the WILDLIFE/WETLAND!

I am assuming there will be meetings for the public to attend before this project begins. Please notify me of up coming meetings.

Thank You

Connie Bennett
4608 S Fisher Place
Kennewick, WA 99337
(509)366-3945

From: [J. Bennett](#)
To: [Matt Halitsky](#)
Subject: FW: City of Kennewick SUB-2024-0003 (Sunny Meadows Subdivision) Wildlife - Western Toad
Date: Thursday, August 15, 2024 12:51:33 PM
Attachments: [IMG_7604 Bat from Elliot Lake Habitat Conservation Area.heic](#)
[53177355F640489487D27307EDF86812.png](#)

Thanks for following up on the videos Matt. Attached are the pictures of the deer and bat from the Elliot Lake Habitat Conservation Area. John Bennett

From: [Matt Halitsky](#)
Sent: Monday, August 12, 2024 3:47 PM
To: '[J. Bennett](#)'
Subject: RE: City of Kennewick SUB-2024-0003 (Sunny Meadows Subdivision) Wildlife - Western Toad

Hi John

There really isn't a clean way to add videos to the public record that's printable for the public. If you want to choose some screen captures from the videos or send JPEGs, I can add them to your exhibit.

Matt H.

From: J. Bennett <jbennett-pe@charter.net>
Sent: Monday, August 12, 2024 1:12 PM
To: Matt Halitsky <Matt.Halitsky@ci.kennewick.wa.us>
Subject: FW: City of Kennewick SUB-2024-0003 (Sunny Meadows Subdivision) Wildlife - Western Toad

Hi Matt,

Previous correspondence indicated that there is extensive wildlife in the Wildlife Habitat Conservation Area upstream of Elliot Lake including the proposed Sunny Meadows Subdivision area. Attached are pictures of some of that wildlife seen photographed recently. The pictures are sent to you via different emails as some of the files are large.

John Bennett

From: [J. Bennett](#)
Sent: Sunday, August 04, 2024 10:33 PM
To: [Matt Halitsky](#)

Subject: Re: City of Kennewick SUB-2024-0003 (Sunny Meadows Subdivision)

Hi Matt,

There are some helpful links that may shed some light on the wetlands and wildlife habitat conservation areas located within the proposed Sunny Meadows development. They are the National Wetlands Inventory Map: <https://fwsprimary.wim.usgs.gov/wetlands/apps/wetlands-mapper/> and the

WDFW Priority Habitat Map: <https://geodataservices.wdfw.wa.gov/hp/phs/>. Once loaded, clicking on the area of interest will bring up the information on these two critical areas. In doing so, information similar to what has been attached can be obtained. Also attached is a current map from Benton County. Could you please forward this information to the Hearing Examiner as well? The maps with the information I submitted earlier do not provide the details contained in these current Federal and State maps.

Thanks again Matt for all of your help,

John Bennett

From: [Matt Halitsky](#)

Sent: Thursday, August 01, 2024 6:12 PM

To: ['J. Bennett'](#)

Subject: RE: City of Kennewick SUB-2024-0003 (Sunny Meadows Subdivision)

Of course. If there's anything else you would like added, you will likely have until first thing Monday to make the packet.

From: J. Bennett <jbennett-pe@charter.net>

Sent: Thursday, August 1, 2024 6:02 PM

To: Matt Halitsky <Matt.Halitsky@ci.kennewick.wa.us>

Subject: Re: City of Kennewick SUB-2024-0003 (Sunny Meadows Subdivision)

Thanks Matt.

From: [Matt Halitsky](#)

Sent: Thursday, August 01, 2024 11:06 AM

To: ['J. Bennett'](#)

Subject: RE: City of Kennewick SUB-2024-0003 (Sunny Meadows Subdivision)

Good morning John,

I'll be sure these additional attachments are added to your original comments for the Hearing Examiner packet.

Best,

Matt H.

From: J. Bennett <jbennett-pe@charter.net>

Sent: Thursday, August 1, 2024 9:51 AM

To: Matt Halitsky <Matt.Halitsky@ci.kennewick.wa.us>

Subject: Re: City of Kennewick SUB-2024-0003 (Sunny Meadows Subdivision)

Importance: High

Good Morning Matt,

Thank you for your attention to this proposed development in south Kennewick and this email on the scheduled public meeting to be held concerning the proposed development.

I do have some additional questions and comments on this proposed development. They are attached. Hopefully, the City and the developer will respond to them in the public hearing.

Thank you again for all your help with this process. It is very much appreciated.

John Bennett

From: [Matt Halitsky](#)

Sent: Thursday, July 11, 2024 3:51 PM

To: [Matt Halitsky](#)

Subject: City of Kennewick SUB-2024-0003 (Sunny Meadows Subdivision)

Good Afternoon,

A few months back you expressed interest in the proposed Sunny Meadows Subdivision at 240 E 49th Ave in Kennewick and requested to be a party of record. The internal review of that Preliminary Plat is now complete and it is tentatively scheduled for a public hearing with the City of Kennewick Hearing Examiner on 12 August 2024. Attached is a copy of the plat for reference.

If you would like to provide additional public comment beyond that submitted thus far, please email those comments directly to me so I can be sure the Hearing Examiner receives a copy. Although you

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Per Kennewick Municipal Code, we will post a Notice of Public Hearing sign on the property approximately 15-days prior to the public hearing. It will also be printed in the Legals section of the Tri-City Herald. Property owners located within 300-feet of the subject property will also receive a mailed Notice of Public Hearing around the same time. If you provided me with a mailing address with your earlier communication, you will also receive a mailed notice. A copy of the staff report will be available approximately one week prior to the public hearing.

Thank you for your interest in this application, and do let me know if you have any questions.

Best,

Matt H.

Matthew Halitsky, AICP

Senior Planner

Community Planning Department

City of Kennewick

O: 509.585.4416 | F: 509.585.4442

matt.halitsky@ci.kennewick.wa.us









From: [J. Bennett](#)
To: [Matt Halitsky](#)
Subject: Re: City of Kennewick SUB-2024-0003 (Sunny Meadows Subdivision)
Date: Sunday, August 4, 2024 10:34:31 PM
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)
[image004.png](#)
[Elliot Lake.pdf](#)
[ags_5745571ac75243568157111fee53f032.pdf](#)
[Wetland in Proposed Sunny Meadows Development.doc](#)

Hi Matt,

There are some helpful links that may shed some light on the wetlands and wildlife habitat conservation areas located within the proposed Sunny Meadows development. They are the National Wetlands Inventory Map: <https://fwsprimary.wim.usgs.gov/wetlands/apps/wetlands-mapper/> and the WDFW Priority Habitat Map: <https://geodataservices.wdfw.wa.gov/hp/phs/>. Once loaded, clicking on the area of interest will bring up the information on these two critical areas. In doing so, information similar to what has been attached can be obtained. Also attached is a current map from Benton County. Could you please forward this information to the Hearing Examiner as well? The maps with the information I submitted earlier do not provide the details contained in these current Federal and State maps.

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Subject: RE: City of Kennewick SUB-2024-0003 (Sunny Meadows Subdivision)

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Sent: Thursday, August 1, 2024 9:51 AM
To: Matt Halitsky <Matt.Halitsky@ci.kennewick.wa.us>
Subject: Re: City of Kennewick SUB-2024-0003 (Sunny Meadows Subdivision)
Importance: High

Good Morning Matt,

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John Bennett

From: [Matt Halitsky](#)
Sent: Thursday, July 11, 2024 3:51 PM
To: [Matt Halitsky](#)
Subject: City of Kennewick SUB-2024-0003 (Sunny Meadows Subdivision)

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Hearing Examiner on 12 August 2024. Attached is a copy of the plat for reference.

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Matthew Halitsky, AICP

Senior Planner

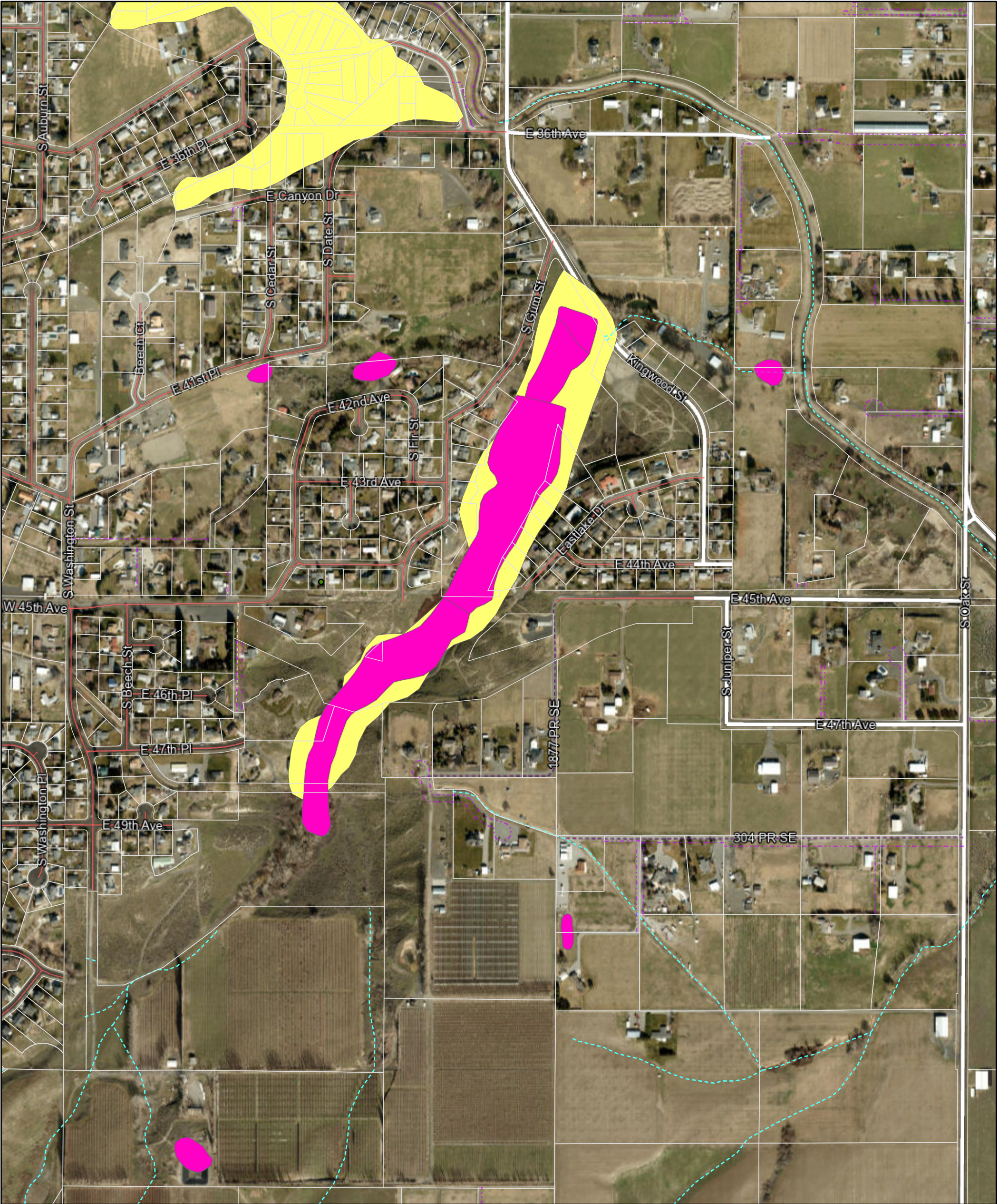
Community Planning Department

City of Kennewick

O: 509.585.4416 | F: 509.585.4442

matt.halitsky@ci.kennewick.wa.us

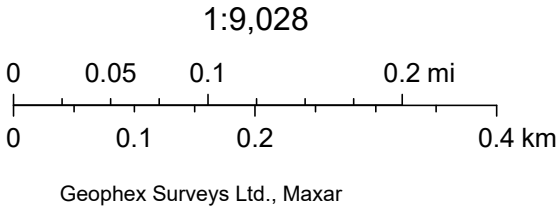


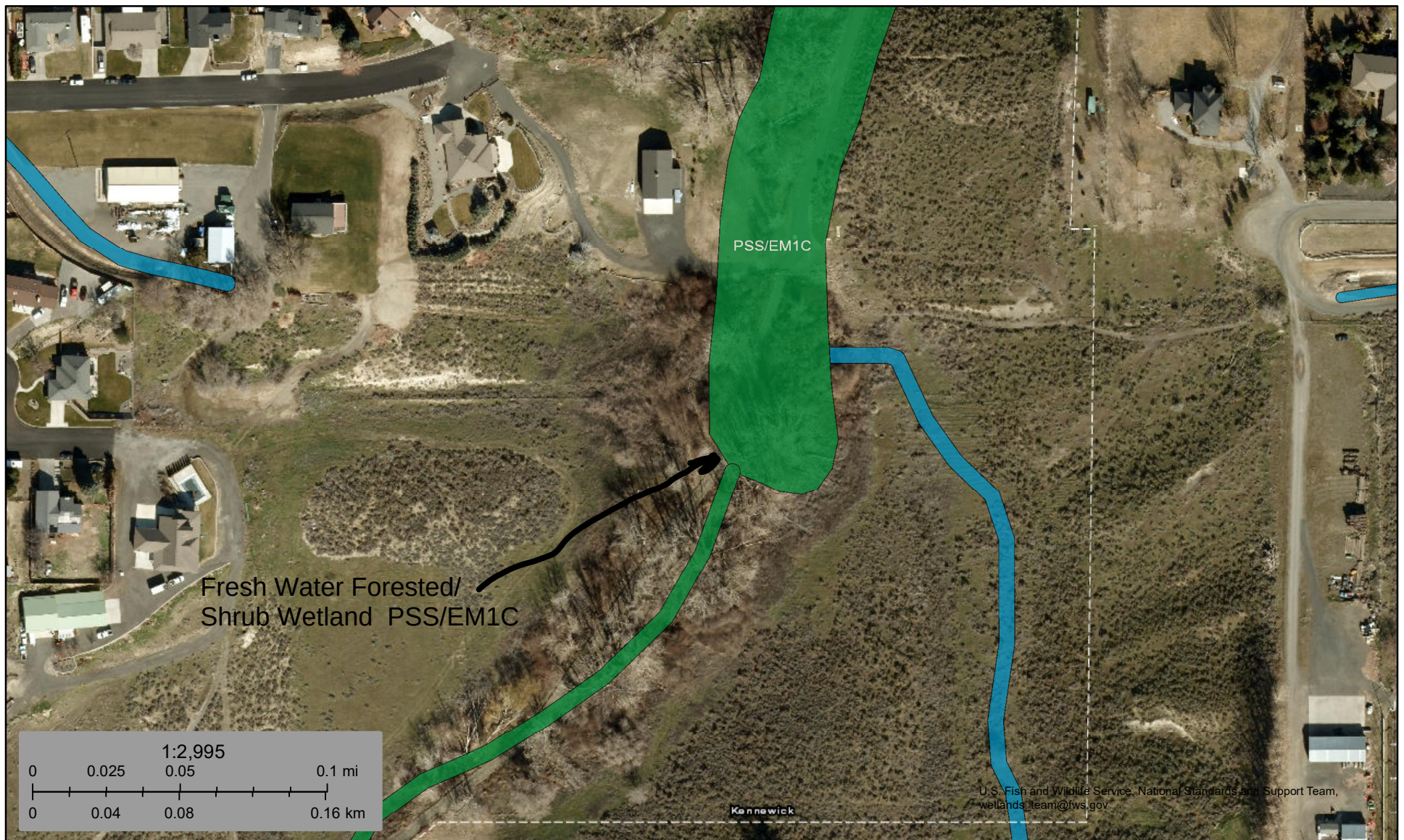


8/2/2024, 9:40:24 AM

- Wetlands_NWI
- Access Easement
- Parcels
- Wetlands_Rivers_and_Streams - Minor Drainages
- PriorityHabNWlpolySV
- PriorityHabPHSRegionSV
- PriorityHabWSOccurpointDR
- Road_Centerlines

Paved County Road
- Private County Road
- City Road
- Private City Road





August 5, 2024

Wetlands

	Estuarine and Marine Deepwater		Freshwater Emergent Wetland		Lake
	Estuarine and Marine Wetland		Freshwater Forested/Shrub Wetland		Other
			Freshwater Pond		Riverine

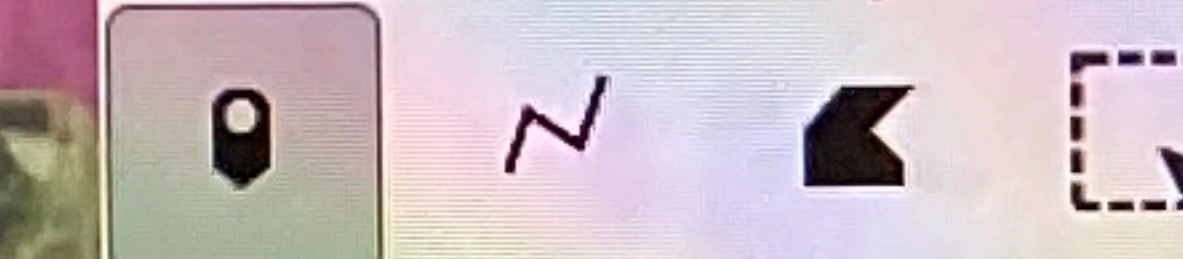
This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

240 E. 49th Ave, Kennewick



PHS Identify

Select a tool to identify features with.



Buffer Options:

Distance: Units: Feet

Occurrence Name	Wetlands
Priority Area	Aquatic Habitat
Site Name	ELLIOT LAKE
Accuracy	1/4 mile (Quarter Section)
Notes	UNOS-ELLIOT LAKE-A SPRING FED LA KE LOCATED IN RESIDENTIAL AREA C ONTAINING WATERFOWL, FEEDING R APTORS, FURBEARING ANIMALS, UPL AND BIRDS, NON GAME BIRDS, WETL ANDS
Source Record	902909
Source Dataset	PHSREGION
Source Name	MCINTOSH, JOHN
Source Entity	WA Dept. of Fish and Wildlife
Federal Status	N/A
State Status	N/A
PHS Listing Status	PHS Listed Occurrence
Sensitive	N
SGCN	N

Click to add a point

Fresh Water Forested / Shrub Wetland (PSS/EM1C)
in
Proposed Sunny Meadows Development

Classification code: PSS/EM1C

System **Palustrine (P)** : The Palustrine System includes all nontidal wetlands dominated by trees, shrubs, persistent emergents, emergent mosses or lichens, and all such wetlands that occur in tidal areas where salinity due to ocean-derived salts is below 0.5 ppt. It also includes wetlands lacking such vegetation, but with all of the following four characteristics: (1) area less than 8 ha (20 acres); (2) active wave-formed or bedrock shoreline features lacking; (3) water depth in the deepest part of basin less than 2.5 m (8.2 ft) at low water; and (4) salinity due to ocean-derived salts less than 0.5 ppt.

Class **Scrub-Shrub (SS)** : Includes areas dominated by woody vegetation less than 6 m (20 feet) tall. The species include true shrubs, young trees (saplings), and trees or shrubs that are small or stunted because of environmental conditions.

Split Class **Emergent (EM)** : Characterized by erect, rooted, herbaceous hydrophytes, excluding mosses and lichens. This vegetation is present for most of the growing season in most years. These wetlands are usually dominated by perennial plants.

Split Subclass **Persistent (1)** : Dominated by species that normally remain standing at least until the beginning of the next growing season. This subclass is found only in the Estuarine and Palustrine systems.

Water Regime **Seasonally Flooded (C)** : Surface water is present for extended periods especially early in the growing season, but is absent by the end of the growing season in most years. The water table after flooding ceases is variable, extending from saturated to the surface to a water table well below the ground surface.

From: [J. Bennett](#)
To: [Matt Halitsky](#)
Subject: Re: City of Kennewick SUB-2024-0003 (Sunny Meadows Subdivision)
Date: Thursday, August 1, 2024 9:51:35 AM
Attachments: [image007.png](#)
[image003.png](#)
[image004.png](#)
[image005.png](#)
[Questions and Comments Concerning the Developments Off South Washington Street.doc](#)
[5.1 Wetlands and Wildlife Conservation Areas - Figures 9 & 13.pdf](#)
[5.2 City of Kennewick Parcel Map of Proposed Sunny Meadows Development.pdf](#)
Importance: High

Good Morning Matt,

Thank you for your attention to this proposed development in south Kennewick and this email on the scheduled public meeting to be held concerning the proposed development.

I do have some additional questions and comments on this proposed development. They are attached. Hopefully, the City and the developer will respond to them in the public hearing.

Thank you again for all your help with this process. It is very much appreciated.

John Bennett

From: [Matt Halitsky](#)
Sent: Thursday, July 11, 2024 3:51 PM
To: [Matt Halitsky](#)
Subject: City of Kennewick SUB-2024-0003 (Sunny Meadows Subdivision)

Good Afternoon,

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Thank you for your interest in this application, and do let me know if you have any questions.

Best,

Matt H.



Matthew Halitsky, AICP

Senior Planner

Community Planning Department

City of Kennewick

O: 509.585.4416 | F: 509.585.4442

matt.halitsky@ci.kennewick.wa.us



Questions and Comments Concerning the Developments Off South Washington Street
Kennewick, Washington

1. Infrastructure and Service Improvements Required to Support the Sunny Meadows Development and the Adjoining 15 Lot Subdivision on South Washington Street
 - 1.1. What infrastructure and services improvements are planned within the city to support the development of these subdivisions?
 - 1.2. It is expected that the developers will pay for all needed improvements to infrastructure. If existing infrastructure and services are adequate, the tax payers of Kennewick deserve reimbursement from the developer for using the existing excess capacity required to support these new developments.
 - 1.3. These developments will impact the roads in the Highlands area of south Kennewick from Finley to west of Hwy 395. Water, sewer, and electricity services, emergency services, schools, hospital, parks, etc. will also be impacted, some significantly. What are the plans to meet these new needs?
 - 1.4. We have all been affected by increased congestion on our main roads including 10th and 27th Avenues through their intersections with Hwy 395. We can expect increased traffic in and around the neighborhoods near 45th Avenue and South Washington Street. What is planned to reduce increased congestion due to traffic from these proposed developments?
2. Knutzen Engineering Preliminary Plat Drawing PP01, Rev 2, dtd 1/17/24
 - 2.1. Will South Washington St and 49th Ave be enlarged to the full 60 foot ROW?
 - 2.2. Will all streets within these developments include storm drains and piping to remove water and snow melt runoff from the roads? Where will the storm water be collected or diverted to? Not into Elliot Lake and it's upstream wetlands! Drainage from these developments will include seeds from non-native plants, pesticides, herbicides, and oils harmful to the downstream Fish and Wildlife Habitat Conservation Areas. How will the drainage coming from west of the developments be handled? That drainage now flows over the dirt extension of South Washington Street.
 - 2.3. What is the plan by the City to extend E. 49th Ave east of the development? That 40 foot ROW between Lots 71 & 72 should be removed as it butts up to private property.
 - 2.4. What is the plan to restrict access on the sewer and storm easement beyond the north property line of Lot 76, and to prevent debris from crossing that property line during and after development is completed? The wind normally blows down the canyon towards Elliot Lake.
 - 2.5. How will the storm and sewer easements down stream of these developments be affected and impacted by the developments knowing that these easements are over wetlands and fish and wildlife habitat conservation areas identified and covered by Benton County Critical Area Regulations and Benton County Code Chapter 15.04, Wetlands, and Chapter 15.14, Fish and Wildlife Habitat Conservation Areas?
 - 2.6. How does the developer and City of Kennewick plan to mitigate the effects of the springs and year-round wet soil in low lying areas of the property wetlands,

- and reestablish the wildlife habitat conservation area that has been removed by the property owner? Kennewick Parcel Map aerial photographs taken in winter of the property show the large extent of trees and vegetation that existed prior to the clearing of the land by the property owner.
- 2.7. Many of the proposed lots appear too small for a house when considering the slope of the land. Is the developer planning to contour the land to obtain reasonable building sites? Will the excess dirt be retained on the property? Many of the houses to the west of the proposed developments are built on relatively flat land greater than 10,000 square feet area. The City should require larger parcels on the sloped land to be developed in this area.
 - 2.8. What safeguards will be in place to prevent soil erosion and dust emissions into the wetland and wildlife habitat conservation areas and neighborhoods north of the development?
 - 2.9. It appears that there will be only one main route (South Washington St) for ingress/egress to/from the developments. In the event of an emergency, access to/from the developments could be severely restricted as it was above Canyon Lakes during the Bofer Canyon Fire six years ago. This coupled with vehicles parked on the roads within the development could be a serious condition for the residents and emergency responders.
 - 2.10. What is planned for the space between Lot 76 and the sewer/drainage easement?
3. Critical Area Mitigation Plan - Sunny Meadows Project, prepared for Pro Made Construction, LLC, dtd October 31, 2023
 - 3.1. The Benton County Critical Area Regulations identified the north-eastern portion of the proposed Sunny Meadows Project as Wetlands and Fish and Wildlife Habitat Conservation Areas, as shown on attached Figure 9: Wetlands, River, and Streams Update and Figure 13: Fish and Wildlife Habitat Conservation Areas of the Benton County Comprehensive Plan.
 - 3.2. This report fails to mention that several years prior to its preparation, these identified lowland areas were cleared of mature trees and vegetation, thus altering the conditions of the land to what has been reported for this project. Obviously, the removal of mature trees and vegetation from such an area in Eastern Washington can have a profound impact upon the soil and future vegetation for years into the future. The extent of mature trees and large vegetation that existed prior to their removal is shown in many of the PBS Figures at the end of the report, and extends from the northern property line throughout the topographical valley south to the northern boundary of the orchard. This prior condition is also shown on the City of Kennewick parcel maps - copy attached. These mature trees and vegetation were similar to those that are growing north of the property line that are also designated as a Fish and Wildlife Habitat Conservation Area.
 - 3.3. This report did not include a habitat assessment of this area prior to the destruction of the of the mature trees and vegetation. However, it can be assumed that the habitat would have been similar, if not identical, to what exists today in the designated Fish and Wildlife Habitat Conservation directly north of this property.

- 3.4. Golden eagles are frequently seen soaring overhead and nesting in the cottonwoods in the canyon above Elliot Lake. Two great horned owls (very large) also live in the canyon area along with deer, and this year, a coyote family with two pups. A picture is included which shows a Western Toad from the canyon.
The wildlife habitat needs to be protected!
 - 3.5. Even after this year's hot, dry summer, wet soil is present today in the area cleared of mature trees and vegetation indicating that this is a wetland area. Young cottonwood and Russian olive trees are thriving in the wet ground. These new trees, some 10 to 20 feet tall show no signs of stress from the summer heat. This is the same area identified in Figure 9, Benton County Wetlands, Rivers, and Streams and is subject to Benton County Code 15.04, Wetlands, which lists activities allowed in wetlands.
 - 3.6. The PBS Report indicated that "none of the areas within the project area met all three wetland criteria". PBS' wetland delineation and assessment of the project area must have been conducted after the major trees and vegetation were removed. Did the removal of the major trees and vegetation alter the conditions of the property resulting in findings favoring the project? Wet soil and vigorous growth of new trees and vegetation in this area suggests that some wetland criteria may have been overlooked.
4. Other:
- 4.1. Benton County Code 15.14.040 Performance Standards - General Requirements, sec (a) states, "Alterations shall not degrade the functions and values of habitat. A habitat conservation area may be altered only if the proposed alteration of the habitat or the mitigation proposed does not degrade the quantitative and qualitative functions and values of the habitat." It appears that this responsibility was not adhered to by the property owner as the wildlife habitat on their property was destroyed prior to mitigation. It is the responsibility of Benton County and the City of Kennewick to see that this wildlife habitat area is restored to its prior condition on this property.
 - 4.2. Before proceeding with the Sunny Meadows development, the City of Kennewick needs to request another wetland delineation and assessment of the project area to be conducted by a separate, independent consultant that meets the requirements specified by Benton County Code Chapter 15.04 to determine whether there is any evidence indicating that this indeed qualifies as a wetlands area. It should also be noted that very similar properties to the north of the proposed Sunny Meadows development have been treated as wetlands area, and major trees and vegetation on the proposed Sunny Meadows property were removed prior to an environmental assessment.
 - 4.3. The Benton County Comprehensive Plan states in Section 4.3.4 that "Benton County currently requires a 150-foot setback for residential dwellings from agricultural districts to protect agricultural lands of long-term commercial significance and to avoid future land use conflicts. Because of their importance to the local and state economy, agricultural lands of long-term commercial significance should continue to be protected from future development." The

City of Kennewick needs to uphold the intent of Section 4.3.4 in granting permits for residential dwellings to protect our agricultural lands including these proposed developments off South Washington Street.

5. Attachments:

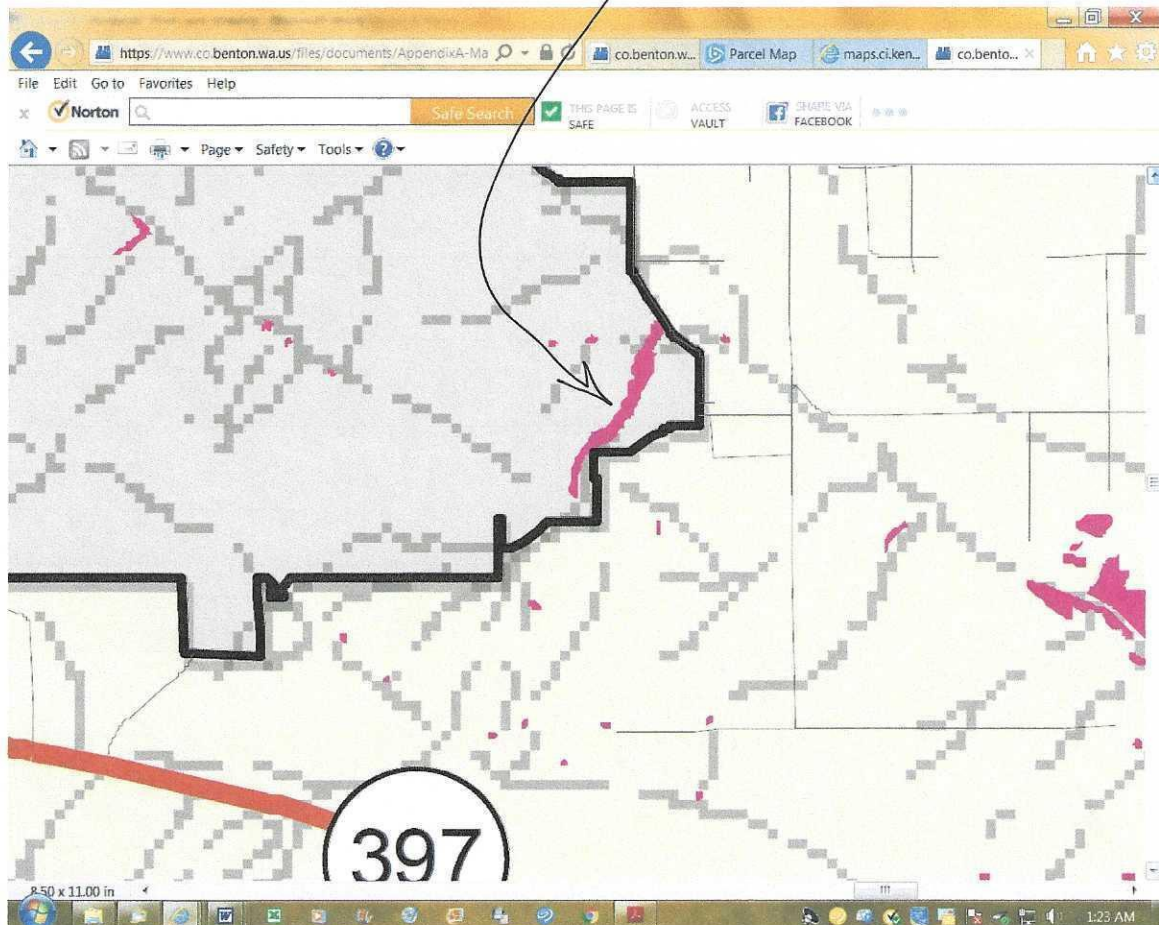
- 5.1. Wetlands and Wildlife Conservation Areas - Figures 9 & 13 with inserts.
- 5.2. City of Kennewick Parcel Map of proposed Sunny Meadows Development.
- 5.3. Western Toad from Canyon Above Elliot Lake.

7/31/2024



Figure 9: Wetlands, River, and Streams - Screen Print of Blow-up of Elliot Lake and Up Stream Ravine. To Locate on Kennewick City Map, compare black outline with City - County boundary on Parcel maps near Elliot Lake @ <https://kennewick.maps.arcgis.com/apps/webappviewer/index.html?id=73d34b323dba4ad48d50b8ff7399480b>

The pink areas designate 'Wetlands'.



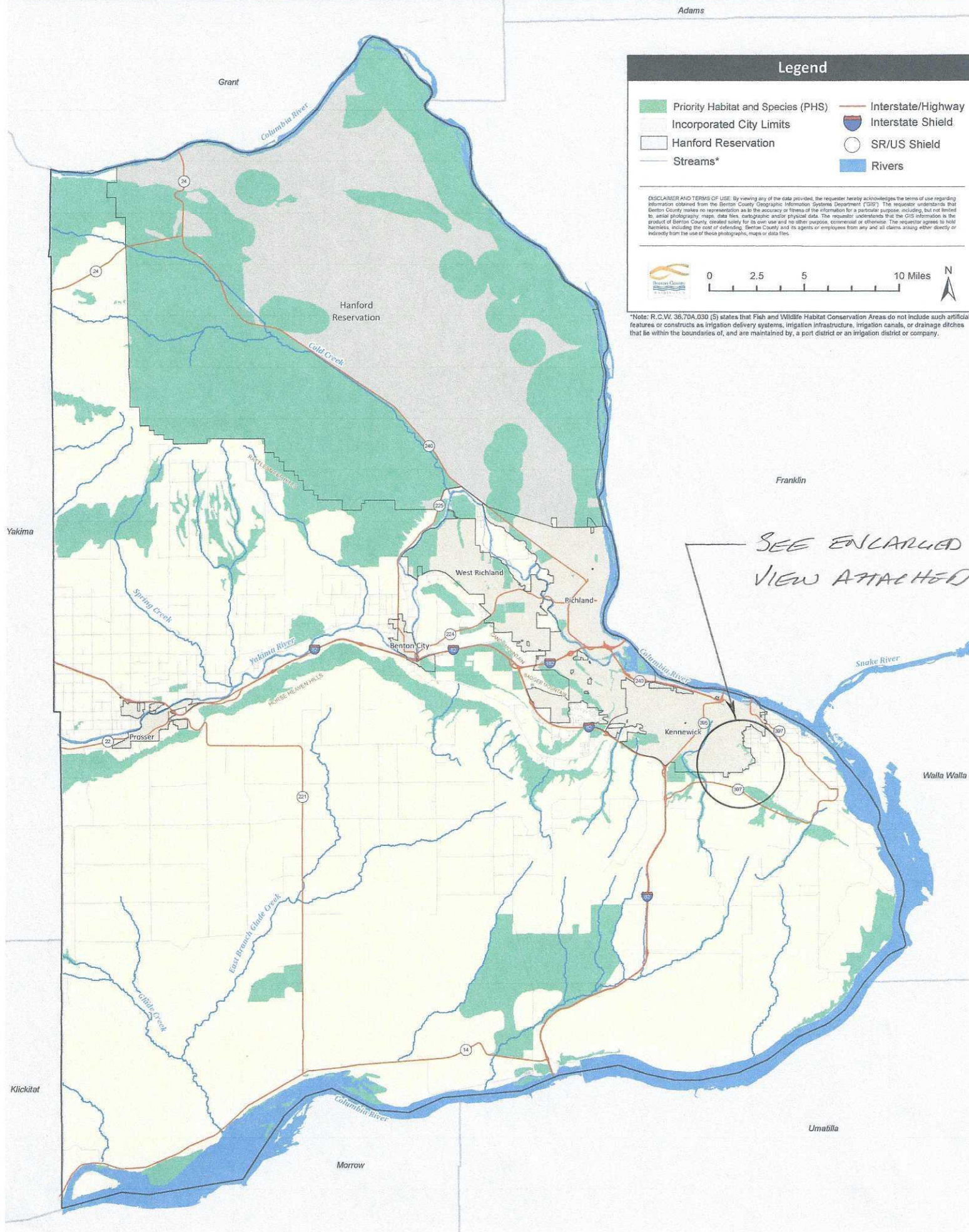
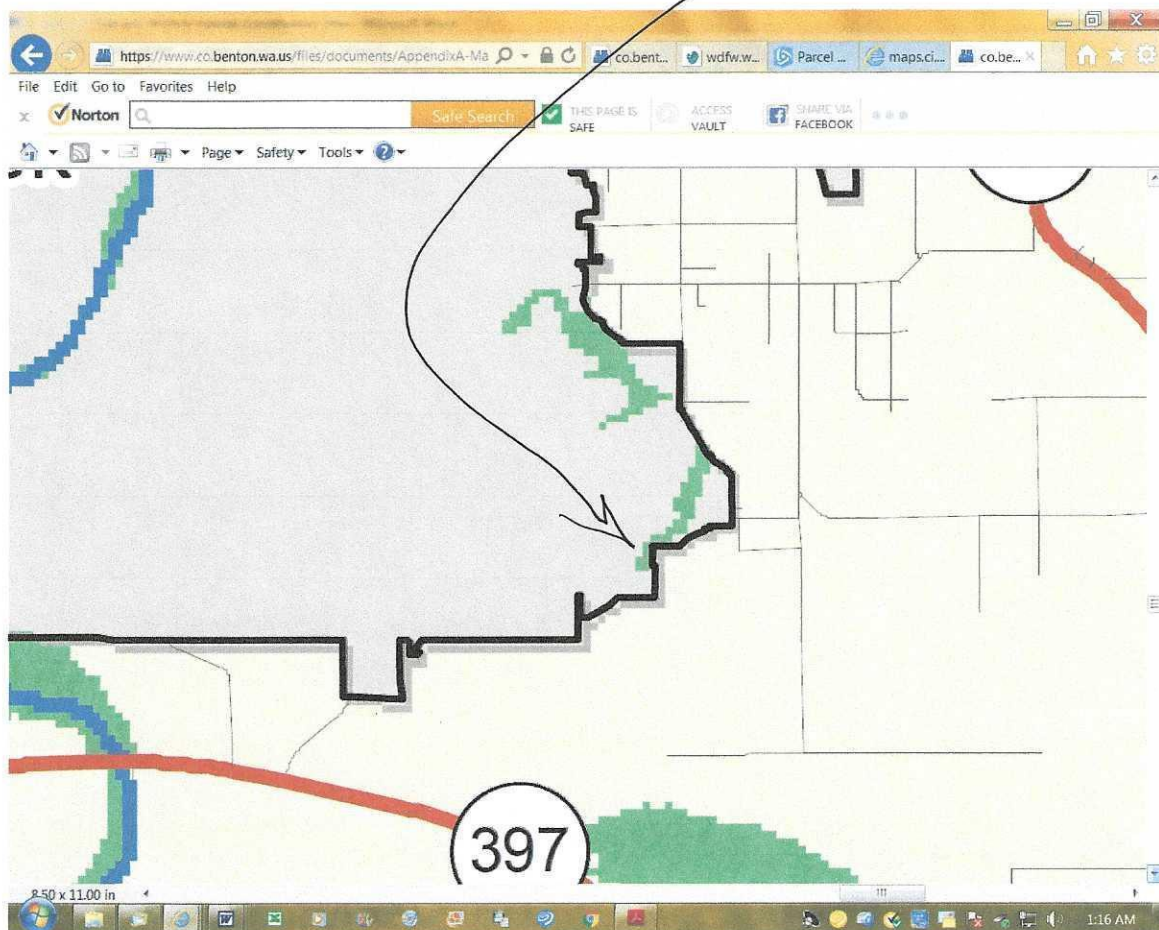


Figure 13: Fish and Wildlife Habitat Conservation Area - Screen Print of Blow-up of Elliot Lake and Up Stream Ravine. To Locate on Kennewick City Map, compare black outline with City - County boundary on Parcel maps near Elliot Lake @ <https://kennewick.maps.arcgis.com/apps/webappviewer/index.html?id=73d34b323dba4ad48d50b8ff7399480b>

The green areas on the map designate "Priority Habitat and Species".

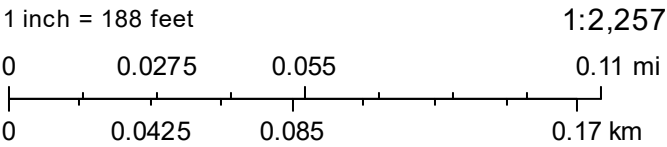




7/24/2024, 5:42:59 PM

This plan is suitable for informational use only. City of Kennewick accepts no liability for any error whatsoever.

SewerCleanout	SSGT	SewerServiceLine	WaterMeter	WaterValve	PRESSURE REGULATING
SewerLiftStation	SSOW	StreetName	<all other values>	<all other values>	PRESSURE RELIEF
SewerManhole	Valve	WaterFireHydrant	Meter	AIR RELIEF	UNKNOWN
<all other values>	SewerNode	<all other values>	Manhole	BUTTERFLY	WHEEL GATE
Manhole	SewerForcemain	Fire Department Connection	WaterNode	GATE	WaterMainline
SSGI	SewerMainline	Guard Post		POST INDICATOR	WaterServiceLine



Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community



From: [J. Bennett](#)
To: [Matt Halitsky](#)
Subject: Sunny Meadows Development - Notice of Environmental Determination: File ED-2024-0006
Date: Wednesday, March 13, 2024 11:08:15 AM
Attachments: [Wetlands and Wildlife Conservation Areas.pdf](#)
Importance: High

Matt -

This email is in response to the City of Kennewick Public Notice Environmental Determination: Subdivide 24.13-acres into 78 lots and 2 tracts; Applicant Knutzen Engineering; File ED-2024-0006.

I happened to be on S Washington Street this afternoon and noticed a small, obscure sign at the end of E 49th Avenue. The sign was a City of Kennewick Public Notice positioned where hardly anyone would notice unless they lived at the end of E 49th Avenue. The sign stated it was a "Determination of Non-significance", a box on the sign was checked indicating "There is no comment period for the DNS", and it included your name, contact number, and dated 6 March 2024.

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Please send me a copy of this information.

Was the public allowed to comment on this proposal prior to the determination? What were the public comments? Please send me the public comments along with the above requested information.

I am quite familiar with the specific area in which the development of 78 lots and 2 tracks called Sunny Meadows is planned.

Significant portions of the proposed Sunny Meadows development includes Wetlands and Habitat Conservation Areas and their buffer areas. These protected areas are identified in Benton County Critical Area maps.

As you know, there are very specific Federal, State, and County Guidelines pertaining to allowed activities in and around Wetlands and Habitat Conservation Areas. Modifications in these protected areas are not allowed except as permitted in the Benton County Critical Area Regulations.

Attached are four figures from the Benton County Comprehensive Plan Update Appendix A showing the location of Wetland, River, and Streams (Figure 9), and Fish and Wildlife Habitat Conservation Areas (Figure 13) that identify Wetlands and Priority Habitat and Species (PHS) that are in the Sunny Meadows proposed subdivision.

The trees that were removed within the past two years from this proposed subdivision were in the protected area. Who authorized and permitted the removal of the trees? Who will restore the habitat that was destroyed? Some wildlife observed in this protected area include deer, coyotes, herring, eagles, and toads that are on the endangered species list.

The maps of Benton County Critical Areas which include the drainage through the proposed subdivision to Elliot Lake may be found at:

<https://www.co.benton.wa.us/files/documents/AppendixA-MapFolioPCHrgDraft11-21-17129022805111317PM.pdf> Copies of applicable maps and blow-ups of the Elliot Lake area are attached. These Benton County maps are referenced in the Critical Area Regulations below.

Excerpts from Benton County 15.08 Critical Area Regulations are below. Full text is available at <http://www.co.benton.wa.us/files/documents/CAOdFeb2018129072227022218PM.pdf>

BENTON COUNTY CRITICAL AREA REGULATIONS

CHAPTER 15.08

PART ONE GENERAL PROVISIONS

PART TWO WETLANDS

PART THREE AQUIFER RECHARGE AREAS

PART FOUR FREQUENTLY FLOODED AREAS

PART FIVE GEOLOGICALLY HAZARDOUS AREAS

PART SIX FISH AND WILDLIFE HABITAT CONSERVATION AREAS

PART ONE. GENERAL PROVISIONS

15.08.010 Purpose.

The purpose of this chapter is to designate and classify ecologically sensitive and hazardous areas and to protect these areas and their functions and values, while also allowing for reasonable use of private property.

15.08.020 Authority.

(a) As provided herein, the Planning Administrator is given the authority to interpret and apply, and the responsibility to enforce this chapter to accomplish the stated purpose.

(b) The County may withhold, condition, or deny development permits or activity approvals to ensure that the proposed action is consistent with this chapter.

15.08.070 Definitions.

(a)(3) Alteration-Any human induced change in an existing condition of a critical area or its buffer. Alterations include, but are not limited to, grading, filling, channelizing, dredging, clearing (vegetation), construction, compaction, excavation, or any other activity that changes the character of the critical area.

(a)(16) Critical species-All animal and plant species listed by the state or federal government as threatened or endangered.

(a) (18) Development-Any activity upon the land consisting of the removal, excavation, stockpiling, or grading of soil; the dredging of soil, sand, gravel, minerals, organic matter, or material of any kind; the dumping, discharging, or

filling with any material, liquid or solid; the draining or flooding which causes alteration of surface water level; the placing or construction, reconstruction, demolition, or expansion of any structure; activities that result in the destruction, or significant reduction of the biologic or hydrologic functions and values of riparian or wetland vegetation, including clearing, harvesting, intentional burning, or planting of non-native vegetation; activities that result in a significant change of water temperature, a significant change of physical or chemical characteristics of surface water resources, including quantity, or the introduction of pollutants; the platting or the subdivision of land;

(a)(23)(xi) Fish and wildlife conservation areas does not include such artificial features or constructs as irrigation delivery systems, irrigation infrastructure, irrigation canals, or drainage ditches that lie within the boundaries of, and are maintained by, a port district or an irrigation district or company.

(a)(43) Mitigation-Avoiding, minimizing, or compensating for adverse critical areas impacts. Mitigation, in the following sequential order of preference, is:

(i) Avoiding the impact altogether by not taking a certain action or parts of an action;

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

(a)(54) Primary association area-The area used on a regular basis by, in close association with, or is necessary for the proper functioning of the habitat of a critical species.

(a)(60) Repair or maintenance-An activity that restores the character, scope, size, and design of a serviceable area, structure, or land use to its previously authorized and undamaged condition. **Activities that change the character, size, or scope of a project beyond the original design and drain, dredge, fill, flood, or otherwise alter critical areas are not included in this definition.**

15.08.130 - Exemptions.

(b) Exempt Activities and Impacts to Critical Areas. **All exempted activities shall use reasonable methods to avoid potential impacts to critical areas. To be exempt from this chapter does not give permission to degrade a critical area or ignore risk from natural hazards.**

(2) Operation, Maintenance, or Repair. Operation, maintenance, or repair of existing structures, infrastructure improvements, utilities, public or private roads, dikes, levees, irrigation or drainage systems, **if the activity does not further alter or increase the impact to, or encroach further within, the critical area or buffer and there is no increased risk to life or property as a result of the proposed operation, maintenance, or repair.** Operation and maintenance includes vegetation management performed in accordance with best management practices that is part of regular and ongoing maintenance of structures, infrastructure, or utilities, **provided that such management actions do not expand further into the critical area, are not the result of an expansion of the structure or utility, and do not directly impact an endangered or threatened species.**

(3) Passive Outdoor Activities. **Recreation, education, and scientific research activities that do not degrade the critical area,** including fishing, hiking, and bird watching.

(4) Existing and on-going agricultural activities:

(i) Wetlands. Existing and ongoing agricultural activities do not include removing trees, diverting or impounding water, excavation, ditching, draining, cultivating, filling, grading, and similar activities that introduce new adverse impacts to wetlands or other aquatic resources. Conversion

of wetlands that are not currently in agricultural use, regardless of their wetlands rating, to a new agricultural use should be subject to the same regulations that govern new development.

(ii) Fish and wildlife habitat conservation areas. Existing and ongoing agricultural activities do not include tree cutting, road building, new agriculture, clearing, earth moving, mining, filling, burning or construction of buildings or other facilities in fish and wildlife habitat conservation areas.

15.08.140 Exception-Public agency and utility.

(a) If the application of this chapter would prohibit a development proposal by a public agency or public utility, the agency or utility may apply for an exception pursuant to this section.

(d) Public Agency and Utility Review Criteria. The criteria for review and approval of public agency and utility exceptions are as follows:

- (1) There is no other practical alternative to the proposed development with less impact on the critical areas;
- (2) The application of this chapter would unreasonably restrict the ability to provide utility services to the public;
- (3) The proposal does not pose an unreasonable threat to the public health, safety, or welfare on or off the development proposal site;
- (4) The proposal attempts to protect and mitigate impacts to the critical area functions and values consistent with the best available science;

15.08.150 Exception-Reasonable use

(a) If the application of this chapter would deny all reasonable economic use of the subject property, the property owner may apply for an exception pursuant to this section.

15.08.160 Allowed activities.

(e) Activities within the Improved Right-of-Way. Replacement, modification, installation, or construction of utility facilities, lines, pipes, mains, equipment, or appurtenances, not including substations, when such facilities are located within the improved portion of the public right-of-way or a County authorized private roadway **except those activities that alter a wetland or watercourse, such as culverts or bridges, or result in the transport of sediment or increased storm water;**

(f) Minor Utility Projects. Utility projects which have minor or short-duration impacts to critical areas, as determined by the Planning Administrator in accordance with the criteria below, and which do not significantly impact the function or values of a critical area(s), provided that such projects are constructed with best management practices and additional restoration measures are provided. Such allowed minor utility projects shall meet the following criteria:

- (1) There is no practical alternative to the proposed activity with less impact on critical areas;
- (2) The activity involves the placement of a utility pole, street signs, anchor, or vault or other small component of a utility facility; and
- (3) The activity involves disturbance of an area less than seventy-five (75) square feet.

(g) Public and Private Pedestrian Trails. Public and private pedestrian trails, **except in wetlands, fish and wildlife habitat conservation areas, or their buffers,** subject to the following:

- (1) **The trail surface** shall meet all other requirements including water quality standards;
- (2) Critical area and/or buffer widths shall be increased, where possible, equal to the width of the trail corridor, including disturbed areas; and
- (3) Trails proposed to be located in landslide or erosion hazard areas shall be constructed in a manner that does not increase the risk of landslide or erosion and in accordance with an approved geotechnical report.

15.08.210 Mitigation requirements.

(a) The applicant shall avoid all impacts that degrade the functions and values of a critical area or areas. Unless otherwise provided in this chapter, if alteration to the critical area is unavoidable, all adverse impacts to or from critical areas and buffers resulting from a development proposal or alteration shall be mitigated using the best available science in accordance with an approved critical area report and SEPA documents, so as to result in no net loss of critical area functions and values.

15.08.220 Mitigation sequencing.

Applicants shall demonstrate that all reasonable efforts have been examined with the intent to avoid and minimize impacts to critical areas. When an alteration to a critical area is proposed, such alteration shall be avoided, minimized, or compensated for in the following sequential order of preference:

- (a) **Avoiding the impact altogether by not taking a certain action or parts of an action;**
- (b) Minimizing impacts by limiting the degree or magnitude of the action and its implementation, by using appropriate technology, or by taking affirmative steps, such as project redesign, relocation, or timing, to avoid or reduce impacts;
- (c) Rectifying the impact to wetlands, critical aquifer recharge areas, frequently flooded areas, and habitat conservation areas by repairing, rehabilitating, or restoring the affected environment to the historical conditions or the conditions existing at the time of the initiation of the project;
- (d) Minimizing or eliminating the hazard by restoring or stabilizing the hazard area through engineered or other methods; etc.

PART TWO. WETLANDS**15.08.310 Activities allowed in wetlands.**

The activities listed below are allowed in wetlands, in addition to those activities listed in, and consistent with, the provisions established in allowed activities (Section 15.08.160), and do not require submission of a critical area report, except where such activities result in a loss to the functions and values of a wetland or wetland buffer.

These activities include:

- (a) Conservation or preservation of soil, water, vegetation, fish, shellfish, and other wildlife that does not entail changing the structure or functions of the existing wetland.
- (b) Enhancement of a wetland through the removal of non-native invasive species. Weeding shall be restricted to hand removal and weed material shall be removed from the site. Bare areas that remain after weed removal shall be revegetated with native shrubs and trees at natural densities. Some hand seeding may also be done over the bare areas with native herbs.

15.08.330 Performance standards—General requirements.

- (a) **Activities may only be permitted in a wetland or wetland buffer if the applicant can show that the proposed activity will not degrade the functions and functional performance of the wetland and other critical areas.**
- (d) Buffer Uses. The following uses may be permitted within a wetland buffer in accordance with the review procedures of this chapter, provided they are not prohibited by any other applicable law and they are conducted in a manner so as to minimize impacts to the buffer and adjacent wetland:
 - (1) Conservation and Restoration Activities. Conservation or restoration activities aimed at protecting the soil, water, vegetation, or wildlife.
 - (2) Passive Recreation. **In the outer twenty-five (25) percent of wetland buffers, passive recreation facilities designed and in accordance with an approved critical area report, including pedestrian-only walkways, trails and**

wildlife viewing structures constructed with a surface that does not interfere with the permeability.

PART THREE. CRITICAL AQUIFER RECHARGE AREAS

(b) Designation: All lands classified as having moderate to high susceptibility are hereby designated as critical aquifer recharge areas.

PART SIX. FISH AND WILDLIFE HABITAT CONSERVATION AREAS

(a) Fish and wildlife habitat conservation areas include:

(1) Areas where federal or state designated endangered, threatened, and sensitive species have a primary association.

(b) State designated endangered, threatened, and sensitive species are those fish, wildlife and plant species identified by the Washington State Department of Fish and Wildlife. The State of Washington's Department of Fish and Wildlife maintains the most current listing and should be consulted as necessary for current state listing status.

(3) Habitats and species of local importance. Benton County designates the following as a habitat and species of local importance.

(9) Fish and wildlife habitat conservation areas does not include such artificial features or constructs as irrigation delivery systems, irrigation infrastructure, irrigation canals, or drainage ditches that lie within the boundaries of, and are maintained by, a port district or an irrigation district or company.

(b) All areas meeting one or more of these criteria, regardless of any formal identification, are hereby designated critical areas and are subject to the provisions of this chapter and shall be managed consistent with the best available science.

15.08.530 Performance standards—General requirements.

(a) Alterations shall not degrade the functions and values of habitat. A habitat conservation area may be altered only if the proposed alteration of the habitat or the mitigation proposed does not degrade the quantitative and qualitative functions and values of the habitat. **All new structures and land alterations shall be prohibited from habitat conservation areas, except in accordance with this chapter.**

15.08.540 Performance standards-Specific Habitats.

(a) Endangered, threatened, and sensitive species.

(1) No development shall be allowed within a habitat conservation area or buffer with which state or federal endangered, threatened, or sensitive species have a primary association, unless provided for through a federal or state permit, or other approval.

Threatened and Endangered Wildlife, State of Washington, Annual Report 2012

@ <https://wdfw.wa.gov/publications/01542/wdfw01542.pdf> This report lists threatened and endangered wildlife that includes the golden eagle and other animals. Brown colored eagles have been seen frequently in and above the trees upstream Elliot Lake.

It should also be noted that more room on the hillsides should be required for the placement of roads, building foundations, and terracing of the land that is outside the designated Wetlands and Wildlife Habitat Conservation Areas and their buffers. Extra care will be required to keep disturbed soil from roads and building sites from sluffing off the sloping hillside, finding its

way down the valley into protected areas, and downstream of the development. Such movement of soil can significantly affect protected wetlands and wildlife habitat which is prohibited. The smaller the lot size in a development, the more difficult soil control will be.

The same is true also for the control of water runoff from developed land. What provisions are planned to control the water runoff from the planned development plus the natural runoff down the valley so that the downstream wetlands and wildlife habitat are not affected and harmed?

Ingress and egress to/from these proposed higher density housing sites is a serious concern for the neighborhood. South Washington Street and E 49th Avenue were not designed to be the high traffic areas required to service the residents of the Sunny Meadows development as proposed. The housing density must be reduced significantly to sufficiently meet the needs of both the new residents and existing residents.

Is the existing City Sewer system sized to handle the increased capacity from the planned Sunny Meadows development? Note that the sewer line runs through both wetlands and wildlife habitat protected areas that restrict alterations.

As you know, numerous questions exist concerning this proposed 78 lot, 2 tract development. It must be quite a task to sort through all the requirements and satisfy the residents in the existing neighborhoods and the developer as well. Remember that it is unwise to create a situation where neither the existing neighborhood and the new neighborhood are unhappy with what the City Planner has created.

I recommend that the housing density of the Sunny Meadows development be reviewed closely with the existing neighborhoods, and that the housing density be reduced significantly to meet the needs of both the existing and new neighbors, and comply with all Wetland and Wildlife Habitat Conservation Area requirements.

As you can tell, I'm very interested in how the land in South Kennewick is developed. Please seriously consider my comments and let me know if you think my concerns are unjustified. Also, please let me know when the public meetings on this proposed subdivision are to occur so I may attend.

Thank you Matt for heading this up and dealing with these issues,

John Bennett
4608 S Fisher Place
Kennewick, WA 99337
jbennett-pe@charter.net
509-366-5868 Cell



Figure 9: Wetlands, River, and Streams - Screen Print of Blow-up of Elliot Lake and Up Stream Ravine. To Locate on Kennewick City Map, compare black outline with City - County boundary on Parcel maps near Elliot Lake @ <https://kennewick.maps.arcgis.com/apps/webappviewer/index.html?id=73d34b323dba4ad48d50b8ff7399480b>

The pink areas designate 'Wetlands'.

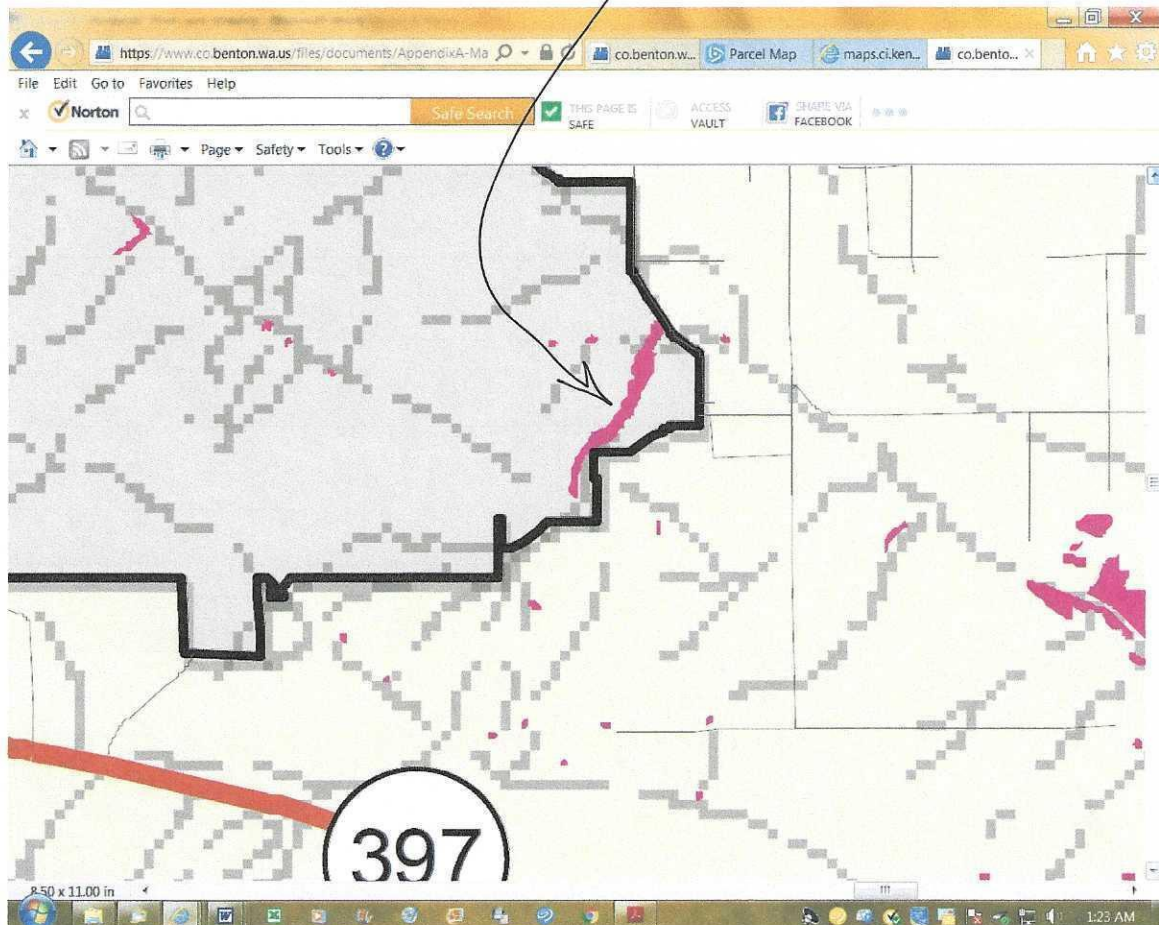
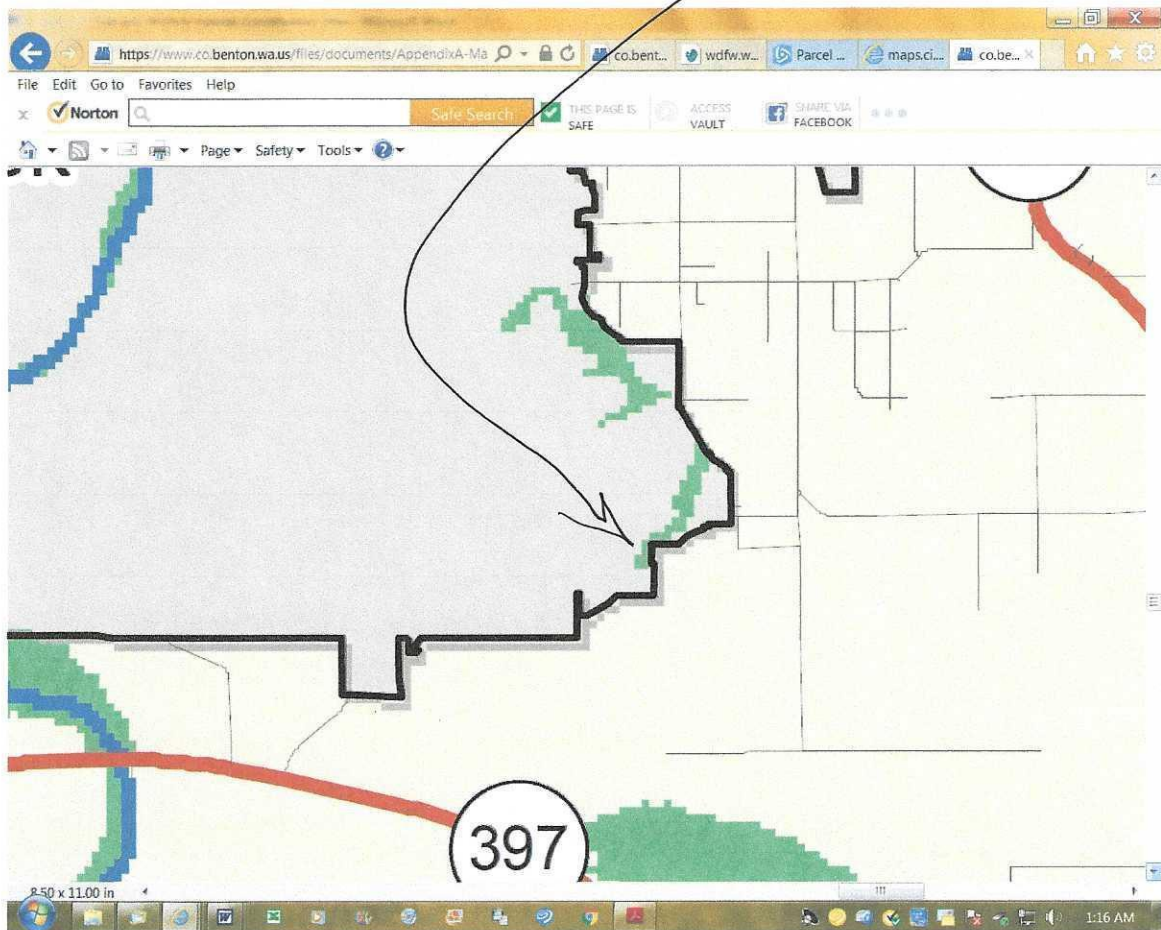




Figure 13: Fish and Wildlife Habitat Conservation Area - Screen Print of Blow-up of Elliot Lake and Up Stream Ravine. To Locate on Kennewick City Map, compare black outline with City - County boundary on Parcel maps near Elliot Lake @ <https://kennewick.maps.arcgis.com/apps/webappviewer/index.html?id=73d34b323dba4ad48d50b8ff7399480b>

The green areas on the map designate "Priority Habitat and Species".



From: [J. Bennett](#)
To: [Matt Halitsky](#)
Subject: Sunny Meadows Development - Notice of Environmental Determination: File ED-2024-0006
Date: Wednesday, March 13, 2024 11:08:15 AM
Attachments: [Wetlands and Wildlife Conservation Areas.pdf](#)
Importance: High

Matt -

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(i) **Wetlands. Existing and ongoing agricultural activities do not include removing trees, diverting or impounding water, excavation, ditching, draining, cultivating, filling, grading, and similar activities that introduce new adverse impacts to wetlands or other aquatic resources. Conversion**

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(a) If the application of this chapter would prohibit a development proposal by a public agency or public utility, the agency or utility may apply for an exception pursuant to this section.

(d) Public Agency and Utility Review Criteria. The criteria for review and approval of public agency and utility exceptions are as follows:

- (1) There is no other practical alternative to the proposed development with less impact on the critical areas;
- (2) The application of this chapter would unreasonably restrict the ability to provide utility services to the public;
- (3) The proposal does not pose an unreasonable threat to the public health, safety, or welfare on or off the development proposal site;
- (4) The proposal attempts to protect and mitigate impacts to the critical area functions and values consistent with the best available science;

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(a) If the application of this chapter would deny all reasonable economic use of the subject property, the property owner may apply for an exception pursuant to this section.

15.08.160 Allowed activities.

(e) Activities within the Improved Right-of-Way. Replacement, modification, installation, or construction of utility facilities, lines, pipes, mains, equipment, or appurtenances, not including substations, when such facilities are located within the improved portion of the public right-of-way or a County authorized private roadway **except those activities that alter a wetland or watercourse, such as culverts or bridges, or result in the transport of sediment or increased storm water;**

(f) Minor Utility Projects. Utility projects which have minor or short-duration impacts to critical areas, as determined by the Planning Administrator in accordance with the criteria below, and which do not significantly impact the function or values of a critical area(s), provided that such projects are constructed with best management practices and additional restoration measures are provided. Such allowed minor utility projects shall meet the following criteria:

- (1) There is no practical alternative to the proposed activity with less impact on critical areas;
- (2) The activity involves the placement of a utility pole, street signs, anchor, or vault or other small component of a utility facility; and
- (3) The activity involves disturbance of an area less than seventy-five (75) square feet.

(g) Public and Private Pedestrian Trails. Public and private pedestrian trails, **except in wetlands, fish and wildlife habitat conservation areas, or their buffers,** subject to the following:

- (1) **The trail surface** shall meet all other requirements including water quality standards;
- (2) Critical area and/or buffer widths shall be increased, where possible, equal to the width of the trail corridor, including disturbed areas; and
- (3) Trails proposed to be located in landslide or erosion hazard areas shall be constructed in a manner that does not increase the risk of landslide or erosion and in accordance with an approved geotechnical report.

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(a) The applicant shall avoid all impacts that degrade the functions and values of a critical area or areas. Unless otherwise provided in this chapter, if alteration to the critical area is unavoidable, all adverse impacts to or from critical areas and buffers resulting from a development proposal or alteration shall be mitigated using the best available science in accordance with an approved critical area report and SEPA documents, so as to result in no net loss of critical area functions and values.

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Applicants shall demonstrate that all reasonable efforts have been examined with the intent to avoid and minimize impacts to critical areas. When an alteration to a critical area is proposed, such alteration shall be avoided, minimized, or compensated for in the following sequential order of preference:

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- (b) Minimizing impacts by limiting the degree or magnitude of the action and its implementation, by using appropriate technology, or by taking affirmative steps, such as project redesign, relocation, or timing, to avoid or reduce impacts;
- (c) Rectifying the impact to wetlands, critical aquifer recharge areas, frequently flooded areas, and habitat conservation areas by repairing, rehabilitating, or restoring the affected environment to the historical conditions or the conditions existing at the time of the initiation of the project;
- (d) Minimizing or eliminating the hazard by restoring or stabilizing the hazard area through engineered or other methods; etc.

PART TWO. WETLANDS**15.08.310 Activities allowed in wetlands.**

The activities listed below are allowed in wetlands, in addition to those activities listed in, and consistent with, the provisions established in allowed activities (Section 15.08.160), and do not require submission of a critical area report, except where such activities result in a loss to the functions and values of a wetland or wetland buffer.

These activities include:

- (a) Conservation or preservation of soil, water, vegetation, fish, shellfish, and other wildlife that does not entail changing the structure or functions of the existing wetland.
- (b) Enhancement of a wetland through the removal of non-native invasive species. Weeding shall be restricted to hand removal and weed material shall be removed from the site. Bare areas that remain after weed removal shall be revegetated with native shrubs and trees at natural densities. Some hand seeding may also be done over the bare areas with native herbs.

15.08.330 Performance standards—General requirements.

- (a) **Activities may only be permitted in a wetland or wetland buffer if the applicant can show that the proposed activity will not degrade the functions and functional performance of the wetland and other critical areas.**
- (d) Buffer Uses. The following uses may be permitted within a wetland buffer in accordance with the review procedures of this chapter, provided they are not prohibited by any other applicable law and they are conducted in a manner so as to minimize impacts to the buffer and adjacent wetland:
 - (1) Conservation and Restoration Activities. Conservation or restoration activities aimed at protecting the soil, water, vegetation, or wildlife.
 - (2) Passive Recreation. **In the outer twenty-five (25) percent of wetland buffers, passive recreation facilities designed and in accordance with an approved critical area report, including pedestrian-only walkways, trails and**

wildlife viewing structures constructed with a surface that does not interfere with the permeability.

PART THREE. CRITICAL AQUIFER RECHARGE AREAS

(b) Designation: All lands classified as having moderate to high susceptibility are hereby designated as critical aquifer recharge areas.

PART SIX. FISH AND WILDLIFE HABITAT CONSERVATION AREAS

(a) Fish and wildlife habitat conservation areas include:

(1) Areas where federal or state designated endangered, threatened, and sensitive species have a primary association.

(b) State designated endangered, threatened, and sensitive species are those fish, wildlife and plant species identified by the Washington State Department of Fish and Wildlife. The State of Washington's Department of Fish and Wildlife maintains the most current listing and should be consulted as necessary for current state listing status.

(3) Habitats and species of local importance. Benton County designates the following as a habitat and species of local importance.

(9) Fish and wildlife habitat conservation areas does not include such artificial features or constructs as irrigation delivery systems, irrigation infrastructure, irrigation canals, or drainage ditches that lie within the boundaries of, and are maintained by, a port district or an irrigation district or company.

(b) All areas meeting one or more of these criteria, regardless of any formal identification, are hereby designated critical areas and are subject to the provisions of this chapter and shall be managed consistent with the best available science.

15.08.530 Performance standards—General requirements.

(a) Alterations shall not degrade the functions and values of habitat. A habitat conservation area may be altered only if the proposed alteration of the habitat or the mitigation proposed does not degrade the quantitative and qualitative functions and values of the habitat. **All new structures and land alterations shall be prohibited from habitat conservation areas, except in accordance with this chapter.**

15.08.540 Performance standards-Specific Habitats.

(a) Endangered, threatened, and sensitive species.

(1) No development shall be allowed within a habitat conservation area or buffer with which state or federal endangered, threatened, or sensitive species have a primary association, unless provided for through a federal or state permit, or other approval.

Threatened and Endangered Wildlife, State of Washington, Annual Report 2012

@ <https://wdfw.wa.gov/publications/01542/wdfw01542.pdf> This report lists threatened and endangered wildlife that includes the golden eagle and other animals. Brown colored eagles have been seen frequently in and above the trees upstream Elliot Lake.

It should also be noted that more room on the hillsides should be required for the placement of roads, building foundations, and terracing of the land that is outside the designated Wetlands and Wildlife Habitat Conservation Areas and their buffers. Extra care will be required to keep disturbed soil from roads and building sites from sluffing off the sloping hillside, finding its

way down the valley into protected areas, and downstream of the development. Such movement of soil can significantly affect protected wetlands and wildlife habitat which is prohibited. The smaller the lot size in a development, the more difficult soil control will be.

The same is true also for the control of water runoff from developed land. What provisions are planned to control the water runoff from the planned development plus the natural runoff down the valley so that the downstream wetlands and wildlife habitat are not affected and harmed?

Ingress and egress to/from these proposed higher density housing sites is a serious concern for the neighborhood. South Washington Street and E 49th Avenue were not designed to be the high traffic areas required to service the residents of the Sunny Meadows development as proposed. The housing density must be reduced significantly to sufficiently meet the needs of both the new residents and existing residents.

Is the existing City Sewer system sized to handle the increased capacity from the planned Sunny Meadows development? Note that the sewer line runs through both wetlands and wildlife habitat protected areas that restrict alterations.

As you know, numerous questions exist concerning this proposed 78 lot, 2 tract development. It must be quite a task to sort through all the requirements and satisfy the residents in the existing neighborhoods and the developer as well. Remember that it is unwise to create a situation where neither the existing neighborhood and the new neighborhood are unhappy with what the City Planner has created.

I recommend that the housing density of the Sunny Meadows development be reviewed closely with the existing neighborhoods, and that the housing density be reduced significantly to meet the needs of both the existing and new neighbors, and comply with all Wetland and Wildlife Habitat Conservation Area requirements.

As you can tell, I'm very interested in how the land in South Kennewick is developed. Please seriously consider my comments and let me know if you think my concerns are unjustified. Also, please let me know when the public meetings on this proposed subdivision are to occur so I may attend.

Thank you Matt for heading this up and dealing with these issues,

John Bennett
4608 S Fisher Place
Kennewick, WA 99337
jbennett-pe@charter.net
509-366-5868 Cell



Figure 9: Wetlands, River, and Streams - Screen Print of Blow-up of Elliot Lake and Up Stream Ravine. To Locate on Kennewick City Map, compare black outline with City - County boundary on Parcel maps near Elliot Lake @ <https://kennewick.maps.arcgis.com/apps/webappviewer/index.html?id=73d34b323dba4ad48d50b8ff7399480b>

The pink areas designate 'Wetlands'.

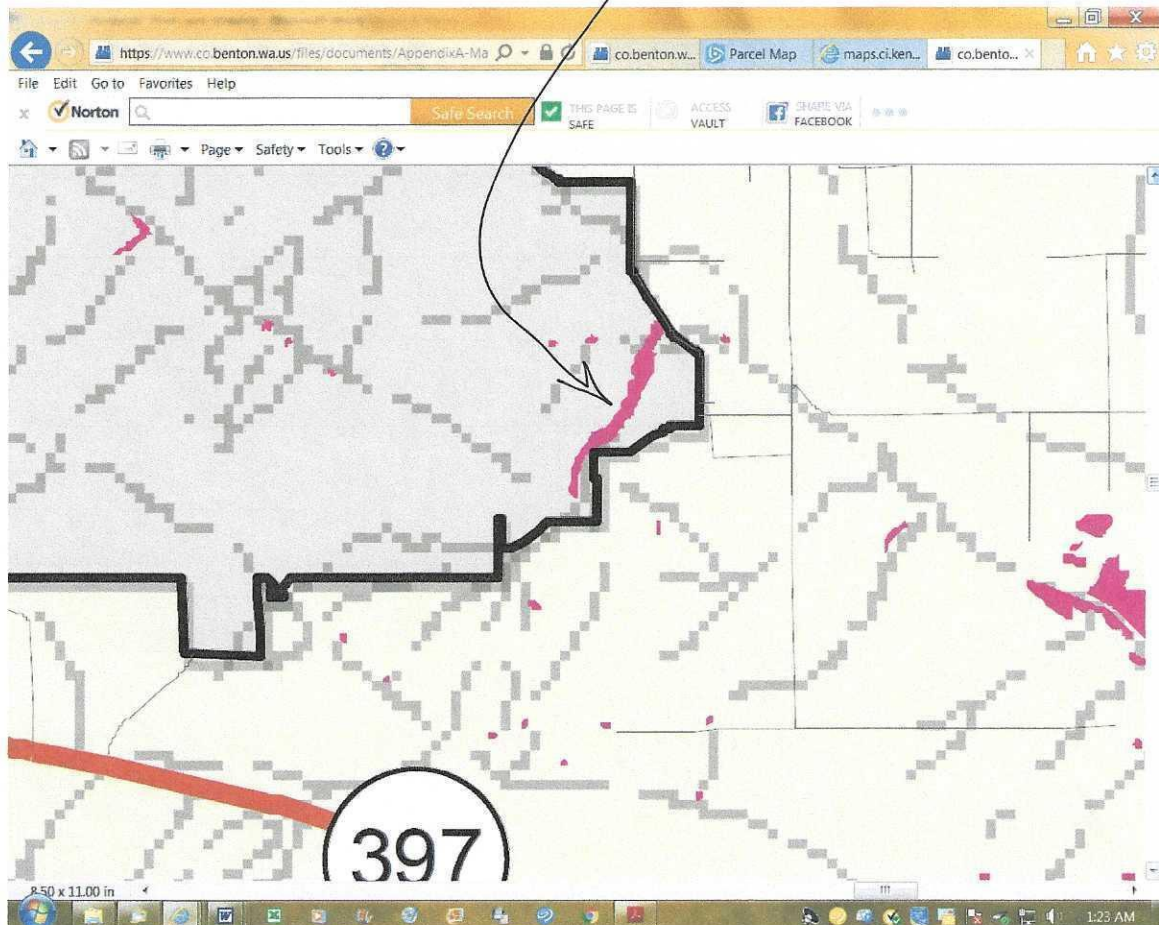
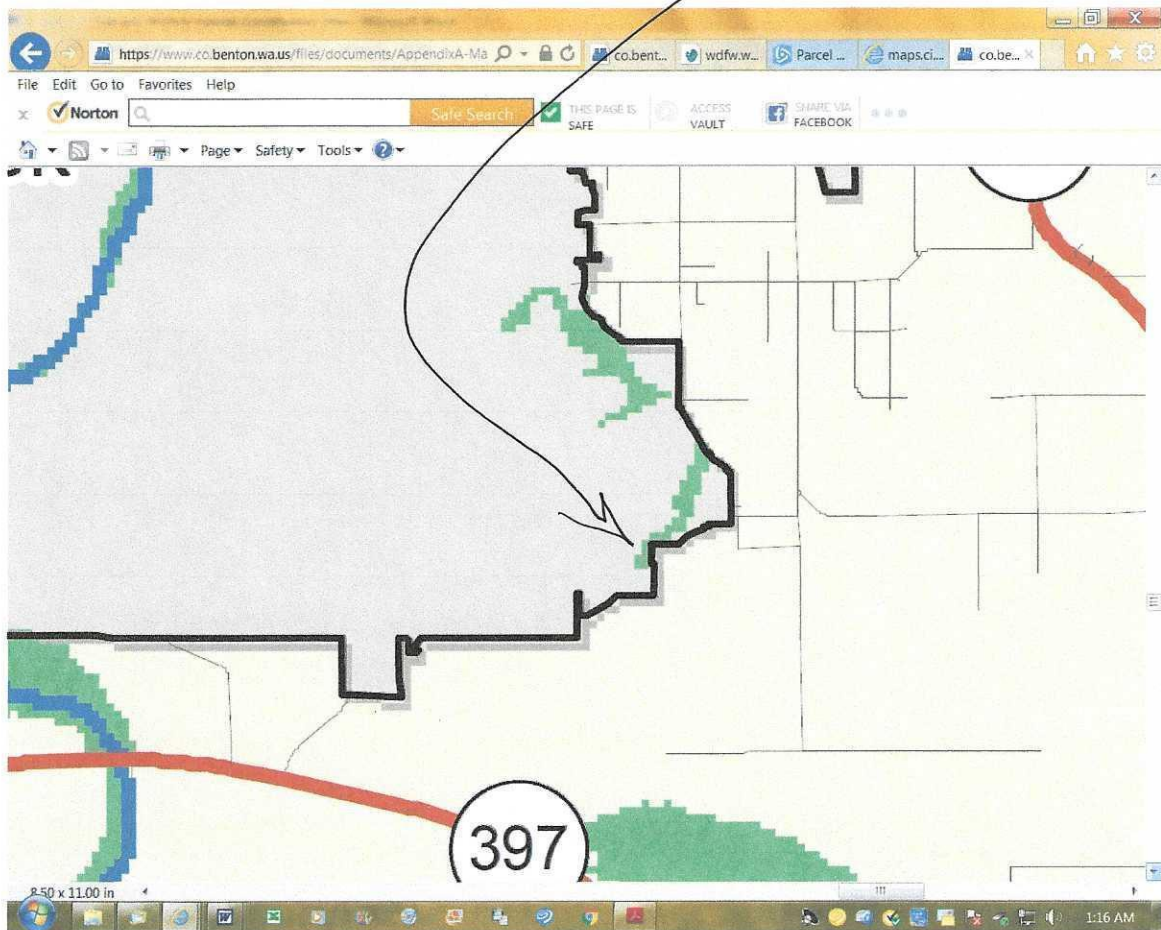




Figure 13: Fish and Wildlife Habitat Conservation Area - Screen Print of Blow-up of Elliot Lake and Up Stream Ravine. To Locate on Kennewick City Map, compare black outline with City - County boundary on Parcel maps near Elliot Lake @ <https://kennewick.maps.arcgis.com/apps/webappviewer/index.html?id=73d34b323dba4ad48d50b8ff7399480b>

The green areas on the map designate "Priority Habitat and Species".



From: [Jeff Bennett](#)
To: [Alisha Piper](#); [Matt Halitsky](#)
Subject: Orchard Crest Residents & Sunny Meadows
Date: Wednesday, March 13, 2024 4:15:22 PM

Hi Alisha and Matt, this is Jeff Bennett, and I am a local resident in this community area and in the proposed drainage area spilling into Elliot Lake. I bought and built my home in 2001 and have seen much in this canyon over the past 20+ years...

It was just brought to my attention that there is a major building project that is in the works through this drainage area and I went and saw the proposal as well as am very familiar with the lands that the proposal encompasses.

When the land developer purchased this acreage and removed all the trees from the property I was shocked, knowing that this land not only has wetland portions and protections to it but also has served as a habitat for wildlife as well as endangered species. Now that its habitat has been cut down, the proposal is to put a large-scale development in a land, from what I understand, that portions of it are a federally protected area.

Here are just a few of my concerns as I have had very little time to reflect on a broader scope of questions and concerns as the signage proposal seems to have been well out of the way for the neighborhood that will also be greatly impacted by this development.

1. Orchard overspray--as this development abuts the agriculture and orchard, how do you prevent and who is responsible for the release of chemicals that will naturally blow down-canyon into this development and negatively impact homeowners and children?
2. Ingress & Egress--what is the plan for road usage through Washington Street and the demand that will come as a result of the large influx of homes in this area that will provide multiple ways for ingress and egress?
3. Surface water and water tables measured--What is the plan for drainage that will not negatively affect homeowners and property down canyon as a result of asphalt and concrete as well as the rise of the water tables in years of excessive amounts of rain and snow. There have been years of water running down through the canyon, springs of water coming to the surface, and even more recently the soil becoming marshy in the canyon. And who is responsible if there is damage as a result in a year that the water tables rise and damage takes place?
4. As I shared above, I understand that portions of this land are considered a wetlands for hawks, eagles, toads, deer, heron, owls, some of which appear on the Federal and State Department of Fish and Wildlife as endangered species, priority species, and conservation concerns. More than that, it is my understanding that not only have violations taken place in the removal of native plants in this habitat zone but the plans show for paved roads to cross the canyon which also, from what I can tell, violates state code. How is it that any of this is allowed?
5. Will the land be allowed to grow back to its original wetland state, and why was this allowed? Was it allowed? Are these actions allowed?

6. Well-head protection area--Driving through this community every day, I am also aware that the Elliot Lake region is a well-head protection area. How is the proposed development going to affect the and preserve this wellhead?

Thanks for your time on this. I know there are a lot of questions being asked I'm sure by residents. As myself, a resident in this area, built here next to this wetland because I naturally assumed according to state and county laws that the wetlands would be protected and the wildlife and its habitat would be valued and preserved...and now it appears as though the wetland designation is not a concern and nor is the preservation of wildlife and its habitat.

Again, thanks for your time in response to this email. Please include me in all future plans and public hearings regarding this development, as I am very concerned.

Sincerely,

Jeff Bennett

--

Jeff Bennett
Head Men's Soccer Coach
Cell: 509-539-7274



From: [Lisa Hempel](#)
To: [Matt Halitsky](#)
Subject: Re: Sunny Meadows Subdivision SUB-2024-0003
Date: Wednesday, May 29, 2024 9:43:08 AM
Attachments: [image002.png](#)
[image003.png](#)
[image004.png](#)
[image005.png](#)

Matt,

We would like to be added as a party of record for the Sunny Meadows Division SUB-2024-0003. We are concerned about the high density of the housing proposed and the effect it will have on the wildlife, natural habitat and surrounding neighborhoods. Traffic, light and noise pollution would greatly affect the quality of the current spacious neighborhoods and affect the habitat of the Great Horned Owls and other birds of prey that frequent the area. Thank you for your time.

Respectfully,

Richard and Lisa Hempel
5214 S Auburn Pl
Kennewick, WA 99337

On Apr 30, 2024, at 11:07 AM, Matt Halitsky
<Matt.Halitsky@ci.kennewick.wa.us> wrote:

Hi Lisa

Per our phone conversation earlier this morning, if you have any comments on the proposed subdivision or would like to be added as a party of record, please forward those to me at this email address.

Best,

Matt H.

[<image002.png>](#)

Matthew Halitsky, AICP

Senior Planner

Community Planning Department

City of Kennewick

O: 509.585.4416 | F: 509.585.4442

matt.halitsky@ci.kennewick.wa.us

[<image003.png>](#)

[<image004.png>](#)

[<image005.png>](#)

[<image006.jpg>](#)

From: [Alexa Chaffee](#)
To: [Matt Halitsky](#); [Alisha Piper](#)
Cc: [Jake Chaffee](#)
Subject: Habitat for humanity public hearing
Date: Tuesday, May 28, 2024 9:04:56 AM

Good morning Alisha and Matt,

I hope you both had a wonderful memorial day weekend.

I was following up on when a public hearing will be taking place for the habitat for humanity community that is being built off of South Washington road.

I assumed it would be before work would start on the community, but I see that Benton PUD and Boyd's tree service has begun their preparatory work.

Any information would be really appreciated.

Have a great day,
Alexa + Jake Chaffee

Sent from my iPhone

From: [Barbara Ekstrom](#)
To: [Matt Halitsky](#)
Subject: Planned subdivision
Date: Tuesday, July 30, 2024 5:35:32 PM

Is there any benefit to the existing homes on e49th? Such as the city or builder extending the sewer lines. Most of us are on problematic septic systems.
Or are just supposed to be happy with the increased vehicle traffic that will result.
Kevin