



**AGENDA**  
**PLANNING COMMISSION**  
**Monday, November 24th, 2025**  
**at 7:00 p.m.**

Stayton Community Center  
400 W. Virginia Street  
Stayton, Oregon 97383

**HYBRID MEETING**

The Stayton Planning Commission will be holding a hybrid meeting utilizing Zoom video conferencing software. The meeting will be in-person but can also be attended virtually. If you would like to virtually participate in the meeting, please contact the Susan Bender at [sbender@staytonoregon.gov](mailto:sbender@staytonoregon.gov) to receive an invitation to the online meeting.

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**1. CALL TO ORDER**

**2. MEETING MINUTES**

- a. Approval of September 29th, 2025 Minutes

**3. PUBLIC HEARING – LAND USE FILE #5-02/24 -PUBLIC HEARING – Application for annexation of a 21-acre parcel of land fronting Golf Lane (tax lot 091 W03B001500) has been submitted, proposing a zoning designation of Medium Density (MD) Residential and including a concept plan for a 74-lot subdivision.**

- a. Staff Introduction and Report
- b. Applicant Presentation
- c. Questions from the Commission
- d. Questions and Testimony from the Public
- e. Applicant Summary
- f. Staff Summary
- g. Close of Public Hearing
- h. Commission Deliberation
- i. Commission Decision

**4. PUBLIC HEARING – LAND USE FILE #6-05/25 – Application for a Site Plan Review to expand an existing 960-square foot commercial building by an additional 326 square feet by enclosing porch areas. The building is mixed use with both a thrift store and a residential unit located at 155 N 2<sup>nd</sup> Avenue (tax lot number: 091 W10DC11000) in the Downtown Commercial Mixed-Use Zone.**

- a. Staff Introduction and Report
- b. Applicant Presentation
- c. Questions from the Commission
- d. Questions and Testimony from the Public

- e. Applicant Summary
- f. Staff Summary
- g. Close of Public Hearing
- h. Commission Deliberation
- i. Commission Decision

## **5. ADJOURN**

*The meeting location is accessible to people with disabilities. A request for an interpreter for the hearing impaired or other accommodations for persons with disabilities should be made at least 48 hours prior to the meeting. If you require special accommodation, contact the Community and Economic Development Department at (503) 769-2998.*



# STAYTON PLANNING COMMISSION MEETING MINUTES

Monday, September 29, 2025

**COMMISSIONERS:** Larry McKinley – Chair (present)  
Peter Bellas (present)  
Amy Watts (present via Zoom)  
Melissa Sutkowski (present)  
Steve Baldwin (present)

**STAFF MEMBERS:** Jennifer Siciliano, Community & Economic Development Director  
Susan Bender, Public Works Office Specialist

**OTHERS PRESENT:** Alan Sorem, Atty for Philips Estates; Natalie Janey<sup>2nd</sup> Professional Engineer for Philips Estates; Nick Gross and Amy Griffiths with Kittleson & Associates; Julia Hadjuk, Stayton City Manager.

1. **CALL TO ORDER:** Chairman Larry McKinley called the meeting to order at 7:04 pm. Quorum is present.
2. **APPROVAL OF MINUTES:**
  - a. Ms. Sutkowski moved, and Peter Bellas seconded to approve the minutes from August 25, 2025, as presented. Passed 5:0.
3. **STAFF INTRODUCTION AND REPORT – Staff have prepared a new staff report distributed to Commission members and applicant attorney. Prior to tonight’s deliberations the applicant’s attorney stated a request that the 27 added standard conditions be removed, as they are more appropriate for the detailed plan and not the concept plan. Staff obtained approval from Public Works to remove the conditions at this concept phase, but noted that these standard conditions will be included in the land use approval.**
4. **COMMISSION DELIBERATION-**
5. General discussion ensued regarding the standard conditions, resulting in removal of standard conditions over staff objections. Ms. Sutkowski moved to approve the Order of Approval without the standard conditions. Mr. Baldwin seconded. Passed 5:0.
6. **PRESENTATION: Stayton Safety Action Plan**
  - a. **Staff Introduction and Report** – Staff presented general background and status of the Safety Action Plan.
  - b. Nick Gross and Amy Griffiths co-presented the Safety Action Plan and fielded questions and observations from the Commission. Discussion ensued. Ms. Sutkowski moved to recommend adoption of the Safety Action Plan as presented. Mr. Bellas seconded. Passed 5:0.
7. **ADJOURN** –Chair McKinley adjourned the meeting at 8:02 pm.

# City of Stayton

## MEMORANDUM

**TO:** Chairperson Larry McKinley and Planning Commission Members  
**FROM:** Jennifer Siciliano, Director of Community and Economic Development  
**DATE:** November 24, 2025  
**SUBJECT:** Site Plan Review – 155 N Second Avenue (Enclosed Porch Addition)  
**120 DAYS ENDS:** March 6, 2026.

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### ISSUE

The issue before the Planning Commission is a Public Hearing on an application for a Site Plan Review for the enclosure of porch areas at 155 N Second Avenue on an approximately 7,841-square-foot property in the Downtown Commercial Mixed Use (DCMU) zone.



*Figure 1 Marion Co. Assessor's Office*



*Figure 2 Picture taken Nov. 14, 2025, by Planner.*

# City of Stayton

**In an email dated November 13, 2025, the applicant requested that the Public Hearing be continued to December 29, 2025, the next scheduled Planning Commission meeting.**

## **BACKGROUND**

On March 5, 2025, during routine field observation, City Planning staff identified unpermitted construction activity at 155 N Second Avenue, specifically the enclosure of existing porch areas on the mixed-use building located on the approximately 7,841-square-foot property. Because no building permit had been issued, the scope, structural implications, and compliance of the work could not be verified. Marion County Building Inspection was contacted and conducted a site visit. The County determined that a building permit could not be reviewed or issued until the property obtained land use approval.

At the time of the observation, the porches had already been enclosed, adding approximately 326 square feet to the original 960-square-foot structure. The building—containing both a thrift store and a residential unit—is located in the Downtown Commercial Mixed Use (DCMU) zone and is subject to the Downtown Development Design Standards under SMC 17.20.220. Because the enclosure increased the building area, it triggered the need for Site Plan Review under SMC 17.12.220.

Following notification from the City, the applicant submitted a Site Plan Review application to request land use approval for the enclosed porch areas and to bring the structure into compliance with applicable zoning and design standards. Upon review, staff determined that while several approval criteria are satisfied, others—including landscaping, exterior finish materials, and streetscape treatment—were not met. Staff has identified options and conditions that could bring the development into compliance; however, it is within the Planning Commission’s discretion to determine whether to require corrective improvements or approve the enclosure as constructed.

## **ANALYSIS**

This report and the draft order present the Planning Staff’s summary and analysis concerning this application. It was developed with the input of other City departments and agencies. Due to the minimal scope of the project, the Stayton Public Works Department has chosen not to submit comments on this application.

Attached is an application and plans for Site Plan Review from Bob Thatcher for JoAnne Drake, owner of The Treasure Hunt Thrift Store. The application consists of an overview, elevations and floor plans, and an application form with permission from the owner of the property, Byron Hatch. The complete application submission has been posted on the City’s website.

The attached draft order provides findings and analysis of each approval criterion for Site Plan Review. The Draft Order of Approval concludes that the application meets all criteria except the following: 17.20.220.3.a (Building placement/streetscape treatment), 17.20.220.3.g (Exterior finish materials), and 17.20.090.8 (Landscaping plant material requirements). Staff have provided conditions under which these deficiencies could be corrected.

## **RECOMMENDATION**

Staff recommends continuing the Public Hearing as requested by the applicant—option one.

Following the continuation, staff recommends approving the draft order as presented. Staff recommends approval of the application subject to the conditions contained in the Draft Order, as

# City of Stayton

these conditions provide a clear and feasible path for the applicant to bring the development into compliance within defined timelines.

## **OPTIONS AND SUGGESTED MOTIONS**

Staff has provided the Planning Commission with a number of options, each with an appropriate motion. The Planning Department recommends the first option to continue the hearing as the applicant requested.

**1. Continue the hearing until December 29, 2025.**

I move the Stayton Planning Commission continue the public hearing on the application for Site Plan Review for JoAnne Drake for 155 N Second Avenue, (Land Use File #6-05/25) until December 29, 2025.

**2. Approve the application, adopting the draft order as presented.**

I move the Stayton Planning Commission approve the application for Site Plan Review for JoAnne Drake for 155 N Second Avenue, (Land Use File #6-05/25) and adopt the draft order presented by Staff.

**3. Approve the application, adopting modifications to the draft order.**

I move the Stayton Planning Commission approve the application for Site Plan Review for JoAnne Drake for 155 N Second Avenue, (Land Use File #6-05/25) and adopt the draft order with the following changes...

**4. Deny the application, directing staff to modify the draft order.**

I move the Stayton Planning Commission deny the application for Site Plan Review for JoAnne Drake for 155 N Second Avenue, (Land Use File #6-05/25) and direct staff to modify the draft order to reflect the Planning Commission's discussion and bring a revised draft order for Planning Commission approval at the December 29, 2025, meeting.

**5. Close the hearing but keep the record open for submission of written testimony.**

I move the Stayton Planning Commission close the hearing on the application for Site Plan Review for JoAnne Drake for 155 N Second Avenue, (Land Use File #6-05/25) but maintain the record open to submissions by the applicant until December 1, allowing 7 days for review and rebuttal and then an additional 7 days for the applicant to reply, with final closure of the record on December 29, 2025.

**6. Close the hearing and record, and continue the deliberation to the next meeting.**

I move the Stayton Planning Commission continue the deliberation on the application for Site Plan Review for JoAnne Drake for 155 N Second Avenue, (Land Use File #6-05/25) until December 29, 2025.

## Site Plan Review

Submitted to

City of Stayton  
Planning & development Dept.

311 N. 3rd Ave

Stayton, OR 97383

Jennifer Siciliano, Community Development Director

Applicants

Property Owner

The treasure hunt thrift store

155 N. 2nd Ave

Stayton, OR 97383

JoAnne Drake & Byron Hatch

503-999-1899      503-949-4585

Site Location

155 N. 2nd Ave

Stayton, OR 97383

Existing land use

Thrift Store & Residence

Zone designation

DCMU zone

Commercial / Residential

Comprehensive Plan Designation

Commercial

Surrounding uses

North Commercial / Residential (in ~~beadery~~ remodeling)

South ~~Beadery~~ Commercial (Auto Body)

East Parking Lot

West Parking Lot

## Executive Summary

The Treasure hunt Thrift Store request for the permission to enclose the front Porch for the use of additional retail space.

Also the enclosure of the Back Loading dock for the additional ~~bedroom~~ Living space.

## Existing Conditions & Proposal

The Front Porch was used for the business and the items were not being seen to there potential.

The back Loading dock was needed for an additional bedroom.

Both the front Porch and back Loading dock were sited by the city for items being stored on the two area's and with them enclosed there is no longer this problem.

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## Questions

1. A. The enclosed 2 area's are under the existing roof line  
So there is no need of additional water, sewer, and storm drainage

B. None of these apply to these area's

There is no water to either area.

There is no sewer to either area

There is no storm sewer to either area

There is no Natural gas to either area

We only have cell phone's to this property

We do not have TV in either area.

The electrical is run with existing out lights on the outside of the previous building.

C. No

2. There is no need for further traffic Needs.
3. There is no need for Street improvements. added.
4. There is no need for Parking & Loading Area's Added.
5. There is no open Storage or outdoor Storage area's connected to either area.
6. This will help with the overall site of the property allowing merchandise & washing machine & dryer to be inside the building.
7. This is a commercial property and the building is built with the same type of siding and spacing as is already on the existing building and with a new paint job there is not really any difference with the building.
8. This is the smallest building with any others around us. So I would think that this makes us more in line with the size of the other properties.
9. The front porch has added to enable us to extend room to expand the display of merchandise.
10. This construction has not prevented the or taken out any Landscaping that was not already on the property. We have added to the existing Landscape with tree's & potted plants.
11. We do not have walls, Fences or hedges that prevent a direct line of site to the building.
12. The only added maintenance is painting & possible replacement of wood or glass in window's.

17.20.220

## Downtown Development Design Standards

3-A.

- 1) We have a shrub in front of the building, also we are growing bulbs and berry bushes for the rest of the area.

Ground cover is growing back as we speak with the flattening of the uneven ground around the property.

- 2) There is no added walkway's need for the enclosed two area's.

2-B.

Between the building and the street we have 2 bushes, 2 trees and 1 planter.

3-B. We are not on a corner lot.

1. The roof has no been changed to add either of the two area's





## CITY OF STAYTON REQUEST FOR A PRE-APPLICATION MEETING

APPLICANT: JoAnne Drake  
Address: 155 N. 2nd Ave  
City/State/Zip: Stayton, Oregon 97383  
Phone: (503) 999 - 1899 Email: Jrobin0311@aol.com

PROPERTY OWNER: Byron Hatch

CONSULTANTS: Please list below planning and engineering consultants.

### PLANNING

Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
City/State/Zip: \_\_\_\_\_  
Phone: (\_\_\_\_) \_\_\_\_\_ - \_\_\_\_\_  
Email: \_\_\_\_\_

### ENGINEERING

Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
City/State/Zip: \_\_\_\_\_  
Phone: (\_\_\_\_) \_\_\_\_\_ - \_\_\_\_\_  
Email: \_\_\_\_\_

LOCATION: Identify the location of the property (street address or, if not addressed, the Marion County Assessor's tax lot number, and the closest intersecting streets):

Street Address: 155 N. 2nd Ave  
Assessor's Tax Lot Number: 091W10DC11000  
Closest Intersecting Streets: N Second Ave / E Florence St

EXISTING ZONE: \_\_\_\_\_

EXISTING COMPREHENSIVE PLAN DESIGNATION: \_\_\_\_\_

NAME OF PROPOSED DEVELOPMENT: Enclose Existing Porch and build new Awning

TYPE OF APPLICATION ENVISIONED: ☐ ANNEXATION ☐ CONDITIONAL USE ☐ PARTITION

☒ SITE PLAN REVIEW ☐ SUBDIVISION ☐ MASTER PLANNED DEVELOPMENT

The applicant should provide a map(s) that allow staff to understand the general aspects of the proposed development. Maps do not need to be to professionally prepared, but it is recommended they be drawn to scale. Maps should show:

- 1) The approximate topography
- 2) Approximate location of any existing buildings or proposed buildings.
- 3) The approximate location of all proposed driveways, sidewalks and parking facilities.
- 4) The approximate location of all proposed landscaping.
- 5) Approximate location of any proposed land divisions.

Please provide a brief narrative statement detailing the proposed uses for the site.

To expand the usable space for my business and get more merchandise out to the public for sale.

Pre-application meetings are held on Thursday afternoons. Once the City Planner has determined adequate information has been submitted and the \$500 pre-application fee has been paid, a pre-application meeting will be scheduled within 2-3 weeks.





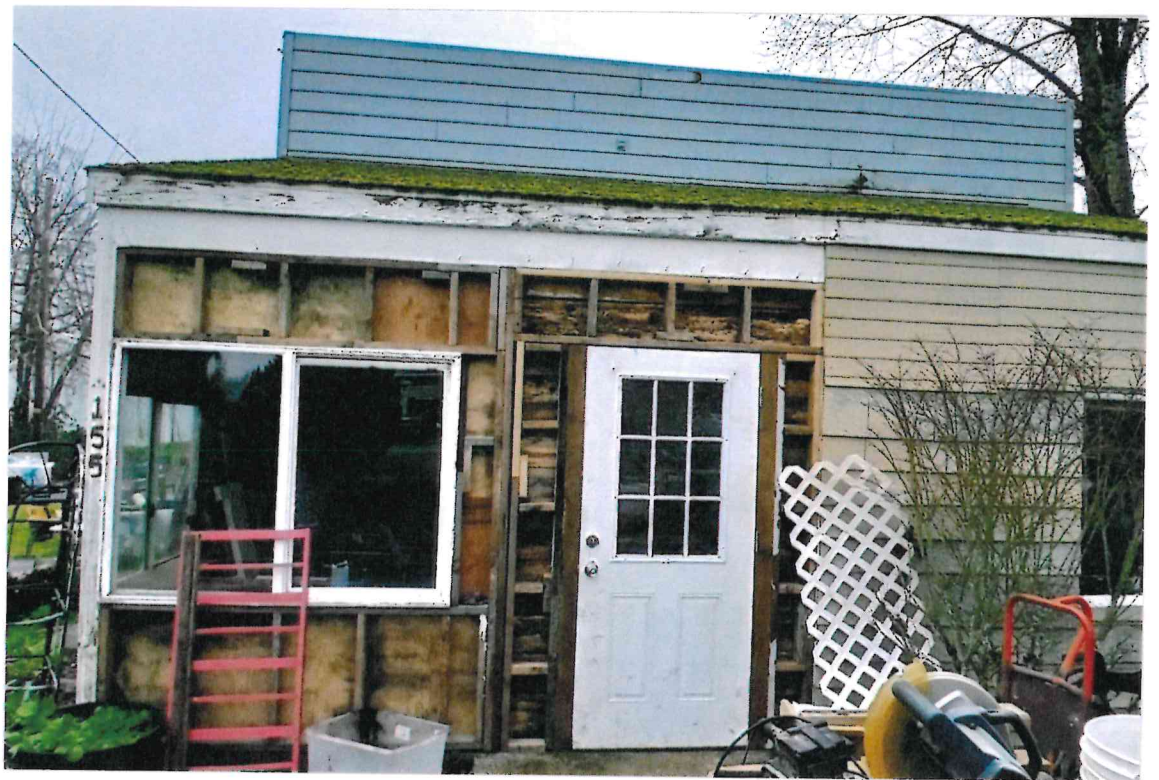








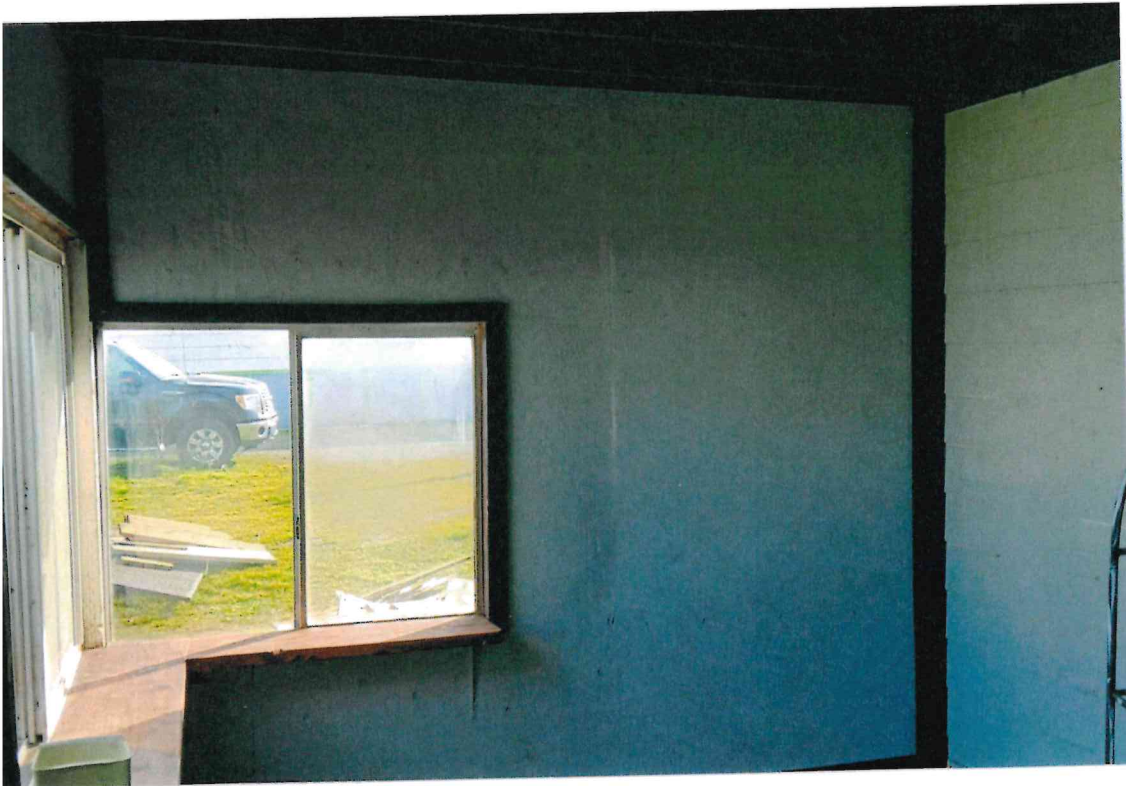
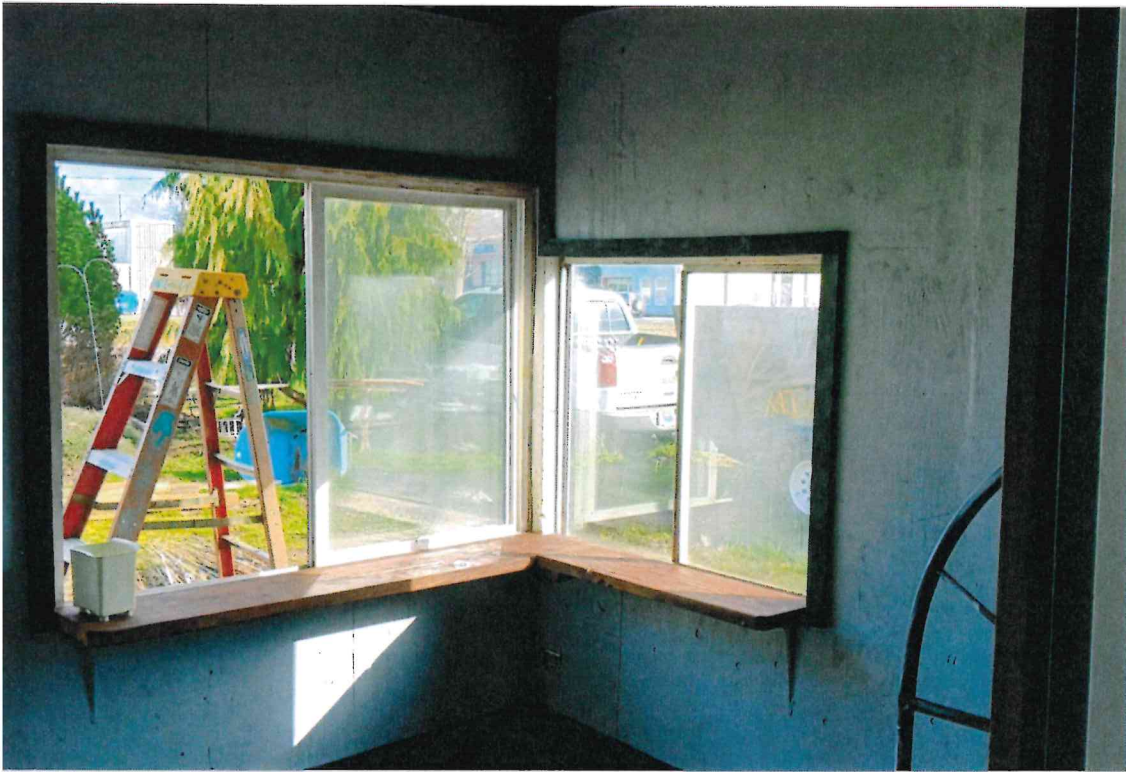












November 1, 2025

Jennifer Siciliano  
Community & Economic Development Director  
Department of Planning  
362 N. Third Avenue  
Stayton, OR 97383

Re: Land Use File #6-05/25 – Additional Information and Agreement

Dear Ms. Siciliano:

Thank you for your letter dated August 13, 2025, regarding my Site Plan Review application for 155 N Second Avenue. I have addressed the items identified as incomplete and provide this letter as a written agreement under Section 17.12.050.1 of the Land Use and Development Code, confirming how the technical issues are resolved.

**Owner Approval**

Byron Hatch, owner of the property, consents to this application (Exhibit A).

**Scope of Improvements**

The only improvements are the enclosure of a previously covered porch and patio. There is no change to the building footprint, drainage, utilities, or property boundaries. No excavation occurred or will occur.

**Responses to Technical Requirements**

1. Graphic Scale (17.12.220.4.b.2)

No changes to the structure footprint or site; existing documents remain accurate.

2. Topography (17.12.220.4.b.3)

No grading or land alteration; topography unchanged.

3. Boundary Lines (17.12.220.4.b.6)

Property remains 0.18 acres. Distances from building to lot lines:

- North: 9 ft 5 in
- East: 53 ft 11 1/16 in
- South: 38 ft 9 in
- West: 0 ft

See Exhibit B.



4. Utilities (17.12.220.4.b.8)

No changes to water, sewer, or underground utilities; no digging occurred.

5. Stormwater Plan (17.12.220.4.b.9)

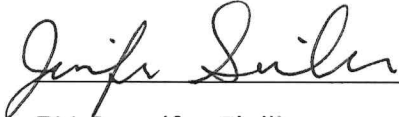
Drainage unchanged; porch and patio were already covered.

I affirm that no further changes will be made under this application. Please accept this letter as confirmation that all technical requirements are satisfied for approval.

Sincerely,  
JoAnne Drake

 11/3/2025

**Accepted: City of Stayton**



BY: Jennifer Siciliano

ITS City Planner



Date

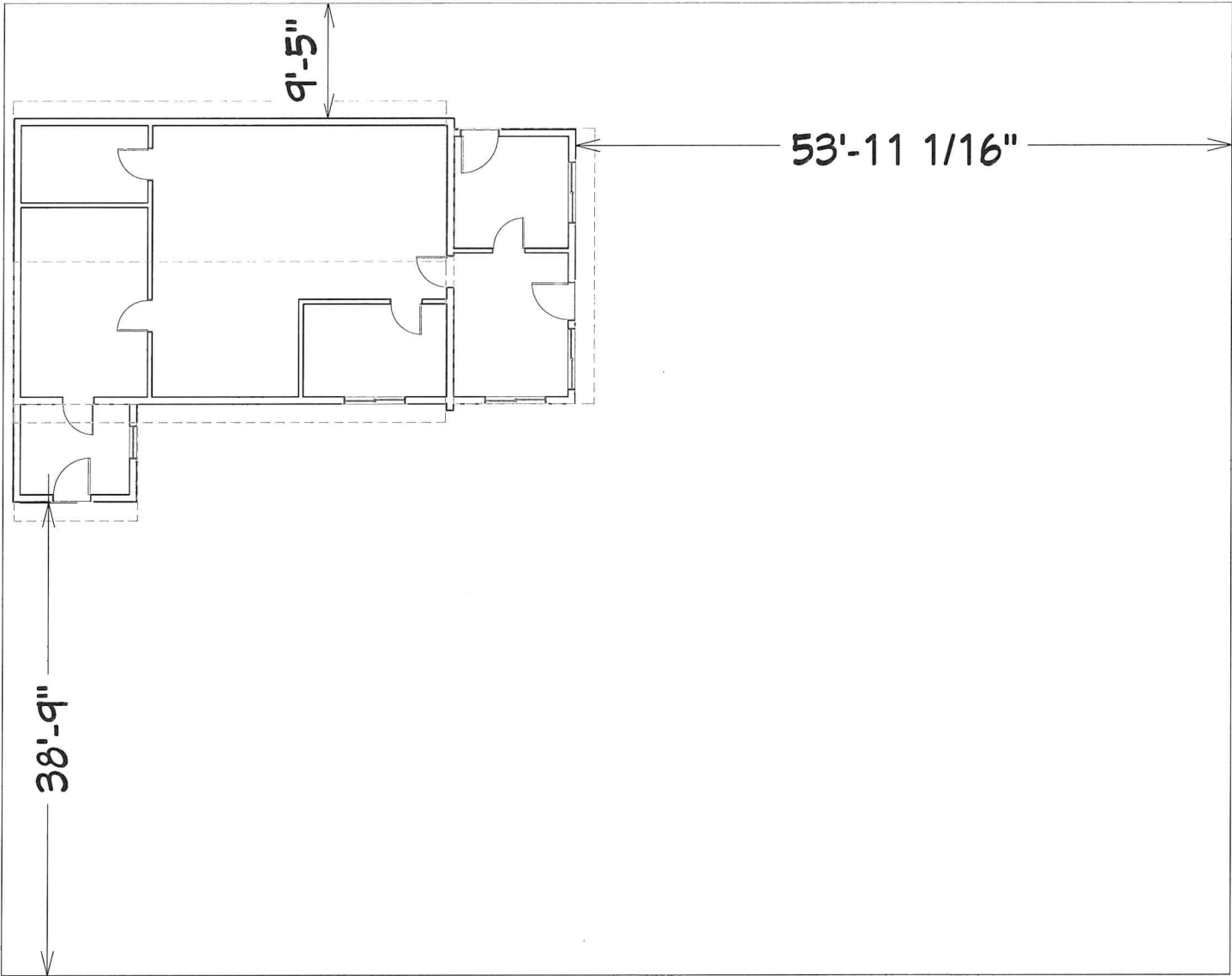
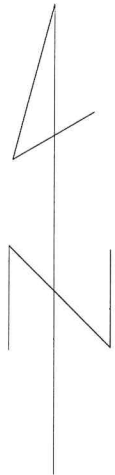
## Exhibit A

### CONSENT TO APPLY FOR SITE PLAN REVIEW

I, Byron Hatch, grant JoAnne Drake permission to apply for a Site Plan Review for the property that I own at 155 N Second Avenue, Stayton, Oregon 97383.

Byron Hatch  
Byron Hatch

11-1-25  
Date



155 N 2ND AVE  
STAYTON, OR 97383

TAX LOT 091W10DC11000

2ND AVE

Plot Plan View

REVISION TABLE	
NUMBER	DATE

The Treasure Hunt Thrift Store  
155 2nd Ave N  
Stayton, OR 97383

PLOT PLAN

DRAWINGS PROVIDED BY:  
Bob Thatcher  
503-931-4761

DATE:

6/30/2025

SCALE:

SHEET:

P4



THE TREASURE HUNT THRIFT STORE

Layout Page Table			
Label	Title	Description	Comments
P-1	PROJECT OVERVIEW		
P1	Floor Plan		
P2	ELEVATIONS		
P3	ELEVATIONS		
P4	PLOT PLAN		

REVISION TABLE		REVISION BY	DESCRIPTION
NUMBER	DATE		

The Treasure Hunt Thrift Store  
155 2nd Ave N  
Stajton, OR 971383

PROJECT OVERVIEW

DRAWINGS PROVIDED BY:  
Bob Thatcher  
503-931-4761

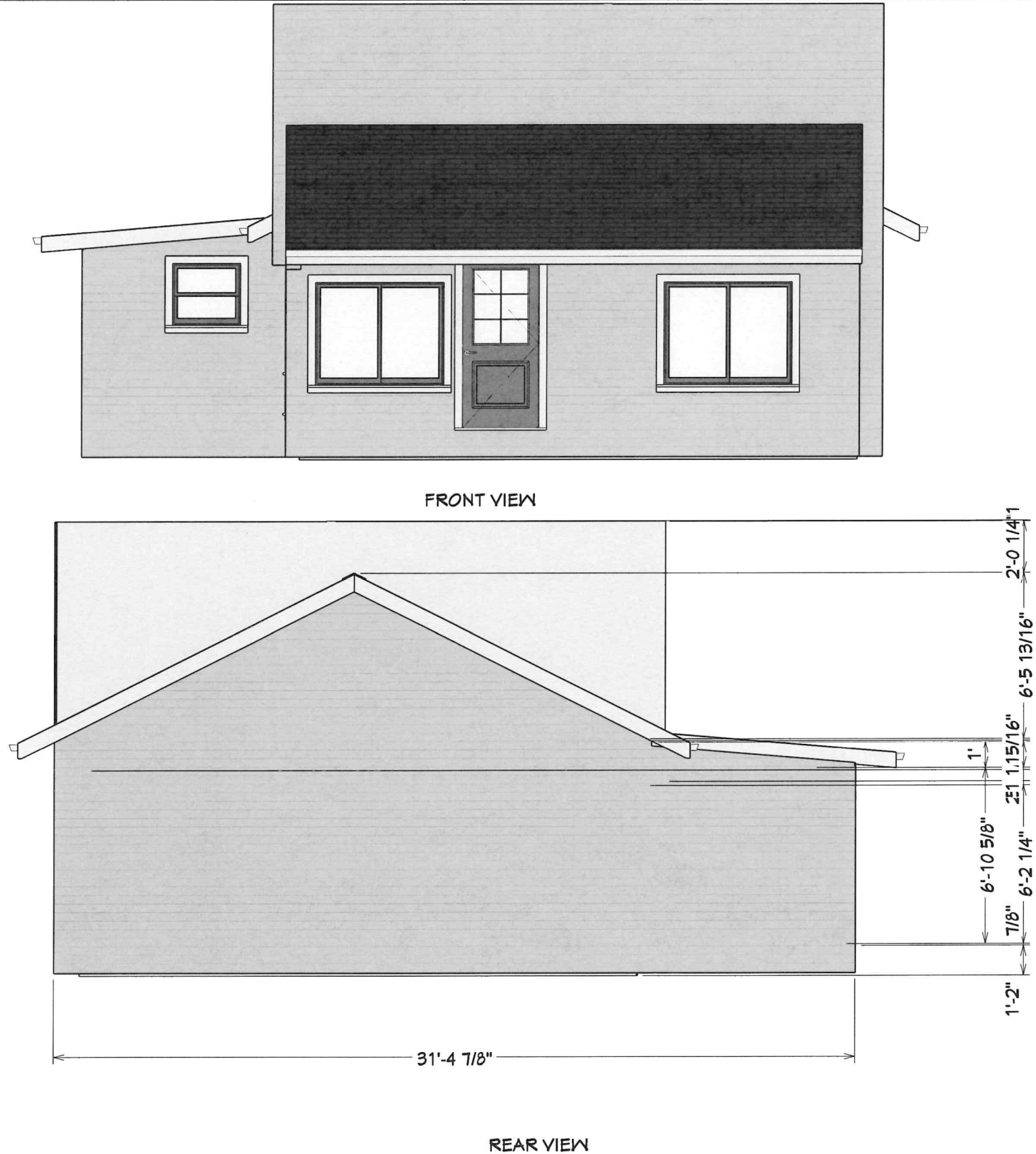
DATE:

6/30/2025

SCALE:

SHEET:

P-1



FRONT VIEW

REAR VIEW

REVISION TABLE	
NUMBER	DATE

The Treasure Hunt Thrift Store  
155 2nd Ave N  
Stayton, OR 971363

ELEVATIONS

DRAWINGS PROVIDED BY:  
Bob Thatcher  
503-931-4761

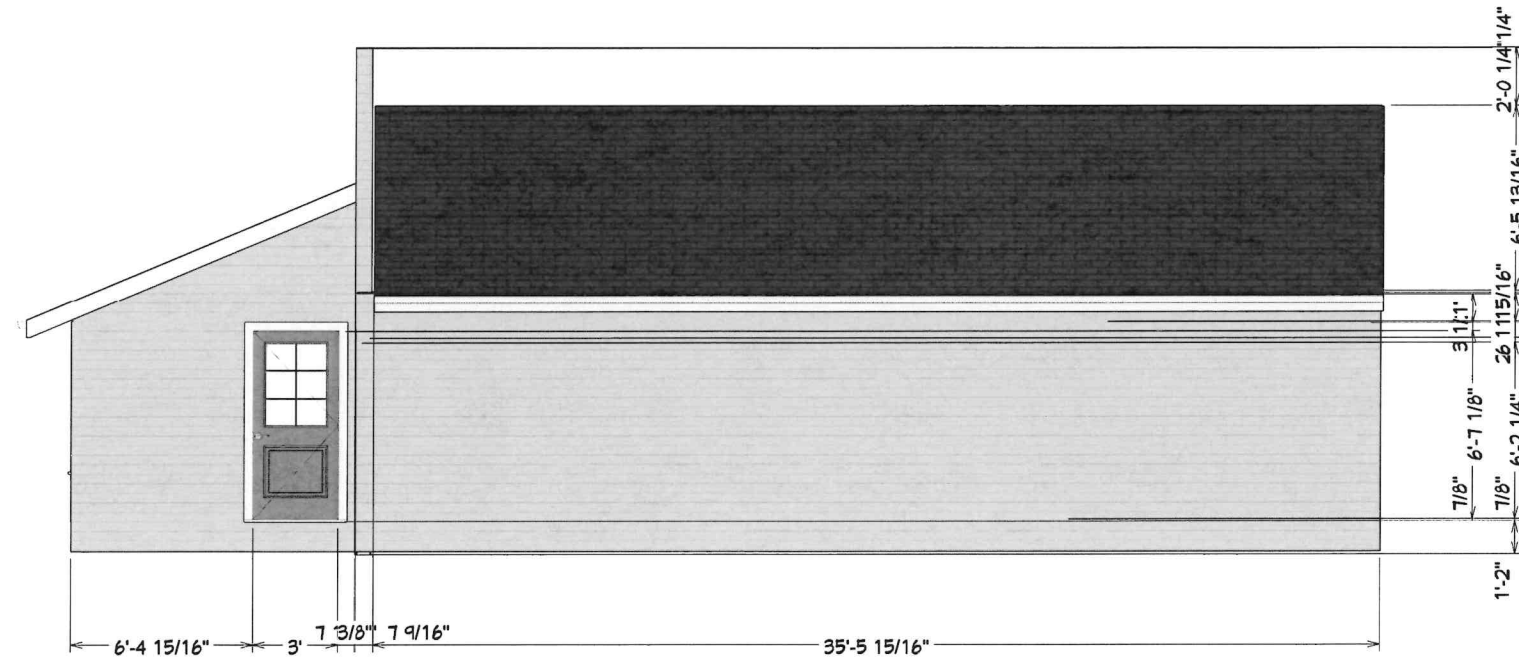
DATE:

6/30/2025

SCALE:

SHEET:

P2



RIGHT SIDE VIEW



LEFT SIDE VIEW

REVISION TABLE

NUMBER	DATE	REVISION BY	DESCRIPTION

The Treasure Hunt Thrift Store

155 2nd Ave N

Stayton, OR 971363

ELEVATIONS

DRAWINGS PROVIDED BY:

Bob Thatcher

503-931-4761

DATE:

6/30/2025

SCALE:

SHEET:

P3





**From:** [Laurel Christian](#)  
**To:** [Jennifer Siciliano](#)  
**Subject:** RE: [EXTERNAL]Request for Comments on Application for 155 N 2nd Avenue- Site Plan Review - LU # 6-05/25  
**Date:** Monday, November 10, 2025 12:10:29 PM

**CAUTION:** This email originated from **Outside Your Organization**. Exercise caution when opening attachments or on clicking links from unknown senders. Please contact Information Technology for assistance.

Hi Jennifer,

The proposed development is not located near the City of Salem water transmission mains that that travel through Stayton. No City of Salem concerns with this request. Thank you for the opportunity to review.

Thank you,

**Laurel Christian**

*Infrastructure Planner III*

City of Salem | Community Planning and Development | Development Services

**Find us at the Development Services Division Offices:** [440 Church St SE, 5<sup>th</sup> Floor](#)

Mailing Address: P.O. Box 14300, Salem, OR 97309

[lchristian@cityofsalem.net](mailto:lchristian@cityofsalem.net) | Office: 503-584-4632

[Facebook](#) | [YouTube](#) | [LinkedIn](#) | [www.cityofsalem.net](http://www.cityofsalem.net)

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**From:** Jennifer Siciliano <[jsiciliano@staytonoregon.gov](mailto:jsiciliano@staytonoregon.gov)>

**Sent:** Thursday, November 6, 2025 10:51 AM

**To:** Adam Kohler <[Adam.Kohler@PacifiCorp.com](mailto:Adam.Kohler@PacifiCorp.com)>; Astound Construction Team <[oregonconstruction@astound.com](mailto:oregonconstruction@astound.com)>; Barry Buchanan <[bbuchanan@staytonoregon.gov](mailto:bbuchanan@staytonoregon.gov)>; [breich@co.marion.or.us](mailto:breich@co.marion.or.us); [brents@santiamwater.gov](mailto:brents@santiamwater.gov); [brian.kelley@nwnatural.com](mailto:brian.kelley@nwnatural.com); Caleb Cox <[ccox@kittelson.com](mailto:ccox@kittelson.com)>; Christopher Clark <[Christopher.clark@pacificorp.com](mailto:Christopher.clark@pacificorp.com)>; [dfreitag@santiamhospital.org](mailto:dfreitag@santiamhospital.org); Doug Kintz <[doug.kintz@staytonfire.org](mailto:doug.kintz@staytonfire.org)>; Erik Hoefer <[erik@sctcweb.com](mailto:erik@sctcweb.com)>; Gwen Johns <[gjohns@staytonoregon.gov](mailto:gjohns@staytonoregon.gov)>; Janelle Shanahan <[jshanahan@co.marion.or.us](mailto:jshanahan@co.marion.or.us)>; Alley, Jay <[Jay.Alley@staytonfire.org](mailto:Jay.Alley@staytonfire.org)>; John Eckis <[johnneckis@sctcweb.com](mailto:johnneckis@sctcweb.com)>; John Rasmussen <[jasmussen@co.marion.or.us](mailto:jasmussen@co.marion.or.us)>; Kendall Smith <[ksmith@staytonoregon.gov](mailto:ksmith@staytonoregon.gov)>; [kinman@co.marion.or.us](mailto:kinman@co.marion.or.us); Lee Loving <[lee.lovings@nsantiam.k12.or.us](mailto:lee.lovings@nsantiam.k12.or.us)>; Lyle Misbach <[misbachl@aks-eng.com](mailto:misbachl@aks-eng.com)>; Max Heller <[mheller@kittelson.com](mailto:mheller@kittelson.com)>; Max Hepburn <[mhepburn@co.marion.or.us](mailto:mhepburn@co.marion.or.us)>; MCPW Engineering <[mcldep@co.marion.or.us](mailto:mcldep@co.marion.or.us)>; Michael Schmidt <[mschmidt@staytonoregon.gov](mailto:mschmidt@staytonoregon.gov)>; Nicole Willis <[nicole.willis@pacificorp.com](mailto:nicole.willis@pacificorp.com)>; [oregonconstruction@wavebroadband.com](mailto:oregonconstruction@wavebroadband.com); [planning@co.marion.or.us](mailto:planning@co.marion.or.us); Richard Walker ([richardw@aks-eng.com](mailto:richardw@aks-eng.com)) <[richardw@aks-eng.com](mailto:richardw@aks-eng.com)>; Development Services <[developmentsservices@cityofsalem.net](mailto:developmentsservices@cityofsalem.net)>; Susan Wright <[swright@kittelson.com](mailto:swright@kittelson.com)>; Troy Wheeler <[twheeler@co.marion.or.us](mailto:twheeler@co.marion.or.us)>; [Wayne.clevenger@pacificorp.com](mailto:Wayne.clevenger@pacificorp.com)

**Cc:** Susan Bender <[sbender@staytonoregon.gov](mailto:sbender@staytonoregon.gov)>

**Subject:** [EXTERNAL]Request for Comments on Application for 155 N 2nd Avenue- Site Plan Review - LU # 6-05/25

**CAUTION!** This email came from outside the City of Salem. Do not click links or open attachments unless you recognize the sender. For guidance on identifying legitimate senders/emails, please review the IT Intranet Cyber Security Page.

The City of Stayton has received an application for Site Plan Review to expand an existing 960-square-foot commercial building by enclosing porch areas totaling approximately 326 square feet. The property is located at 155 N. Second Avenue (Tax Lot No. 091W10DC11000) within the Downtown Commercial Mixed Use (DCMU) zone. The building includes both a thrift store and a residential unit.

This application is somewhat unique, as the enclosure work was completed prior to obtaining Planning Commission approval. Building permits are still required, and Marion County Building Inspection is awaiting confirmation of planning approval before proceeding with building permit inspection. While the overall building footprint has not expanded, the project involves the enclosure of existing porch areas, which must comply with DCMU design standards.

The application materials include a handwritten narrative, site plans, and photographs of the work in progress. For your review, I have attached the Request for Comments form.

Please provide any comments or recommendations by **November 13, 2025**.

**From:** [Jay Alley](#)  
**To:** [Jennifer Siciliano](#)  
**Subject:** RE: Request for Comments on Application for 155 N 2nd Avenue- Site Plan Review - LU # 6-05/25  
**Date:** Thursday, November 6, 2025 3:18:25 PM

**CAUTION:** This email originated from **Outside Your Organization**. Exercise caution when opening attachments or on clicking links from unknown senders. Please contact Information Technology for assistance.

Stayton Fire District has no comments on this application.

*Jay Alley*

Fire Chief

Stayton Fire District

Office 503-769-2601

Cell 503-932-7805

[Jay.alley@staytonfire.org](mailto:jay.alley@staytonfire.org)

**“TO PROVIDE OUTSTANDING SERVICE WITH COMMITMENT TO SAVING LIVES AND PROPERTY”**

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**From:** Jennifer Siciliano <[jsiciliano@staytonoregon.gov](mailto:jsiciliano@staytonoregon.gov)>

**Sent:** Thursday, November 6, 2025 10:51 AM

**To:** Adam Kohler <[Adam.Kohler@PacifiCorp.com](mailto:Adam.Kohler@PacifiCorp.com)>; Astound Construction Team <[oregonconstruction@astound.com](mailto:oregonconstruction@astound.com)>; Barry Buchanan <[bbuchanan@staytonoregon.gov](mailto:bbuchanan@staytonoregon.gov)>; breich@co.marion.or.us; Brent Stevenson <[BrentS@santiamwater.gov](mailto:BrentS@santiamwater.gov)>; brian.kelley@nwnatural.com; Caleb Cox <[ccox@kittelson.com](mailto:ccox@kittelson.com)>; Christopher Clark <[Christopher.clark@pacificorp.com](mailto:Christopher.clark@pacificorp.com)>; dfreitag@santiamhospital.org; Doug Kintz <[Doug.Kintz@staytonfire.org](mailto:Doug.Kintz@staytonfire.org)>; Erik Hoefer <[erik@sctcweb.com](mailto:erik@sctcweb.com)>; Gwen Johns <[gjohns@staytonoregon.gov](mailto:gjohns@staytonoregon.gov)>; Janelle Shanahan <[jshanahan@co.marion.or.us](mailto:jshanahan@co.marion.or.us)>; Jay Alley <[Jay.Alley@staytonfire.org](mailto:Jay.Alley@staytonfire.org)>; John Eckis <[johnneckis@sctcweb.com](mailto:johnneckis@sctcweb.com)>; John Rasmussen <[jasmussen@co.marion.or.us](mailto:jasmussen@co.marion.or.us)>; Kendall Smith <[ksmith@staytonoregon.gov](mailto:ksmith@staytonoregon.gov)>; kinman@co.marion.or.us; Lee Loving <[lee.loving@nsantiam.k12.or.us](mailto:lee.loving@nsantiam.k12.or.us)>; Lyle Misbach <[misbachl@aks-eng.com](mailto:misbachl@aks-eng.com)>; Max Heller <[mheller@kittelson.com](mailto:mheller@kittelson.com)>; Max Hepburn <[mhepburn@co.marion.or.us](mailto:mhepburn@co.marion.or.us)>; MCPW Engineering <[mcldep@co.marion.or.us](mailto:mcldep@co.marion.or.us)>; Michael Schmidt <[mschmidt@staytonoregon.gov](mailto:mschmidt@staytonoregon.gov)>; Nicole Willis <[nicole.willis@pacificorp.com](mailto:nicole.willis@pacificorp.com)>; oregonconstruction@wavebroadband.com; planning@co.marion.or.us; Richard Walker <[richardw@aks-eng.com](mailto:richardw@aks-eng.com)> <[richardw@aks-eng.com](mailto:richardw@aks-eng.com)>; Salem Development Services <[developmentsservices@cityofsalem.net](mailto:developmentsservices@cityofsalem.net)>; Susan Wright <[swright@kittelson.com](mailto:swright@kittelson.com)>; Troy Wheeler <[twheeler@co.marion.or.us](mailto:twheeler@co.marion.or.us)>; Wayne.clevenger@pacificorp.com

**Cc:** Susan Bender <[sbender@staytonoregon.gov](mailto:sbender@staytonoregon.gov)>

**Subject:** Request for Comments on Application for 155 N 2nd Avenue- Site Plan Review - LU # 6-05/25

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The City of Stayton has received an application for Site Plan Review to expand an existing 960-square-foot commercial building by enclosing porch areas totaling approximately 326 square feet. The property is located at 155 N. Second Avenue (Tax Lot No. 091W10DC11000) within the Downtown Commercial Mixed Use (DCMU) zone. The building includes both a thrift store and a residential unit.

This application is somewhat unique, as the enclosure work was completed prior to obtaining Planning Commission approval. Building permits are still required, and Marion County Building Inspection is awaiting confirmation of planning approval before proceeding with building permit inspection. While the overall building footprint has not expanded, the project involves the enclosure of existing porch areas, which must comply with DCMU design standards.

The application materials include a handwritten narrative, site plans, and photographs of the work in progress. For your review, I have attached the Request for Comments form.

Please provide any comments or recommendations by **November 13, 2025**.

Thank you for your time and assistance in reviewing this application.

**From:** [Danny Freitag](#)  
**To:** [Jennifer Siciliano](#)  
**Subject:** Re: [External]Request for Comments on Application for 155 N 2nd Avenue- Site Plan Review - LU # 6-05/25  
**Date:** Thursday, November 6, 2025 10:53:55 AM  
**Attachments:** [Outlook-ScreenShot.png](#)

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Santiam Hospital Ambulance has no comment or concern.

*Thank you,*

*Danny Freitag*  
*Ambulance Director*  
*Santiam Hospital & Clinics*  
(503) 798-1335  
[dfreitag@santiamhospital.org](mailto:dfreitag@santiamhospital.org)



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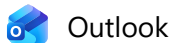
---

**From:** Jennifer Siciliano <[jsiciliano@staytonoregon.gov](mailto:jsiciliano@staytonoregon.gov)>  
**Sent:** Thursday, November 6, 2025 10:50 AM  
**To:** Adam Kohler <[Adam.Kohler@PacifiCorp.com](mailto:Adam.Kohler@PacifiCorp.com)>; Astound Construction Team <[oregonconstruction@astound.com](mailto:oregonconstruction@astound.com)>; Barry Buchanan <[bbuchanan@staytonoregon.gov](mailto:bbuchanan@staytonoregon.gov)>; breich@co.marion.or.us <[breich@co.marion.or.us](mailto:breich@co.marion.or.us)>; Brent Stevenson <[BrentS@santiamwater.gov](mailto:BrentS@santiamwater.gov)>; brian.kelley@nwnatural.com <[brian.kelley@nwnatural.com](mailto:brian.kelley@nwnatural.com)>; Caleb Cox <[ccox@kittelson.com](mailto:ccox@kittelson.com)>; Christopher Clark <[Christopher.clark@pacificorp.com](mailto:Christopher.clark@pacificorp.com)>; Danny Freitag <[dfreitag@santiamhospital.org](mailto:dfreitag@santiamhospital.org)>; Doug Kintz <[doug.kintz@staytonfire.org](mailto:doug.kintz@staytonfire.org)>; Erik Hofer <[erik@sctcweb.com](mailto:erik@sctcweb.com)>; Gwen Johns <[gjohns@staytonoregon.gov](mailto:gjohns@staytonoregon.gov)>; Janelle Shanahan <[jshanahan@co.marion.or.us](mailto:jshanahan@co.marion.or.us)>; Jay Alley <[jay.alley@staytonfire.org](mailto:jay.alley@staytonfire.org)>; John Eckis <[johneckis@sctcweb.com](mailto:johneckis@sctcweb.com)>; John Rasmussen <[jasmussen@co.marion.or.us](mailto:jasmussen@co.marion.or.us)>; Kendall Smith <[ksmith@staytonoregon.gov](mailto:ksmith@staytonoregon.gov)>; kinman@co.marion.or.us <[kinman@co.marion.or.us](mailto:kinman@co.marion.or.us)>; Lee Loving <[lee.loving@nsantiam.k12.or.us](mailto:lee.loving@nsantiam.k12.or.us)>; Lyle Misbach <[misbachl@aks-eng.com](mailto:misbachl@aks-eng.com)>; Max Heller <[mheller@kittelson.com](mailto:mheller@kittelson.com)>; Max Hepburn <[mhepburn@co.marion.or.us](mailto:mhepburn@co.marion.or.us)>; MCPW Engineering <[mcldep@co.marion.or.us](mailto:mcldep@co.marion.or.us)>; Michael Schmidt <[mschmidt@staytonoregon.gov](mailto:mschmidt@staytonoregon.gov)>; Nicole Willis <[nicole.willis@pacificorp.com](mailto:nicole.willis@pacificorp.com)>; oregonconstruction@wavebroadband.com <[oregonconstruction@wavebroadband.com](mailto:oregonconstruction@wavebroadband.com)>; planning@co.marion.or.us <[planning@co.marion.or.us](mailto:planning@co.marion.or.us)>; Richard Walker <[richardw@aks-eng.com](mailto:richardw@aks-eng.com)> <[richardw@aks-eng.com](mailto:richardw@aks-eng.com)>; Salem Development Services <[developmentservices@cityofsalem.net](mailto:developmentservices@cityofsalem.net)>; Susan Wright <[swright@kittelson.com](mailto:swright@kittelson.com)>; Troy Wheeler <[twheeler@co.marion.or.us](mailto:twheeler@co.marion.or.us)>; Wayne.clevenger@pacificorp.com <[Wayne.clevenger@pacificorp.com](mailto:Wayne.clevenger@pacificorp.com)>  
**Cc:** Susan Bender <[sbender@staytonoregon.gov](mailto:sbender@staytonoregon.gov)>  
**Subject:** [External]Request for Comments on Application for 155 N 2nd Avenue- Site Plan Review - LU # 6-05/25

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The City of Stayton has received an application for Site Plan Review to expand an existing 960-square-foot commercial building by enclosing porch areas totaling approximately 326 square feet. The property is located at 155 N. Second Avenue (Tax Lot No. 091W10DC11000) within the Downtown Commercial Mixed Use (DCMU) zone. The building includes both a thrift store and a residential unit.

This application is somewhat unique, as the enclosure work was completed prior to obtaining Planning Commission approval. Building permits are still required, and Marion County Building Inspection is awaiting confirmation of planning




---

**Re: Pre-Application for Site Plan Review - 155 N 2nd Avenue**


---

**From** Caleb Cox <ccox@kittelerson.com>

**Date** Tue 5/6/2025 11:16 AM

**To** Jennifer Siciliano <jsiciliano@staytonoregon.gov>

**Cc** Max Heller <mheller@kittelerson.com>; Susan Wright <swright@kittelerson.com>

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Hi Jennifer,

Expanding the enclosed area of this building could alter the trip generation for the business. Based on a google maps aerial view, it looks like the new enclosed area is about 75 square feet (Please have the applicant confirm this is correct). Using ITE land use code 814 - Variety Store, the additional area would generate less than 1 new peak hour trip, which does not trigger a need for a TIA. The owner is also not proposing any change to their access. Based on the low number of trips, we recommend waiving the requirement for a transportation assessment letter.

Thanks,

**Caleb Cox, PE**  
Senior Engineer

**Kittelerson & Associates, Inc.**  
Transportation Engineering & Planning  
503.535.7453 (direct)

---

**From:** Jennifer Siciliano <jsiciliano@staytonoregon.gov>

**Sent:** Friday, April 25, 2025 2:32 PM

**To:** Adam Kohler <Adam.Kohler@PacifiCorp.com>; Astound Construction Team <oregonconstruction@astound.com>; Brent Stevenson <brents.swcd@wvi.com>; Caleb Cox <ccox@kittelerson.com>; Doug Kintz <doug.kintz@staytonfire.org>; Erik Hoefer <erik@sctcweb.com>; Gwen Johns <gjohns@staytonoregon.gov>; Janelle Shanahan <jshanahan@co.marion.or.us>; Jay Alley <jay.alley@staytonfire.org>; John Eckis <johneckis@sctcweb.com>; John Rasmussen <jrasmussen@co.marion.or.us>; Julia Hajduk <jhajduk@staytonoregon.gov>; Kendall Smith <ksmith@staytonoregon.gov>; Lee Loving <lee.loving@nsantiam.k12.or.us>; Marion County Assessor <assessor@co.marion.or.us>; Max Heller <mheller@kittelerson.com>; Max Hepburn <mhepburn@co.marion.or.us>; MCPW Engineering <mcldep@co.marion.or.us>; Michael Schmidt <mschmidt@staytonoregon.gov>; Nicole Willis <nicole.willis@pacificorp.com>; Richard Walker (richardw@aks-eng.com) <richardw@aks-eng.com>; Robery Lee <rlee@wavebroadband.com>; Salem Development Services <developmentservices@cityofsalem.net>; Susan Wright <swright@kittelerson.com>; Troy Wheeler <twheeler@co.marion.or.us>; Wayne.clevenger@pacificorp.com <Wayne.clevenger@pacificorp.com>

**Cc:** Pauly Norby <pnorby@staytonoregon.gov>

**Subject:** Pre-Application for Site Plan Review - 155 N 2nd Avenue

**[External Sender]**

Hello All,

Please see attached pre-application form and materials for a Site Plan Review for a mixed-use building in the Downtown District on 2<sup>nd</sup> Avenue. The meeting will be held virtually (or in-person) on May 15, 2025, at 2 PM. A separate email invite will be sent.

As shown in the attached photos, the structure has already been constructed without obtaining the required building permits or planning department approval. Before Marion County can take enforcement action related to the building permit, the Planning Department must first complete its review. According to the Tax Assessor, the original building was 960 square feet. However, the occupants have enclosed both the front porch and a side area, and the extent of the enclosed space is currently unknown. Mixed-use buildings in the Downtown District are subject to extensive design standards, which must be reviewed as part of the planning process.

Jennifer

Jennifer Siciliano  
Stayton Community and Economic Development Director  
311 N. Third Ave.  
Stayton, OR 97383  
Phone: (503) 769-2998



# City of Stayton

## Community and Economic Development

362 N. Third Avenue • Stayton, OR 97383

Phone: (503) 769-2998 • Fax (503) 767-2134

April 14, 2025

Bryon Hatch

P.O. Box 553

Stayton, OR 97383

To Mr. Hatch,

On March 5, 2025, I observed the construction and enclosure of a porch in progress at the building located at 155 N 2nd Avenue, Stayton, OR 97383. No building permit was obtained for this work, so as to the true accurate nature of these changes are unclear. What can be viewed from the outside of the building, the work is in violation of the Stayton Land Use and Development Code, Stayton Municipal Code (SMC) Sections 17.04.010 SHORT TITLE, and must be remedied.

SMC 17.04.070 COMPLIANCE states that *“No structure or land shall hereafter be constructed, located, extended, converted, or altered without full compliance with the terms of the Stayton Land Use and Development Code and other applicable regulations including all permits and licenses required.”*

A Site Plan Review approval must be obtained. The first step in the Site Plan Review process is to submit a completed pre-application form with \$500 associated fees. Once the pre-application is held, a second step will be to submit a completed Site Plan Review application with associated deposit. Depending on the need figured out at the pre-application meeting, the Site Plan Review may be an administrative process where a \$900 deposit will be requested or a Public Hearing at a future Planning Commission meeting that will require a \$1,700 deposit.

The tenant did stop by and pick up the pre-application form for a Site Plan Review on March 21, 2025, but has not returned the form, nor paid the \$500. **Contact the Community and Economic Development Department for a pre-application form and pay a \$500 fee by April 28, 2025.**

Site Plan Review is required when SMC 17.12.220.3.REQUIREMENTS FOR SITE PLAN REVIEW. f. *“Improvements exceeding 15% of existing development by area, not including the area of internal roadways, parking and loading areas, and landscaping.”* The Marion County Tax Assessor states that the building structure was 960 square feet. If 144 square feet or more was constructed or that much of a porch was enclosed, then a Site Plan Review is required.

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# City of Stayton

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The building structure does not conform to the City of Stayton's Zoning SMC 17.16 and Downtown Development Design Standards SMC 17.20.220. Prior to this construction, this building was a Non-Conforming structure SMC 17.16.050 according to SMC Chapter 17.16 ZONING. SMC 17.16.050.3. b. *"A Non-conforming structure may be altered or enlarged provided the addition or alteration is no more nonconforming than the existing structure. ..."* The addition does create more nonconformity, so it is not allowed.

This property is located in the Downtown Commercial Core Mixed-Use (DCMU) zone. The district purpose of this is defined in SMC 17.16.060.8-A. DOWNTOWN COMMERCIAL MIXED USE. *"To promote compact commercial and mixed commercial-residential development the portion of the 2nd Avenue that has traditionally had a concentration of automobile repair and other auto-oriented businesses. Residential uses are permitted, ranging from 12 - 30 units per acre, including attached residential structures, condominiums, and townhouses, but also allowing appropriate commercial uses and mixed use developments."*

The setbacks in the DCMU, cannot be more 20 feet from the front lot line – SMC 17.16.080.2.e.3)a)ii. *"Within the DCMU or DRMU Zone, a building shall not be more than 20 feet from the front lot line. ..."* SMC 17.16.080.2.f.2) *"In the CCMU, DCMU, or DRMU zones the minimum building height shall be 2 stories or 20 feet. The minimum building height standard applies to new commercial, residential, and mixed-use buildings. ..."*

In addition to zoning requirements, there are Downtown Development Design Standards. The purpose of these design standards according to SMC 17.20.220.1. Purpose. *"The following design standards apply to all commercial, attached residential, and mixed-use structures located within the Downtown Zones. The purpose of these standards is to assure a high quality, pedestrian-oriented development pattern in the downtown area consistent with the vision expressed in the Downtown Transportation and Revitalization Plan. The provisions of this section do not change the range of uses permitted on a property except as described in this section."*

17.20.220 DOWNTOWN DEVELOPMENT DESIGN STANDARDS 3. Standards for All Commercial and Mixed Use Structures. i. Ground floor windows. 1) *"The windows must be at least 50% of the length and 25% of the ground level wall area. Ground level wall areas include all exterior wall areas up to 9 feet above the finished grade."* and 2) *"Required window areas must be either windows that allow views into working areas or lobbies, pedestrian entrances, or display windows set into the wall. The bottom of the windows must be no more than 4 feet above the adjacent exterior grade."* k. Roofs. 2) *"In the DCMU and DRMU Zones, roofs shall be flat, and designed with a cornice or parapet, or steeply pitched. Buildings must have: a) A sloped roof with a pitch that is no flatter than 6/12 and no steeper than 12/12; or b) A roof with a pitch*

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# City of Stayton

## Community and Economic Development

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Phone: (503) 769-2998 • Fax (503) 767-2134

*of less than 6/12 and a cornice or parapet that meets the standards of Section 17.20.220.3.k.1)b) above.” There are additional SMC 17.20. Development and Improvement Standards that need to be review through a Site Plan Review. It is the responsibility for the applicant to supply this information.*

If by **April 28th, 2025**, you have not started the process of obtaining approval for a Site Plan Review by paying and filling out a pre-application form, the City will begin formal enforcement proceedings as provided by the Code.

### SMC 17.04.110 VIOLATIONS AND PENALTIES

1. Any person, firm, or corporation who violates any provision of this Title is punishable upon conviction by a fine as provided in subsection 2 of this section. Each day that the violation persists shall be deemed as a separate offense.
2. Violation of any portion of this code is punishable by a fine of not less than five hundred dollars (\$500.00) nor more than one thousand dollars (\$1,000.00) for each infraction.
3. The remedies provided hereunder are cumulative and not exclusive. In addition to the penalties provided above and those specifically set out in particular sections of this code, the City, by and through its authorized personnel, may pursue any remedy provided by law including the institution of injunction, mandamus, abatement, or other appropriate proceeding to prevent, temporarily or permanently enjoin, or abate a code violation.

If you have any questions or need further clarification, do not hesitate to reach out to the Community and Economic Development Department.

Sincerely,

Jennifer Siciliano

Director of Community Planning and Economic Development, City Planner, Zoning Official

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# City of Stayton

## MEMORANDUM

**TO:** Chairperson Larry McKinley and Planning Commission Members

**FROM:** Jennifer Siciliano, Director of Community and Economic Development

**DATE:** November 24, 2025

**SUBJECT:** Annexation – KSD Properties, LLC (Golf Lane)

**120 DAYS ENDS:** Not applicable – Annexation

---

### ISSUE

The issue before the Planning Commission is a Public Hearing on an application for Annexation of an approximately 21-acre property located on Golf Lane (Tax Lot 091W03B001500). The applicant proposes annexation into the city limits and application of the Medium Density (MD) Residential zoning district.



### BACKGROUND

The subject property is approximately 21 acres, vacant, located in Marion County fronting on Golf Lane, and zoned Urban Transition (UT-20). It lies within the Stayton Urban Growth Boundary (UGB) but outside the city limits. The surrounding area consists of a mix of City-zoned and County-zoned properties. The property to the north was annexed in 2019 and is zoned Commercial General (CG). Golf Lane to the east has been annexed into the City limits, while the land immediately across Golf Lane is owned by ODOT. The property to the south consists of large-lot single-family homes and remains under Marion County UT-20 zoning. The property to the west is owned by the Stayton Middle School campus, is forested, and is zoned Public/Semi-Public (P).

KSD Properties, LLC submitted an annexation application requesting MD Residential zoning and providing a concept plan for 74 single-family lots, revised from an earlier concept of 94 lots. The Medium Density (MD) zone allows single-family, duplex, and triplex dwellings. If developed at the maximum densities allowed by the MD zone, the site could yield up to 128 duplex units and 30

# City of Stayton

triplex units, the latter allowed only on lots exceeding 10,500 square feet—10 such lots are shown in the concept plan. This level of multifamily construction exceeds the need identified in the City's 2013 Buildable Lands Inventory (BLI) and is inconsistent with the City's actual growth rate, which has averaged only 0.76% annually between 2000 (population 6,816) and 2024 (population 8,176).

Given this mismatch between projected and actual growth, and the resulting overproduction of multifamily housing that could occur under MD zoning, staff has concluded that the LD (Low Density Residential) zone more appropriately reflects the housing needs of the community.

## ANALYSIS

This report and the draft order present Planning Staff's summary and analysis concerning this application. The analysis was developed with input from City departments, including the City Engineer and the City's transportation engineering consultant.

## RECOMMENDATION

Staff recommends option one: approval of the draft order as presented with LD (Low Density Residential) zoning rather than the MD zoning requested.

Staff finds that annexation of the property is appropriate and consistent with urban growth policies; however, the LD zoning district best meets the current and projected housing needs of the City.

## OPTIONS AND SUGGESTED MOTIONS

Staff has provided the Planning Commission with a number of options, each with an appropriate motion. The Planning Department recommends the first option to continue the hearing as the applicant requested.

### **1. Approve the application, adopting the draft order of recommendation as presented.**

I move the Stayton Planning Commission recommend the application for Annexation for KSD Properties, LLC for a 21-acre property on Golf Lane (Tax Lot 091W03B001500), (Land Use File #5-02/24) and adopt the draft order of recommendation presented by Staff.

### **2. Approve the application, adopting modifications to the draft order of recommendation.**

I move the Stayton Planning Commission to recommend the application for Annexation for KSD Properties, LLC for a 21-acre property on Golf Lane (Tax Lot 091W03B001500), (Land Use File #5-02/24) and adopt the draft order of recommendation with the following changes...

### **3. Continue the hearing until December 29, 2025.**

I move the Stayton Planning Commission continue the public hearing on the application for Annexation for KSD Properties, LLC for a 21-acre property on Golf Lane (Tax Lot 091W03B001500), (Land Use File #5-02/24) until December 29, 2025.

### **4. Deny the application, directing staff to modify the draft order of recommendation.**

I move the Stayton Planning Commission to recommend denial of the application for Annexation for KSD Properties, LLC for a 21-acre property on Golf Lane (Tax Lot 091W03B001500), (Land Use File #5-02/24) and direct staff to modify the draft order of recommendation to reflect the Planning Commission's discussion and bring a revised draft order of recommendation for Planning Commission approval at the December 29, 2025, meeting.

### **5. Close the hearing but keep the record open for submission of written testimony.**

# City of Stayton

I move the Stayton Planning Commission close the hearing on the application for Annexation for KSD Properties, LLC for a 21-acre property on Golf Lane (Tax Lot 091W03B001500), (Land Use File #5-02/24) but maintain the record open to submissions by the applicant until December 1, allowing 7 days for review and rebuttal and then an additional 7 days for the applicant to reply, with final closure of the record on December 29, 2025.

**6. Close the hearing and record, and continue the deliberation to the next meeting.**

I move the Stayton Planning Commission continue the deliberation on the application for Annexation for KSD Properties, LLC for a 21-acre property on Golf Lane (Tax Lot 091W03B001500), (Land Use File #5-02/24) until December 29, 2025.





# City of Stayton

## *Department of Public Works*

362 N. Third Avenue • Stayton, OR 97383

Phone: (503) 769-2919 • Fax (503) 767-2134

**Date:** 11/13/2025  
**To:** Jennifer Siciliano, AICP – Community and Economic Development Director  
**Through:** Barry Buchanan, PE – Interim Public Works Director  
Michael Schmidt – Engineering Associate  
**From:** Lyle J. Misbach, PE, CFM  
**Project Name:** 1000 Block of Golf Lane Annexation, Land Use File #5-02/24  
**AKS Job No.:** 12093-02-1001  
**Project Site:** 1000 Block of Golf Lane, Stayton

**Subject:** Public Works Recommendations – Developer-Proposed Annexation

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## **PROPOSAL**

The submitted application is for annexation of a parcel 20.5 acres in size, located on the west side of Golf Lane (Tax Lot 091W03B001500), to be incorporated into the City as Medium Density (MD) Residential zoning. The parcel (the “Subject Property”) is currently shown as Residential in the City’s Comprehensive Plan. The Annexation approval is being requested by KSD Properties, LLC, as Applicant. We have received and reviewed the BRAND Land Use Annexation Narrative Package, dated March 26, 2025, and accompanying Incomplete Application Response, dated July 15, 2025, as well as the criteria listed in Stayton Municipal Code (SMC) 17.12.210.4, particularly the criterion listed in 4.b.

## **PURPOSE**

The purpose of this memorandum is to identify the potential availability and current deficiencies of City public works infrastructure (streets, storm drainage, water, and sanitary sewer) necessary to be resolved to provide City services for the proposed property Annexation. The following comments are based on our review of for the proposed Annexation application as it relates to City infrastructure and in general conformance with applicable public works portions of the City of *Stayton Municipal Code* (SMC), City of Stayton *Land Use Development Code* (LUDC), City of Stayton utility Master Plans and Transportation System Plan (TSP), Public Works Design Standards (PWDS), and Public Works Standard Construction Specifications (SCS).

## **PUBLIC WORKS INFRASTRUCTURE**

No public infrastructure improvements are required for annexation of property. The following information explains the condition of existing public infrastructure in the vicinity of the Subject Property as well as potential future development requirements. At the time of development of the Subject Property, improvements to public infrastructure to adequately serve the proposed development will be required.

## Streets

At the time of development, right-of-way dedication and/or construction of street improvements will be required. The proposed development may also be responsible for contributing a proportional share toward Transportation System Plan capital improvements that benefit the Subject Property.

1. Golf Lane - Golf Lane is designated as a future City Collector in the TSP. The standard for this street classification is a 46-foot-wide improvement, including curbs and sidewalks, street trees and street lighting, in an 80-foot-wide right-of-way.
  - a. Existing Conditions:
    - i. This street has an approximate 32-foot-wide turnpike improvement within a varied right-of-way along the Subject Property frontage and between the Subject Property and the City street system.
    - ii. The nearest City intersection, at Cascade Highway SE, is located approximately 1,000 feet south and east of the Subject Property.
    - iii. The next nearest City intersection is the intersection of Cascade Highway SE and Whitney Street and is located nearly 1,500 feet south and east of the Subject Property.
  - b. Current Deficiencies:
    - i. Golf Lane is a boundary street for the property and will need to be improved to Collector street standards along the Subject Property frontage at time of development.
    - ii. This street will also serve as linking street from Cascade Highway SE to the Subject Property and will need to be improved to provide two-way vehicle traffic along the roadway, accommodate safe pedestrian movement to and from the Subject Property, and meet the emergency vehicle access requirements.
    - iii. Per SMC 17.24.040, *development of one- and two-family dwellings where the number of dwelling units exceeds 30 ... shall be provided with not less than two approved means of access*. Golf Lane is currently a dead-end street without secondary access or connectivity to any streets beside Cascade Highway SE. Development of the Subject Property will need to provide adequate emergency vehicle access and water supply in conformance with the SMC and with PWDS and Stayton Fire Department requirements.
  - c. Transportation System Plan. Two projects for Golf Lane are listed in the current TSP, and may affect some of the requirements for future development of the Subject Property:
    - i. Project M3 as listed is a proposed realignment of Golf Lane to Whitney Street at Cascade Highway, southeast of the Subject Property.
    - ii. Project M7 as listed is an extension of Golf Lane west to and intersection with Golf Club Road, west of the Subject Property.
2. Internal Streets –The conceptual site plan submitted with the Application indicates that all of the proposed streets within the Subject Property will be Local streets within a 60-foot-wide right-of-way.
  - a. Existing Conditions:
    - i. None of the proposed streets currently exist.

- ii. The nearest City intersection of Golf Lane and Cascade Highway SE is located approximately 1,000 feet south and east of the Subject Property.
  - iii. The next nearest City intersection is the intersection of Cascade Highway SE and Whitney Street and is located nearly 1,500 feet south and east of the Subject Property.
- b. Transportation System Plan:
- i. None of the streets shown in the conceptual site plan are listed in the current TSP.

### **Storm Drainage**

Construction of a storm drainage system, including flow control, stormwater quality treatment, and extension of existing City storm infrastructure to serve the property, will be required at the time of development of the Subject Property. The proposed development may also be responsible for contributing a proportional share toward *Stormwater Master Plan* capital improvements that benefit the Subject Property.

#### **3. Existing Conditions:**

- a. The nearest available City storm system infrastructure is an unknown size and material City storm drain located in the intersection of Whitney Street and Cascade Highway SE, approximately 1,500 feet southeast of the Subject Property.
- b. Mill Creek, a waterway within the City limits and also a "water of the state" of Oregon, is located approximately 900 feet southeast of the Subject Property.

#### **4. Current Deficiencies:**

- a. The Subject Property is not currently served by any City storm drainage infrastructure.
- b. Some shallow localized drainage ditches exist along Golf Lane, but these do not connect to the City system or an approved discharge point as defined in the PWDS.

#### **5. Stormwater Master Plan:**

- a. Per the *Stormwater Master Plan*, stormwater runoff from this property and any nearby storm drainage system drains to Mill Creek.
- c. The current *Stormwater Master Plan* indicates an existing detention/retention basin located north and east of the Golf Lane SE/Cascade Highway SE intersection.
- d. The *Stormwater Master Plan* also indicates that the existing wetland between Mill Creek, Cascade Highway SE, and Shaff Road SE shall be preserved as part of the Master Plan.

### **Water**

At the time of development, construction of water system infrastructure, including extension of existing City water mains to serve the property, will be required. The proposed development may also be responsible for contributing a proportional share toward *Water Master Plan* capital improvements that benefit the Subject Property.

#### **1. Existing Conditions:**

- a. No City water system infrastructure exists near the Subject Property.

#### **2. Current Deficiencies:**



- a. The Subject Property is not currently served by any City water system infrastructure.
  - b. The Subject Property is located in the “Mill Creek Upper Pressure Service Area” as defined in the *Water Master Plan*. City water infrastructure to serve this Service Area does not exist at this time.
  - c. The nearest existing water system infrastructure is a 12-inch ductile iron City water main located in Whitney Street, approximately 120 feet from the Cascade Highway SE intersection, and approximately 1,500 feet southeast of the Subject Property. However, this water main provides service to the “Upper Pressure Zone” as defined in the *Water Master Plan* and is not available to serve the Subject Property.
  - d. Development of the Subject Property will need to provide adequate emergency water supply in conformance with SMC, PWDS and Stayton Fire Department requirements.
3. Water Master Plan:
- a. The current *Water Master Plan* indicates a new “Mill Creek Booster Station” near the future intersection of Golf Lane and Cascade Highway, along with a 12-inch distribution main within Golf Lane from this Booster Station, ultimately extended to Kindle Way and Golf Club Road, are required to provide sufficient pressure and flows to this Service Area.

### **Sanitary Sewer**

At the time of development, construction of sanitary sewer system infrastructure, including extension of existing City sewer mains to serve the property, will be required. The proposed development may also be responsible for contributing a proportional share toward *Wastewater Facilities Planning Study* capital improvements that benefit the Subject Property.

1. Existing Conditions
  - a. The Subject Property is located in the “Mill Creek Pump Station Basin” as defined in the *Wastewater Facilities Planning Study*.
  - a. The nearest available sanitary sewer system infrastructure is a 12-inch PVC City sewer main located in the intersection of Martin Drive and Cascade Highway SE, approximately 1,800 feet southeast of the Subject Property.
  - b. The next nearest available sanitary sewer system infrastructure is a 12-inch PVC City sewer main located in Golf Lane, approximately 2,300 feet northwest of the Subject Property.
2. Current Deficiencies:
  - a. The Subject Property is not currently served by any City sanitary sewer system infrastructure.
  - b. Proposed connection to any of the existing mains will require engineering calculations to demonstrate that the receiving main has capacity for all additional sanitary sewer flows.
3. Sewer Master Plan:
  - b. The current *Wastewater Facilities Planning Study* does not indicate any significant sanitary sewer system deficiencies in the nearby vicinity that will be impacted or could be improved by development of the Subject Property.

cc: Richard Walker, PE – City Engineer

**From:** [Caleb Cox](#)  
**To:** [Jennifer Siciliano](#)  
**Cc:** [Susan Wright](#); [Max Heller](#)  
**Subject:** Re: Request for Comments on Annexation 20.5 acres off Golf Lane - LU # 5-02/24  
**Date:** Thursday, November 13, 2025 12:11:23 PM  
**Attachments:** [image001.png](#)

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**CAUTION:** This email originated from **Outside Your Organization**. Exercise caution when opening attachments or on clicking links from unknown senders. Please contact Information Technology for assistance.

Hi Jennifer,

As we started preparing the summary we noticed that I had misread queueing table in the Traffic Study... We had thought the 600' queue was for the Cascade Hwy/Whitney St intersection, but it is actually at the Cascade Hwy/Fern Ridge intersection. This changes the trajectory of our review, and means the development is likely fine to proceed without triggering the Golf Lane realignment. I'm very sorry for the confusion on this.

That being said, this Golf Lane realignment issue doesn't go away, this finding just kicks the can down the road to some future developer. I would still recommend a conversation with Marion County to talk through a long-term plan for how development will proceed once the thresholds for a signal are met. We're happy to participate in that conversation if you'd like.

Back to the KSD annexation, here are our revised comments on the traffic study:

1. We understand the application was revised to include only 74 homes rather than the originally proposed 94. It appears the TIA assumed the original 94. We'd like to request an updated analysis for the 74-home proposal. While the reduction in impact is likely small, it's important in this case to account for the trips as accurately as possible because of the restrictions placed on the Cascade Hwy/Golf Lane intersection. We want to make sure the City can reference this TIA when considering options for future development on Golf Lane.
2. We do not see an updated site plan for the 74-home proposal. If the site access will be changing, we would like to see an updated site plan to verify appropriate access and sight distance.
3. On Page 15, the TIA notes that the Cascade Hwy/Shaff Rd/Fern Ridge Rd intersection does not meet v/c standards but no mitigation is recommended because the intersection is under County jurisdiction and the development is being approved through the city's land use process. This assumption should be confirmed with Marion County before proceeding.

Thank you,

**Caleb Cox, PE**  
Senior Engineer

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**Kittelson & Associates, Inc.**  
Transportation Engineering & Planning  
503.228.5230  
503.535.7453 (direct)

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**From:** Jennifer Siciliano <[jsiciliano@staytonoregon.gov](mailto:jsiciliano@staytonoregon.gov)>  
**Sent:** Thursday, November 13, 2025 11:14 AM  
**To:** Caleb Cox <[ccox@kittelson.com](mailto:ccox@kittelson.com)>  
**Cc:** Susan Wright <[swright@kittelson.com](mailto:swright@kittelson.com)>; Max Heller <[mheller@kittelson.com](mailto:mheller@kittelson.com)>  
**Subject:** RE: Request for Comments on Annexation 20.5 acres off Golf Lane - LU # 5-02/24

[External Sender]

**From:** [John Rasmussen](#)  
**To:** [Jennifer Siciliano](#)  
**Subject:** Golf Ln Annexation  
**Date:** Tuesday, October 21, 2025 2:35:26 PM  
**Attachments:** [image001.png](#)

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
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Hi Jennifer,

I consulted with our Transportation Planner Janelle Shanahan who reviewed the TIA, and we have no specific comment for the case. However, we will likely have comment during a future SPR step. Thanks for copying us.



**John Rasmussen, PE | Civil Engineer Associate 3**  
**Land Development Engineering & Permits**  
**Engineering Division, Marion County Public Works**

 [jrasmussen@co.marion.or.us](mailto:jrasmussen@co.marion.or.us)  
 (503) 584-7706 (office) 

**From:** [Jay Alley](#)  
**To:** [Jennifer Siciliano](#)  
**Subject:** RE: Request for Comments on Annexation 20.5 acres off Golf Lane - LU # 5-02/24  
**Date:** Tuesday, September 30, 2025 3:26:52 PM

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Hi Jennifer;

Is this from the same group that came with the original proposal a while back? I read this application is just for annexation, correct? If so the fire district has no comment at this time.

*Jay Alley*

Fire Chief  
Stayton Fire District  
Office 503-769-2601  
Cell 503-932-7805  
[jay.alley@staytonfire.org](mailto:jay.alley@staytonfire.org)

***“TO PROVIDE OUTSTANDING SERVICE WITH COMMITMENT TO SAVING LIVES AND PROPERTY”***

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**From:** Jennifer Siciliano <[jsiciliano@staytonoregon.gov](mailto:jsiciliano@staytonoregon.gov)>  
**Sent:** Monday, September 29, 2025 4:18 PM  
**To:** Paul Hartmann <[phartmann@santiamhospital.org](mailto:phartmann@santiamhospital.org)>; Adam Kohler <[Adam.Kohler@PacifiCorp.com](mailto:Adam.Kohler@PacifiCorp.com)>; breich@co.marion.or.us; Brent Stevenson <[BrentS@santiamwater.gov](mailto:BrentS@santiamwater.gov)>; brian.kelley@nwnatural.com; Caleb Cox <[ccox@kittelson.com](mailto:ccox@kittelson.com)>; Christopher Clark <[Christopher.clark@pacificorp.com](mailto:Christopher.clark@pacificorp.com)>; dfreitag@santiamhospital.org; Doug Kintz <[Doug.Kintz@staytonfire.org](mailto:Doug.Kintz@staytonfire.org)>; Erik Hoefer <[erik@sctcweb.com](mailto:erik@sctcweb.com)>; Gwen Johns <[gjohns@staytonoregon.gov](mailto:gjohns@staytonoregon.gov)>; Janelle Shanahan <[jshanahan@co.marion.or.us](mailto:jshanahan@co.marion.or.us)>; Jay Alley <[Jay.Alley@staytonfire.org](mailto:Jay.Alley@staytonfire.org)>; John Eckis <[johneckis@sctcweb.com](mailto:johneckis@sctcweb.com)>; John Rasmussen <[jrasmussen@co.marion.or.us](mailto:jrasmussen@co.marion.or.us)>; Kendall Smith <[ksmith@staytonoregon.gov](mailto:ksmith@staytonoregon.gov)>; kinman@co.marion.or.us; Lee Loving <[lee.loving@nsantiam.k12.or.us](mailto:lee.loving@nsantiam.k12.or.us)>; Max Heller <[mheller@kittelson.com](mailto:mheller@kittelson.com)>; Max Hepburn <[mhepburn@co.marion.or.us](mailto:mhepburn@co.marion.or.us)>; MCPW Engineering <[mcldep@co.marion.or.us](mailto:mcldep@co.marion.or.us)>; Michael Schmidt <[mschmidt@staytonoregon.gov](mailto:mschmidt@staytonoregon.gov)>; Nicole Willis <[nicole.willis@pacificorp.com](mailto:nicole.willis@pacificorp.com)>; oregonconstruction@wavebroadband.com; planning@co.marion.or.us; Richard Walker <[richardw@aks-eng.com](mailto:richardw@aks-eng.com)> <[richardw@aks-eng.com](mailto:richardw@aks-eng.com)>; rlee@waveboardband.com; Salem Development Services <[developmentservices@cityofsalem.net](mailto:developmentservices@cityofsalem.net)>; Susan Wright <[swright@kittelson.com](mailto:swright@kittelson.com)>; Troy Wheeler <[twheeler@co.marion.or.us](mailto:twheeler@co.marion.or.us)>; Wayne.clevenger@pacificorp.com  
**Cc:** Susan Bender <[sbender@staytonoregon.gov](mailto:sbender@staytonoregon.gov)>  
**Subject:** Request for Comments on Annexation 20.5 acres off Golf Lane - LU # 5-02/24

[Email originated from outside of SFD – As always, Do not click links or attachments unless you are sure they are safe]

The City of Stayton has received an application for a proposal to annex a parcel approximately 20.5 acres, located on the west side of Golf Lane (Tax Lot 091W03B001500), to be incorporated into the city as Medium Density (MD) Residential zoning.

The application and narrative package can be accessed at:  
<https://www.staytonoregon.gov/upload/page/0080/KSD%20Stayton%20Annexation%20Narrative%20Package.pdf> A revised narrative package is available at:  
[https://www.staytonoregon.gov/upload/page/0080/BRAND%20Response%20to%20Incomplete%20Letter\\_.pdf](https://www.staytonoregon.gov/upload/page/0080/BRAND%20Response%20to%20Incomplete%20Letter_.pdf) The original application proposed annexation as High Density (HD) Residential with the potential for 92 single-family units. Because single-family units are not permitted in the HD Residential zone, the applicant was advised to revise their proposal. The updated application now requests Medium Density (MD) Residential zoning, with the potential for 74 single-family units.

I have attached our usual request for comments form.

**From:** [Carlos Gonzales](#)  
**To:** [Jennifer Siciliano](#)  
**Subject:** Re: Land use file # 5-02/24  
**Date:** Wednesday, November 12, 2025 6:54:08 PM

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My name is Carlos Gonzales. My wife and I have lived at 12173 Golf Lane for 20 years  
I may not be unable to attend the meeting on 11/24 but would like to express my concerns. There are several properties beyond the area that is looking to be developed .

Here are some of my concerns.

1. How is the additional traffic from the new homes going to be addressed? At times getting onto Cascade Highway at Golf lane can take several minutes especially if turning left.

2. With the addition of 74 homes what is the expectation of water runoff into the creek and the potential for increased flooding.

Has a flood impact study been completed or will one be conducted ?

3. What is the expected increase in traffic to the end of Golf Lane? The last 1/2 mile or so is a private unimproved road that is maintained by its property owners.

4. Where will the utilities (water, sewer, electricity etc.) of the newly developed property come from? Will it come from a newly developed road connecting Golf Lane to Whitney Rd or somewhere else?

If I have any additional concerns I will be sure to let you know.

Carlos

> On Nov 10, 2025, at 4:36 PM, Jennifer Siciliano <[jsiciliano@staytonoregon.gov](mailto:jsiciliano@staytonoregon.gov)> wrote:

>

> This property is within the Urban Growth Boundary for Stayton, but not in the City limits. The current zone is UT-20. - Jennifer

>

> -----Original Message-----

> From: Carlos Gonzales <[ccgonzales@hotmail.com](mailto:ccgonzales@hotmail.com)>

> Sent: Monday, November 10, 2025 3:52 PM

> To: Jennifer Siciliano <[jsiciliano@staytonoregon.gov](mailto:jsiciliano@staytonoregon.gov)>

> Subject: Land use file # 5-02/24

>

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> Is this property currently within Stayton city limits or its growth boundary? Also, what is its current zoning designation ?

> Carlos

**APPENDIX J**

**MOU: City of Stayton and Marion County  
(Regarding Golf Lane Realignment)**

## MEMORANDUM OF UNDERSTANDING

May 19, 2003

This Memorandum of Understanding is between Marion County, a political subdivision of the State of Oregon ("COUNTY") and the City of Stayton, a municipal corporation ("CITY").

The COUNTY and CITY previously entered into an agreement for improvements to Cascade Highway between Santiam Highway (State Route 22) and Shaff/Fern Ridge Road. These improvements included a bridge replacement, pavement upgrades, a traffic signal at Shaff/Fern Ridge Road and median placement. The CITY, in consultation with their traffic engineer, believes that the installation of medians, as initially called for by the construction plans, along Cascade Highway restricting turns in at the Whitney intersection are not as desirable as the installation of a traffic signal.

The COUNTY has concerns regarding the change to a traffic signal at this intersection and the potential future traffic impacts it will create. To address the potential future traffic impacts, this Memorandum of Understanding has been entered into by both parties and pertains to potential future improvements to Cascade Highway, a COUNTY-maintained road, between Santiam Highway (State Route 22) and the intersection with Shaff/Fern Ridge Road (Fern Ridge is a CITY-maintained street and Shaff Road is a COUNTY-maintained road). This section of Cascade Highway includes intersections with Whitney Street and Martin Drive, both CITY-maintained streets. It is mutually understood that the parties agree as follows:

The COUNTY understands that the CITY caused the Kittelson & Associates Whitney/Cascade Highway operational study to be completed in August 2001. In addition, the CITY will complete and update their Transportation Plan by December 2004. These two documents shall serve as a basis for future decisions regarding transportation issues on Cascade Highway between the CITY's northern boundary and Shaff/Fern Ridge Road.

The CITY will cause the realignment of the east end of Golf Lane as designed in Kittelson & Associates recommended lane configuration and traffic control map (attachment "A" Figure 10, dated August 2001), to intersect Cascade Highway at such time Golf Lane warrants signalization or Golf Lane fails to meet COUNTY standards for safety and/or operations and as funds become available. Golf Lane may remain in its existing location at the time a signal is installed at Whitney Street provided that vehicle queues from the signal do not interfere with turning movements at Golf Lane and Golf Lane meets COUNTY standards for safety and operations. If one or more of the above conditions requiring realignment of Golf Lane are met, and funding for the realignment is not available, then the CITY will prohibit any further development on Golf Lane until the east end realignment is funded and completed.

The CITY will cause the installation of a traffic signal at the Whitney/Cascade Highway intersection. However, the CITY will not cause the installation of the traffic signal at the Whitney/Cascade Highway intersection until the intersection meets at least two traffic signal warrants. Once the intersection meets the required warrants, the intersection improvements shall be made as funds become available, but no later than December 31, 2008. Intersection improvements shall be constructed as designed in Kittelson & Associates's recommended lane configuration and traffic control map (attachment "A" Figure 10, dated August 2001) and approved by Marion County Public Works.



The CITY acknowledges that installing the signal and realigning Golf Lane may result in traffic flow on one or more of the intersecting roadways failing to meet COUNTY standards for progression speed, signal cycle time, level of service, and volume/capacity ratio. CITY understands that failure to meet any of these standards will cause drivers to experience congestion and possible delays at certain times of day.

The CITY will cause the installation of a median on Whitney Street between Cascade Highway and Martin Street as proposed in the attached Kittelson & Associates recommended Lane Configuration and Traffic Control map (attachment "A" Figure 10, dated August 2001). This work shall be completed either when the Whitney/Cascade Highway traffic signal is constructed, or when property identified on the Marion County Assessors Map 91W03DB Tax Lot #500 (attachment "B") is developed, but no later than October 31, 2008. In addition to the signal, tax lots 500 & 400 on Marion County Assessors Map 91W03DB shall access Whitney Street via a shared driveway as proposed in the Kittelson & Associates recommended Lane Configuration & Traffic Control Map (attachment "A" Figure 10, dated August 2001).

The COUNTY will cause installation of the median on Cascade Highway to limit Martin Drive to right turns in and out as designed in Kittelson & Associates's recommended lane configuration and traffic control map (attachment "A", Figure 10, dated August 2001). This median will be installed at such time Martin Drive fails to meet COUNTY standards for safety and/or operations but not later than completion of the signal at Whitney Street.

The COUNTY, upon completion of the Whitney Street signal, shall program, operate and maintain the signal with the CITY paying for the cost of power.

The CITY will secure all necessary right-of-way, provide all engineering, and financing for all improvements covered under this Memorandum as funds become available.

The CITY understands that COUNTY does not commit or intend to expend any additional funds over and above the contributions made to date towards any of the improvements at this time. All future capacity improvements (ie. additional travel lanes, turning lanes, median, signals, etc.) shall be funded by development or corresponding System Development Charges. Routine maintenance, such as overlays, signing, striping, drainage, and pavement markings, will remain the responsibility of the COUNTY.

This Memorandum of Understanding is entered into this 19<sup>th</sup> day of May, 2003.

IN WITNESS WHEREOF, the undersigned parties have agreed to the terms and provisions stated in this agreement.

## APPROVED AS TO LEGAL SUFFICIENCY

By *Debra E. Strickland*  
County Counsel

## APPROVAL RECOMMENDED

By *James H. Strickland*  
Director Public Works

APPROVED AS TO LEGAL  
SUFFICIENCY

By *James H. Strickland Jr.*  
City Attorney

## APPROVAL RECOMMENDED

By *Michael P. Fay*  
Director of Public Works

Approved as to form

*Peggy Mitchell*  
County Contracts Coordinator

MARION COUNTY  
BOARD OF COMMISSIONERS

By *Patricia Miller*  
Chair

By *Michael J. Fay*  
Commissioner

By *Janet Fair*  
Commissioner

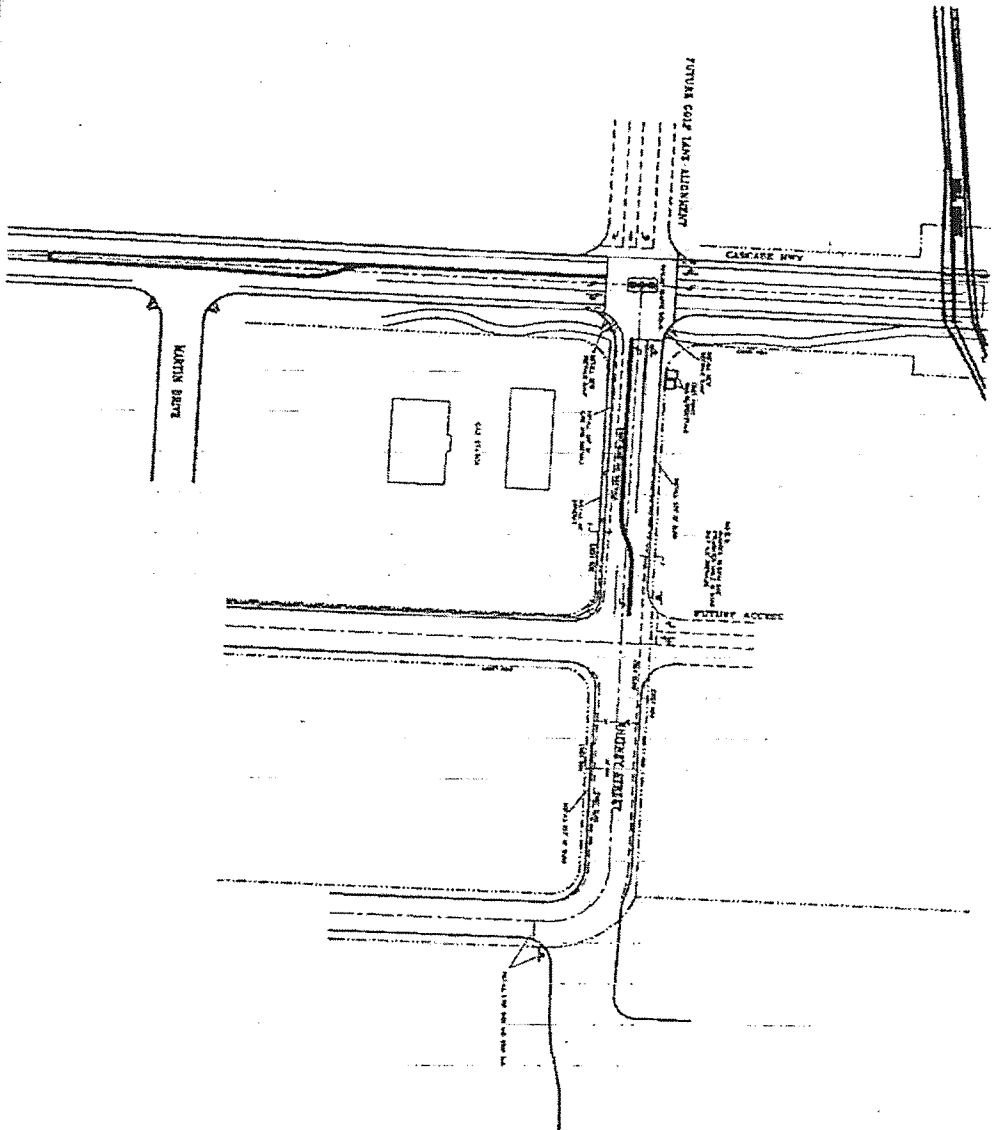
Date *7/2/03*

## CITY OF STAYTON

By *Calvin Williams*  
City Administrator

Attest *D. Martin, CMC*  
City Recorder

NOT TO SCALE



RECOMMENDED LANE  
CONFIGURATIONS AND TRAFFIC CONTROL  
CASCADIA HWY/MARTIN DRIVE ANALYSIS  
STATION, OREGON  
AUGUST 2001

FIGURE  
10

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## BEFORE THE STAYTON PLANNING COMMISSION

In the matter of  
the application of  
KSD Properties, LLC

)  
) Annexation  
) File # 5-02/24  
)

### ORDER OF RECOMMENDATION

#### I. NATURE OF APPLICATION

The applicant has submitted an application for annexation of a 21-acre parcel of land fronting Golf Lane (tax lot 091W03B001500) has been submitted, proposing a zoning designation of Medium Density (MD) Residential and including a concept plan for a 74-lot subdivision into city limits.

#### II. PUBLIC HEARING

A public hearing was held on the application before the Stayton Planning Commission on November 24, 2025. At that hearing the Planning Commission reviewed Land Use File #10-08/25 application for annexation was made part of the record.

#### III. FINDINGS OF FACT

##### A. EXISTING CONDITIONS

1. The owners of the property and the applicants are KSD Properties, LLC.
2. The parcel can be described as: taxlot 091W03B001500.
3. The property is currently outside of the City Limits and zoned Marion County Urban Transition (UT-20).
4. The property is approximately 21-acres with frontage on Golf Lane and is currently vacant.
5. The property to the north was annexed into the City in 2019, is zoned Commercial General (CG) and is also owned by KSD Properties, LLC. To the east, Golf Lane, has also been annexed into the City. The property to the south has not been annexed, remains under Marion County jurisdiction, and is zoned Urban Transition (UT-20). The property to the west is within the City limits, is owned by the Stayton Middle School, and is zoned Public/Semi-Public (P).

##### B. PROPOSAL

The proposal is to annex a 21-acre parcel of land fronting Golf Lane (tax lot 091W03B001500) into the city. The applicant has proposed that Medium Density (MD) Residential zoning be applied at the time of annexation.

### C. AGENCY COMMENTS

The following agencies were notified of the proposal: City of Stayton Public Works, Stayton Cooperative Telephone Company, Pacific Power, NW Natural Gas, Stayton Fire District, Marion County Public Works, Wave Broadband, Marion County Planning Division, Santiam Water Control District, Santiam Hospital, Stayton Police Department, and the North Santiam School District.

Stayton Public Works provided a memorandum dated November 13, 2025, authored by the City's consultant engineer. In addition, the City's transportation engineering consultant submitted comments in an email of the same date. These comments are incorporated into the findings below.

Stayton Fire District stated that they had no comment. Marion County Public Works stated that they did not have any comment at this time, but they will at time of development. No other review comments were received.

### D. PUBLIC COMMENTS

The Community and Economic Development Department notified all owners of property within 300 feet of the subject property and has received one public comment on these applications prior to the public hearing. Carlos Gonzales of 12173 Golf Lane has submitted concerns about the potential development of the property.

### E. ANALYSIS

Annexation applications are required to satisfy approval criteria contained within Stayton Municipal Code (SMC) Title 17, Section 17.12.210.

### F. REVIEW CRITERIA

Pursuant to SMC 17.12.210.4 the following criteria must be demonstrated as being satisfied by the application:

- a. Need exists in the community for the land proposed to be annexed.*

**Finding:** The 2013 Stayton Comprehensive Plan update included a Buildable Lands Inventory (BLI). The 2013 BLI provides the following information on projected growth and need for additional land in the community. At that time, there were 106 acres of vacant buildable land inside the City limits in the Low, Medium, and High Density Residential Zones (p. 88 Stayton Comprehensive Plan). The projected population for the City in 2030 (at a medium growth rate of 1.7%) was 11,359 people (p. 12), requiring an additional 1,281 dwellings (p. 71). To meet that need, the City Comprehensive Plan indicates the expected need of additional 320 acres of residential to be annexed into the City (p. 89). Since the time that analysis was conducted, the City has annexed 60 acres of residential land.

The need for 1,281 additional units was broken up into 889 single-family detached dwellings, 193 duplexes, 174 multi-family units, and 25 mobile homes. It is projected that the percentage of homes are needed at the following: single-family detached

dwellings 65%, duplexes (or attached single-family homes) 13%, multi-family units 18%, and mobile homes 4%.

Since the BLI has been calculated, the following is a table of developments, year, type of housing unit, and number.

Project Name	Year	Type	Number
Phillips Estates, Phase 2	2014	single-family home	21
Phillips Estates, Phase 3	2025/26	single-family home	22 (concept plan)
Wildlife Meadows	2017	single-family home	42 (2 duplexes)
Hayden (Lambert Place)	2020	single-family home	51
Fern Ridge	2022	multi-family	72
Shaff Square	2023	multi-family	100

Based on these totals, Stayton's housing needs are as follows: 753 single-family homes, 191 duplex or attached single-family units, 2 multifamily units, and 25 mobile homes.

These projections are based on a higher anticipated growth rate than what has actually occurred, meaning the calculated housing needs may be somewhat overstated. From 2000 to 2024, Stayton's population increased from 6,816 to 8,176—a change of 1,360 people—reflecting an average annual growth rate of approximately 0.76%. The Marion County Coordinated Growth projection of 1.6% average annual growth rate was used in the projected needs.

The annexation request includes a proposed Medium Density (MD) Residential zoning designation with a concept plan for 74 single-family homes. The MD zone, however, also permits duplexes and triplexes. If the 74 lots were developed to the full range of allowed housing types, the site could theoretically accommodate up to 128 duplex units and 30 triplex units. Triplexes are permitted only on lots of at least 10,500 square feet, and 10 of the proposed lots meet this size. Developing up to 30 multifamily units (triplexes) would exceed the number of multifamily units currently needed in the city.

Analysis: The City has a limited number of residential units needed based on the Buildable Lands Inventory (BLI), which assumes a growth rate higher than what has actually occurred. Under these projections, the number of multifamily units allowed in the MD zone would exceed the number needed in the City. If the property were annexed with a Low Density (LD) Residential zoning designation, it would be less likely to exceed the projected need for single-family homes identified in the BLI.

Condition: The annexation application should be approved with a Low Density (LD) Residential zoning designation to better meet the housing needs of the community.

*b. The site is or is capable of being serviced by adequate City public services, including such services as may be provided subject to the terms of a contract annexation agreement between the applicant and the City.*

Finding: There the site is capable of being served by adequate City public services. While the property is not currently connected to City utilities, the City's adopted

master plans (Transportation, Water, Stormwater, and Wastewater) provide clear pathways for extending services. At the time of development, the applicant will be required to construct or extend infrastructure to meet all applicable standards, ensuring the property can be fully and adequately served.

#### Streets

The site is capable of being served by adequate transportation facilities once required improvements are constructed at the time of development. Golf Lane, which forms the eastern boundary of the property, is designated as a future City Collector and will need to be improved to Collector standards, including curbs, sidewalks, street trees, street lighting, and adequate pavement width. Internal Local streets will also need to be constructed within the property as shown on the conceptual plan. Although the nearest City intersections are approximately 1,000 to 1,500 feet away, the Transportation System Plan identifies future projects—such as the realignment of Golf Lane and its eventual extension west—that will improve connectivity. Emergency vehicle access will need to comply with the Stayton Municipal Code, Public Works Design Standards, and Fire District requirements.

There is a 2003 City–County Memorandum of Understanding for the Sublimity Interchange Area Management Plan allows Golf Lane to remain in its current location as long as vehicle queues from the Whitney Street signal do not interfere with turning movements on Golf Lane and County safety and operational standards are met. The applicant submitted a Traffic Impact Analysis (TIA) that takes into a previous submission of 92 single-family homes. A TIA will be need to be actuate to determine if realignment of Golf Lane is necessary.

#### Stormwater Drainage

The site can be served by the City’s storm drainage system once infrastructure is extended and required stormwater facilities are constructed. The property is not currently served by City storm drainage, with the nearest storm system approximately 1,500 feet southeast at Whitney Street and Cascade Highway SE. Existing shallow ditches along Golf Lane do not connect to an approved discharge point. At development, a complete stormwater management system—including flow control, water-quality treatment, and conveyance—will be required in accordance with the Stormwater Master Plan and Public Works Design Standards. Stormwater from this property ultimately drains to Mill Creek, and nearby existing detention and wetland features will remain protected under the Master Plan.

#### Water

Water service can be provided to the site through future extensions of City water infrastructure identified in the Water Master Plan. No City water system currently exists near the property, and the nearest 12-inch water main, located approximately 1,500 feet to the southeast, is part of the Upper Pressure Zone and cannot serve this area. The property lies within the Mill Creek Upper Pressure Service Area, where necessary infrastructure has not yet been built. The Water Master Plan includes a future Mill Creek Booster Station near the intersection of Golf Lane and Cascade Highway SE and a 12-inch distribution main to be extended through Golf Lane. At



the time of development, the property will be required to extend the water system and meet all emergency water supply and fire flow requirements.

#### Sanitary Sewer

Sanitary sewer service can be extended to the property as part of future development. The site is located within the Mill Creek Pump Station Basin, and the nearest sanitary sewer mains are a 12-inch main located approximately 1,800 feet southeast at Martin Drive and Cascade Highway SE, and another 12-inch main located about 2,300 feet northwest in Golf Lane. The property is not currently served by City sewer infrastructure, and connection to either main will require engineering analysis demonstrating adequate capacity for additional flows. The Wastewater Facilities Planning Study does not identify significant system deficiencies in the vicinity that would affect the ability to serve the site.

*c. The proposed annexation is property contiguous to existing City jurisdictional limits.*

Finding: The property is adjacent to the City limits to the north, east and to the west.

*d. The proposed annexation is compatible with the character of the surrounding area and complies with the urban growth program and the policies of the City of Stayton.*

Finding: The property to the north is zoned Commercial General (CG) and is not yet developed. To the east, Golf Lane has been annexed into the City, though the property across the road is owned by the Oregon Department of Transportation. The property to the south contains large-lot single-family homes and remains under Marion County jurisdiction. To the west, the Stayton Middle School campus includes a forested area used for cross-country races.

The proposed annexation is compatible with the surrounding area and aligns with the City's adopted urban growth policies. The property lies within the Stayton Urban Growth Boundary and is designated Residential in the Comprehensive Plan. Applying the Medium Density Residential (MD) zone upon annexation matches that designation and maintains consistency with the planned future character of the area. The annexation also supports orderly, contiguous growth and allows development to occur in coordination with City policies. Accordingly, the proposed annexation and MD zoning are compatible with the Comprehensive Plan and the City's long-range land use program.

*e. The annexation request complies or can be made to comply with all applicable provisions of state and local law.*

Finding: The criteria of ORS 222 apply to the adoption of an annexation ordinance which is a City Council action. The property owners have consented to the annexation. The property is contiguous to the existing city limits and is located entirely within the City of Stayton's Urban Growth Boundary. The acknowledged Stayton Comprehensive Plan designates this area as Residential.

*f. If a proposed contract annexation, the terms and conditions, including the cost of City facility and service extensions to the annexed area shall be calculated by the Public Works Director.*

Finding: The proposed annexation is not a contract annexation.

#### **IV. CONCLUSION**

Based on the facts above, the Planning Commission concludes that the application meets the requirements for Sections 17.12.210.4 Annexation Approval Criteria, except for the following:

1. 17.20.210.4a. This section requires that the need exists in the community for the land proposed to be annexed.
2. 17.20.210.4.b. This section requires the site is capable of being serviced by adequate city public services.

#### **V. RECOMMENDATION**

Based on the Findings and Conclusions above, the Planning Commission recommends approval of the application for annexation to the City Council and amendment of the Official Zoning Map to designate the property as Low Density (LD) Residential with the following conditions:

1. The applicant shall submit an updated Traffic Impact Analysis (TIA) that reflects the correct number of conceptual housing units, includes accurate traffic counts and calculations, and demonstrates—subject to approval by the City’s traffic engineer—that realignment of Golf Lane is not required under the City and County’s May 2003 Memorandum of Understanding.

\_\_\_\_\_  
Larry McKinley, Chairperson

\_\_\_\_\_  
Date

\_\_\_\_\_  
Jennifer Siciliano,  
Community and Economic Development Director

\_\_\_\_\_  
Date



## **Incomplete Application Response**

#5-02/24 | 091W03B001500

This letter shall serve as the applicant's response to an incomplete application notice received on April 25<sup>th</sup>, 2025.

July 15, 2025  
Jennifer Siciliano  
City of Stayton  
362 N. Third Avenue  
Stayton, OR 97383

RE: Response to Incomplete Application Notice – Golf Lane Annexation (File #5-02/24)

Dear Ms. Siciliano,

Thank you for your April 25, 2025, incomplete application notice regarding the proposed annexation of Marion County Assessor's Map and Tax Lot 091W03B001500 on behalf of KSD Properties, LLC. We appreciate your thorough review and write now to formally respond to the items identified.

### 1. Clarification of Requested Zoning Designation

Please note that the applicant has revised the requested zoning designation from High Density Residential (HD) to Medium Density Residential (MD). This change was made to better align with the anticipated development pattern, which consists primarily of detached single-family homes. The updated zoning request is reflected throughout the revised annexation narrative dated July 14, 2025, which has been resubmitted for your review.

This revision directly resolves the concern noted in your letter regarding the incompatibility between the previously proposed use (single-family development) and the permitted uses and density standards of the HD zone. The MD zoning district permits detached single-family dwellings and supports the proposed density and site layout.

## 2. Conceptual Plan Submittal – Paper Copies

While the original narrative stated that no formal conceptual plan was being submitted, the application materials included a preliminary layout labeled as Exhibit E. In response to your letter, we have now provided the required (3) full-size copies and (18) reduced 11x17 copies of the conceptual subdivision plan. These documents illustrate the proposed layout and are intended to satisfy the requirements of SMC 17.12.210.3.b for a conceptual plan accompanying an annexation request without concurrent subdivision approval.

## 3. Updated Narrative Addressing Applicable Criteria

The revised narrative submitted with this response fully replaces the prior version and reflects the updated zoning designation. The findings have been revised to demonstrate that the proposed annexation and future development are consistent with the applicable provisions of the Stayton Municipal Code, the Comprehensive Plan, and Oregon law. In particular:

The proposed Medium Density Residential zoning complies with SMC 17.16.070.1 permitted uses;

- The anticipated development of 74 single-family detached homes is consistent with the MD zone's density range;
- Applicable design standards, including those related to connectivity, open space, and building form, will be addressed in detail during future subdivision review.

We trust that these revised and supplemental materials adequately address the City's concerns. We look forward to confirmation that the application can now be deemed complete and scheduled for public hearing. Please do not hesitate to contact me directly should you require any additional information.

Sincerely,



Britany Randall

BRAND Land Use, LLC

[britany@brandlanduse.com](mailto:britany@brandlanduse.com)

Enclosures:

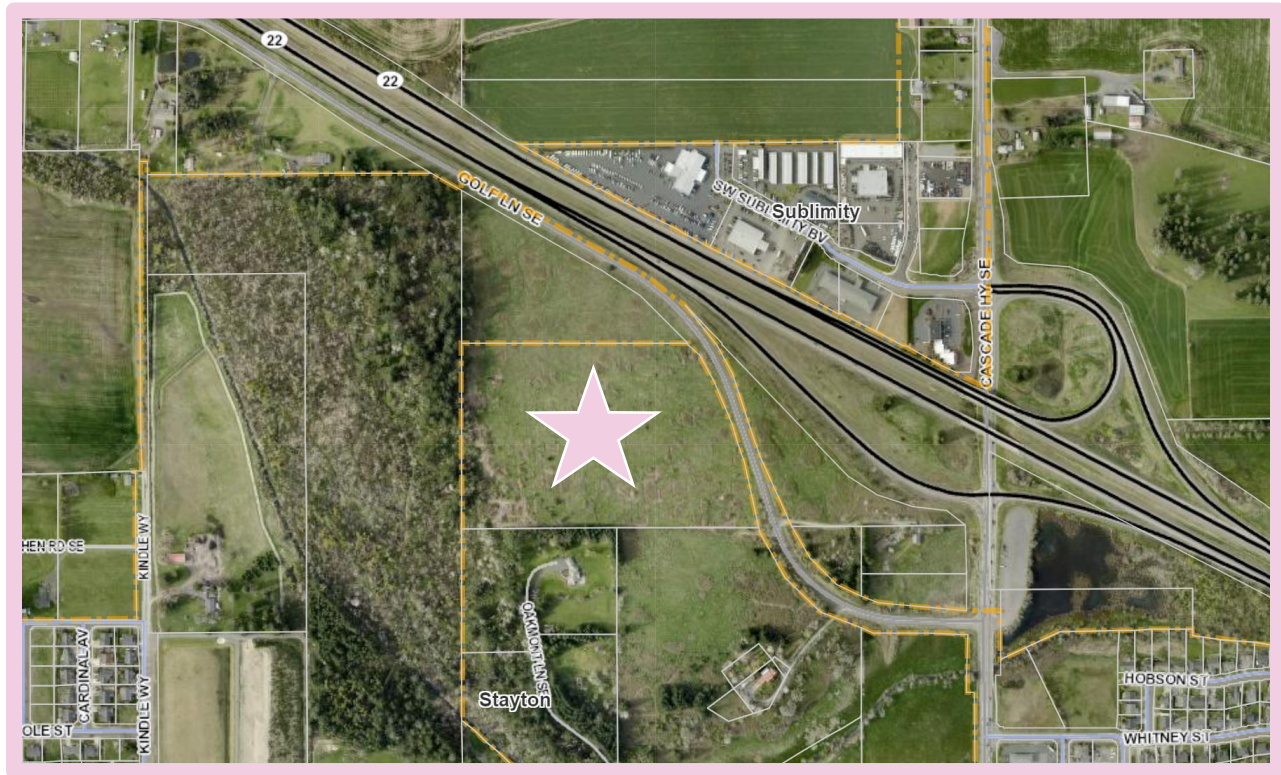
1. Revised Narrative with Markups
2. Revised Conceptual Future Subdivision Plan

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## Aerial View of Subject Property and Existing Development



### Section 1: Property Background and Request

The applicant, KSD Properties, LLC, is requesting the annexation of a 21.00-acre property into the corporate city limits of the City of Stayton. The subject property, identified as Marion County Assessor's Map and Tax Lot 091W03B001500, currently holds a Residential designation in the City of Stayton Comprehensive Plan. Upon annexation, the applicant proposes to apply the corresponding ~~High Density Residential (HD)~~ Medium Density Residential (MD) zoning to facilitate the future development of residential homes of varying types. The owner's team evaluated the possibility of developing the site as a ~~92-lot~~ 74-lot, plus a stormwater tract, single-family residential subdivision.

This annexation aligns with Stayton's 2021 Amended Comprehensive Plan, which emphasizes the need for additional residential land to accommodate the city's projected population growth. The plan seeks to maintain a mix of housing options while targeting an overall gross density of approximately ~~six units per acre~~ 3.5 dwelling units per acre. By bringing this land into the city, the proposed development will support these housing objectives while ensuring consistency with Stayton's long-term growth management policies.

A Transportation Impact Analysis (TIA) was conducted to assess the potential effects of the development on Stayton's roadway network. The analysis determined that the future subdivision would generate 69 AM peak hour trips (17 inbound, 52 outbound) and 92 PM peak hour trips (58 inbound, 34 outbound), with the majority of traffic utilizing Cascade Highway and OR 22. While most study intersections will continue to operate within acceptable standards, the Cascade Highway / Shaff Road / Fern Ridge Road intersection does not currently meet Marion County's PM peak hour operating standards. However, no mitigation measures are required as the intersection remains within Stayton's operational standards and no planned improvements are identified in the City's Transportation System Plan (TSP). The TIA also evaluated the Golf Lane / Cascade Highway intersection and concluded that a realignment is not warranted, as the intersection does not meet signal warrant criteria, nor does it present operational or safety deficiencies that would trigger a required realignment under the City-County Memorandum of Understanding (MOU).

Future development may include a new public street access via Golf Lane, which meets Stayton's access spacing requirements and has been designed to ensure safe and efficient traffic flow. Additionally, half-street frontage improvements, including bike lanes, planter strips, and sidewalks, may be constructed along the project frontage to align with city collector street standards. At the time of future development of these improvements, they will enhance pedestrian and cyclist safety while integrating the development into the city's transportation network.

By addressing both housing needs and transportation considerations, the proposed annexation and development will contribute to Stayton's vision for sustainable growth. This project will expand the city's residential land supply, support housing availability, and ensure efficient infrastructure planning while maintaining consistency with the comprehensive plan and development policies.

## Section 2: Existing Conditions

The site is located within the Urban Growth Boundary of the City of Stayton. The City of Stayton Comprehensive Plan map designates the property as "Residential".

The Comprehensive Plan designations of surrounding properties include:

North: "Commercial"

South: "Residential"

East: Across Golf Lane - "Public/Semi-Public"

West: "Public/Semi-Public"

The applicant is seeking to apply the ~~High Density Residential (HD)~~Medium Density Residential zoning to the property. The surrounding properties are zoned as follows:

North: Commercial Central (CG)

South: Marion County – Outside Corporate City Limits

East: Across Golf Lane - Marion County – Outside Corporate City Limits

West: Public/Semi-Public (P)

## Section 3: Findings Applicable to Administrative Procedures

### Chapter 17.12 – Development Approval Procedures

#### Sections 17.12.030 – Application Procedure

Any application for a land use or development approval action authorized in this title shall be filed in the following manner.

- (1) FORMS. The application shall be submitted on forms provided by the City Planner.
- (2) FILING LOCATION. Unless stated otherwise, the application shall be filed with the City Planner at City Hall.
- (3) PROPERTY OWNER AUTHORIZATION. If the property owners are not the applicants, then the application shall be accompanied by a notarized statement certifying the authority of anyone representing the owner(s) of property involved in the application. The application shall be signed by the property owner or authorized representative.
- (4) SUPPLEMENTAL INFORMATION. All supplemental documentation and information specified in those sections governing the approval or action being requested shall accompany the application. The applicant shall be responsible for providing any and all information required for a complete application.
- (5) COST FOR SERVICES.
  - (a) Basic Application Costs. Basic application costs are intended to recover expenses incurred by the City in the receipt, review and processing of a land use application. A deposit in an amount established in the Deposit Schedule will be required at the time an application is filed.
  - (b) Outside Planning Services. An applicant may, upon permission of the City, choose outside planning services at the applicant's expense, approved by the City, to process any land use application. The outside planning service will be tantamount to the function of the City Planner and will be subject to the supervision, direction and review of the City Planner. Utilizing outside planning services does not forego the City's requirement as to costs (including non-refundable deposit).

- (c) In the event the application is withdrawn before City action, the applicant shall be responsible to pay for the costs incurred up to the time of its withdrawal.
  - (d) Waiver of Charges. The City Council may, at its discretion, waive some or all charges for the processing of applications determined by the City Council to be in the public interest
- (6) DEPOSIT SCHEDULE. A deposit schedule shall be in resolution form and adopted by the City Council.

***Applicant's Findings:*** *The applicant acknowledges and understands the procedural requirements set forth in Stayton Municipal Code Section 17.12.030 for land use and development applications. This includes submitting the annexation application using forms provided by the city planner and filing all materials at city hall, unless otherwise directed. As the legal owner of the subject property, the application has been signed by an authorized representative of the property owner, and no additional authorization is required.*

*The applicant further understands that all required supplemental information must be submitted in accordance with the applicable sections of the code governing the annexation process, and that the completeness of the application is the applicant's responsibility.*

*Regarding application fees, the applicant acknowledges that a deposit has been submitted in accordance with the city's adopted deposit schedule and understands that the city may charge staff time and other direct costs associated with processing the application. The applicant also understands that should the application be withdrawn; they remain responsible for any costs incurred up to the point of withdrawal. Finally, the applicant recognizes that the city council has discretion to waive certain fees when an application is determined to serve the public interest.*

## Section 4: Findings Applicable to Annexation

### Chapter 17.12 – Development Approval Procedures

#### Sections 17.12.210 – Annexations

- (1) DEFINITION. An annexation is an expansion of the City limits through the addition of territory to the jurisdictional boundaries of the City, including “contract annexation” agreements between applicants and the City.

***Applicant's Findings:*** *KSD Properties, LLC, is requesting annexation of a 21.00-acre parcel (Marion County Assessor's Map and Tax Lot 091W03B001500) into the City of Stayton. The property is designated Residential in the Comprehensive Plan, and the applicant proposes ~~High-Density Residential (HD)~~ Medium Density Residential (MD) zoning to support a potential ~~92-lot~~ 74-lot single-family subdivision.*

*The request aligns with the 2021 Amended Comprehensive Plan, which calls for additional residential land to meet projected growth and targets an average of ~~six units per acre~~ 3.5*

dwelling units per acre. A Transportation Impact Analysis (TIA) determined that traffic from the development would not exceed the city's operational standards, and no mitigation is required. Access is proposed via Golf Lane, which meets spacing requirements, and future frontage improvements will align with collector street standards. The annexation supports Stayton's goals for managed growth, increased housing supply, and coordinated infrastructure planning.

(2) METHOD OF ADOPTION.

(b) Minor Annexations.

- (1) A Minor Annexation is any annexation that meets all of the following characteristics.
  - (i) Consists of only one parcel, except proposed annexations that consist of contiguous parcels in the same ownership.
  - (ii) The area proposed for annexation is 1 acre or less. (Amended Ord. 918, March 18, 2010)
- (2) Approval procedures. The following procedures shall be followed in the review and approval of an application for a Minor Annexation:
  - (i) An application for a Minor Annexation shall be filed with the City Planning Department.
  - (ii) Planning Commission Proceedings. The Planning Commission shall hold a public hearing in accordance with the requirements of Section 17.12.090. Following the public hearing the Commission shall make findings of fact and conclusions as to whether the criteria of Section 17.12.210.4 below are met. Based on the findings of fact and conclusions the Planning Commission shall make a recommendation to the City Council regarding the approval of the application.
  - (iii) City Council Proceedings. The City Council shall hold a public hearing in accordance with the requirements of Section 17.12.100. Following the public hearing, the City Council shall make findings of fact and conclusions as to whether the criteria of Section 17.12.210.4 below are met. If the Council finds that the criteria of Section 17.12.210.4 have been or will be met, the Council shall, by ordinance, shall set the boundaries of the area to be annexed by a legal description.

- (c) Health Hazard Annexation The City may annex those areas constituting a health hazard in accordance with Oregon Revised Statutes, taking into consideration the ability of the City to provide necessary services. Annexation of areas constituting a health hazard is not subject to voter approval.



***Applicant's Findings:*** This application does not qualify as a Minor Annexation, as the subject property consists of 21.00 acres, exceeding the one-acre threshold defined in Section 17.12.210.2(b)(1)(ii). However, the subject property meets the approval procedures listed within Senate Bill 1573 and cannot be referred to the voters. Therefore, the proposal will follow the procedures for a minor annexation, including public hearings before both the planning commission and the city council in accordance with applicable code sections. This annexation is not being pursued on the basis of a health hazard and is therefore not subject to the provisions of Section 17.12.210.2(c).

(3) SUBMITTAL REQUIREMENTS. In order to be accepted as complete and be processed in a timely manner by the City, requests for annexation of territory shall include the following materials and information:

- (a) Completed application forms as supplied by the City Planner.
- (b) Three copies of a site plan, drawn to a scale of 1 inch equals not more than 50 feet, shown as a graphic scale, of the property for which the annexation is requested. The site plan shall depict the surrounding properties, neighboring streets and roads, and existing uses of the property. If the application for annexation is not accompanied by a concurrent application for site plan, subdivision, or other land use approval, three copies of a conceptual plan of proposed uses of the property subsequent to annexation. In addition, 18 reduced copies of the plan sized as 11 inches by 17 inches shall be submitted.
- (c) A plan showing the boundary lines of the properties, certified by a professional land surveyor, and the approximate area of the properties in acres or square feet.
- (d) A legal description of the property, meeting the requirements of ORS 308.225.
- (e) A narrative statement fully explaining the request and fully addressing the criteria for approval of an annexation.

***Applicant's Findings:*** This annexation application includes all materials required by Section 17.12.210.3. The applicant has submitted completed application forms provided by the city planner. A conceptual site plan drawn to scale, depicting surrounding properties, roads, and existing site conditions, has been provided in three full-size copies along with 18 reduced 11x17 copies, as required. A certified boundary and acreage plan prepared by a professional land surveyor is included, along with a legal description of the property meeting the standards of ORS 308.225. In addition, this application includes a narrative statement that fully explains the annexation request and addresses the applicable criteria for approval. These materials satisfy the city's requirements for a complete annexation submittal.

(4) APPROVAL CRITERIA. In order to approve an application for annexation, the following affirmative findings concerning the action must be made by the decision authority:

- (a) Need exists in the community for the land proposed to be annexed.

***Applicant's Findings:*** *There is a documented and pressing need within the City of Stayton for additional residential land to accommodate current and projected population growth, as well as to support the city's goals related to housing supply, diversity, and affordability. The subject property, consisting of approximately 21.00 acres and currently designated Residential in the Stayton Comprehensive Plan, presents a valuable opportunity to address these identified needs.*

*According to Chapter 2 of the 2021 Amended Comprehensive Plan, Stayton has experienced steady population growth over the last several decades. The city's population increased from 4,396 in 1980 to 7,644 in 2010, representing a 74% increase over that 30-year period. Projections adopted in the plan forecast continued growth, with the population expected to reach approximately 9,777 by 2030 under the medium-growth scenario, and potentially as high as 11,359. Even using a revised estimate accounting for updated census figures, the plan notes a likely population of over 10,700 by 2030. This sustained growth drives the need for additional land within city limits that can be developed for residential use in an efficient and well-planned manner.*

*Chapter 6 of the Comprehensive Plan further illustrates the housing implications of this growth. Table 6-10, "Housing Needs Projection," identifies a projected need for 894 new housing units between 2010 and 2030. To meet this need, the plan estimates that Stayton will require approximately 158 acres of additional residential land. While some of this need may be met through infill and redevelopment of underutilized parcels within the current city limits, the plan also recognizes that additional land will need to be brought into the city through annexation to maintain an adequate supply of buildable land.*

*Table 8-3 of the plan presents a Buildable Lands Inventory that shows a limited amount of vacant land currently available within city limits. As of February 2011, the city had only 67.9 acres of vacant land in residential zones, with a net buildable area of just 46.2 acres after accounting for constraints such as floodplains and natural resource protections. Furthermore, Table 8-4 identifies that much of the buildable land designated for residential use within the Urban Growth Boundary (UGB) lies outside the current city limits. Specifically, 154.8 acres of low-density residential land and 39.8 acres of medium-density residential land are located within the UGB but outside the city boundary. This means that without annexation, a large portion of the land identified for future residential growth is not currently available for development.*

*The proposed annexation directly supports the city's policy direction for managing urban growth. The comprehensive Plan states as a core land use goal (Chapter 8, Land Use Goals and Policies): "Coordinate the development of land outside the current city limits with Marion and Linn Counties" and "Provide for a land use regulation process that promotes a livable community and provides for expeditious review of development proposals." Annexing land*

*already designated for residential use and within the UGB allows Stayton to manage growth in a planned, coordinated manner and helps avoid leapfrog development or pressure on rural lands.*

*Additionally, the Comprehensive Plan emphasizes the importance of providing a variety of housing types to meet the needs of Stayton's diverse population. The housing goals outlined in Chapter 6 include:*

- *"Existing and future residents will be provided a choice of housing types in safe and healthful housing."*
- *"New residential developments will be designed and built to become attractive neighborhoods."*

*The proposed annexation and anticipated development of single-family homes on this property will directly contribute to the realization of these goals by expanding the range of housing options available in Stayton and supporting the development of new, well-integrated neighborhoods.*

*The proposed annexation is consistent with the City of Stayton Comprehensive Plan, which clearly establishes that additional residential land is needed to meet projected population and housing demands. The subject property is already designated Residential in the Comprehensive Plan and is located within the UGB, making it a logical and appropriate candidate for annexation. The proposed ~~High-Density Residential~~ Medium Density Residential (MD) zoning aligns with the city's land use goals, supports planned growth, and helps ensure that the city can meet future housing needs in a sustainable and coordinated manner.*

- (b) *The site is or is capable of being serviced by adequate City public services including such services as may be provided subject to the terms of a contract annexation agreement between the applicant and the City.*

***Applicant's Findings:*** *The subject property is capable of being fully served by City of Stayton public services, including water, sanitary sewer, stormwater management, and transportation infrastructure, as documented in the city's adopted master plans. Extension of these services can be accomplished in a manner that is feasible, cost-effective, and consistent with the city's long-range public facility planning and development goals. A contract annexation agreement may be used, if necessary, to facilitate coordinated service provision and ensure that any improvements needed are implemented appropriately at the time of development.*

*According to the Stayton Water Master Plan Executive Summary (2020), the city's water system has adequate capacity to meet future growth needs within the Urban Growth Boundary (UGB). The plan outlines a system-wide strategy for extending services to growing areas, including recommendations for new mains and system improvements to maintain pressure and fire flow standards. The subject property lies within the UGB and adjacent to existing city water infrastructure, allowing for logical service extension. Improvements to water mains will be*

*evaluated in conjunction with future subdivision design, and extension of service can be implemented in accordance with adopted master plan policies and development code requirements.*

*The 2021 Wastewater Facilities Planning Study identifies needed improvements to maintain system capacity and reliability as Stayton continues to grow. The study confirms that the existing wastewater treatment facility and trunk lines are adequately sized to serve new residential development within the UGB, including the area encompassing the subject property. Service to the site can be provided by extending gravity sewer lines from existing mains located to the north and west, consistent with the planned expansion of the residential sewer service area. At the time of development, project-specific engineering will confirm the alignment and sizing of sewer infrastructure and ensure compliance with the city's wastewater system standards and design criteria.*

*The Stayton Stormwater Master Plan (2020) provides a comprehensive framework for managing stormwater runoff and improving water quality throughout the community. The plan establishes design standards and policies for managing runoff from new development and emphasizes the use of detention, water quality treatment, and low-impact development techniques. The subject property is located in an area that can be served by storm drainage facilities consistent with the city's stormwater system goals. As part of future development, on-site stormwater facilities will be designed to meet the detention, conveyance, and treatment standards outlined in the Master Plan and Land Use and Development Code, ensuring protection of downstream infrastructure and water quality.*

*The 2007 Transportation System Plan (TSP) identifies planned improvements and future street connectivity objectives that support development within the UGB. The subject property has direct frontage along Golf Lane and will include public street improvements and connections as part of future subdivision development. These improvements will be designed in accordance with the city's collector street standards, which include provisions for sidewalks, bike lanes, planter strips, and appropriate access spacing. As noted in the Transportation Impact Analysis submitted with this application, the development is anticipated to generate 69 AM peak hour trips and 92 PM peak hour trips. The study determined that traffic impacts can be managed within the City's existing network and no mitigation is currently required under adopted standards.*

*The subject property is fully capable of being served by adequate public facilities, as documented in the city's adopted infrastructure master plans. Water, sewer, stormwater, and transportation services can be extended to the site in a manner consistent with Stayton's system capacities and design standards. The city's comprehensive planning framework anticipates urban development in this area, and the extension of public services to this site supports orderly, efficient growth in line with the goals of the Comprehensive Plan. If necessary, a contract*

*annexation agreement between the applicant and the city may formalize the timing, responsibility, and cost-sharing for public service extensions to ensure coordinated and timely delivery of infrastructure to the site.*

(c) The proposed annexation is property contiguous to the existing City limits.

***Applicant's Findings:*** *The subject property, identified as Marion County Assessor's Map and Tax Lot 091W03B001500, is contiguous to the existing City of Stayton corporate limits along its northern and western boundaries. The property shares an uninterrupted boundary line with land that is already located within the city limits, thereby meeting the statutory and code-based requirement for physical contiguity. This configuration allows for a logical and orderly extension of the city boundary, consistent with Stayton's Comprehensive Plan policies and the intent of Oregon's land use planning framework to promote efficient urban growth within established urban growth boundaries.*

(d) The proposed annexation is compatible with the character of the surrounding area and complies with the urban growth program and policies of the City of Stayton.

***Applicant's Findings:*** *The proposed annexation is compatible with the character of the surrounding area and is consistent with the City of Stayton's adopted urban growth policies. The subject property is located within the Stayton Urban Growth Boundary (UGB) and is designated Residential in the Stayton Comprehensive Plan. Upon annexation, the applicant is proposing to apply the ~~High-Density Residential (HD)~~ Medium Density Residential (MD) zoning district, which corresponds directly to the existing Comprehensive Plan designation.*

*This demonstrates compatibility with the planned character of the area, as defined by the city's long-range planning documents. The Residential designation reflects the city's intent for this area to transition into urban residential use, consistent with surrounding properties that share the same designation within the UGB. Bringing the property into the city under its existing designation ensures alignment with the broader land use pattern envisioned in the Comprehensive Plan and avoids inconsistencies in development intensity or use.*

*The annexation also supports Stayton's urban growth program by facilitating orderly and contiguous expansion of the city limits in an area identified for future urban development. The annexation will allow for future development to occur in a manner consistent with adopted policies related to land use, housing, infrastructure, and community form. This includes goals and policies in the Comprehensive Plan that promote efficient growth within the UGB, the extension of public services in a coordinated manner, and the development of complete and livable neighborhoods.*

*Accordingly, the annexation complies with the city's urban growth program and land use policies, and the application of the HD zoning district ensures compatibility with the planned character of the area.*

- (e) The annexation request complies, or can be made to comply, with all applicable provisions of state and local law.

***Applicant's Findings:*** *This annexation request complies, or can be made to comply, with all applicable provisions of state and local law. The application has been submitted in accordance with the procedural requirements of Stayton Municipal Code Section 17.12.210, which outlines the process and criteria for annexation. The applicant has provided all required submittal materials, including a completed application form, certified legal description, property boundary map, narrative addressing the applicable approval criteria, and a conceptual development plan.*

*The proposal also complies with Oregon state law, including provisions of ORS Chapter 222, which governs annexation procedures for cities. The property is contiguous to the existing city limits and is located entirely within the City of Stayton Urban Growth Boundary (UGB), as acknowledged by the Department of Land Conservation and Development (DLCD). No territory subject to this annexation is considered to be "island" or noncontiguous land, and no conflicts arise with respect to boundaries or jurisdiction. In accordance with state law, consent of the property owner has been provided, and the proposed annexation does not require an election or petition from surrounding property owners or electors.*

*In addition, the proposed annexation is consistent with the city's adopted Comprehensive Plan, which designates the subject property as Residential and includes it within the area identified for future urban development. This demonstrates compatibility with the city's coordinated population, housing, and infrastructure planning efforts, as required by Oregon's Statewide Planning Goals—particularly Goal 14: Urbanization, which encourages orderly and efficient transition of land from rural to urban use.*

*To the extent that any additional procedural steps are required prior to final approval (e.g., recording of the annexation ordinance, updating of service agreements, or adoption of a zoning ordinance applying the ~~HD district~~ MD zoning district), such steps can and will be completed in accordance with both state and local law.*

- (f) If a proposed contract annexation, within the terms and conditions of the contract the cost of City facility and service extensions to the annexed area shall be calculated by the Public Works Director.

***Applicant's Findings:*** *This is not a contract annexation. Therefore, the provisions of Section 17.12.210.4(f) regarding cost calculations by the Public Works Director are not applicable to this request.*



- (5) ZONING OF ANNEXED TERRITORY. All lands that are annexed to the City shall be zoned in accordance with the designation of the property in the Comprehensive Plan. The specific zone assigned to the land being annexed shall be determined by the City Council in accordance with the proposed uses of the land and the needs identified by the buildable lands analysis in the Comprehensive Plan. This requirement does not prohibit an application to amend the Comprehensive Plan Map concurrent with the application for annexation.

***Applicant's Findings:*** *The subject property is designated Residential in the City of Stayton Comprehensive Plan, and the applicant is requesting the application of the corresponding ~~High-Density Residential (HD)~~ Medium Density Residential (MD) zoning district upon annexation. This request is consistent with the Comprehensive Plan designation and no amendment to the Plan Map is proposed.*

*The ~~HD-zoning~~ MD zoning district implements the Residential designation by allowing for primarily single-family detached homes at a density that supports the city's long-term housing and land use goals. The applicant anticipates future residential subdivision development on the property in a manner consistent with the allowed uses and development standards of the ~~HD zone~~ MD zone.*

*This zoning assignment is also supported by the City's Buildable Lands Inventory and Housing Needs Analysis as outlined in Chapter 6 and Chapter 8 of the Comprehensive Plan. These analyses project the need for approximately 894 new housing units between 2010 and 2030 and identify a corresponding need for over 150 acres of additional residential land within the Urban Growth Boundary. Table 8-4 of the Comprehensive Plan shows that while there is some vacant land within the UGB, much of it is located outside the city limits—requiring annexation to make it available for development. The requested zoning supports the city's strategy to meet projected housing demand while maintaining an overall target gross density of ~~six units~~ 3.5 dwelling units per acre.*

*Accordingly, the proposed zoning is consistent with the adopted Comprehensive Plan designation, the intended use of the land, and the city's identified need for residential land within the Urban Growth Boundary.*

- (6) CONFORMANCE WITH CONCEPTUAL PLAN. Development of the property after annexation shall be in substantial conformance with any conceptual plan submitted with the application for annexation. For the purposes of this section, development is in substantial conformance with a conceptual plan if:
- (a) The development is generally consistent with the character and intent of the conceptual plan;
  - (b) The number and types of housing units are generally consistent with those presented in the conceptual plan;

- (c) The impacts from the development, including but not limited to, noise, vibration, dust, odor, or fumes, detectable at the property line will not exceed the maximums typical for the categories of uses proposed in the conceptual plan;
- (d) The number and types of vehicular trips to and from the site will not exceed the maximums typical for the categories of uses proposed in the conceptual plan; and
- (e) The amount and types of outside storage, loading, and parking will not exceed the maximums typical for the categories of uses proposed in the conceptual plan.

**Applicant's Findings:** No formal ~~conceptual~~ development plan is submitted with this annexation application, only a highly conceptual plan depicting how a development could possibly be presented in the future. However, the applicant anticipates that the property will be developed in the future as a traditional residential subdivision consistent with the ~~High-Density Residential (HD)~~ Medium Density Residential (MD) zoning designation proposed in conjunction with annexation.

While a specific layout has not been prepared at this time, the anticipated future use—single-family residential development—is fully consistent with the Residential Comprehensive Plan designation that currently applies to the property. The property is being brought into the city under a zoning designation that supports traditional neighborhood development patterns, with detached homes, internal public streets, and appropriate pedestrian and infrastructure improvements.

As future development plans are brought forward, they will be subject to separate land use applications (e.g., subdivision review or site development approval) and will be required to demonstrate compliance with applicable standards for use, density, access, traffic generation, and environmental impacts. All development will be required to stay within the scope of impacts typical for ~~high-density~~ medium density residential neighborhoods, including limits on noise, traffic, parking, and other externalities as outlined in the development code.

In the absence of a ~~conceptual~~ formal plan and given the applicant's stated intent to pursue residential subdivision development consistent with the ~~HD-zoning~~ MD zoning, future development will be aligned with the expectations and parameters described in this section.

#### (7) NOTICE TO COUNTY AND STATE.

- (a) Within 10 working days after enactment of the ordinance approving the annexation, the City Recorder shall provide by certified mail to all public utilities, electric cooperatives and telecommunications carriers operating within the City each site address to be annexed as recorded on county assessment and tax rolls, a legal description and map of the proposed boundary change, and a copy of the ordinance approving the annexation.

- (b) Within 10 days from the effective date the ordinance approving the annexation, the City Recorder shall provide to the Marion County Clerk and County Assessor a report containing a detailed legal description of the new boundaries established by the City.
- (c) Within 14 days of enactment of the ordinance approving the annexation, the City Recorder shall transmit to the Oregon Secretary of State:
  - (1) A copy of the ordinance proclaiming the annexation, including a legal description of the territory to be annexed.
  - (2) An abstract of the vote, if a major annexation. The abstract of the vote shall show the whole number of electors voting on the annexation, the number of votes cast for annexation, and the number of votes cast against annexation.
  - (3) A copy of the statement of consent by electors or landowners in the territory annexed.
- (d) Within 30 days of enactment of an ordinance annexing territory into the City, the City Recorder shall transmit to the Marion County Assessor and the Oregon Department of Revenue the legal description of the boundary change or proposed change and an accurate map conforming to the requirements of ORS 308.225(2).

***Applicant's Findings:*** *The applicant understands that, following city council approval of the annexation ordinance, the city recorder is responsible for providing notice and documentation of the annexation to all applicable county and state agencies in accordance with Stayton Municipal Code Section 17.12.210.7 and ORS 308.225. This includes providing legal descriptions, maps, and copies of the ordinance to Marion County departments, the Oregon Secretary of State, the Oregon Department of Revenue, and utility service providers within the required timelines. The applicant acknowledges these post-approval steps are part of the formal annexation process and will ensure full cooperation with city staff as needed to complete these requirements.*

## Section 5: Conclusion

The proposed annexation of the 21.00-acre property identified as Marion County Assessor's Map and Tax Lot 091W03B001500 is consistent with the applicable provisions of the Stayton Municipal Code, the city's Comprehensive Plan, and state law. The property is located within the city's Urban Growth Boundary and is designated Residential in the Comprehensive Plan, indicating its suitability for future urban development. The applicant is requesting ~~High-Density Residential (HD)~~ Medium Density Residential (MD) zoning upon annexation, which aligns with the city's long-range planning goals and supports the anticipated development of a traditional single-family residential neighborhood. The annexation will help meet Stayton's projected housing needs by expanding the supply of buildable residential land within the city limits. Public

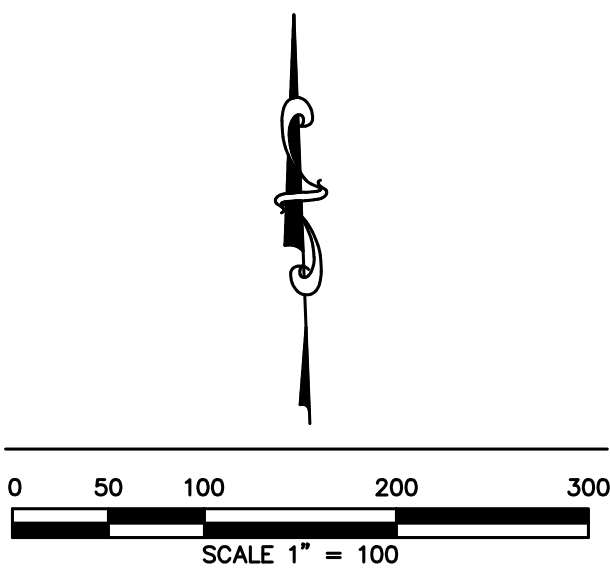
services and infrastructure can be extended to the property in an efficient and coordinated manner, consistent with the city's adopted utility master plans. The property is contiguous to the existing city limits and can be integrated seamlessly into the city's urban fabric.

Through this application, the applicant has provided all required materials and demonstrated compliance with the applicable criteria for annexation. The request supports the city's goals for managed growth, housing availability, and infrastructure planning, and represents a logical and beneficial expansion of the Stayton city limits. The applicant respectfully requests approval of the annexation and application of the Low-Density Residential zoning designation.

## Section 6: Exhibits

EXTG SANITARY SEWER MANHOLE  
RIM = 444.44  
14" INV IN (N) = 436.21  
12" INV OUT (W) = 435.81

EXTG STORM MANHOLE  
RIM = 445.60  
INV IN/OUT = 438.25



GENERAL NOTES:

1. THIS MAP DOES NOT CONSTITUTE A PROPERTY BOUNDARY SURVEY.
2. CONTOURS AT 1' INTERVALS.
3. THE LOCATION AND DESCRIPTIONS OF EXISTING UTILITIES SHOWN ON THE DRAWINGS ARE COMPILED FROM AVAILABLE RECORDS AND/OR FIELD SURVEYS. THE ENGINEER OR UTILITY COMPANIES DO NOT GUARANTEE THE ACCURACY OR THE COMPLETENESS OF SUCH RECORDS. CONTRACTOR SHALL FIELD VERIFY SIZES AND LOCATIONS OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.
4. NEAREST WATER LINE IS LOCATED AT WHITNEY ST AND CASCADE HWY SE APPROXIMATELY 2100 FEET TO THE SOUTHEAST.

LEGEND

EXTG PROPERTY LINE      —————

EXTG DITCH LINE      - - - - -

TREE/BRUSH LINE      ○ ○ ○ ○ ○

 = EXISTING ASPHALT

ELEVATION DATUM:

THE ELEVATION DATUM IS BASED ON A MARION COUNTY 3" ALUMINUM CAP MARKED "MARION COUNTY SURVEYOR T9S R1W S11 9467 1994" WITH AN ELEVATION OF 567.50' (NAVD 88). IT IS LOCATED AT THE NW CORNER OF A WATER TANK LOCATED ON E PINE STREET.

TAX LOT 100  
TAX MAP 091W03D  
61.8 ACRES  
CITY OF STAYTON ZONE P

700 GOLF LANE SE  
TAX LOT 1400  
TAX MAP 091W03B  
7.9 ACRES  
CITY OF STAYTON ZONE CG

TAX LOT 1500  
TAX MAP 091W03B  
21.0 ACRES  
MARION COUNTY ZONE UT-20

TAX LOT 900  
TAX MAP 091W03C  
7.2 ACRES  
MARION COUNTY ZONE UT-20

TAX LOT 800  
TAX MAP 091W03C  
22.0 ACRES  
MARION COUNTY ZONE UT-20

TAX LOT 1501  
TAX MAP 091W03B  
5.0 ACRES  
MARION COUNTY ZONE UT-20

REGISTERED  
PROFESSIONAL  
LAND SURVEYOR

PRELIMINARY

OREGON  
SEPTEMBER 10, 2019  
MICHAEL S. DOWNS  
55018

RENEWS: 12/31/2025

GOLF LANE DEVELOPMENT

700 GOLF LANE SE

EXISTING CONDITIONS

PLOT DATE:  
3/1/2024

REVISIONS:

DRAWN BY:  
LDW

CHECKED BY:  
LDW

JOB No: 23110

SCALE: 1" = 100'

SHEET

C1

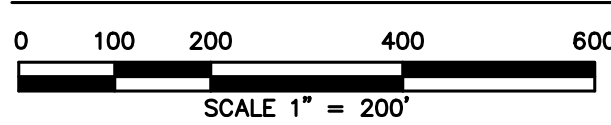
**NS** NORTH SANTIAM PAVING COMPANY  
41203 KINGSTON-LYONS DRIVE, P.O. BOX 516  
STAYTON, OREGON 97383  
(503) 768-3436  
LEVINSONFOR.COM

CONSTRUCTION • ENGINEERING • SURVEYING

CITY OF STAYTON MARION COUNTY, OREGON  
NW 1/4 SEC 3 T9S R1W WM TAX MAP 091W03B TAX LOT 1400







**NS** NORTH SANTIAM PAVING COMPANY  
41203 KINGSTON-LYONS DRIVE, P.O. BOX 516  
STAYTON, OREGON 97383  
(503) 768-3436  
LEVWNSPOR.COM

CONSTRUCTION • ENGINEERING • SURVEYING

**GOLF LANE DEVELOPMENT**

**FUTURE  
UTILITIES**

CITY OF STAYTON MARION COUNTY, OREGON  
NW 1/4 SEC 3 T9S R1W WM TAX MAP 091W03B TAX LOT 1500



EXPIRES: 6-30-2026

PLOT DATE:  
6/11/2025

REVISIONS:

DRAWN BY:  
LDW  
CHECKED BY:  
LDW

JOB No:  
23110

SCALE:  
1" = 50'

SHEET

**C3**



# Stayton Annexation

Submittal Date:

March 26<sup>th</sup>, 2025

Submitted To:

City of Stayton  
Planning Division

Project Location:

Marion County Tax Lot No:  
091W03B001500

Applicant(s):

KSD Properties, LLC  
Owner

Applicant's Land Use  
Representative:

Britany Randall of BRAND Land Use  
[Britany@brandlanduse.com](mailto:Britany@brandlanduse.com)



# BRAND

FEASABILITY | PLANNING | LAND USE

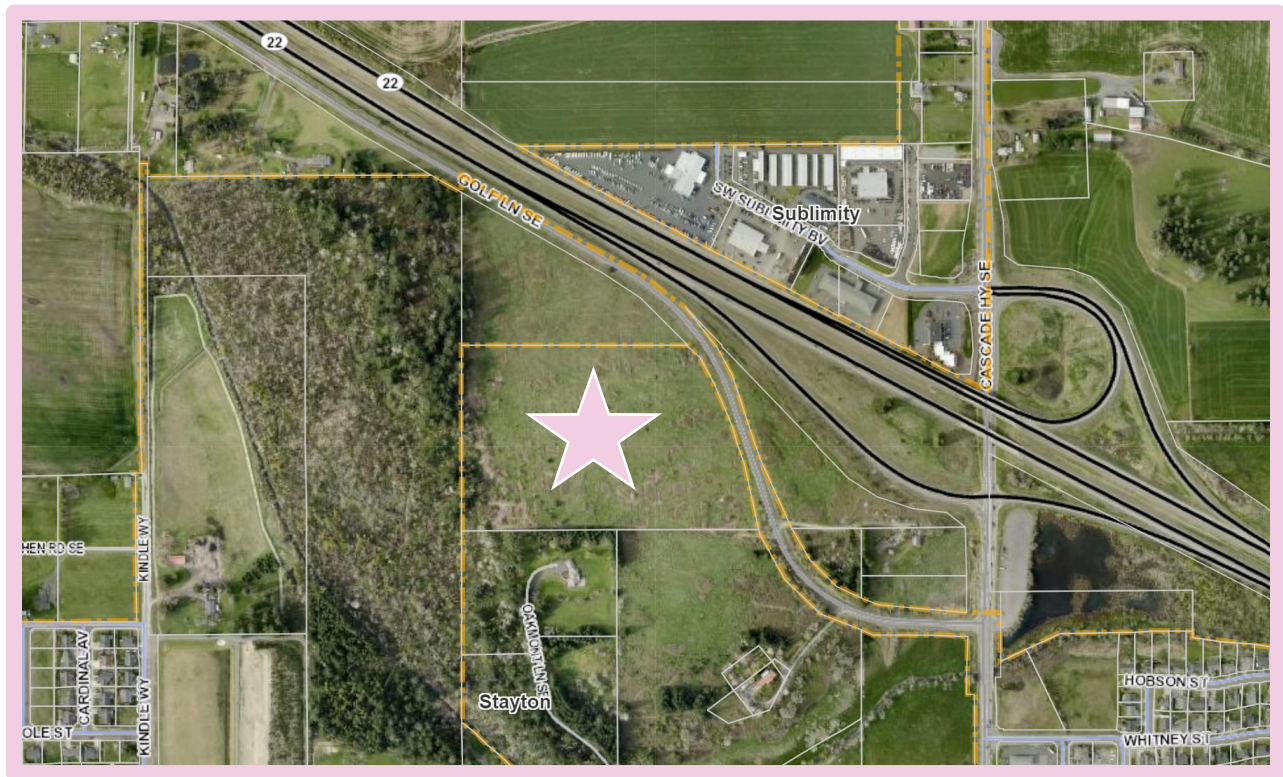
[BRANDLANDUSE.COM](http://BRANDLANDUSE.COM)

503.370.8704

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## Aerial View of Subject Property and Existing Development



### Section 1: Property Background and Request

The applicant, KSD Properties, LLC, is requesting the annexation of a 21.00-acre property into the corporate city limits of the City of Stayton. The subject property, identified as Marion County Assessor's Map and Tax Lot 091W03B001500, currently holds a Residential designation in the City of Stayton Comprehensive Plan. Upon annexation, the applicant proposes to apply the corresponding High Density Residential (HD) zoning to facilitate the future development of residential homes of varying types. The owner's team evaluated the possibility of developing the site as a 92-lot single-family residential subdivision.

This annexation aligns with Stayton's 2021 Amended Comprehensive Plan, which emphasizes the need for additional residential land to accommodate the city's projected population growth. The plan seeks to maintain a mix of housing options while targeting an overall gross density of approximately six units per acre. By bringing this land into the city, the proposed development will support these housing objectives while ensuring consistency with Stayton's long-term growth management policies.

A Transportation Impact Analysis (TIA) was conducted to assess the potential effects of the development on Stayton's roadway network. The analysis determined that the future

subdivision would generate 69 AM peak hour trips (17 inbound, 52 outbound) and 92 PM peak hour trips (58 inbound, 34 outbound), with the majority of traffic utilizing Cascade Highway and OR 22. While most study intersections will continue to operate within acceptable standards, the Cascade Highway / Shaff Road / Fern Ridge Road intersection does not currently meet Marion County's PM peak hour operating standards. However, no mitigation measures are required as the intersection remains within Stayton's operational standards and no planned improvements are identified in the City's Transportation System Plan (TSP). The TIA also evaluated the Golf Lane / Cascade Highway intersection and concluded that a realignment is not warranted, as the intersection does not meet signal warrant criteria, nor does it present operational or safety deficiencies that would trigger a required realignment under the City-County Memorandum of Understanding (MOU).

Future development may include a new public street access via Golf Lane, which meets Stayton's access spacing requirements and has been designed to ensure safe and efficient traffic flow. Additionally, half-street frontage improvements, including bike lanes, planter strips, and sidewalks, may be constructed along the project frontage to align with city collector street standards. At the time of future development of these improvements, they will enhance pedestrian and cyclist safety while integrating the development into the city's transportation network.

By addressing both housing needs and transportation considerations, the proposed annexation and development will contribute to Stayton's vision for sustainable growth. This project will expand the city's residential land supply, support housing availability, and ensure efficient infrastructure planning while maintaining consistency with the comprehensive plan and development policies.

## Section 2: Existing Conditions

The site is located within the Urban Growth Boundary of the City of Stayton. The City of Stayton Comprehensive Plan map designates the property as "Residential".

The Comprehensive Plan designations of surrounding properties include:

North: "Commercial"

South: "Residential"

East: Across Golf Lane - "Public/Semi-Public"

West: "Public/Semi-Public"

The applicant is seeking to apply the High Density Residential (HD) zoning to the property. The surrounding properties are zoned as follows:



North: Commercial Central (CG)

South: Marion County – Outside Corporate City Limits

East: Across Golf Lane - Marion County – Outside Corporate City Limits

West: Public/Semi-Public (P)

## Section 3: Findings Applicable to Administrative Procedures

### Chapter 17.12 – Development Approval Procedures

#### Sections 17.12.030 – Application Procedure

Any application for a land use or development approval action authorized in this title shall be filed in the following manner.

- (1) FORMS. The application shall be submitted on forms provided by the City Planner.
- (2) FILING LOCATION. Unless stated otherwise, the application shall be filed with the City Planner at City Hall.
- (3) PROPERTY OWNER AUTHORIZATION. If the property owners are not the applicants, then the application shall be accompanied by a notarized statement certifying the authority of anyone representing the owner(s) of property involved in the application. The application shall be signed by the property owner or authorized representative.
- (4) SUPPLEMENTAL INFORMATION. All supplemental documentation and information specified in those sections governing the approval or action being requested shall accompany the application. The applicant shall be responsible for providing any and all information required for a complete application.
- (5) COST FOR SERVICES.
  - (a) Basic Application Costs. Basic application costs are intended to recover expenses incurred by the City in the receipt, review and processing of a land use application. A deposit in an amount established in the Deposit Schedule will be required at the time an application is filed.
  - (b) Outside Planning Services. An applicant may, upon permission of the City, choose outside planning services at the applicant's expense, approved by the City, to process any land use application. The outside planning service will be tantamount to the function of the City Planner and will be subject to the supervision, direction and review of the City Planner. Utilizing outside planning services does not forego the City's requirement as to costs (including non-refundable deposit).
  - (c) In the event the application is withdrawn before City action, the applicant shall be responsible to pay for the costs incurred up to the time of its withdrawal.



- (d) Waiver of Charges. The City Council may, at its discretion, waive some or all charges for the processing of applications determined by the City Council to be in the public interest
- (6) DEPOSIT SCHEDULE. A deposit schedule shall be in resolution form and adopted by the City Council.

***Applicant's Findings:*** *The applicant acknowledges and understands the procedural requirements set forth in Stayton Municipal Code Section 17.12.030 for land use and development applications. This includes submitting the annexation application using forms provided by the city planner and filing all materials at city hall, unless otherwise directed. As the legal owner of the subject property, the application has been signed by an authorized representative of the property owner, and no additional authorization is required.*

*The applicant further understands that all required supplemental information must be submitted in accordance with the applicable sections of the code governing the annexation process, and that the completeness of the application is the applicant's responsibility.*

*Regarding application fees, the applicant acknowledges that a deposit has been submitted in accordance with the city's adopted deposit schedule and understands that the city may charge staff time and other direct costs associated with processing the application. The applicant also understands that should the application be withdrawn; they remain responsible for any costs incurred up to the point of withdrawal. Finally, the applicant recognizes that the city council has discretion to waive certain fees when an application is determined to serve the public interest.*

## Section 4: Findings Applicable to Annexation

### Chapter 17.12 – Development Approval Procedures

#### Sections 17.12.210 – Annexations

- (1) DEFINITION. An annexation is an expansion of the City limits through the addition of territory to the jurisdictional boundaries of the City, including “contract annexation” agreements between applicants and the City.

***Applicant's Findings:*** *KSD Properties, LLC, is requesting annexation of a 21.00-acre parcel (Marion County Assessor's Map and Tax Lot 091W03B001500) into the City of Stayton. The property is designated Residential in the Comprehensive Plan, and the applicant proposes High-Density Residential (HD) zoning to support a potential 92-lot single-family subdivision.*

*The request aligns with the 2021 Amended Comprehensive Plan, which calls for additional residential land to meet projected growth and targets an average of six units per acre. A Transportation Impact Analysis (TIA) determined that traffic from the development would not exceed the city's operational standards, and no mitigation is required. Access is proposed via Golf Lane, which meets spacing requirements, and future frontage improvements will align with*

*collector street standards. The annexation supports Stayton's goals for managed growth, increased housing supply, and coordinated infrastructure planning.*

(2) METHOD OF ADOPTION.

(b) Minor Annexations.

- (1) A Minor Annexation is any annexation that meets all of the following characteristics.
  - (i) Consists of only one parcel, except proposed annexations that consist of contiguous parcels in the same ownership.
  - (ii) The area proposed for annexation is 1 acre or less. (Amended Ord. 918, March 18, 2010)
- (2) Approval procedures. The following procedures shall be followed in the review and approval of an application for a Minor Annexation:
  - (i) An application for a Minor Annexation shall be filed with the City Planning Department.
  - (ii) Planning Commission Proceedings. The Planning Commission shall hold a public hearing in accordance with the requirements of Section 17.12.090. Following the public hearing the Commission shall make findings of fact and conclusions as to whether the criteria of Section 17.12.210.4 below are met. Based on the findings of fact and conclusions the Planning Commission shall make a recommendation to the City Council regarding the approval of the application.
  - (iii) City Council Proceedings. The City Council shall hold a public hearing in accordance with the requirements of Section 17.12.100. Following the public hearing, the City Council shall make findings of fact and conclusions as to whether the criteria of Section 17.12.210.4 below are met. If the Council finds that the criteria of Section 17.12.210.4 have been or will be met, the Council shall, by ordinance, shall set the boundaries of the area to be annexed by a legal description.

- (c) Health Hazard Annexation The City may annex those areas constituting a health hazard in accordance with Oregon Revised Statutes, taking into consideration the ability of the City to provide necessary services. Annexation of areas constituting a health hazard is not subject to voter approval.

***Applicant's Findings:*** *This application does not qualify as a Minor Annexation, as the subject property consists of 21.00 acres, exceeding the one-acre threshold defined in Section 17.12.210.2(b)(1)(ii). However, the subject property meets the approval procedures listed within Senate Bill 1573 and cannot be referred to the voters. Therefore, the proposal will follow the*

*procedures for a minor annexation, including public hearings before both the planning commission and the city council in accordance with applicable code sections. This annexation is not being pursued on the basis of a health hazard and is therefore not subject to the provisions of Section 17.12.210.2(c).*

(3) SUBMITTAL REQUIREMENTS. In order to be accepted as complete and be processed in a timely manner by the City, requests for annexation of territory shall include the following materials and information:

- (a) Completed application forms as supplied by the City Planner.
- (b) Three copies of a site plan, drawn to a scale of 1 inch equals not more than 50 feet, shown as a graphic scale, of the property for which the annexation is requested. The site plan shall depict the surrounding properties, neighboring streets and roads, and existing uses of the property. If the application for annexation is not accompanied by a concurrent application for site plan, subdivision, or other land use approval, three copies of a conceptual plan of proposed uses of the property subsequent to annexation. In addition, 18 reduced copies of the plan sized as 11 inches by 17 inches shall be submitted.
- (c) A plan showing the boundary lines of the properties, certified by a professional land surveyor, and the approximate area of the properties in acres or square feet.
- (d) A legal description of the property, meeting the requirements of ORS 308.225.
- (e) A narrative statement fully explaining the request and fully addressing the criteria for approval of an annexation.

***Applicant's Findings:*** *This annexation application includes all materials required by Section 17.12.210.3. The applicant has submitted completed application forms provided by the city planner. A site plan drawn to scale, depicting surrounding properties, roads, and existing site conditions, has been provided in three full-size copies along with 18 reduced 11x17 copies, as required. A certified boundary and acreage plan prepared by a professional land surveyor is included, along with a legal description of the property meeting the standards of ORS 308.225. In addition, this application includes a narrative statement that fully explains the annexation request and addresses the applicable criteria for approval. These materials satisfy the city's requirements for a complete annexation submittal.*

(4) APPROVAL CRITERIA. In order to approve an application for annexation, the following affirmative findings concerning the action must be made by the decision authority:

- (a) Need exists in the community for the land proposed to be annexed.

***Applicant's Findings:*** *There is a documented and pressing need within the City of Stayton for additional residential land to accommodate current and projected population growth, as well as to support the city's goals related to housing supply, diversity, and affordability. The subject*

*property, consisting of approximately 21.00 acres and currently designated Residential in the Stayton Comprehensive Plan, presents a valuable opportunity to address these identified needs.*

*According to Chapter 2 of the 2021 Amended Comprehensive Plan, Stayton has experienced steady population growth over the last several decades. The city's population increased from 4,396 in 1980 to 7,644 in 2010, representing a 74% increase over that 30-year period. Projections adopted in the plan forecast continued growth, with the population expected to reach approximately 9,777 by 2030 under the medium-growth scenario, and potentially as high as 11,359. Even using a revised estimate accounting for updated census figures, the plan notes a likely population of over 10,700 by 2030. This sustained growth drives the need for additional land within city limits that can be developed for residential use in an efficient and well-planned manner.*

*Chapter 6 of the Comprehensive Plan further illustrates the housing implications of this growth. Table 6-10, "Housing Needs Projection," identifies a projected need for 894 new housing units between 2010 and 2030. To meet this need, the plan estimates that Stayton will require approximately 158 acres of additional residential land. While some of this need may be met through infill and redevelopment of underutilized parcels within the current city limits, the plan also recognizes that additional land will need to be brought into the city through annexation to maintain an adequate supply of buildable land.*

*Table 8-3 of the plan presents a Buildable Lands Inventory that shows a limited amount of vacant land currently available within city limits. As of February 2011, the city had only 67.9 acres of vacant land in residential zones, with a net buildable area of just 46.2 acres after accounting for constraints such as floodplains and natural resource protections. Furthermore, Table 8-4 identifies that much of the buildable land designated for residential use within the Urban Growth Boundary (UGB) lies outside the current city limits. Specifically, 154.8 acres of low-density residential land and 39.8 acres of medium-density residential land are located within the UGB but outside the city boundary. This means that without annexation, a large portion of the land identified for future residential growth is not currently available for development.*

*The proposed annexation directly supports the city's policy direction for managing urban growth. The comprehensive Plan states as a core land use goal (Chapter 8, Land Use Goals and Policies): "Coordinate the development of land outside the current city limits with Marion and Linn Counties" and "Provide for a land use regulation process that promotes a livable community and provides for expeditious review of development proposals." Annexing land already designated for residential use and within the UGB allows Stayton to manage growth in a planned, coordinated manner and helps avoid leapfrog development or pressure on rural lands.*

*Additionally, the Comprehensive Plan emphasizes the importance of providing a variety of housing types to meet the needs of Stayton’s diverse population. The housing goals outlined in Chapter 6 include:*

- “Existing and future residents will be provided a choice of housing types in safe and healthful housing.”*
- “New residential developments will be designed and built to become attractive neighborhoods.”*

*The proposed annexation and anticipated development of single-family homes on this property will directly contribute to the realization of these goals by expanding the range of housing options available in Stayton and supporting the development of new, well-integrated neighborhoods.*

*The proposed annexation is consistent with the City of Stayton Comprehensive Plan, which clearly establishes that additional residential land is needed to meet projected population and housing demands. The subject property is already designated Residential in the Comprehensive Plan and is located within the UGB, making it a logical and appropriate candidate for annexation. The proposed Low-Density Residential zoning aligns with the city's land use goals, supports planned growth, and helps ensure that the city can meet future housing needs in a sustainable and coordinated manner.*

- (b) The site is or is capable of being serviced by adequate City public services including such services as may be provided subject to the terms of a contract annexation agreement between the applicant and the City.*

***Applicant’s Findings:*** *The subject property is capable of being fully served by City of Stayton public services, including water, sanitary sewer, stormwater management, and transportation infrastructure, as documented in the city’s adopted master plans. Extension of these services can be accomplished in a manner that is feasible, cost-effective, and consistent with the city’s long-range public facility planning and development goals. A contract annexation agreement may be used, if necessary, to facilitate coordinated service provision and ensure that any improvements needed are implemented appropriately at the time of development.*

*According to the Stayton Water Master Plan Executive Summary (2020), the city’s water system has adequate capacity to meet future growth needs within the Urban Growth Boundary (UGB). The plan outlines a system-wide strategy for extending services to growing areas, including recommendations for new mains and system improvements to maintain pressure and fire flow standards. The subject property lies within the UGB and adjacent to existing city water infrastructure, allowing for logical service extension. Improvements to water mains will be evaluated in conjunction with future subdivision design, and extension of service can be*

*implemented in accordance with adopted master plan policies and development code requirements.*

*The 2021 Wastewater Facilities Planning Study identifies needed improvements to maintain system capacity and reliability as Stayton continues to grow. The study confirms that the existing wastewater treatment facility and trunk lines are adequately sized to serve new residential development within the UGB, including the area encompassing the subject property. Service to the site can be provided by extending gravity sewer lines from existing mains located to the north and west, consistent with the planned expansion of the residential sewer service area. At the time of development, project-specific engineering will confirm the alignment and sizing of sewer infrastructure and ensure compliance with the city's wastewater system standards and design criteria.*

*The Stayton Stormwater Master Plan (2020) provides a comprehensive framework for managing stormwater runoff and improving water quality throughout the community. The plan establishes design standards and policies for managing runoff from new development and emphasizes the use of detention, water quality treatment, and low-impact development techniques. The subject property is located in an area that can be served by storm drainage facilities consistent with the city's stormwater system goals. As part of future development, on-site stormwater facilities will be designed to meet the detention, conveyance, and treatment standards outlined in the Master Plan and Land Use and Development Code, ensuring protection of downstream infrastructure and water quality.*

*The 2007 Transportation System Plan (TSP) identifies planned improvements and future street connectivity objectives that support development within the UGB. The subject property has direct frontage along Golf Lane and will include public street improvements and connections as part of future subdivision development. These improvements will be designed in accordance with the city's collector street standards, which include provisions for sidewalks, bike lanes, planter strips, and appropriate access spacing. As noted in the Transportation Impact Analysis submitted with this application, the development is anticipated to generate 69 AM peak hour trips and 92 PM peak hour trips. The study determined that traffic impacts can be managed within the City's existing network and no mitigation is currently required under adopted standards.*

*The subject property is fully capable of being served by adequate public facilities, as documented in the city's adopted infrastructure master plans. Water, sewer, stormwater, and transportation services can be extended to the site in a manner consistent with Stayton's system capacities and design standards. The city's comprehensive planning framework anticipates urban development in this area, and the extension of public services to this site supports orderly, efficient growth in line with the goals of the Comprehensive Plan. If necessary, a contract annexation agreement between the applicant and the city may formalize the timing,*



responsibility, and cost-sharing for public service extensions to ensure coordinated and timely delivery of infrastructure to the site.

(c) The proposed annexation is property contiguous to the existing City limits.

***Applicant's Findings:*** The subject property, identified as Marion County Assessor's Map and Tax Lot 091W03B001500, is contiguous to the existing City of Stayton corporate limits along its northern and western boundaries. The property shares an uninterrupted boundary line with land that is already located within the city limits, thereby meeting the statutory and code-based requirement for physical contiguity. This configuration allows for a logical and orderly extension of the city boundary, consistent with Stayton's Comprehensive Plan policies and the intent of Oregon's land use planning framework to promote efficient urban growth within established urban growth boundaries.

(d) The proposed annexation is compatible with the character of the surrounding area and complies with the urban growth program and policies of the City of Stayton.

***Applicant's Findings:*** The proposed annexation is compatible with the character of the surrounding area and is consistent with the City of Stayton's adopted urban growth policies. The subject property is located within the Stayton Urban Growth Boundary (UGB) and is designated Residential in the Stayton Comprehensive Plan. Upon annexation, the applicant is proposing to apply the High-Density Residential (HD) zoning district, which corresponds directly to the existing Comprehensive Plan designation.

*This demonstrates compatibility with the planned character of the area, as defined by the city's long-range planning documents. The Residential designation reflects the city's intent for this area to transition into urban residential use, consistent with surrounding properties that share the same designation within the UGB. Bringing the property into the city under its existing designation ensures alignment with the broader land use pattern envisioned in the Comprehensive Plan and avoids inconsistencies in development intensity or use.*

*The annexation also supports Stayton's urban growth program by facilitating orderly and contiguous expansion of the city limits in an area identified for future urban development. The annexation will allow for future development to occur in a manner consistent with adopted policies related to land use, housing, infrastructure, and community form. This includes goals and policies in the Comprehensive Plan that promote efficient growth within the UGB, the extension of public services in a coordinated manner, and the development of complete and livable neighborhoods.*

*Accordingly, the annexation complies with the city's urban growth program and land use policies, and the application of the HD zoning district ensures compatibility with the planned character of the area.*

- (e) The annexation request complies, or can be made to comply, with all applicable provisions of state and local law.

***Applicant's Findings:*** *This annexation request complies, or can be made to comply, with all applicable provisions of state and local law. The application has been submitted in accordance with the procedural requirements of Stayton Municipal Code Section 17.12.210, which outlines the process and criteria for annexation. The applicant has provided all required submittal materials, including a completed application form, certified legal description, property boundary map, narrative addressing the applicable approval criteria, and a conceptual development plan.*

*The proposal also complies with Oregon state law, including provisions of ORS Chapter 222, which governs annexation procedures for cities. The property is contiguous to the existing city limits and is located entirely within the City of Stayton Urban Growth Boundary (UGB), as acknowledged by the Department of Land Conservation and Development (DLCD). No territory subject to this annexation is considered to be "island" or noncontiguous land, and no conflicts arise with respect to boundaries or jurisdiction. In accordance with state law, consent of the property owner has been provided, and the proposed annexation does not require an election or petition from surrounding property owners or electors.*

*In addition, the proposed annexation is consistent with the city's adopted Comprehensive Plan, which designates the subject property as Residential and includes it within the area identified for future urban development. This demonstrates compatibility with the city's coordinated population, housing, and infrastructure planning efforts, as required by Oregon's Statewide Planning Goals—particularly Goal 14: Urbanization, which encourages orderly and efficient transition of land from rural to urban use.*

*To the extent that any additional procedural steps are required prior to final approval (e.g., recording of the annexation ordinance, updating of service agreements, or adoption of a zoning ordinance applying the HD district), such steps can and will be completed in accordance with both state and local law.*

- (f) If a proposed contract annexation, within the terms and conditions of the contract the cost of City facility and service extensions to the annexed area shall be calculated by the Public Works Director.

***Applicant's Findings:*** *This is not a contract annexation. Therefore, the provisions of Section 17.12.210.4(f) regarding cost calculations by the Public Works Director are not applicable to this request.*

- (5) ZONING OF ANNEXED TERRITORY. All lands that are annexed to the City shall be zoned in accordance with the designation of the property in the Comprehensive Plan. The specific zone assigned to the land being annexed shall be determined by the City Council in accordance with the proposed uses of the land and the needs identified by the

buildable lands analysis in the Comprehensive Plan. This requirement does not prohibit an application to amend the Comprehensive Plan Map concurrent with the application for annexation.

***Applicant's Findings:*** *The subject property is designated Residential in the City of Stayton Comprehensive Plan, and the applicant is requesting the application of the corresponding High-Density Residential (HD) zoning district upon annexation. This request is consistent with the Comprehensive Plan designation and no amendment to the Plan Map is proposed.*

*The HD zoning district implements the Residential designation by allowing for primarily single-family detached homes at a density that supports the city's long-term housing and land use goals. The applicant anticipates future residential subdivision development on the property in a manner consistent with the allowed uses and development standards of the HD zone.*

*This zoning assignment is also supported by the City's Buildable Lands Inventory and Housing Needs Analysis as outlined in Chapter 6 and Chapter 8 of the Comprehensive Plan. These analyses project the need for approximately 894 new housing units between 2010 and 2030 and identify a corresponding need for over 150 acres of additional residential land within the Urban Growth Boundary. Table 8-4 of the Comprehensive Plan shows that while there is some vacant land within the UGB, much of it is located outside the city limits—requiring annexation to make it available for development. The requested zoning supports the city's strategy to meet projected housing demand while maintaining an overall target gross density of six units per acre.*

*Accordingly, the proposed zoning is consistent with the adopted Comprehensive Plan designation, the intended use of the land, and the city's identified need for residential land within the Urban Growth Boundary.*

- (6) CONFORMANCE WITH CONCEPTUAL PLAN. Development of the property after annexation shall be in substantial conformance with any conceptual plan submitted with the application for annexation. For the purposes of this section, development is in substantial conformance with a conceptual plan if:
- (a) The development is generally consistent with the character and intent of the conceptual plan;
  - (b) The number and types of housing units are generally consistent with those presented in the conceptual plan;
  - (c) The impacts from the development, including but not limited to, noise, vibration, dust, odor, or fumes, detectable at the property line will not exceed the maximums typical for the categories of uses proposed in the conceptual plan;
  - (d) The number and types of vehicular trips to and from the site will not exceed the maximums typical for the categories of uses proposed in the conceptual plan;
- and

- (e) The amount and types of outside storage, loading, and parking will not exceed the maximums typical for the categories of uses proposed in the conceptual plan.

***Applicant's Findings:*** No formal conceptual development plan is submitted with this annexation application. However, the applicant anticipates that the property will be developed in the future as a traditional residential subdivision consistent with the High-Density Residential (HD) zoning designation proposed in conjunction with annexation.

*While a specific layout has not been prepared at this time, the anticipated future use—single-family residential development—is fully consistent with the Residential Comprehensive Plan designation that currently applies to the property. The property is being brought into the city under a zoning designation that supports traditional neighborhood development patterns, with detached homes, internal public streets, and appropriate pedestrian and infrastructure improvements.*

*As future development plans are brought forward, they will be subject to separate land use applications (e.g., subdivision review or site development approval) and will be required to demonstrate compliance with applicable standards for use, density, access, traffic generation, and environmental impacts. All development will be required to stay within the scope of impacts typical for low-density residential neighborhoods, including limits on noise, traffic, parking, and other externalities as outlined in the development code.*

*In the absence of a conceptual plan and given the applicant's stated intent to pursue residential subdivision development consistent with the HD zoning, future development will be aligned with the expectations and parameters described in this section.*

(7) NOTICE TO COUNTY AND STATE.

- (a) Within 10 working days after enactment of the ordinance approving the annexation, the City Recorder shall provide by certified mail to all public utilities, electric cooperatives and telecommunications carriers operating within the City each site address to be annexed as recorded on county assessment and tax rolls, a legal description and map of the proposed boundary change, and a copy of the ordinance approving the annexation.
- (b) Within 10 days from the effective date the ordinance approving the annexation, the City Recorder shall provide to the Marion County Clerk and County Assessor a report containing a detailed legal description of the new boundaries established by the City.
- (c) Within 14 days of enactment of the ordinance approving the annexation, the City Recorder shall transmit to the Oregon Secretary of State:
  - (1) A copy of the ordinance proclaiming the annexation, including a legal description of the territory to be annexed.

- (2) An abstract of the vote, if a major annexation. The abstract of the vote shall show the whole number of electors voting on the annexation, the number of votes cast for annexation, and the number of votes cast against annexation.
- (3) A copy of the statement of consent by electors or landowners in the territory annexed.
- (d) Within 30 days of enactment of an ordinance annexing territory into the City, the City Recorder shall transmit to the Marion County Assessor and the Oregon Department of Revenue the legal description of the boundary change or proposed change and an accurate map conforming to the requirements of ORS 308.225(2).

***Applicant's Findings:*** *The applicant understands that, following city council approval of the annexation ordinance, the city recorder is responsible for providing notice and documentation of the annexation to all applicable county and state agencies in accordance with Stayton Municipal Code Section 17.12.210.7 and ORS 308.225. This includes providing legal descriptions, maps, and copies of the ordinance to Marion County departments, the Oregon Secretary of State, the Oregon Department of Revenue, and utility service providers within the required timelines. The applicant acknowledges these post-approval steps are part of the formal annexation process and will ensure full cooperation with city staff as needed to complete these requirements.*

## Section 5: Conclusion

The proposed annexation of the 21.00-acre property identified as Marion County Assessor's Map and Tax Lot 091W03B001500 is consistent with the applicable provisions of the Stayton Municipal Code, the city's Comprehensive Plan, and state law. The property is located within the city's Urban Growth Boundary and is designated Residential in the Comprehensive Plan, indicating its suitability for future urban development. The applicant is requesting High-Density Residential (HD) zoning upon annexation, which aligns with the city's long-range planning goals and supports the anticipated development of a traditional single-family residential neighborhood. The annexation will help meet Stayton's projected housing needs by expanding the supply of buildable residential land within the city limits. Public services and infrastructure can be extended to the property in an efficient and coordinated manner, consistent with the city's adopted utility master plans. The property is contiguous to the existing city limits and can be integrated seamlessly into the city's urban fabric.

Through this application, the applicant has provided all required materials and demonstrated compliance with the applicable criteria for annexation. The request supports the city's goals for managed growth, housing availability, and infrastructure planning, and represents a logical and beneficial expansion of the Stayton city limits. The applicant respectfully requests approval of the annexation and application of the Low-Density Residential zoning designation.

## Section 6: Exhibits



Exhibit A – Marion County Tax Map

09 1W 03B

09 1W 03B  
SUBLIMITY



MARION COUNTY, OREGON  
NW1/4 SEC3 T9S R1W W.M.  
SCALE 1" = 200'

LEGEND

- LINE TYPES
- Taxlot Boundary
  - Road Right-of-Way
  - Railroad Right-of-Way
  - Private Road ROW
  - Subdivision/Plat Bndry
  - Waterline - Taxlot Bndry
  - Historical Boundary
  - Easement
  - Railroad Centerline
  - Taxcode Line
  - Map Boundary
  - Waterline - Non Bndry

- CORNER TYPES
- + 1/16TH Section Cor.
  - ⊙ DLC Corner
  - ⊕ 1/4 Section Cor.
  - ⊕ 16, 15, 21, 22 Section Corner

NUMBERS

Tax Code Number  
**00 00 0**

Acreage  
**0.25 AC**

All acres listed are Net Acres, excluding any portions of the taxlot within public ROWs

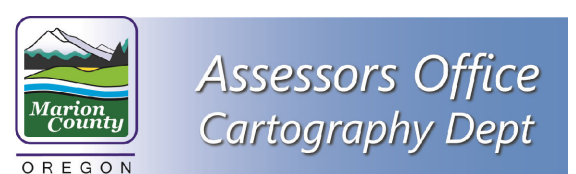
NOTES

Tick Marks: A tick mark in the road indicates that the labeled dimension extends into the public ROW

200.00  
175.00

CANCELLED NUMBERS				
201				
501				
701				
1100				
1201				
1401				

DISCLAIMER: THIS MAP WAS PREPARED FOR ASSESSMENT PURPOSES ONLY



FOR ADDITIONAL MAPS VISIT OUR WEBSITE AT  
[www.co.marion.or.us](http://www.co.marion.or.us)

PLOT DATE: 3/28/2022

SUBLIMITY  
09 1W 03B

SEE MAP  
081W33D

RE-ENT COR  
G BROWN  
DLC 47

SLY SW COR  
G BROWN  
DLC 47

0

SEE MAP  
091W04A

1/4 COR

SEE MAP  
091W04D

09 1W 03B

W 8TH STREET

9TH STREET

100  
PARCEL 2  
34.01 AC

SE COR  
G BROWN  
DLC 47

ELY NE COR  
H FOSTER  
DLC 45

200  
10.89 AC

GOV'T  
LOT 1

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PARCEL 1  
4.39 AC

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29 54 0

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21.00 AC

GOV'T  
LOT 2

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SEE MAP  
091W03C

50' ACCESS EASEMENT

SEE MAP  
091W03DB

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091W03A

SEE MAP  
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SEE MAP  
081W34CC

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SEE MAP  
091W03CD

## Exhibit B – Deeds



### Parcel Information

<b>Parcel #:</b>	533917
<b>Tax Lot:</b>	091W03B001500
<b>Site Address:</b>	
	Sublimity OR 97385
<b>Owner:</b>	Ksd Properties LLC
<b>Owner2:</b>	
<b>Owner Address:</b>	500 SW Sublimity Blvd
	Sublimity OR 97385 - 9629
<b>Twn/Range/Section:</b>	09S / 01W / 03 / NW
<b>Parcel Size:</b>	21.00 Acres (914,760 SqFt)
<b>Plat/Subdivision:</b>	
<b>Lot:</b>	
<b>Block:</b>	
<b>Census Tract/Block:</b>	010701 / 5027
<b>Waterfront:</b>	

### Tax Information

<b>Levy Code Area:</b>	29540
<b>Levy Rate:</b>	12.1555
<b>Tax Year:</b>	2023
<b>Annual Tax:</b>	\$2,777.28
<b>Exempt Desc:</b>	N/A

### Legal

01-02: 21.0 ACRES DISQ FARM USE, PAT LIAB \$4,884.71

### Assessment Information

<b>Market Value Land:</b>	\$781,200.00
<b>Market Value Impr:</b>	\$0.00
<b>Market Value Total:</b>	\$781,200.00
<b>Assessed Value:</b>	\$228,480.00

### Land

<b>Zoning:</b>	County-UT-20 - Urban Transition - 20 Acres Lot Min.	<b>Cnty Bldg Use:</b>	Residential
<b>Cnty Land Use:</b>	490 - Tract land only, over 1 acre, inside city or urban growth boundary	<b>Neighborhood:</b>	
<b>Std Land Use:</b>	VMSC - Vacant Misc	<b>Recreation:</b>	
<b>School District:</b>	29J - North Santiam	<b>Primary School:</b>	Stayton Elementary School
<b>Middle School:</b>	Stayton Middle School	<b>High School:</b>	Stayton High School

### Improvement

<b>Year Built:</b>	<b>Stories:</b>	<b>Finished Area:</b>
<b>Bedrooms:</b>	<b>Bathrooms:</b>	<b>Garage:</b>
<b>Basement Fin:</b>		

### Transfer Information

<b>Rec. Date:</b> 09/28/2023	<b>Sale Price:</b> \$650,000.00	<b>Doc Num:</b> 2023-29433	<b>Doc Type:</b> Deed
<b>Owner:</b> Ksd Properties LLC		<b>Grantor:</b> MCCLAIN LIVING TRUST	
<b>Orig. Loan Amt:</b>		<b>Title Co:</b> AMERITITLE	
<b>Finance Type:</b>	<b>Loan Type:</b>	<b>Lender:</b>	

Sentry Dynamics, Inc. and its customers make no representations, warranties or conditions, express or implied, as to the accuracy or completeness of information contained in this report.



After recording return to:  
KSD Properties LLC, an Oregon limited liability  
company  
500 SW Sublimity Blvd  
Sublimity, OR 97385

Until a change is requested all tax statements shall be  
sent to the following address:  
KSD Properties LLC, an Oregon limited liability  
company  
500 SW Sublimity Blvd  
Sublimity, OR 97385  
File No. 605382AM

MARION COUNTY RECORDS

**2023-29433**

D-DEED

09/28/2023 10:30 AM

\$10.00 \$11.00 \$10.00 \$60.00

\$91.00



I, Bill Burgess, County Clerk for Marion County,  
Oregon, certify that the instrument identified  
herein was recorded in the Official Records.

Pgs=2 JCK

### STATUTORY WARRANTY DEED

**William L. McClain and Pamela K. McClain, Trustees, or their successors in interest of the McClain Living Trust, dated June 6, 2003,**

Grantor(s), hereby convey and warrant to

**KSD Properties LLC, an Oregon limited liability company,**

Grantee(s), the following described real property in the County of Marion and State of Oregon free of encumbrances except as specifically set forth herein:

Beginning at a point on the legal subdivision line dividing Section 3 into East and West halves and being 33.35 chains North 15' East from the one fourth section line on the North boundary of said Section 3 in Township 9 South, Range 1 West of the Willamette Meridian in Marion County, Oregon; thence South 89°30' West 33.61 chains to the Eastline of the Donation Land Claim of Henry Foster; thence South 45' West 11.90 chains along the line of the Henry Foster Donation Land Claim; thence North 89°36' East 33.65 chains to the East line of the West one half of said Section 3; thence North 15' West 11.90 chains along the East line of the West one half of said Section 3 to the place of beginning.

SAVE AND EXCEPT that portion conveyed to the State of Oregon by and through its State Highway Commission recorded in Book 483, Page 669, Deed Records for Marion County, Oregon.

ALSO SAVE AND EXCEPT therefrom that certain real property conveyed to the Sublimity Fire Insurance Co. in Book 638, Page 091, Deed Records for Marion County.

FURTHER SAVE AND EXCEPT therefrom that certain property described in Final Judgment filed August 11, 1997 in Marion County Court Case 95C11158, recorded August 29, 1997 in Reel 1422, Page 23, Deed Records for Marion County.

FOR INFORMATION PURPOSES ONLY, THE MAP/TAX ACCT #(S) ARE REFERENCED HERE:

091W03B001500

The true and actual consideration for this conveyance is \$650,000.00.

605382AM  
AmeriTitle



The above-described property is free of encumbrances except all those items of record, if any, as of the date of this deed and those shown below, if any:

**2023-2024 Real Property Taxes, a lien not yet due and payable**

BEFORE SIGNING OR ACCEPTING THIS INSTRUMENT, THE PERSON TRANSFERRING FEE TITLE SHOULD INQUIRE ABOUT THE PERSON'S RIGHTS, IF ANY, UNDER ORS 195.300, 195.301 AND 195.305 TO 195.336 AND SECTIONS 5 TO 11, CHAPTER 424, OREGON LAWS 2007, SECTIONS 2 TO 9 AND 17, CHAPTER 855, OREGON LAWS 2009, AND SECTIONS 2 TO 7, CHAPTER 8, OREGON LAWS 2010. THIS INSTRUMENT DOES NOT ALLOW USE OF THE PROPERTY DESCRIBED IN THIS INSTRUMENT IN VIOLATION OF APPLICABLE LAND USE LAWS AND REGULATIONS. BEFORE SIGNING OR ACCEPTING THIS INSTRUMENT, THE PERSON ACQUIRING FEE TITLE TO THE PROPERTY SHOULD CHECK WITH THE APPROPRIATE CITY OR COUNTY PLANNING DEPARTMENT TO VERIFY THAT THE UNIT OF LAND BEING TRANSFERRED IS A LAWFULLY ESTABLISHED LOT OR PARCEL, AS DEFINED IN ORS 92.010 OR 215.010, TO VERIFY THE APPROVED USES OF THE LOT OR PARCEL, TO DETERMINE ANY LIMITS ON LAWSUITS AGAINST FARMING OR FOREST PRACTICES, AS DEFINED IN ORS 30.930, AND TO INQUIRE ABOUT THE RIGHTS OF NEIGHBORING PROPERTY OWNERS, IF ANY, UNDER ORS 195.300, 195.301 AND 195.305 TO 195.336 AND SECTIONS 5 TO 11, CHAPTER 424, OREGON LAWS 2007, SECTIONS 2 TO 9 AND 17, CHAPTER 855, OREGON LAWS 2009, AND SECTIONS 2 TO 7, CHAPTER 8, OREGON LAWS 2010.

Dated this 27 day of September 2023

The McClain Living Trust, dated June 6, 2003

X

William L. McClain  
William L. McClain, Trustee

X

Pamela K. McClain  
Pamela K. McClain, Trustee

State of Oregon} ss.

County of Marion}

On this 27 day of September, 2023, before me, Stephanie Marie Catlett-Goad, a Notary Public in and for said state, personally appeared William L. McClain and Pamela K. McClain known or identified to me to be the person whose name is subscribed to the foregoing instrument as trustee of the McClain Living Trust, and acknowledged to me that he/she/they executed the same as Trustee.

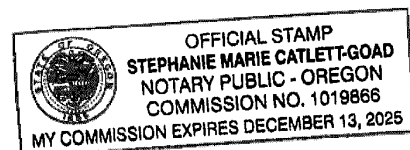
IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year in this certificate first above written.

Stephanie Marie Catlett-Goad  
Notary Public for the State of Oregon

Residing at:

Commission Expires:

Salem, OR  
12-13-2025



Marion County  
Document Separator Page

**Instrument # 2023-29433**

**September 28, 2023 10:30 AM**

State of Oregon  
County of Marion

I hereby certify that the attached  
instrument was received and duly  
recorded by me in Marion County  
records:

Fee: \$91.00

Bill Burgess  
Marion County Clerk

This is not an invoice.

## Exhibit C – Articles of Organization

# AMENDED ANNUAL REPORT



Corporation Division  
[sos.oregon.gov/business](https://sos.oregon.gov/business)

**E-FILED**

Jan 03, 2024

**OREGON SECRETARY OF STATE**

---

**REGISTRY NUMBER**

13117791

**REGISTRATION DATE**

02/18/2003

**BUSINESS NAME**

KSD PROPERTIES, LLC

**BUSINESS ACTIVITY**

REAL ESTATE INVESTMENT

**MAILING ADDRESS**

500 SW SUBLIMITY BLVD  
SUBLIMITY OR 97385 USA

**TYPE**

DOMESTIC LIMITED LIABILITY COMPANY

**PRIMARY PLACE OF BUSINESS**

500 SW SUBLIMITY BLVD  
SUBLIMITY OR 97385 USA

**JURISDICTION**

OREGON

**REGISTERED AGENT**

JEFF KOEHNKE

500 SW SUBLIMITY BLVD  
SUBLIMITY OR 97385 USA

If the Registered Agent has changed, the new agent has consented to the appointment.

**MANAGER**

JEFF KOEHNKE

500 W SUBLIMITY BLVD  
SUBLIMITY OR 97385 USA



I declare, under penalty of perjury, that this document does not fraudulently conceal, fraudulently obscure, fraudulently alter or otherwise misrepresent the identity of the person or any officers, managers, members or agents of the limited liability company on behalf of which the person signs. This filing has been examined by me and is, to the best of my knowledge and belief, true, correct, and complete. Making false statements in this document is against the law and may be penalized by fines, imprisonment, or both.

By typing my name in the electronic signature field, I am agreeing to conduct business electronically with the State of Oregon. I understand that transactions and/or signatures in records may not be denied legal effect solely because they are conducted, executed, or prepared in electronic form and that if a law requires a record or signature to be in writing, an electronic record or signature satisfies that requirement.

**ELECTRONIC SIGNATURE**

**NAME**

JEFF KOEHNKE

**TITLE**

MANAGING MEMBER

**DATE**

01-03-2024



## Exhibit D – Stayton Annexation Application Form



Submit Via Email

**CITY OF STAYTON**  
**APPLICATION FOR ANNEXATION**

PROPERTY OWNER: KSD Properties, LLC  
Address: 500 SW Sublimity Blvd  
City/State/Zip: Sublimity, OR 97385  
Phone: See Representative Email: See Representative

APPLICANT: Same as property owner.  
Address: \_\_\_\_\_  
City/State/Zip: \_\_\_\_\_  
Phone: \_\_\_\_\_ Email: \_\_\_\_\_

APPLICANT'S REPRESENTATIVE: BRAND Land Use, LLC | Britany Randall  
Address: 1720 Liberty Street SE  
City/State/Zip: Salem, OR 97302  
Phone: 503-370-8704 Email: britany@brandlanduse.com

CONSULTANTS: Please list below planning and engineering consultants.

PLANNING	ENGINEERING
Name: <u>BRAND Land Use, LLC</u>	Name: _____
Address: <u>1720 Liberty Street SE</u>	Address: _____
City/State/Zip: <u>Salem, OR 97302</u>	City/State/Zip: _____
Phone: <u>503-370-8704</u>	Phone: _____
Email: <u>britany@brandlandus.com</u>	Email: _____

Select one of the above as the principal contact to whom correspondence from the Planning Department should be addressed:

☐ owner ☐ applicant ☒ applicant's representative ☐ planning consultant ☐ engineer

LOCATION:

StreetAddress: \_\_\_\_\_

Assessor's Tax Lot Number and Tax Map Number:

091W03B001500

Closest Intersecting Streets: Golf Lane SE and Cascade Highway SE

CURRENT COMPREHENSIVE PLAN DESIGNATION: Residential

ZONE MAP DESIGNATION PROPOSED WITH ANNEXATION: High Density Residential (HD)

SIGNATURE OF APPLICANT:

Jeff Koehnke

DO NOT WRITE BELOW THIS LINE

Application received by: \_\_\_\_\_ Date: \_\_\_\_\_ Fee Paid: \$ \_\_\_\_\_ Receipt No. \_\_\_\_\_

Land Use File# \_\_\_\_\_

QUESTIONS TO BE ADDRESSED IN NARRATIVE STATEMENT

The Stayton Planning Commission, with assistance from the Planning Department and the Public Works Department will use the information provided by the applicant to analyze the merits of this application. A decision to approve or deny the application is made based on how well the applicant presents information to show the application meets the standards and criteria set forth in the Stayton Land Use and Development Code 17.12.210.5. Please provide the following information in full and attach a narrative statement to this application.

1. NEED: What is the demonstrated need for this property to be annexed into the City?
2. ADEQUATE UTILITIES: How will the proposed annexation obtain or maintain adequate utility systems (including water, sewer, surface water drainage, power, and communications), and connections, including easements, to properly serve the subject property in accordance with accepted City standards?

All public improvements must meet City of Stayton standard specifications. All design plans must be approved by the City prior to construction. The City will inspect all construction.

- a. List public services currently available to the site:

Water Supply: \_\_\_\_\_ - inch line available in \_\_\_\_\_ Street.

Sanitary Sewer: \_\_\_\_\_ - inch line available in \_\_\_\_\_ Street.

Storm Sewer: \_\_\_\_\_ - inch line available in \_\_\_\_\_ Street.

Natural Gas: \_\_\_\_\_ - inch line available in \_\_\_\_\_ Street.

Telephone: ☐ is (or) ☐ is not available in \_\_\_\_\_ Street.

Cable TV: ☐ is (or) ☐ is not available in \_\_\_\_\_ Street.

Electrical: ☐ is (or) ☐ is not available in \_\_\_\_\_ Street.

- b. Will existing City public services need to be replaced or upgraded to accommodate the demands created by the annexation? ☐ yes ☐ no

3. Is the subject property contiguous to the city limits? ☐ yes ☐ no
4. Is the proposed annexation compatible with the character of the surrounding area and does it comply with the urban growth program and policies of the City?
5. How does the proposed annexation comply, or will be made to comply with all applicable provisions of state and local law?
6. If the proposed annexation is a contract annexation, does the proposal include the cost of City facility and service extensions as calculated by the Public Works Director?

## Exhibit E – Conceptual Subdivision Site Plan

Exhibit F – Professional Land Surveyor Property Boundary Line Exhibit





## Exhibit G – Legal Description of Property

## EXHIBIT A

A unit of land situated in the northwest and southwest one-quarter of Section 3, Township 9 South, Range 1 West, of the Willamette Meridian, Marion County, Oregon, being all of that property conveyed to KSD Properties, LLC by Instrument Number 2023-29433, Marion County Records, and further described as follows:

Beginning at the northwest corner of Parcel 1 of Partition Plat 91-20, Marion County Records, being coincident with the east line of the Henry Foster Donation Land Claim and the east line of that property conveyed to the Stayton School District by Volume 638, Page 164, Marion County Records;

thence, going northerly, along the east line of said Henry Foster Donation Land Claim, approximately 780.50 feet to the south line of that property conveyed to KSD Properties, LLC by Instrument Number 2023-29472, Marion County Records;

thence, going easterly, along the south line of said Instrument Number 2023-29472, approximately 974.50 feet to the west line of Golf Lane SE;

thence, going southerly, along the west line of said Golf Lane SE, approximately 832 feet to the easterly extension of the north line of Parcel 1 of said Partition Plat 91-20, being coincident with the north line of that property conveyed to NW Urban Holdings, LLC by Reel 4428, Page 88, Marion County Records;

thence, going westerly, along the easterly extension of the north line of said Parcel 1 and the north line of said NW Urban Holdings, LLC property, approximately 1255 feet to the Point of Beginning.

Containing 20.49 acres, more or less.

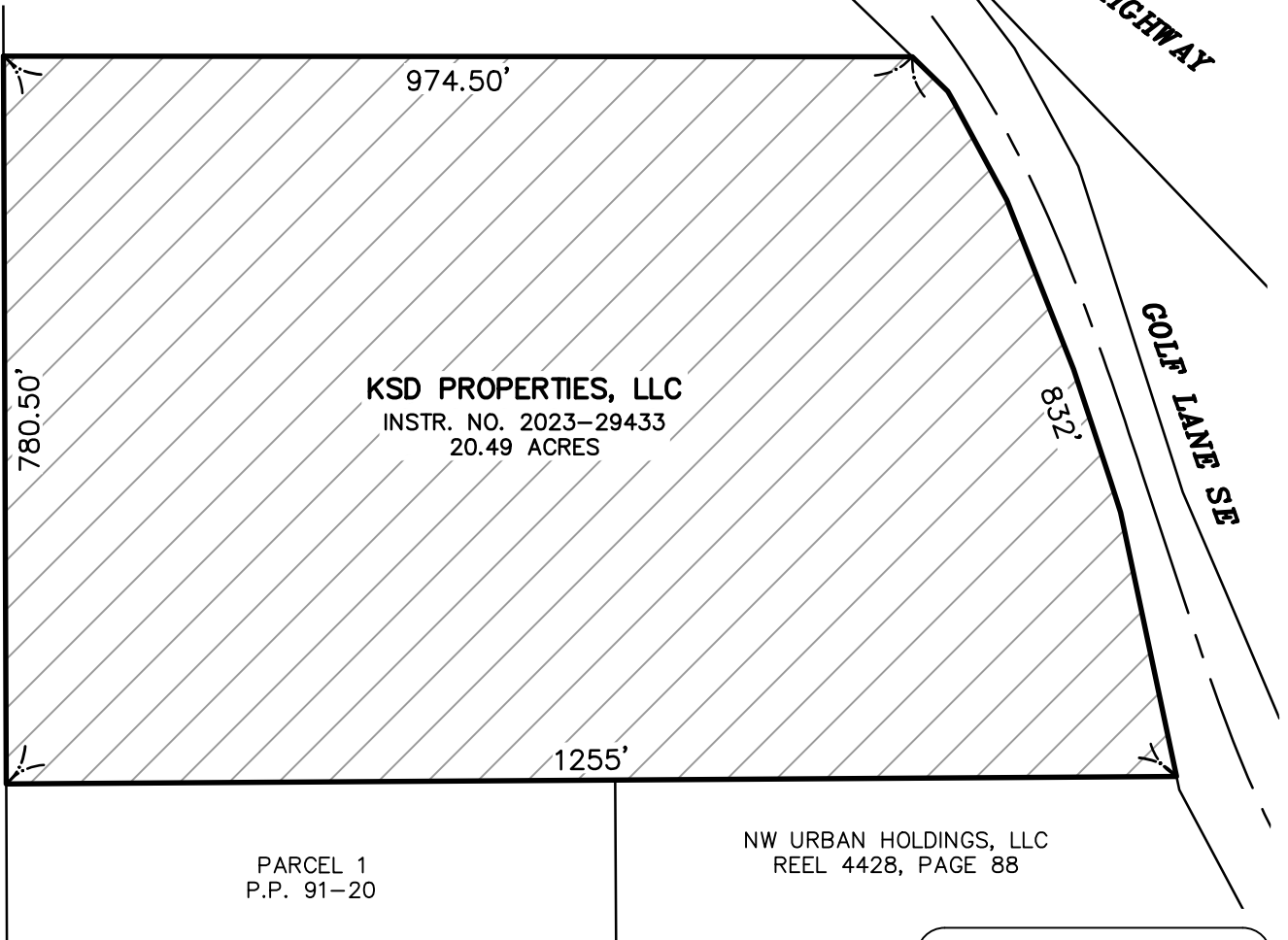




SCALE: 1" = 200'

KSD PROPERTIES, LLC  
INSTR. NO. 2023-29472

STAYTON SCHOOL DISTRICT  
VOLUME 638, PAGE 164  
EAST LINE OF HENRY FOSTER  
DONATION LAND CLAIM



REGISTERED  
PROFESSIONAL  
LAND SURVEYOR

OREGON  
SEPTEMBER 12, 2017  
STEVEN LEE HOWELL  
91569

RENEWS: 6-30-2025

## EXHIBIT B

IN THE NW & SW 1/4 OF SECTION 3,  
TOWNSHIP 9 SOUTH, RANGE 1 WEST, W.M.  
MARION COUNTY, OREGON

DATE: MARCH 12, 2025

SURVEYED FOR: KSD PROPERTIES, LLC



**FFN SURVEYING**

7230 3rd Street SE #145, Turner, OR 97392  
P: (503) 558-3330 E: info@ffnsurveying.com

JOB NO.  
25-562

SHEET  
1/1

## Exhibit H – Transportation Impact Analysis



# STAYTON GOLF LANE SUBDIVISION

## TRANSPORTATION IMPACT ANALYSIS

AUGUST 2024

### PREPARED FOR KSD PROPERTIES

Jeff Koehnke

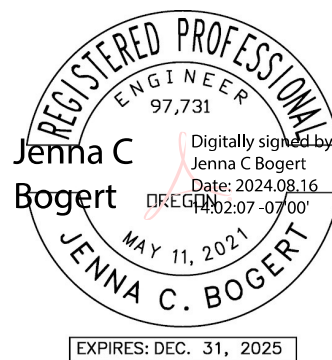
Brad Koehnke

Bryan Koehnke

### PREPARED BY DKS ASSOCIATES

Jenna Bogert, P.E.

Harrison Steiger



117 COMMERCIAL STREET NE, SUITE 310, SALEM, OR 97301 • 503.391.8773 • DKSASSOCIATES.COM

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## INTRODUCTION

This study evaluates the transportation impacts associated with the proposed 92-lot subdivision development in Stayton, Oregon. The property is located west of the Golf Lane and Cascade Highway intersection, south of Highway 22.

The purpose of this transportation impact analysis is to identify potential mitigation measures needed to offset transportation impacts that the proposed development may have on the nearby transportation network. The impact analysis is focused on the study intersections, which are listed below and shown in Figure 1.

1. Cascade Hwy / OR 22 Westbound Ramps
2. Cascade Hwy / OR 22 Eastbound Ramps
3. Cascade Hwy / Golf Lane / Parking Lot
4. Cascade Hwy / Whitney St
5. Cascade Hwy Shaff Rd / Fern Ridge Rd
6. Golf Ln / New Public Street (Site Access)



**FIGURE 1: STUDY AREA**

## EXISTING CONDITIONS

This chapter provides documentation of existing study area conditions, including the study area roadway network, pedestrian and bicycle facilities, and existing traffic volumes and operations.

### STUDY AREA ROADWAY NETWORK

The project site is located in north Stayton, Oregon. The key roadways in the study area are summarized in Table 1 along with their existing roadway characteristics.

**TABLE 1: STUDY AREA ROADWAY CHARACTERISTICS**

ROADWAY	JURISDICTION	FUNCTIONAL CLASSIFICATION	LANES	POSTED SPEED	SIDEWALK	BIKE FACILITIES
OR 22	ODOT	Statewide Highway	4	55 mph	No	No
CASCADE HWY	Marion County	Major Arterial	3	45 mph	Partial <sup>1</sup>	Yes
GOLF LN	Marion County	Collector	2	N/A	No	No
WHITNEY ST	City of Stayton	Residential Local	2	N/A	Partial <sup>2</sup>	No
SHAFF RD	Marion County	Minor Arterial	2	35 mph	Partial <sup>3</sup>	Yes
FERN RIDGE RD	City of Stayton	Collector	3	35 mph	Yes	Yes

### CRASH ANALYSIS

Crash data was obtained for the five most recent years of available data (2018-2022) in Stayton, Oregon. A total of 58 intersection crashes were reported at the five study intersections and are summarized below. No fatal crashes were reported and none of the crashes involved bicyclists or pedestrians. There were no reported crashes at the Cascade Highway / Golf Lane intersection during the time period analyzed. There are no ODOT SPIS sites (2019 – 2021 data) within the study area.

<sup>1</sup> Sidewalk present on east side of road and west side of road north of Mill Creek

<sup>2</sup> Sidewalk present on south side of road only

<sup>3</sup> Sidewalk present on south side of road only

There was one Serious Injury (A) crash that occurred at the OR22 Westbound Ramp / Cascade Highway intersection. On a clear morning, a motorcycle failed to stop while exiting OR22 and struck a vehicle travelling north on Cascade Highway.

The intersection of Cascade Highway/OR 22 westbound ramps exceeds the comparison 90<sup>th</sup> percentile crash rate as calculated by ODOT. This intersection has a high proportion of angle and turning crashes. The planned improvement at this intersection is a traffic signal as identified in the ODOT Interchange Area Management Plan.

**TABLE 2: CRITICAL CRASH EVALUATION**

INTERSECTION	CRASHES						CALCULATED CRASH RATE	PUBLISHED ODOT COMPARISON CRASH RATE
	FATAL	SERIOUS INJURY	MINOR INJURY	POSSIBLE INJURY	PDO	TOTAL		
CASCADE HWY / OR22 WB RAMPS	0	1	4	2	5	12	0.479	0.408
CASCADE HWY / OR22 EB RAMPS	0	0	5	3	15	23	0.740	0.860
CASCADE HWY / GOLF LN	0	0	0	0	0	0	0.000	0.408
CASCADE HWY / WHITNEY ST	0	0	0	2	5	7	0.230	0.509
CASCADE HWY / SHAFF RD / FERN RIDGE RD	0	0	1	6	10	16	0.441	0.860

## EXISTING TRAFFIC VOLUMES

Weekday AM and PM peak hour turning movement counts (7:00-9:00 a.m. and 4:00-6:00 p.m.) were collected at the five study intersections on Thursday, May 30<sup>th</sup>, 2024. A seasonal adjustment factor of 1.08 was applied to the existing volumes to represent the 30<sup>th</sup> Highest Hourly Volumes (30HV). ATR Station #24-005 was used and is located on OR22 approximately 3.5 miles west of our study intersections. The resulting 2024 Existing traffic volumes are shown in Figure 2.

## INTERSECTION PERFORMANCE MEASURES

Level of service (LOS) ratings and volume-to-capacity (v/c) ratios are two commonly used performance measures that provide a good picture of intersection operations.

- Level of Service (LOS):** A “report card” rating (A through F) based on the average delay experienced by vehicles at the intersection. LOS A, B, and C indicate conditions where traffic moves without significant delays over periods of peak hour travel demand. LOS D and E are progressively worse operating conditions. LOS F represents conditions where average vehicle delay has become excessive and demand has exceeded capacity.
- Volume-to-capacity (v/c) ratio:** A decimal representation (typically between 0.00 and 1.00) of the proportion of capacity that is being used at a turn movement, approach leg, or intersection. It is determined by dividing the peak hour traffic volume by the



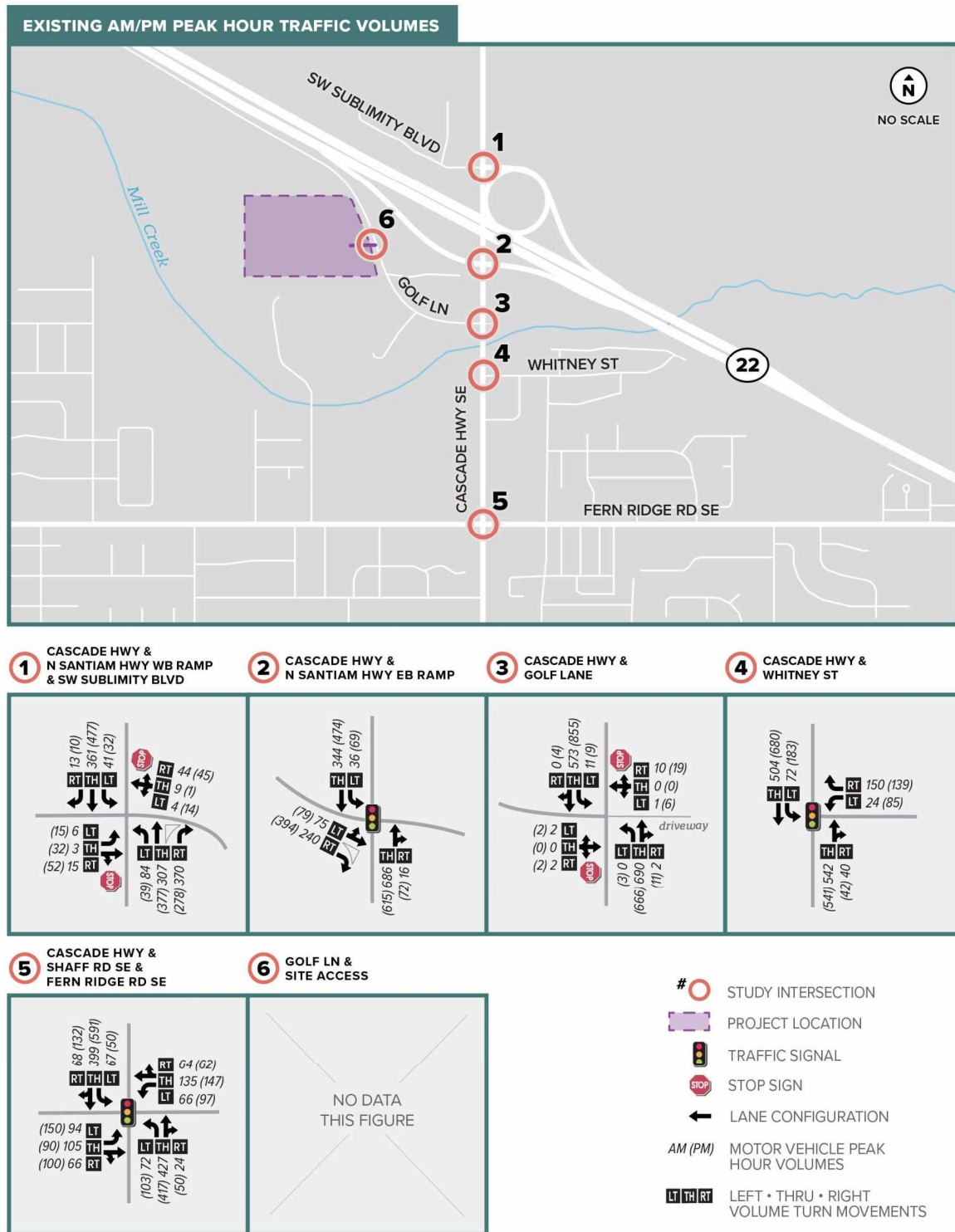
hourly capacity of a given intersection or movement. A lower ratio indicates smooth operations and minimal delays. As the ratio approaches 1.00, congestion increases, and performance is reduced. If the ratio is greater than 1.00, the turn movement, approach leg, or intersection is oversaturated and usually results in excessive queues and long delays.

The intersections in this analysis are predominately under either State or Marion County jurisdiction. Below are the standards for the agencies:

For intersections under ODOT jurisdiction, the Oregon Highway Plan identifies the operational standards for State Highways. OR 22 is a freight route on a state highway and will need to meet the v/c ratio standards in Table 6 of the Oregon Highway Plan. The standard for the WB ramps is a v/c ratio of 0.70 or better and for the EB ramps, the standard is 0.80 or better.

Marion County standards state that all signalized intersections shall operate at a LOS D or better (LOS E or better for all individual movements) and v/c ratio of 0.85 or better. Two-way stop controlled intersections shall operate at Level Of Service E or better. For intersections that are within the UGB of a city, the City' standard shall also apply.

The City of Stayton's Land Use and Development Code states the minimum acceptable LOS for signalized intersections is LOS "D". The minimum acceptable level of service for unsignalized two-way stop-controlled intersections is LOS "E" or LOS "F" with a v/c ratio of 0.95 or less for the critical movement.



**FIGURE 2: EXISTING 2023 AM AND PM PEAK HOUR VOLUMES**

## EXISTING OPERATING CONDITIONS

Existing traffic operations at the study intersections were determined for the AM and PM peak hours based on the Highway Capacity Manual (HCM) 6th Edition methodology for signalized and unsignalized intersections.<sup>4</sup> The results were then compared with the Marion County and ODOT operating standards. Table 3 lists the estimated v/c ratio and delay at each study intersection.

As shown below, there is one study intersection that does not meet the operating standards for the 2024 Existing PM peak hour and that is the Cascade Highway/Shaff Road/Fern Ridge Road intersection, which is under the County's jurisdiction.

**TABLE 3: EXISTING INTERSECTION OPERATIONS (2024)**

INTERSECTION	JURISDICTIONAL OWNER	OPERATING STANDARD	AM PEAK HOUR			PM PEAK HOUR		
			V/C RATIO	DELAY (SECS)	LOS	V/C RATIO	DELAY (SECS)	LOS
CASCADE HWY / OR22 WB RAMPS	ODOT	$v/c \leq 0.70$ ( $v/c \leq 0.90$ ) <sup>a</sup>	0.06	33.9	D	0.13	36.7	E
CASCADE HWY / OR22 EB RAMPS	ODOT	$v/c \leq 0.80$ ( $v/c \leq 0.90$ ) <sup>a</sup>	0.80	34.9	C	0.81	23.9	C
CASCADE HWY / GOLF LN <sup>b</sup>	County	LOS E; $v/c \leq 0.95$	0.05	18.2	C	0.15	27.2	D
CASCADE HWY / WHITNEY ST	County	LOS D; $v/c \leq 0.85$	0.67	15.2	B	0.69	17.8	B
CASCADE HWY / SHAFF RD / FERN RIDGE RD	County	LOS D; $v/c \leq 0.85$	0.73	34.2	C	<b>0.88</b>	37.2	D

**STOP CONTROLLED INTERSECTION:**

Delay = Critical Movement Approach Delay (secs)  
v/c = Associated Movement Volume-to-Capacity Ratio  
LOS = Level of Service (Major/Minor Road)

**SIGNALIZED INTERSECTION**

Delay = Average Intersection Delay (secs)  
v/c = Total Volume-to-Capacity Ratio  
LOS = Total Level of Service

<sup>a</sup> This v/c ratio may be increased to 0.90 if it can be determined that vehicles queues will not extend onto the mainline or into the portion of the ramp needed to safely accommodate deceleration; and if an adopted Interchange Area Management Plan (IAMP) is present or can be developed.

Queuing analysis showed that eastbound off-ramp vehicle queues do not extend onto the mainline of OR 22 during the peak hours. The queues are approximately 175 feet during the PM peak hour, while the off-ramp is approximately 1,800 feet in length.

At the intersection of Cascade Highway and Golf Lane, there is currently a two-way left turn lane (TWLTL) this is striped along Cascade Highway. This TWLTL serves as a left turn lane for vehicles turning off Cascade Highway onto Golf Lane and into the Cherriots Park and Ride lot. It also provides an opportunity for vehicles turning out of Golf Lane or the Park and Ride onto Cascade

<sup>4</sup> Highway Capacity Manual, 6th Edition, Transportation Research Board, 2016.

Highway to make a left turn in two stages. During field observations, vehicles were observed to perform this two-stage maneuver during the peak hour. As shown in Figure 2, during the peak hours the number of vehicles turning into the Park and Ride lot is low (<10 vehicles) as well as the number of vehicles turning left out of Golf Lane (<5 vehicles), resulting in minimal conflicts within the TWLTL. This two-stage left turn was maintained in the analysis models for future conditions.

The intersection of Cascade Highway/Shaff Road/Fern Ridge Road currently exceeds the County/City operating standards during the PM peak hour. This is primarily due to the high volume (>1,200 vehicles per hour) of north-south traffic through the intersection. Traffic volumes on Cascade Highway at the intersection currently exceed the City's projected 2040 traffic volume estimates in their TSP. There is no improvement project identified in the City's Transportation System Plan.

## PROJECT IMPACTS

This section reviews the impacts that the proposed residential development may have on the transportation system within the study area. This analysis includes the trip generation, trip distribution, and future year traffic volumes and operating conditions for the study intersections for both the No-Build and Build scenarios.

## PROPOSED DEVELOPMENT

The development is a 92-lot subdivision to be used for single-family residential living. All lots will be accessed via Golf Lane. The project completion is estimated to be in 2028.

## ANALYSIS SCENARIOS

Future operating conditions were analyzed at the study intersections for the following future traffic scenarios. The comparison of the following scenarios enables the assessment of project impacts:

- 2028 No-Build – This scenario represents the expected future traffic conditions of the study area without the project trips from the proposed development. There is currently one in-process development (Fern Ridge Apartments) near the study area and the associated project trips were included in the No-Build scenario.
- 2028 Build – This scenario represents the expected traffic conditions of the study area including the project trips for the proposed development, assuming it is built and fully occupied by 2028

## TRIP GENERATION

Trip generation is the method used to estimate the number of vehicles added to site roadways and the adjacent roadway network by a development during a specified period (i.e., such as the PM

peak hour). ITE 11<sup>th</sup> Edition trip generation data was used to determine the trip generation of the new residential housing development.<sup>5</sup>

Single-Family Detached Housing (ITE code 210) was used to estimate the trip generation from the site. Neither Internal nor Pass-By trip reductions were applied to the values as they do not apply for this land use. Table 4 provides the trip generation for the proposed development. As shown, the development is expected to generate a total of 69 (17 in, 52 out) AM peak hour trips and 92 (58 in, 34 out) PM peak hour trips.

**TABLE 4: TRIP GENERATION**

LAND USE (ITE CODE)	SIZE	AM PEAK TRIPS			PM PEAK TRIPS			DAILY TRIPS
		TOTAL	IN	OUT	TOTAL	IN	OUT	
<b>SINGLE-FAMILY DETACHED HOUSING (210)</b>	92 units	69	17	52	92	58	34	935

### TRIP DISTRIBUTION

Trip distribution provides an estimate of where project-related trips would be coming from and going to. It is given as percentages at key gateways to the study area and is used to route project trips through the study intersections. Figure 3 shows the expected trip distribution and project trip routing for the trips generated by the proposed development. The distribution was coordinated with City of Stayton’s consultant traffic engineer.

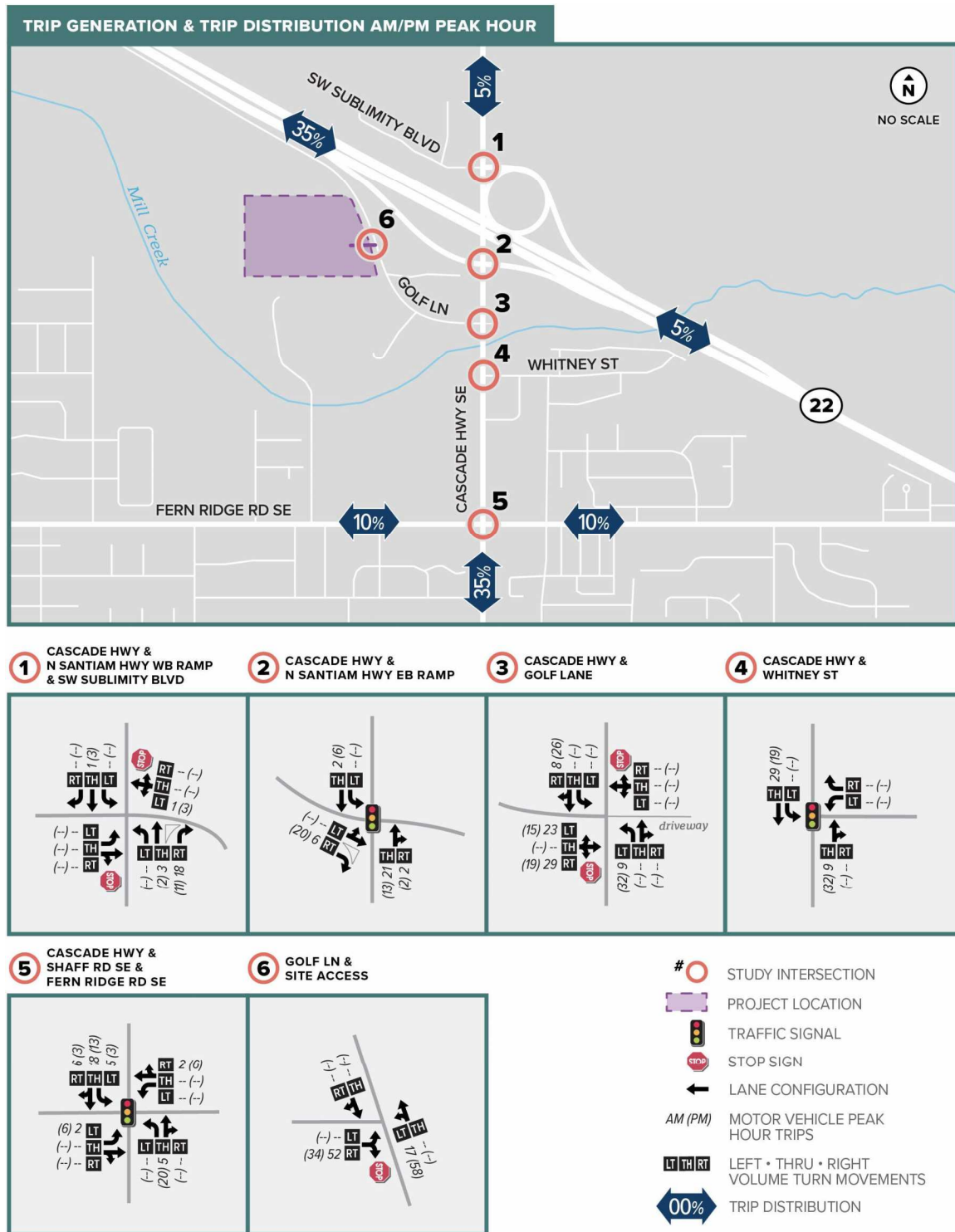
- 35% to/from N First Avenue south of the project site
- 35% to/from OR22 west of the project site
- 10% to/from Shaff Road southwest of the project site
- 10% to/from Fern Ridge Road southeast of the project site
- 5% to/from S Center Street north of the project site
- 5% to/from OR22 east of the project site

### FUTURE TRAFFIC VOLUMES

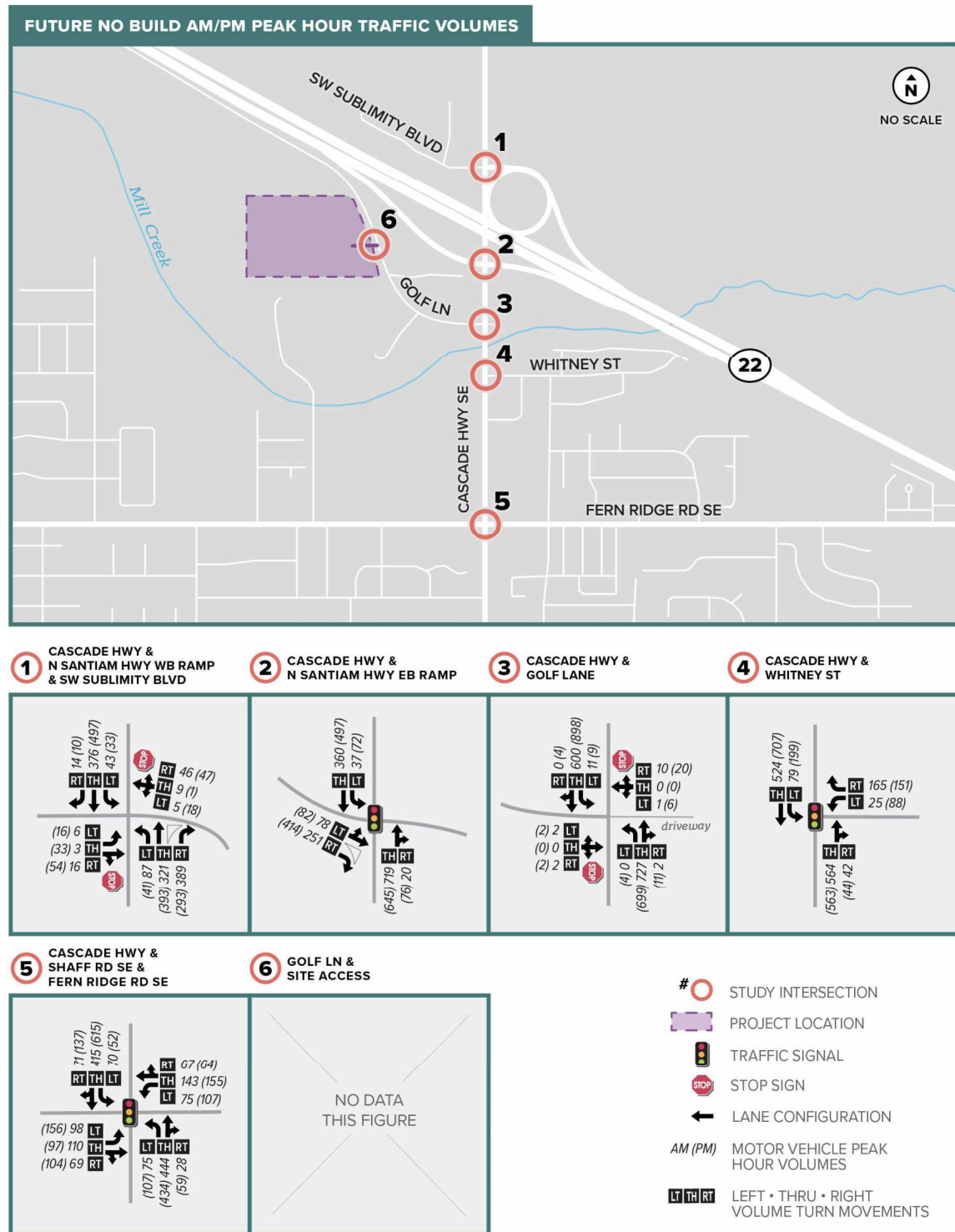
The AM and PM peak hour traffic volumes for the two future analysis scenarios are shown in Figure 4 and Figure 5. The Future 2028 No-Build scenario volumes were estimated by applying a linear growth rate of 1% per year to the Existing 2024 volumes over four years to 2028 (assumed year of project completion). The 1% linear growth rate was supported by the City’s consultant traffic engineer and captures typical vehicle growth associated with regional and local growth. Additionally, the vehicle trips generated by the Fern Ridge Apartments were added to the 2028 No Build scenario volumes. The Future 2028 Build scenario volumes were estimated by adding the project generation trips to the Future 2028 No-Build scenario volumes.

<sup>5</sup> Trip Generation Manual, 11th Edition, Institute of Transportation Engineers, 2021.

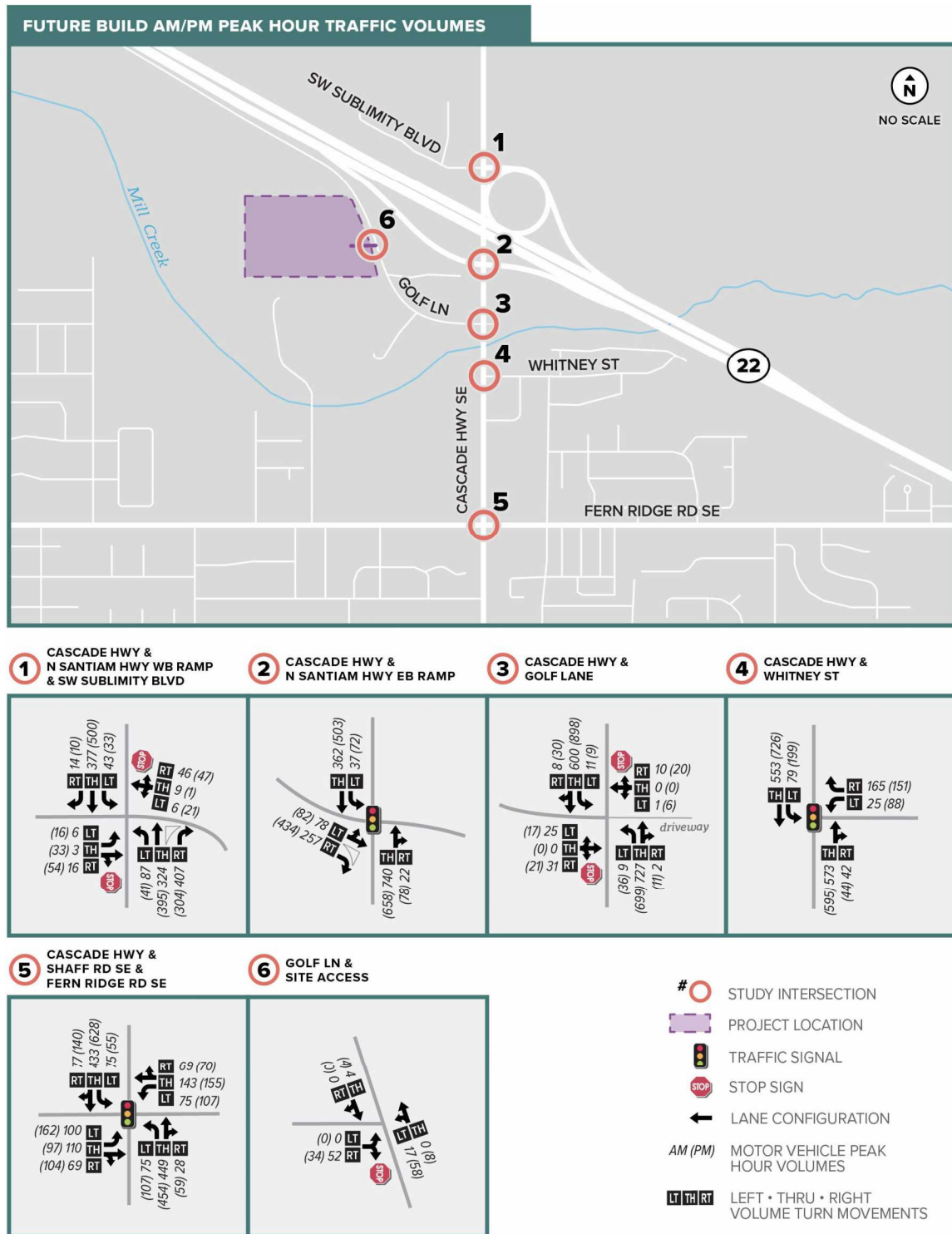




**FIGURE 3: TRIP GENERATION & TRIP DISTRIBUTION**



**FIGURE 4: FUTURE 2028 NO-BUILD AM AND PM PEAK HOUR VOLUMES**



**FIGURE 5: FUTURE 2028 BUILD AM AND PM PEAK HOUR VOLUMES**

## FUTURE INTERSECTION OPERATIONS

Future traffic operations at the study intersections were determined for the AM and PM peak hour based on the Highway Capacity Manual (HCM) 6<sup>th</sup> Edition methodology for unsignalized intersections. Table 5 and Table 6 list the estimated v/c ratio, delay, and LOS at each study intersection for the AM and PM peak hours for the No Build and Build scenarios, respectively. The reports are provided in the appendix.

As shown, the Cascade Highway/Shaff Road/Fern Ridge Road intersection continues to fail to meet the County's operating standard in the PM peak hour.

**TABLE 5: FUTURE (2028) NO-BUILD INTERSECTION OPERATIONS – AM & PM PEAK**

INTERSECTION	JURISDICTIONAL OWNER	OPERATING STANDARD	AM PEAK HOUR			PM PEAK HOUR		
			V/C RATIO	DELAY (SECS)	LOS	V/C RATIO	DELAY (SECS)	LOS
CASCADE HWY / OR22 WB RAMPS	ODOT	v/c ≤ 0.70 (v/c ≤ 0.90) <sup>a</sup>	0.06	37.3	E	0.18	42.8	E
CASCADE HWY / OR22 EB RAMPS	ODOT	v/c ≤ 0.80 (v/c ≤ 0.90) <sup>a</sup>	0.85	45.1	D	0.87	32.0	C
CASCADE HWY / GOLF LN	County	LOS E; v/c ≤ 0.95	0.05	19.4	C	0.17	29.9	D
CASCADE HWY / WHITNEY ST	County	LOS D; v/c ≤ 0.85	0.71	16.7	B	0.73	19.6	B
CASCADE HWY / SHAFF RD / FERN RIDGE RD	County	LOS D; v/c ≤ 0.85	0.76	37.4	D	<b>0.88</b>	39.1	D

**STOP CONTROLLED INTERSECTION:**

Delay = Critical Movement Approach Delay (secs)  
v/c = Associated Movement Volume-to-Capacity Ratio  
LOS = Level of Service of Associated Movement

**SIGNALIZED INTERSECTION**

Delay = Average Intersection Delay (secs)  
v/c = Total Volume-to-Capacity Ratio  
LOS = Total Level of Service

<sup>a</sup> This v/c ratio may be increased to 0.90 if it can be determined that vehicles queues will not extend onto the mainline or into the portion of the ramp needed to safely accommodate deceleration; and if an adopted Interchange Area Management Plan (IAMP) is present or can be developed.

Queuing analysis shows that eastbound off-ramp vehicle queues do not extend onto the mainline of OR 22 during the peak hours. The AM and PM peak hour queues are approximately 75 feet and 150 feet, respectively, while the off-ramp is approximately 1,800 feet in length.

As shown, the Cascade Highway/Shaff Road/Fern Ridge Road intersection continues to fail to meet the County's operating standard in the AM peak hour and PM peak hour.

**TABLE 6: FUTURE (2028) BUILD INTERSECTION OPERATIONS – AM & PM PEAK**

INTERSECTION	JURISDICTIONAL OWNER	OPERATING STANDARD	AM PEAK HOUR			PM PEAK HOUR		
			V/C RATIO	DELAY (SECS)	LOS	V/C RATIO	DELAY (SECS)	LOS
CASCADE HWY / OR22 WB RAMPS	ODOT	$v/c \leq 0.70$ ( $v/c \leq 0.90$ ) <sup>a</sup>	0.06	37.6	E	0.21	45.0	E
CASCADE HWY / OR22 EB RAMPS	ODOT	$v/c \leq 0.80$ ( $v/c \leq 0.90$ ) <sup>a</sup>	0.87	52.2	D	0.90	34.9	C
CASCADE HWY / GOLF LN	County	LOS E; $v/c \leq 0.95$	0.25	22.7	C	0.21	37.0	E
CASCADE HWY / WHITNEY ST	County	LOS D; $v/c \leq 0.85$	0.72	17.0	B	0.75	20.6	C
CASCADE HWY / SHAFF RD / FERN RIDGE RD	County	LOS D; $v/c \leq 0.85$	0.78	38.7	D	<b>0.91</b>	41.6	D
GOLF LN / PROPOSED ACCESS	County	LOS E; $v/c \leq 0.95$	0.06	8.5	A	0.04	8.5	A

**STOP CONTROLLED INTERSECTION:**

Delay = Critical Movement Approach Delay (secs)  
v/c = Associated Movement Volume-to-Capacity Ratio  
LOS = Level of Service (Major/Minor Road)

**SIGNALIZED INTERSECTION**

Delay = Average Intersection Delay (secs)  
v/c = Total Volume-to-Capacity Ratio  
LOS = Total Level of Service

<sup>a</sup> This v/c ratio may be increased to 0.90 if it can be determined that vehicles queues will not extend onto the mainline or into the portion of the ramp needed to safely accommodate deceleration; and if an adopted Interchange Area Management Plan (IAMP) is present or can be developed. Queuing analysis shows that eastbound off-ramp vehicle queues do not extend onto the mainline of OR 22 during the peak hours. The AM and PM peak hour queues are approximately 100 feet and 225 feet, respectively, while the off-ramp is approximately 1,800 feet in length.

**CASCADE HIGHWAY/SHAFF ROAD/FERN RIDGE ROAD INTERSECTION**

As demonstrated throughout the operations analysis, the intersection of Cascade Highway/Shaff Road/Fern Ridge Road does not meet the County's volume-to-capacity operating standard now and under future conditions with or without the project. However, it does meet the City's operating standard of LOS D. Currently, there is no identified improvement in the City of Stayton Transportation System Plan<sup>6</sup> at this intersection.

<sup>6</sup> City of Stayton Transportation System Plan, Adopted June 2019.



The City TSP does not include any capacity improvements at this intersection as it projected a lower volume of traffic on Cascade Highway in 2040 than the current 2024 traffic volumes. This observation was verified when compared to traffic data of similar magnitude that was collected in 2021 for a different nearby development. This data was provided by the City’s traffic engineer. The high volume of traffic on Cascade Highway is likely a result of unanticipated growth and development in the City at the time of the TSP adoption.

Because this intersection is under the County’s jurisdiction and the development will be approved through the City’s land use process, then no mitigation at this intersection is identified or recommended.

### QUEUING ANALYSIS

Vehicle queuing analysis was performed at all intersections for the AM & PM Peak hours under the 2028 Build scenario to determine the 95<sup>th</sup> percentile queues. The 95<sup>th</sup> percentile queue is the queue length for a given intersection movement that has only a five percent chance of being exceeded during the peak traffic hour. The queue lengths were estimated using SimTraffic. As shown in the table below, none of the 95<sup>th</sup> percentile queues at the study intersections exceed the available storage.

**TABLE 7: 2028 BUILD SCENARIO QUEUING**

INTERSECTION	MOVEMENT	STORAGE LENGTH (FT)	AM PEAK		PM PEAK	
			AVERAGE QUEUE (FT)	95 <sup>TH</sup> PERCENTILE QUEUE (FT)	AVERAGE QUEUE (FT)	95 <sup>TH</sup> PERCENTILE QUEUE (FT)
CASCADE HWY / OR22 WB RAMPS	EBL	350	0	25	0	25
	EBTR	350	0	25	25	50
	WBLT	1800	25	50	25	50
	WBR	1800	25	50	25	50
	NBL	750	25	50	25	50
	NBR	750	0	50	0	25
	SBL	500+	0	25	25	50
	SBR	500+	0	0	0	0
CASCADE HWY / OR22 EB RAMPS	EBLT	1800	50	100	50	100
	EBR	1800	25	75	100	225
	NBTR	475	200	400	175	325
	SBL	750	25	50	25	50
	SBT	750	50	100	75	150
CASCADE HWY / GOLF LN	EBLTR	500+	25	100	25	50
	WBLTR	100+	0	25	25	50
	NBL	425	0	25	25	50
	NBTR	425	0	100	0	0
	SBL	475	0	25	0	25

INTERSECTION	MOVEMENT	STORAGE LENGTH (FT)	AM PEAK		PM PEAK	
			AVERAGE QUEUE (FT)	95 <sup>TH</sup> PERCENTILE QUEUE (FT)	AVERAGE QUEUE (FT)	95 <sup>TH</sup> PERCENTILE QUEUE (FT)
CASCADE HWY / WHITNEY ST	SBTR	475	0	0	0	0
	WBL	525	25	50	50	75
	WBR	525	75	125	75	125
	NBTR	1000+	175	325	200	325
	SBL	425	50	100	100	175
	SBT	425	100	175	125	225
CASCADE HWY / SHAFF RD / FERN RIDGE RD	EBL	900	50	100	125	225
	EBTR	900	75	150	125	250
	WBL	500	50	100	100	175
	WBTR	500	125	225	175	300
	NBL	575	50	125	75	150
	NBTR	575	175	300	175	300
	SBL	1200	50	125	75	275
	SBTR	1200	200	350	350	600

## GOLF LANE REALIGNMENT EVALUATION

Based on the Memo of Understanding (MOU)<sup>7</sup> between the City of Stayton and Marion County, the City has agreed to realign Golf Lane when one of two criteria are met. The realignment would be consistent with what is shown in the City's Transportation System (TSP) and would result in Golf Lane intersecting with Cascade Highway at Whitney Lane (relocated from opposite the Cherriots Park and Ride lot). The two criteria for the Golf Lane realignment are described below as well as whether the proposed project is anticipated to trigger either criteria.

### SIGNAL WARRANT EVALUATION

**Criterion:** The Golf Lane Realignment would be triggered at the time when traffic signal warrants are met at the current Cascade Highway/Golf Lane intersection. The MUTCD signal warrants (Warrants 1 and 2) were evaluated at Cascade Highway/Golf Lane intersection under future 2028 Build conditions.<sup>8</sup>

**Findings:** Neither Warrant 1 nor Warrant 2 met the volume thresholds identified in the MUTCD<sup>9</sup>. Warrant 1 only met 5 of the required 8 hours and Warrant 2 only met 2 of the 4 required hours. The results of the signal warrant evaluation are provided in the appendix.

<sup>7</sup> Memorandum of Understanding: City of Stayton and Marion County (Regarding Golf Lane Realignment), May 19, 2003.

<sup>8</sup> Signal Warrants 3 – 8 are not applicable to the proposed development or study area.

<sup>9</sup> Section 4C.02 and Section 4C.03, Manual on Uniform Traffic Control Devices, 11<sup>th</sup> Edition.

## OPERATIONS ANALYSIS

**Criterion:** The Golf Lane Realignment would be triggered at the time when Golf Lane fails to meet County standards for safety and/or operations.

**Findings:** Based on the findings in the [Crash Analysis](#) section, there are no crash trends or history of collisions at this intersection that would warrant any safety concerns. Based on the operations results in Table 5 and Table 6, the proposed project will not cause Golf Lane at Cascade Highway to fail to meet the County's operating standard.

## MOU FINDINGS

The Golf Lane Realignment is not triggered by the proposed project as a traffic signal is not warranted nor do the safety or vehicle operations fail to meet Marion County standards under the proposed Build scenario.

## SITE PLAN EVALUATION

This section reviews the proposed access point and project frontage for the proposed development based on the provided site plan and the City of Stayton's Development Code. This site will have access to the public street network via Golf Lane.

### ACCESS SPACING

One access point is proposed via Golf Lane. The City of Stayton's access spacing standards for collectors<sup>10</sup> states that the minimum spacing between driveways and/or streets is 150 feet. Currently, there is an existing driveway approximately 350 feet to the south of the proposed access point. Therefore, the site meets the City's standards and there are no safety or operational concerns with the proposed access on Golf Lane.

### FRONTAGE IMPROVEMENTS

The City of Stayton's TSP has street cross-sections standards for City collectors<sup>11</sup>. The development is required to construct half-street frontage improvements consistent with the cross-section standards identified in the TSP on Golf Lane. The City's Collector standard requires a right-of-way width of 60-80 feet, and includes bike lanes, planter strips, and sidewalks.

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<sup>10</sup> City of Stayton Transportation System Plan, Adopted June 2019 - Table 7

<sup>11</sup> City of Stayton Transportation System Plan, Adopted June 2019 – Exhibit 4. Collector

## PROJECT SUMMARY

The proposed single-family subdivision development in Stayton, Oregon consists of 92 total lots. All lots will be accessed via Golf Lane. The estimated year of completion is 2028. A summary of the development and its anticipated impacts are as follows:

### TRIP GENERATION

- The development is expected to generate a total of 69 (17 in, 52 out) AM peak hour trips and 92 (58 in, 34 out) PM peak hour trips.

### INTERSECTION OPERATIONS & VEHICLE QUEUING

- The Cascade Highway / Shaff Road / Fern Ridge Road intersection does not meet the County's operating standard during the PM Peak Hour under all analysis scenarios. No planned improvement is identified in the City of Stayton Transportation System Plan.
- The traffic volumes on Cascade Highway currently exceed the City's 2040 traffic volume projections. This is likely due to a high rate of development and growth in this area of Stayton than anticipated at the time of the TSP adoption.
- Because this intersection is under Marion County's jurisdiction and the development will be approved through the City of Stayton land use process, then no mitigation at this intersection is identified or recommended.
- None of the 95th percentile vehicle queues at the study intersections exceed the available storage under the AM or PM Build scenarios.

### GOLF LANE REALIGNMENT

- The intersection of Cascade Highway & Golf Lane does not meet the criteria for realignment (signal warrants or safety/operational deficiency).

### SITE EVALUATION

- The access point via Golf Lane meets the City of Stayton standard for access spacing. There are no safety or operational concerns with the proposed access on Golf Lane.
- Preliminary sight distance was measured at the proposed access on Golf Lane and found to meet AASHTO requirements. Prior to occupancy, sight distance at any new or modified access points will need to be verified, documented, and stamped by a registered professional Civil or Traffic Engineer licensed in the State of Oregon
- Half-street improvements are to be constructed along the project frontage consistent with City Collector standards, which require 60-80 feet of right-of-way, bike lanes, planter strips, and sidewalks.

## APPENDIX



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# APPENDIX A: TRAFFIC DATA

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## Car Volumes

[illegible]

## Truck Volumes

[illegible]

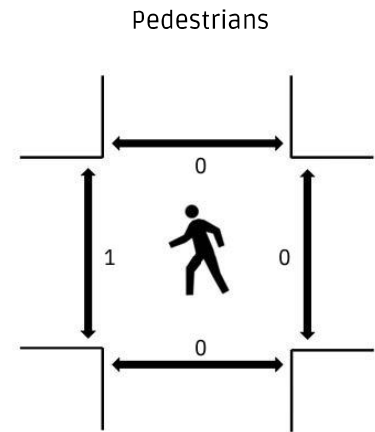
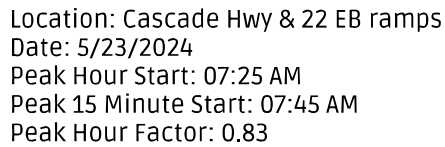
## Bike Volumes

[illegible]

Pedestrian Volumes

Time	Pedestrians				Totals	
Time	NB	SB	EB	WB	15min	1hr
07:00:00 AM	0	0	0	0		
07:05:00 AM	0	0	0	0		
07:10:00 AM	0	0	0	0	0	
07:15:00 AM	0	0	0	0	0	
07:20:00 AM	0	0	0	0	0	
07:25:00 AM	0	0	0	0	0	
07:30:00 AM	0	0	0	0	0	
07:35:00 AM	0	0	0	0	0	
07:40:00 AM	0	0	0	0	0	
07:45:00 AM	0	0	0	0	0	
07:50:00 AM	0	0	0	0	0	
07:55:00 AM	0	0	0	0	0	0
08:00:00 AM	0	0	0	0	0	0
08:05:00 AM	0	0	0	0	0	0
08:10:00 AM	0	0	0	0	0	0
08:15:00 AM	0	0	0	0	0	0
08:20:00 AM	0	0	0	0	0	0
08:25:00 AM	0	0	0	0	0	0
08:30:00 AM	0	0	0	0	0	0
08:35:00 AM	0	0	0	0	0	0
08:40:00 AM	0	0	0	0	0	0
08:45:00 AM	0	0	0	0	0	0
08:50:00 AM	0	0	0	0	0	0
08:55:00 AM	0	0	0	0	0	0



[illegible]

## Car Volumes

[illegible]

## Truck Volumes

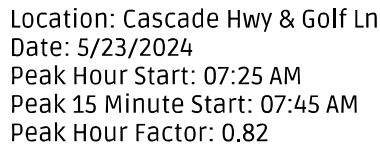
[illegible]

## Bike Volumes

[illegible]

## Pedestrian Volumes

Time	Pedestrians				Totals	
Time	NB	SB	EB	WB	15min	1hr
07:00:00 AM	0	0	0	0		
07:05:00 AM	0	0	0	0		
07:10:00 AM	0	0	0	0	0	
07:15:00 AM	0	0	0	0	0	
07:20:00 AM	0	0	0	0	0	
07:25:00 AM	0	0	0	0	0	
07:30:00 AM	0	0	0	0	0	
07:35:00 AM	0	0	1	0	1	
07:40:00 AM	0	0	0	0	1	
07:45:00 AM	0	0	0	0	1	
07:50:00 AM	0	0	0	0	0	
07:55:00 AM	0	0	0	0	0	1
08:00:00 AM	0	0	0	0	0	1
08:05:00 AM	0	0	0	0	0	1
08:10:00 AM	0	0	0	0	0	1
08:15:00 AM	0	0	0	0	0	1
08:20:00 AM	0	0	0	0	0	1
08:25:00 AM	0	0	0	0	0	1
08:30:00 AM	0	0	0	0	0	1
08:35:00 AM	0	0	0	0	0	0
08:40:00 AM	0	0	0	0	0	0
08:45:00 AM	0	0	0	0	0	0
08:50:00 AM	0	0	0	0	0	0
08:55:00 AM	0	0	1	0	1	1



Time	NB (Cascade Hwy)					SB (Cascade Hwy)					EB (Golf Ln)					WB (Golf Ln)					Totals							
Time	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	15min	1hr						
07:00:00 AM	0	32	0	0	0	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	187							
07:05:00 AM	0	39	0	0	0	1	23	0	0	0	0	0	0	0	0	0	0	2	0	0			202					
07:10:00 AM	0	39	0	0	0	1	30	0	0	0	0	0	0	0	0	0	0	0	0	0					217			
07:15:00 AM	0	40	1	0	0	0	26	0	0	0	0	0	0	0	0	0	0	0	0	0							246	
07:20:00 AM	1	41	2	0	0	0	35	0	0	0	0	0	0	0	0	1	0	0	0	0								
07:25:00 AM	0	55	1	0	0	2	36	0	0	0	1	0	1	0	0	1	0	2	0	0	289							
07:30:00 AM	0	41	0	0	0	1	36	0	0	0	0	0	0	0	0	0	0	1	0	0			306					
07:35:00 AM	0	63	0	0	0	0	48	0	0	0	0	0	0	0	0	0	0	0	0	0					356			
07:40:00 AM	0	55	0	0	0	0	60	0	0	0	0	0	0	0	0	0	0	1	0	0							358	
07:45:00 AM	0	62	0	0	0	0	67	0	0	0	0	0	0	0	0	0	0	0	0	0								
07:50:00 AM	0	56	0	0	0	0	57	0	0	0	0	0	0	0	0	0	0	0	0	0	349	1165						
07:55:00 AM	0	66	1	0	0	0	54	0	0	0	0	0	1	0	0	0	0	1	0	0			365	1195				
08:00:00 AM	0	80	0	0	0	0	33	0	0	0	0	0	0	0	0	0	0	0	0	0			349		1192			
08:05:00 AM	0	47	0	0	0	1	46	0	0	0	0	0	0	0	0	0	0	1	0	0			331			1185		
08:10:00 AM	0	37	0	0	0	1	27	0	0	0	1	0	0	0	0	0	0	1	0	0			275				1198	
08:15:00 AM	0	32	0	0	0	2	25	0	0	0	0	0	0	0	0	0	0	1	0	0	222	1179						
08:20:00 AM	0	47	0	0	0	3	42	0	0	0	0	0	0	0	0	0	0	1	0	0	220		1177					
08:25:00 AM	0	31	0	0	0	1	45	1	0	0	0	0	1	0	0	0	0	1	0	0	233			1135				
08:30:00 AM	0	45	0	0	0	2	26	0	0	0	1	0	0	0	0	1	0	2	0	0	250				1081			
08:35:00 AM	0	34	0	0	0	0	33	0	0	0	2	0	0	0	0	0	0	0	0	0	226					1001		
08:40:00 AM	0	26	0	0	0	0	36	0	0	0	0	0	0	0	0	0	0	0	0	0	208	960						
08:45:00 AM	0	29	0	0	0	2	17	0	0	0	0	0	0	0	0	0	0	1	0	0	180		906					
08:50:00 AM	0	34	1	0	0	0	35	0	0	0	0	0	0	0	0	1	0	1	0	0	183							
08:55:00 AM	0	34	0	0	0	1	34	0	0	0	0	0	0	0	0	0	0	0	0	0	190							



## Car Volumes

[illegible]

## Truck Volumes

[illegible]

## Bike Volumes

[illegible]

## Pedestrian Volumes

Time	Pedestrians				Totals	
Time	NB	SB	EB	WB	15min	1hr
07:00:00 AM	0	0	0	0		
07:05:00 AM	0	0	0	0		
07:10:00 AM	0	0	0	0	0	
07:15:00 AM	0	0	0	0	0	
07:20:00 AM	0	0	0	0	0	
07:25:00 AM	0	0	0	0	0	
07:30:00 AM	0	0	0	0	0	
07:35:00 AM	0	0	0	0	0	
07:40:00 AM	0	0	0	0	0	
07:45:00 AM	0	0	0	0	0	
07:50:00 AM	0	0	0	0	0	
07:55:00 AM	0	0	0	0	0	0
08:00:00 AM	0	0	0	0	0	0
08:05:00 AM	0	0	0	0	0	0
08:10:00 AM	0	0	0	0	0	0
08:15:00 AM	0	0	0	0	0	0
08:20:00 AM	0	0	0	0	0	0
08:25:00 AM	0	0	0	0	0	0
08:30:00 AM	0	0	0	0	0	0
08:35:00 AM	0	0	0	0	0	0
08:40:00 AM	0	0	0	0	0	0
08:45:00 AM	0	0	0	0	0	0
08:50:00 AM	0	0	0	0	0	0
08:55:00 AM	0	0	0	0	0	0



Location: Cascade Hwy & Whitney St

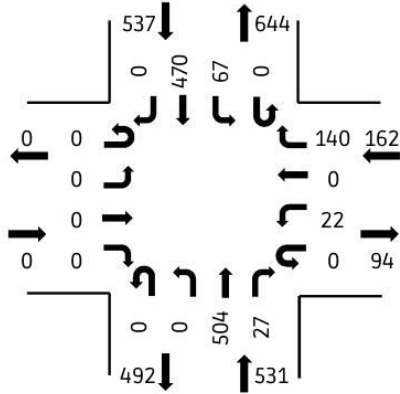
Date: 5/23/2024

Peak Hour Start: 07:25 AM

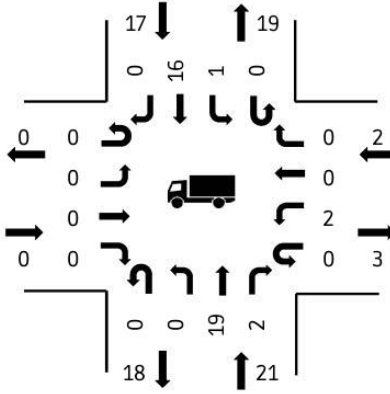
Peak 15 Minute Start: 07:45 AM

Peak Hour Factor: 0.8

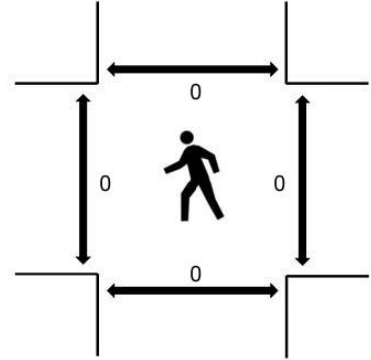
Motorized Vehicles



Heavy Vehicles



Pedestrians



(peak hour)

All Vehicle Volumes

Time	NB (Cascade Hwy)					SB (Cascade Hwy)					EB (Whitney St)					WB (Whitney St)					Totals	
	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	15min	1hr
07:00:00 AM	0	24	1	0	0	1	19	0	0	0	0	0	0	0	0	2	0	5	0	0		
07:05:00 AM	0	35	1	0	0	0	20	0	0	0	0	0	0	0	0	0	0	7	0	0		
07:10:00 AM	0	29	0	0	0	1	28	0	0	0	0	0	0	0	0	3	0	8	0	0	184	
07:15:00 AM	0	40	2	0	0	2	25	0	0	0	0	0	0	0	0	1	0	1	0	0	203	
07:20:00 AM	0	34	1	0	0	6	28	0	0	0	0	0	0	0	0	1	0	11	0	0	221	
07:25:00 AM	0	43	3	0	0	5	36	0	0	0	0	0	0	0	0	3	0	10	0	0	252	
07:30:00 AM	0	33	1	0	0	2	32	0	0	0	0	0	0	0	0	2	0	9	0	0	260	
07:35:00 AM	0	45	0	0	0	6	39	0	0	0	0	0	0	0	0	1	0	19	0	0	289	
07:40:00 AM	0	44	2	0	0	6	56	0	0	0	0	0	0	0	0	0	0	10	0	0	307	
07:45:00 AM	0	49	3	0	0	9	53	0	0	0	0	0	0	0	0	4	0	13	0	0	359	
07:50:00 AM	0	56	1	0	0	3	58	0	0	0	0	0	0	0	0	2	0	12	0	0	381	
07:55:00 AM	0	44	1	0	0	6	50	0	0	0	0	0	0	0	0	3	0	19	0	0	386	1129
08:00:00 AM	0	56	5	0	0	3	34	0	0	0	0	0	0	0	0	1	0	18	0	0	372	1194
08:05:00 AM	0	38	4	0	0	8	34	0	0	0	0	0	0	0	0	3	0	10	0	0	337	1228
08:10:00 AM	0	27	2	0	0	5	21	0	0	0	0	0	0	0	0	0	0	6	0	0	275	1220
08:15:00 AM	0	27	3	0	0	3	26	0	0	0	0	0	0	0	0	2	0	9	0	0	228	1219
08:20:00 AM	0	42	2	0	0	11	31	0	0	0	0	0	0	0	0	1	0	5	0	0	223	1230
08:25:00 AM	0	18	0	0	0	7	40	0	0	0	0	0	0	0	0	2	0	11	0	0	240	1208
08:30:00 AM	0	40	3	0	0	1	25	0	0	0	0	0	0	0	0	2	0	7	0	0	248	1207
08:35:00 AM	0	25	1	0	0	7	24	0	0	0	0	0	0	0	0	0	0	9	0	0	222	1163
08:40:00 AM	0	22	0	0	0	6	31	0	0	0	0	0	0	0	0	4	0	3	0	0	210	1111
08:45:00 AM	0	25	0	0	0	2	13	0	0	0	0	0	0	0	0	1	0	4	0	0	177	1025
08:50:00 AM	0	32	3	0	0	5	35	0	0	0	0	0	0	0	0	1	0	2	0	0	189	971
08:55:00 AM	0	28	1	0	0	3	26	0	0	0	0	0	0	0	0	4	0	7	0	0	192	917

## Car Volumes

Time	NB (Cascade Hwy)					SB (Cascade Hwy)					EB (Whitney St)					WB (Whitney St)					Totals	
Time	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	15min	1hr
07:00:00 AM	0	24	1	0	0	1	18	0	0	0	0	0	0	0	0	2	0	5	0	0	174 186 205 233 249 279 299 347 368	1082
07:05:00 AM	0	33	1	0	0	0	17	0	0	0	0	0	0	0	0	0	0	7	0	0		
07:10:00 AM	0	26	0	0	0	1	27	0	0	0	0	0	0	0	0	3	0	8	0	0		
07:15:00 AM	0	35	1	0	0	2	23	0	0	0	0	0	0	0	0	1	0	1	0	0		
07:20:00 AM	0	32	1	0	0	6	26	0	0	0	0	0	0	0	0	1	0	11	0	0		
07:25:00 AM	0	41	3	0	0	5	33	0	0	0	0	0	0	0	0	1	0	10	0	0		
07:30:00 AM	0	33	1	0	0	2	32	0	0	0	0	0	0	0	0	2	0	9	0	0		
07:35:00 AM	0	45	0	0	0	6	36	0	0	0	0	0	0	0	0	1	0	19	0	0		
07:40:00 AM	0	42	1	0	0	6	54	0	0	0	0	0	0	0	0	0	0	10	0	0		
07:45:00 AM	0	46	3	0	0	9	52	0	0	0	0	0	0	0	0	4	0	13	0	0		
07:50:00 AM	0	54	1	0	0	3	56	0	0	0	0	0	0	0	0	2	0	12	0	0		
07:55:00 AM	0	43	1	0	0	5	50	0	0	0	0	0	0	0	0	3	0	19	0	0	376	1082
08:00:00 AM	0	56	5	0	0	3	32	0	0	0	0	0	0	0	0	1	0	18	0	0	364	1146
08:05:00 AM	0	35	4	0	0	8	34	0	0	0	0	0	0	0	0	3	0	10	0	0	330	1182
08:10:00 AM	0	25	1	0	0	5	20	0	0	0	0	0	0	0	0	0	0	6	0	0	266	1174
08:15:00 AM	0	25	3	0	0	3	25	0	0	0	0	0	0	0	0	2	0	9	0	0	218	1178
08:20:00 AM	0	40	2	0	0	11	30	0	0	0	0	0	0	0	0	1	0	5	0	0	213	1190
08:25:00 AM	0	15	0	0	0	4	37	0	0	0	0	0	0	0	0	2	0	11	0	0	225	1166
08:30:00 AM	0	40	3	0	0	1	23	0	0	0	0	0	0	0	0	2	0	7	0	0	234	1163
08:35:00 AM	0	23	1	0	0	7	23	0	0	0	0	0	0	0	0	0	0	9	0	0	208	1119
08:40:00 AM	0	22	0	0	0	6	29	0	0	0	0	0	0	0	0	3	0	3	0	0	202	1069
08:45:00 AM	0	25	0	0	0	2	12	0	0	0	0	0	0	0	0	1	0	4	0	0	170	986
08:50:00 AM	0	31	3	0	0	5	33	0	0	0	0	0	0	0	0	1	0	2	0	0	182	933
08:55:00 AM	0	26	1	0	0	3	25	0	0	0	0	0	0	0	0	4	0	7	0	0	185	878



## Truck Volumes

[illegible]

## Bike Volumes

[illegible]

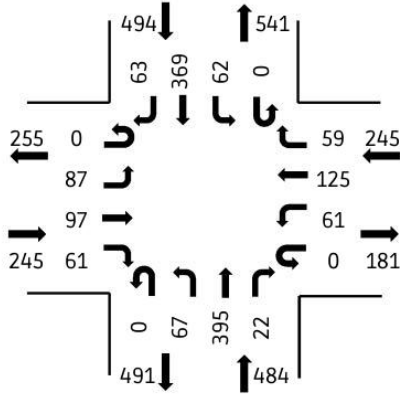
## Pedestrian Volumes

Time	Pedestrians				Totals	
Time	NB	SB	EB	WB	15min	1hr
07:00:00 AM	0	0	0	0		
07:05:00 AM	0	0	0	0		
07:10:00 AM	0	0	0	1	1	
07:15:00 AM	0	0	0	0	1	
07:20:00 AM	0	0	0	0	1	
07:25:00 AM	0	0	0	0	0	
07:30:00 AM	0	0	0	0	0	
07:35:00 AM	0	0	0	0	0	
07:40:00 AM	0	0	0	0	0	
07:45:00 AM	0	0	0	0	0	
07:50:00 AM	0	0	0	0	0	
07:55:00 AM	0	0	0	0	0	1
08:00:00 AM	0	0	0	0	0	1
08:05:00 AM	0	0	0	0	0	1
08:10:00 AM	0	0	0	0	0	0
08:15:00 AM	0	0	0	0	0	0
08:20:00 AM	0	0	0	0	0	0
08:25:00 AM	0	0	0	0	0	0
08:30:00 AM	0	0	0	0	0	0
08:35:00 AM	0	0	0	0	0	0
08:40:00 AM	0	0	0	0	0	0
08:45:00 AM	0	0	0	0	0	0
08:50:00 AM	0	0	0	0	0	0
08:55:00 AM	0	0	0	0	0	0

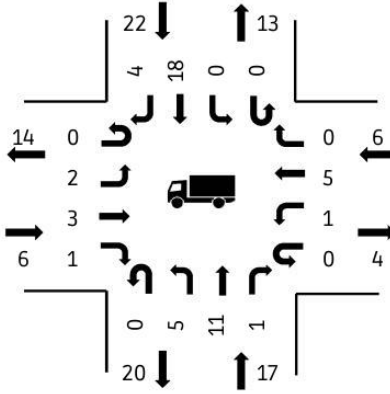


Location: Cascade Hwy & Fern Ridge Rd  
 Date: 6/11/2024  
 Peak Hour Start: 07:25 AM  
 Peak 15 Minute Start: 07:40 AM  
 Peak Hour Factor: 0.77

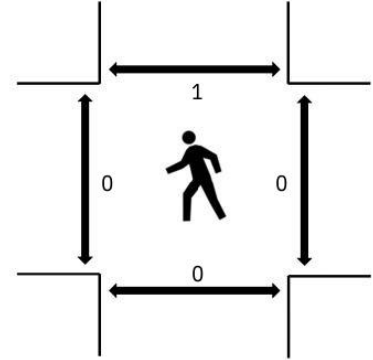
Motorized Vehicles



Heavy Vehicles



Pedestrians



(peak hour)

All Vehicle Volumes

Time	NB (Cascade Hwy)					SB (Cascade Hwy)					EB (Fern Ridge Rd)					WB (Fern Ridge Rd)					Totals	
	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	15min	1hr
07:00:00 AM	2	18	3	0	0	2	15	2	0	0	2	7	4	0	0	1	5	6	0	0		
07:05:00 AM	3	23	0	0	0	2	14	3	0	0	3	1	1	0	0	3	0	9	0	0		
07:10:00 AM	1	32	0	0	0	0	20	3	0	0	4	3	3	0	0	3	4	4	0	0	206	
07:15:00 AM	5	21	3	0	0	3	10	5	0	0	4	4	1	0	0	2	11	10	0	0	218	
07:20:00 AM	3	32	1	0	0	1	17	2	0	0	3	2	5	0	0	9	10	7	0	0	248	
07:25:00 AM	2	30	1	0	0	2	33	7	0	0	7	4	4	0	0	5	9	6	0	0	281	
07:30:00 AM	7	23	1	0	0	2	22	6	0	0	1	8	4	0	0	1	10	5	0	0	292	
07:35:00 AM	6	32	1	0	0	5	30	5	0	0	9	7	3	0	0	9	19	7	0	0	333	
07:40:00 AM	7	37	3	0	0	5	41	7	0	0	2	11	3	0	0	9	20	0	0	0	368	
07:45:00 AM	10	32	1	0	0	2	43	3	0	0	9	16	10	0	0	5	10	8	0	0	427	
07:50:00 AM	8	45	4	0	0	15	49	9	0	0	14	9	4	0	0	8	10	6	0	0	475	
07:55:00 AM	5	40	4	0	0	7	40	5	0	0	9	3	6	0	0	5	12	6	0	0	472	1327
08:00:00 AM	9	33	1	0	0	7	23	4	0	0	12	15	7	0	0	8	9	5	0	0	456	1393
08:05:00 AM	3	35	3	0	0	4	27	4	0	0	6	7	4	0	0	4	5	5	0	0	382	1438
08:10:00 AM	3	29	1	0	0	6	18	3	0	0	9	8	4	0	0	5	10	4	0	0	340	1461
08:15:00 AM	5	28	1	0	0	4	17	4	0	0	4	6	9	0	0	0	4	3	0	0	292	1467
08:20:00 AM	2	31	1	0	0	3	26	6	0	0	5	3	3	0	0	2	7	4	0	0	278	1468
08:25:00 AM	2	30	4	0	0	0	19	3	0	0	3	5	8	0	0	3	8	6	0	0	269	1449
08:30:00 AM	4	19	0	0	0	6	10	2	0	0	3	7	3	0	0	2	4	5	0	0	249	1424
08:35:00 AM	5	21	0	0	0	5	21	1	0	0	1	4	8	0	0	4	8	2	0	0	236	1371
08:40:00 AM	6	22	1	0	0	5	16	3	0	0	4	6	3	0	0	3	7	1	0	0	222	1303
08:45:00 AM	6	27	3	0	0	3	24	1	0	0	6	1	0	0	0	4	5	0	0	0	237	1234
08:50:00 AM	5	27	4	0	0	7	35	4	0	0	5	9	9	0	0	6	8	1	0	0	277	1173
08:55:00 AM	5	20	4	0	0	6	28	2	0	0	8	4	5	0	0	4	4	3	0	0	293	1124

## Car Volumes

Time	NB (Cascade Hwy)					SB (Cascade Hwy)					EB (Fern Ridge Rd)					WB (Fern Ridge Rd)					Totals	
Time	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	15min	1hr
07:00:00 AM	2	17	2	0	0	2	15	2	0	0	2	7	4	0	0	1	5	6	0	0	197 207 238 271 283 322 355 411 462	
07:05:00 AM	3	22	0	0	0	2	13	3	0	0	3	1	1	0	0	3	0	8	0	0		
07:10:00 AM	1	31	0	0	0	0	19	2	0	0	4	3	3	0	0	3	3	4	0	0		
07:15:00 AM	5	19	3	0	0	3	9	4	0	0	4	4	1	0	0	2	11	10	0	0		
07:20:00 AM	3	32	1	0	0	1	16	2	0	0	3	2	5	0	0	9	9	7	0	0		
07:25:00 AM	2	30	0	0	0	2	31	7	0	0	6	4	4	0	0	5	9	6	0	0		
07:30:00 AM	7	23	1	0	0	2	21	4	0	0	1	8	4	0	0	1	10	5	0	0		
07:35:00 AM	6	30	1	0	0	5	29	5	0	0	9	7	3	0	0	8	19	7	0	0		
07:40:00 AM	7	35	3	0	0	5	41	6	0	0	2	11	3	0	0	9	17	0	0	0		
07:45:00 AM	10	31	1	0	0	2	41	3	0	0	8	15	10	0	0	5	9	8	0	0		
07:50:00 AM	8	45	4	0	0	15	48	9	0	0	14	9	4	0	0	8	10	6	0	0	462	
07:55:00 AM	5	39	4	0	0	7	40	5	0	0	9	3	6	0	0	5	12	6	0	0	464	1287
08:00:00 AM	9	32	1	0	0	7	20	4	0	0	12	14	7	0	0	8	9	5	0	0	449	1350
08:05:00 AM	3	34	3	0	0	4	25	3	0	0	6	6	4	0	0	4	5	5	0	0	371	1393
08:10:00 AM	3	28	1	0	0	6	16	3	0	0	9	8	3	0	0	5	9	4	0	0	325	1415
08:15:00 AM	5	27	1	0	0	4	15	4	0	0	4	6	9	0	0	0	4	3	0	0	279	1422
08:20:00 AM	2	30	1	0	0	3	24	6	0	0	5	3	3	0	0	2	7	4	0	0	267	1422
08:25:00 AM	2	30	4	0	0	0	17	2	0	0	3	5	8	0	0	3	8	6	0	0	260	1404
08:30:00 AM	4	16	0	0	0	6	10	2	0	0	2	7	3	0	0	2	4	5	0	0	239	1378
08:35:00 AM	5	21	0	0	0	5	20	1	0	0	1	4	8	0	0	4	8	2	0	0	228	1328
08:40:00 AM	6	21	1	0	0	5	15	3	0	0	4	6	3	0	0	3	7	1	0	0	215	1264
08:45:00 AM	6	27	3	0	0	3	22	1	0	0	6	1	0	0	0	4	5	0	0	0	232	1199
08:50:00 AM	5	27	4	0	0	7	35	4	0	0	4	9	9	0	0	6	8	1	0	0	272	1138
08:55:00 AM	5	19	4	0	0	6	28	2	0	0	8	4	5	0	0	4	4	3	0	0	289	1089

## Truck Volumes

[illegible]



## Bike Volumes

[illegible]

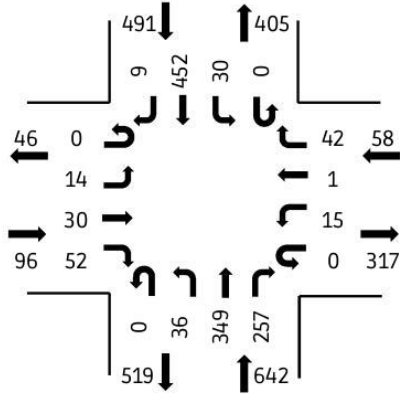
## Pedestrian Volumes

Time	Pedestrians				Totals	
Time	NB	SB	EB	WB	15min	1hr
07:00:00 AM	0	0	0	0		
07:05:00 AM	0	0	0	0		
07:10:00 AM	1	1	0	0	2	
07:15:00 AM	0	0	0	0	2	
07:20:00 AM	0	0	0	0	2	
07:25:00 AM	0	0	0	0	0	
07:30:00 AM	0	1	0	0	1	
07:35:00 AM	0	0	0	0	1	
07:40:00 AM	0	0	0	0	1	
07:45:00 AM	0	0	0	0	0	
07:50:00 AM	0	0	0	0	0	
07:55:00 AM	0	0	0	0	0	3
08:00:00 AM	0	0	0	0	0	3
08:05:00 AM	0	0	0	0	0	3
08:10:00 AM	0	0	0	0	0	1
08:15:00 AM	0	0	0	0	0	1
08:20:00 AM	0	0	0	0	0	1
08:25:00 AM	0	0	0	0	0	1
08:30:00 AM	0	0	0	0	0	0
08:35:00 AM	0	0	0	0	0	0
08:40:00 AM	0	0	0	0	0	0
08:45:00 AM	0	0	0	0	0	0
08:50:00 AM	0	0	0	0	0	0
08:55:00 AM	0	0	0	0	0	0

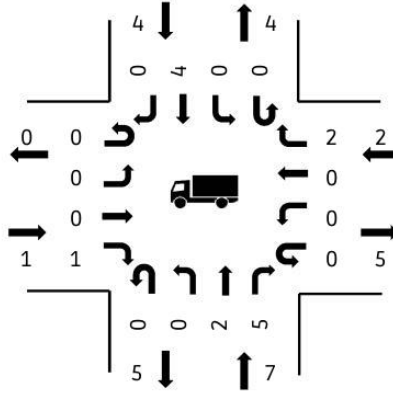


Location: Cascade Hwy & 22 WB ramps  
 Date: 5/30/2024  
 Peak Hour Start: 04:45 PM  
 Peak 15 Minute Start: 05:10 PM  
 Peak Hour Factor: 0.9

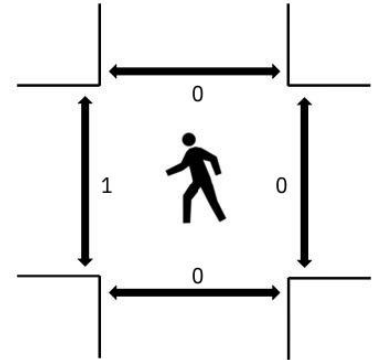
Motorized Vehicles



Heavy Vehicles



Pedestrians



(peak hour)

All Vehicle Volumes

Time	NB (Cascade Hwy)					SB (Cascade Hwy)					EB (22 WB ramps)					WB (22 WB ramps)					Totals	
	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	15min	1hr
04:00:00 PM	5	41	17	0	0	2	32	2	0	0	0	3	4	0	0	1	0	4	0	0		
04:05:00 PM	1	36	26	0	0	4	22	0	0	0	1	5	4	0	0	2	0	4	0	0		
04:10:00 PM	1	25	31	0	0	2	40	0	0	0	0	2	2	0	0	1	0	5	0	0	325	
04:15:00 PM	1	27	12	0	0	3	33	1	0	0	0	3	2	0	0	0	0	5	0	0	301	
04:20:00 PM	2	39	20	0	0	1	26	4	0	0	0	0	2	0	0	0	0	7	0	0	297	
04:25:00 PM	4	43	25	0	0	0	38	5	0	0	1	0	2	1	0	0	0	2	0	0	309	
04:30:00 PM	7	23	23	0	0	1	22	0	0	0	1	2	10	0	0	1	3	2	0	0	317	
04:35:00 PM	3	32	17	0	0	3	30	1	0	0	2	1	7	0	0	0	0	9	0	0	321	
04:40:00 PM	1	32	17	0	0	1	27	2	0	0	3	0	6	0	0	1	1	5	0	0	296	
04:45:00 PM	5	26	15	0	0	3	30	0	0	0	1	0	9	0	0	3	0	4	0	0	297	
04:50:00 PM	4	33	17	0	0	3	28	0	0	0	0	2	5	0	0	1	0	4	0	0	289	
04:55:00 PM	1	26	25	0	0	2	31	1	0	0	1	0	4	0	0	1	0	8	0	0	293	1223
05:00:00 PM	4	25	17	0	0	2	26	1	0	0	0	4	4	0	0	4	0	2	0	0	286	1201
05:05:00 PM	3	25	31	0	0	3	37	1	0	0	4	2	4	0	0	0	0	3	0	0	302	1209
05:10:00 PM	4	38	20	0	0	5	36	0	0	0	4	7	3	0	0	0	0	1	0	0	320	1218
05:15:00 PM	3	25	28	0	0	0	33	1	0	0	2	3	6	0	0	1	0	3	0	0	336	1236
05:20:00 PM	2	42	32	0	0	2	42	0	0	0	2	0	5	0	0	2	0	4	0	0	356	1268
05:25:00 PM	2	23	22	0	0	0	51	1	0	0	0	2	2	0	0	1	0	2	0	0	344	1253
05:30:00 PM	2	28	16	0	0	1	49	2	0	0	0	3	6	0	0	0	0	1	0	0	347	1266
05:35:00 PM	2	36	21	0	0	6	39	1	0	0	0	4	3	0	0	1	1	5	0	0	333	1280
05:40:00 PM	4	22	13	0	0	3	50	1	0	0	0	3	1	0	0	1	0	5	0	0	330	1287
05:45:00 PM	1	21	21	0	0	1	33	0	0	0	0	1	3	0	0	0	0	11	0	0	314	1283
05:50:00 PM	2	14	17	0	0	1	36	0	0	0	3	0	3	0	0	1	0	3	0	0	275	1266
05:55:00 PM	2	28	19	0	0	1	37	0	0	0	0	3	4	0	0	0	0	2	0	0	268	1262

## Car Volumes

Time	NB (Cascade Hwy)					SB (Cascade Hwy)					EB (22 WB ramps)					WB (22 WB ramps)					Totals	
Time	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	15min	1hr
04:00:00 PM	5	41	17	0	0	2	32	2	0	0	0	2	4	0	0	1	0	4	0	0	318	1203
04:05:00 PM	1	35	26	0	0	3	22	0	0	0	1	5	3	0	0	2	0	4	0	0		
04:10:00 PM	1	24	30	0	0	2	39	0	0	0	0	2	2	0	0	1	0	5	0	0		
04:15:00 PM	1	27	11	0	0	3	32	1	0	0	0	2	1	0	0	0	0	5	0	0		
04:20:00 PM	2	39	20	0	0	1	25	4	0	0	0	0	2	0	0	0	0	7	0	0		
04:25:00 PM	4	41	25	0	0	0	38	5	0	0	1	0	2	1	0	0	0	2	0	0		
04:30:00 PM	7	23	22	0	0	1	22	0	0	0	1	2	10	0	0	1	3	2	0	0		
04:35:00 PM	3	31	17	0	0	3	29	1	0	0	2	1	7	0	0	0	0	9	0	0		
04:40:00 PM	1	32	17	0	0	1	27	2	0	0	3	0	6	0	0	1	1	5	0	0		
04:45:00 PM	5	26	14	0	0	3	30	0	0	0	1	0	8	0	0	3	0	4	0	0		
04:50:00 PM	4	33	17	0	0	3	28	0	0	0	0	2	5	0	0	1	0	3	0	0		
04:55:00 PM	1	26	25	0	0	2	31	1	0	0	1	0	4	0	0	1	0	8	0	0		
05:00:00 PM	4	25	17	0	0	2	26	1	0	0	0	4	4	0	0	4	0	2	0	0		
05:05:00 PM	3	25	30	0	0	3	37	1	0	0	4	2	4	0	0	0	0	3	0	0		
05:10:00 PM	4	37	19	0	0	5	34	0	0	0	4	7	3	0	0	0	0	1	0	0		
05:15:00 PM	3	24	27	0	0	0	32	1	0	0	2	3	6	0	0	1	0	3	0	0		
05:20:00 PM	2	42	32	0	0	2	42	0	0	0	2	0	5	0	0	2	0	4	0	0		
05:25:00 PM	2	23	21	0	0	0	50	1	0	0	0	2	2	0	0	1	0	2	0	0		
05:30:00 PM	2	28	16	0	0	1	49	2	0	0	0	3	6	0	0	0	0	1	0	0		
05:35:00 PM	2	36	21	0	0	6	39	1	0	0	0	4	3	0	0	1	1	5	0	0		
05:40:00 PM	4	22	13	0	0	3	50	1	0	0	0	3	1	0	0	1	0	4	0	0		
05:45:00 PM	1	21	21	0	0	1	33	0	0	0	0	1	3	0	0	0	0	11	0	0		
05:50:00 PM	2	14	17	0	0	1	36	0	0	0	3	0	3	0	0	1	0	3	0	0		
05:55:00 PM	2	28	19	0	0	1	36	0	0	0	0	3	4	0	0	0	0	2	0	0		

## Truck Volumes

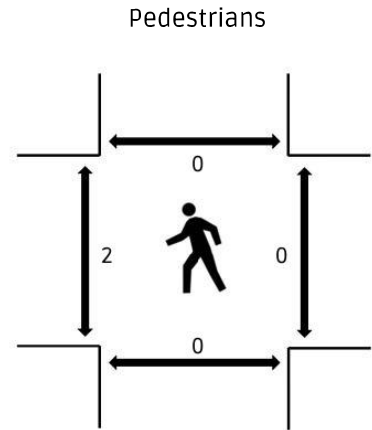
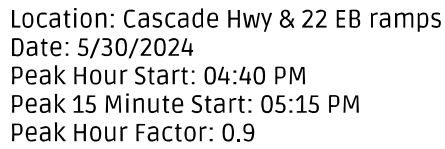
Time	NB (Cascade Hwy)					SB (Cascade Hwy)					EB (22 WB ramps)					WB (22 WB ramps)					Totals																	
Time	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	15min	1hr																
04:00:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	8	12																
04:05:00 PM	1	1	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0			9	8														
04:10:00 PM	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0					4	5												
04:15:00 PM	1	0	1	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0							3	22										
04:20:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0									1	21								
04:25:00 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0											1	18						
04:30:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0													5	19				
04:35:00 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0															8	17		
04:40:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																	7	16
04:45:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0																		
04:50:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2	15																
04:55:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			2	13														
05:00:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					1	14												
05:05:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							1	12										
05:10:00 PM	0	1	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0									1	12								
05:15:00 PM	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0											1	11						
05:20:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0													1	12				
05:25:00 PM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0															1	12		
05:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																	1	11
05:35:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																		
05:40:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	12																
05:45:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			1	12														
05:50:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					1	12												
05:55:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0							1	12										

## Bike Volumes

Time	NB (Cascade Hwy)					SB (Cascade Hwy)					EB (22 WB ramps)					WB (22 WB ramps)					Totals	
Time	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	15min	1hr
04:00:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
04:05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
04:10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:20:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:25:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:35:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:40:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:45:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:50:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:55:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:20:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:25:00 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
05:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
05:35:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
05:40:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
05:45:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
05:50:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
05:55:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2

## Pedestrian Volumes

Time	Pedestrians				Totals	
Time	NB	SB	EB	WB	15min	1hr
04:00:00 PM	0	0	0	0		
04:05:00 PM	0	0	0	0		
04:10:00 PM	0	0	0	0	0	
04:15:00 PM	0	0	0	0	0	
04:20:00 PM	0	0	0	0	0	
04:25:00 PM	0	0	0	0	0	
04:30:00 PM	0	0	0	0	0	
04:35:00 PM	0	0	0	0	0	
04:40:00 PM	0	0	1	0	1	
04:45:00 PM	0	0	1	0	2	
04:50:00 PM	0	0	0	0	2	
04:55:00 PM	0	0	0	0	1	2
05:00:00 PM	0	0	0	0	0	2
05:05:00 PM	0	0	0	0	0	2
05:10:00 PM	0	0	0	0	0	2
05:15:00 PM	0	0	0	0	0	2
05:20:00 PM	0	0	0	0	0	2
05:25:00 PM	0	0	0	0	0	2
05:30:00 PM	0	0	0	0	0	2
05:35:00 PM	0	0	0	0	0	2
05:40:00 PM	0	0	0	0	0	1
05:45:00 PM	0	0	0	0	0	0
05:50:00 PM	0	0	0	0	0	0
05:55:00 PM	0	0	2	0	2	2



Time	NB (Cascade Hwy)					SB (Cascade Hwy)					EB (22 EB ramps)					WB (22 EB ramps)					Totals	
Time	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	15min	1hr
04:00:00 PM	0	50	6	0	0	6	30	0	0	0	11	0	28	0	0	0	0	0	0	0	377	1495
04:05:00 PM	0	61	1	0	0	8	22	0	0	0	6	0	27	0	0	0	0	0	0	0		
04:10:00 PM	0	54	4	0	0	4	38	0	0	0	3	0	18	0	0	0	0	0	0	0		
04:15:00 PM	0	41	6	0	0	3	32	0	0	0	3	0	24	0	0	0	0	0	0	0		
04:20:00 PM	0	55	7	0	0	3	24	0	0	0	9	0	29	0	0	0	0	0	0	0		
04:25:00 PM	0	59	5	0	0	3	36	0	0	0	7	0	33	0	0	0	0	0	0	0		
04:30:00 PM	0	43	7	0	0	3	30	0	0	0	8	0	27	0	0	0	0	0	0	0		
04:35:00 PM	0	51	4	0	0	3	31	0	0	0	6	0	34	0	0	0	0	0	0	0		
04:40:00 PM	0	43	7	0	0	4	34	0	0	0	6	0	35	0	0	0	0	0	0	0		
04:45:00 PM	0	43	8	0	0	6	35	0	0	0	6	0	23	0	0	0	0	0	0	0		
04:50:00 PM	0	44	9	0	0	4	30	0	0	0	11	0	28	0	0	0	0	0	0	0	376	
04:55:00 PM	0	38	9	0	0	6	31	0	0	0	6	0	26	0	0	0	0	0	0	0	363	
05:00:00 PM	0	39	4	0	0	2	32	0	0	0	6	0	35	0	0	0	0	0	0	0	360	
05:05:00 PM	0	54	4	0	0	4	37	0	0	0	6	0	27	0	0	0	0	0	0	0	366	
05:10:00 PM	0	56	4	0	0	3	35	0	0	0	7	0	20	0	0	0	0	0	0	0	375	
05:15:00 PM	0	58	7	0	0	5	33	0	0	0	3	0	35	0	0	0	0	0	0	0	398	
05:20:00 PM	0	67	8	0	0	4	47	0	0	0	6	0	25	0	0	0	0	0	0	0	423	
05:25:00 PM	0	42	7	0	0	11	42	0	0	0	3	0	35	0	0	0	0	0	0	0	438	
05:30:00 PM	0	38	1	0	0	12	43	0	0	0	9	0	30	0	0	0	0	0	0	0	430	
05:35:00 PM	0	53	2	0	0	3	40	0	0	0	4	0	39	0	0	0	0	0	0	0	414	
05:40:00 PM	0	35	8	0	0	3	50	0	0	0	3	0	25	0	0	0	0	0	0	0	398	
05:45:00 PM	0	36	6	0	0	4	31	0	0	0	6	0	27	0	0	0	0	0	0	0	375	
05:50:00 PM	0	30	5	0	0	4	37	0	0	0	5	0	20	0	0	0	0	0	0	0	335	
05:55:00 PM	0	40	5	0	0	4	34	0	0	0	5	0	34	0	0	0	0	0	0	0	333	



## Car Volumes

Time	NB (Cascade Hwy)					SB (Cascade Hwy)					EB (22 EB ramps)					WB (22 EB ramps)					Totals																													
Time	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	15min	1hr																												
04:00:00 PM	0	50	6	0	0	6	30	0	0	0	11	0	28	0	0	0	0	0	0	0	369	1476																												
04:05:00 PM	0	59	1	0	0	8	21	0	0	0	6	0	27	0	0	0	0	0	0	0			344	1463																										
04:10:00 PM	0	51	4	0	0	3	38	0	0	0	3	0	17	0	0	0	0	0	0	0					347	1472																								
04:15:00 PM	0	40	6	0	0	2	31	0	0	0	3	0	24	0	0	0	0	0	0	0							372	1477																						
04:20:00 PM	0	54	7	0	0	3	23	0	0	0	9	0	29	0	0	0	0	0	0	0									384	1509																				
04:25:00 PM	0	58	5	0	0	3	36	0	0	0	6	0	33	0	0	0	0	0	0	0											375	1541																		
04:30:00 PM	0	43	7	0	0	3	30	0	0	0	8	0	27	0	0	0	0	0	0	0													374	1538																
04:35:00 PM	0	50	4	0	0	3	30	0	0	0	6	0	34	0	0	0	0	0	0	0															374	1553														
04:40:00 PM	0	43	7	0	0	4	34	0	0	0	6	0	35	0	0	0	0	0	0	0																	412	1567												
04:45:00 PM	0	42	8	0	0	6	34	0	0	0	6	0	23	0	0	0	0	0	0	0																			398	1552										
04:50:00 PM	0	44	9	0	0	4	30	0	0	0	11	0	28	0	0	0	0	0	0	0																					374	1527								
04:55:00 PM	0	38	9	0	0	6	31	0	0	0	6	0	26	0	0	0	0	0	0	0																							361	1532						
05:00:00 PM	0	39	4	0	0	2	32	0	0	0	6	0	35	0	0	0	0	0	0	0																									360	1527				
05:05:00 PM	0	53	4	0	0	4	37	0	0	0	6	0	27	0	0	0	0	0	0	0																											365	1541		
05:10:00 PM	0	54	4	0	0	3	33	0	0	0	7	0	20	0	0	0	0	0	0	0																													370	1509
05:15:00 PM	0	56	7	0	0	5	32	0	0	0	3	0	35	0	0	0	0	0	0	0																														
05:20:00 PM	0	67	8	0	0	4	47	0	0	0	6	0	25	0	0	0	0	0	0	0	0	416	1541																											
05:25:00 PM	0	41	7	0	0	10	42	0	0	0	3	0	35	0	0	0	0	0	0	0	0			433	1538																									
05:30:00 PM	0	38	1	0	0	12	43	0	0	0	9	0	30	0	0	0	0	0	0	0	0	428	1553																											
05:35:00 PM	0	53	2	0	0	3	40	0	0	0	4	0	39	0	0	0	0	0	0	0	0	412	1567																											
05:40:00 PM	0	35	8	0	0	3	50	0	0	0	3	0	25	0	0	0	0	0	0	0	0	398	1562																											
05:45:00 PM	0	36	6	0	0	4	31	0	0	0	6	0	26	0	0	0	0	0	0	0	0	374	1552																											
05:50:00 PM	0	30	5	0	0	4	37	0	0	0	5	0	20	0	0	0	0	0	0	0	0	334	1527																											
05:55:00 PM	0	40	5	0	0	4	33	0	0	0	5	0	34	0	0	0	0	0	0	0	0	331	1532																											

## Truck Volumes

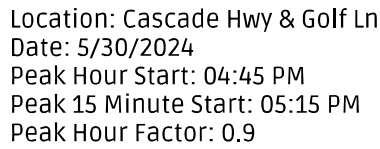
Time	NB (Cascade Hwy)					SB (Cascade Hwy)					EB (22 EB ramps)					WB (22 EB ramps)					Totals																	
Time	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	15min	1hr																
04:00:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	11																
04:05:00 PM	0	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0			10	7														
04:10:00 PM	0	3	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0					4	4												
04:15:00 PM	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0							2	4										
04:20:00 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0									2	19								
04:25:00 PM	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0											1	17						
04:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0													5	16				
04:35:00 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0															8	16		
04:40:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																	7	14
04:45:00 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0																		
04:50:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	14																
04:55:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			2	12														
05:00:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					0	12												
05:05:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							1	11										
05:10:00 PM	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0									2	12								
05:15:00 PM	0	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0											8	12						
05:20:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0													1	11				
05:25:00 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0															2	12		
05:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																	0	12
05:35:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																		
05:40:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	12																
05:45:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0			1	11														
05:50:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					2	12												
05:55:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0							2	12										

## Bike Volumes

Time	NB (Cascade Hwy)					SB (Cascade Hwy)					EB (22 EB ramps)					WB (22 EB ramps)					Totals	
Time	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	15min	1hr
04:00:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
04:05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
04:10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:20:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:25:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:35:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:40:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:45:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:50:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:55:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:20:00 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
05:25:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
05:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
05:35:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
05:40:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
05:45:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
05:50:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
05:55:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2

## Pedestrian Volumes

Time	Pedestrians				Totals	
Time	NB	SB	EB	WB	15min	1hr
04:00:00 PM	0	0	0	0		
04:05:00 PM	0	0	0	0		
04:10:00 PM	0	0	0	0	0	
04:15:00 PM	0	0	0	0	0	
04:20:00 PM	0	0	0	0	0	
04:25:00 PM	0	0	0	0	0	
04:30:00 PM	0	0	0	0	0	
04:35:00 PM	0	0	0	0	0	
04:40:00 PM	0	0	1	0	1	
04:45:00 PM	0	0	1	0	2	
04:50:00 PM	0	0	0	0	2	
04:55:00 PM	0	0	0	0	1	2
05:00:00 PM	0	0	0	0	0	2
05:05:00 PM	0	0	0	0	0	2
05:10:00 PM	0	0	0	0	0	2
05:15:00 PM	0	0	0	0	0	2
05:20:00 PM	0	0	0	0	0	2
05:25:00 PM	0	0	0	0	0	2
05:30:00 PM	0	0	0	0	0	2
05:35:00 PM	0	0	0	0	0	2
05:40:00 PM	0	0	0	0	0	1
05:45:00 PM	0	0	0	0	0	0
05:50:00 PM	0	0	0	0	0	0
05:55:00 PM	2	0	2	0	4	4



A circular diagram showing the 16 steps of a 16-step circular path. Each step is represented by a number (0-15) and a direction arrow (up, down, left, right). The path starts at step 0 (up) and ends at step 15 (down).

## All Vehicle Volumes

[illegible]

## Car Volumes

[illegible]

## Truck Volumes

[illegible]

## Bike Volumes

Time	NB (Cascade Hwy)					SB (Cascade Hwy)					EB (Golf Ln)					WB (Golf Ln)					Totals	
Time	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	15min	1hr
04:00:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
04:05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
04:10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:20:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:25:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:35:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:40:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:45:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:50:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:55:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:20:00 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
05:25:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
05:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
05:35:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
05:40:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
05:45:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
05:50:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
05:55:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2

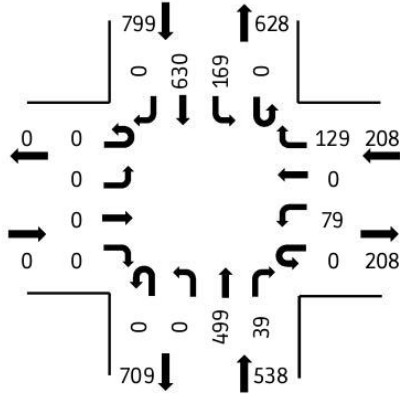
## Pedestrian Volumes

Time	Pedestrians				Totals	
Time	NB	SB	EB	WB	15min	1hr
04:00:00 PM	0	0	0	0		
04:05:00 PM	0	0	0	0		
04:10:00 PM	0	0	0	0	0	
04:15:00 PM	0	0	0	0	0	
04:20:00 PM	0	0	0	0	0	
04:25:00 PM	0	0	0	0	0	
04:30:00 PM	0	0	0	0	0	
04:35:00 PM	0	0	0	0	0	
04:40:00 PM	0	0	1	0	1	
04:45:00 PM	0	0	1	0	2	
04:50:00 PM	0	0	0	0	2	
04:55:00 PM	0	0	0	0	1	2
05:00:00 PM	0	0	0	0	0	2
05:05:00 PM	0	0	0	0	0	2
05:10:00 PM	0	0	0	0	0	2
05:15:00 PM	0	0	0	0	0	2
05:20:00 PM	0	0	0	0	0	2
05:25:00 PM	0	0	0	0	0	2
05:30:00 PM	0	0	0	0	0	2
05:35:00 PM	0	0	0	0	0	2
05:40:00 PM	0	0	0	0	0	1
05:45:00 PM	0	0	0	0	0	0
05:50:00 PM	0	0	0	2	2	2
05:55:00 PM	0	0	0	0	2	2

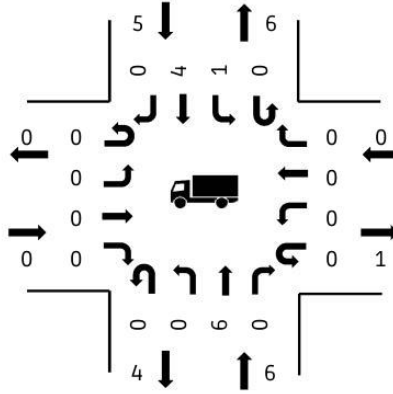


Location: Cascade Hwy & Whitney St  
 Date: 5/30/2024  
 Peak Hour Start: 04:45 PM  
 Peak 15 Minute Start: 05:15 PM  
 Peak Hour Factor: 0.93

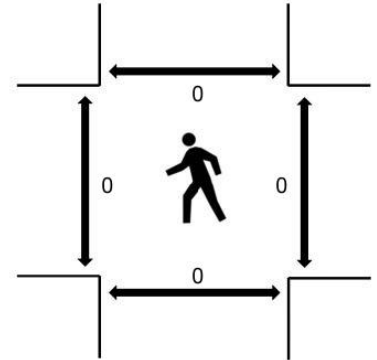
Motorized Vehicles



Heavy Vehicles



Pedestrians



(peak hour)

All Vehicle Volumes

Time	NB (Cascade Hwy)					SB (Cascade Hwy)					EB (Whitney St)					WB (Whitney St)					Totals	
	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	15min	1hr
04:00:00 PM	0	35	8	0	0	10	50	0	0	0	0	0	0	0	0	9	0	13	0	0		
04:05:00 PM	0	50	2	0	0	11	32	0	0	0	0	0	0	0	0	10	0	12	0	0		
04:10:00 PM	0	36	1	0	0	17	48	0	0	0	0	0	0	0	0	8	0	17	0	0	369	
04:15:00 PM	0	40	4	0	0	11	39	0	0	0	0	0	0	0	0	4	0	10	0	0	352	
04:20:00 PM	0	47	7	0	0	16	41	0	0	0	0	0	0	0	0	7	0	18	0	0	371	
04:25:00 PM	0	43	2	0	0	10	60	0	0	0	0	0	0	0	0	6	0	14	0	0	379	
04:30:00 PM	0	36	3	0	0	14	37	0	0	0	0	0	0	0	0	5	0	12	0	0	378	
04:35:00 PM	0	46	2	0	0	15	47	0	0	0	0	0	0	0	0	8	0	8	0	0	368	
04:40:00 PM	0	44	4	0	0	18	56	0	0	0	0	0	0	0	0	7	0	4	0	0	366	
04:45:00 PM	0	43	4	0	0	9	41	0	0	0	0	0	0	0	0	2	0	12	0	0	370	
04:50:00 PM	0	42	1	0	0	12	54	0	0	0	0	0	0	0	0	10	0	11	0	0	374	
04:55:00 PM	0	33	2	0	0	12	43	0	0	0	0	0	0	0	0	6	0	9	0	0	346	1460
05:00:00 PM	0	36	1	0	0	13	53	0	0	0	0	0	0	0	0	6	0	10	0	0	354	1454
05:05:00 PM	0	49	9	0	0	13	50	0	0	0	0	0	0	0	0	3	0	14	0	0	362	1475
05:10:00 PM	0	45	4	0	0	17	38	0	0	0	0	0	0	0	0	8	0	13	0	0	382	1473
05:15:00 PM	0	46	5	0	0	15	49	0	0	0	0	0	0	0	0	10	0	11	0	0	399	1501
05:20:00 PM	0	56	4	0	0	11	60	0	0	0	0	0	0	0	0	2	0	13	0	0	407	1511
05:25:00 PM	0	38	1	0	0	19	60	0	0	0	0	0	0	0	0	7	0	10	0	0	417	1511
05:30:00 PM	0	31	2	0	0	18	54	0	0	0	0	0	0	0	0	9	0	10	0	0	405	1528
05:35:00 PM	0	44	0	0	0	18	66	0	0	0	0	0	0	0	0	7	0	7	0	0	401	1544
05:40:00 PM	0	36	6	0	0	12	62	0	0	0	0	0	0	0	0	9	0	9	0	0	400	1545
05:45:00 PM	0	32	3	0	0	14	41	0	0	0	0	0	0	0	0	10	0	7	0	0	383	1541
05:50:00 PM	0	27	4	0	0	13	48	0	0	0	0	0	0	0	0	5	0	6	0	0	344	1514
05:55:00 PM	0	17	1	0	0	2	16	0	0	0	0	0	0	0	0	0	0	7	0	0	253	1452



## Car Volumes

Time	NB (Cascade Hwy)					SB (Cascade Hwy)					EB (Whitney St)					WB (Whitney St)					Totals		
Time	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	15min	1hr	
04:00:00 PM	0	35	8	0	0	10	50	0	0	0	0	0	0	0	0	9	0	13	0	0			
04:05:00 PM	0	48	2	0	0	10	32	0	0	0	0	0	0	0	0	10	0	12	0	0			
04:10:00 PM	0	35	1	0	0	17	47	0	0	0	0	0	0	0	0	7	0	16	0	0			362
04:15:00 PM	0	39	4	0	0	10	39	0	0	0	0	0	0	0	0	4	0	10	0	0			343
04:20:00 PM	0	46	7	0	0	16	40	0	0	0	0	0	0	0	0	7	0	18	0	0			363
04:25:00 PM	0	42	2	0	0	10	60	0	0	0	0	0	0	0	0	6	0	14	0	0			374
04:30:00 PM	0	36	3	0	0	14	37	0	0	0	0	0	0	0	0	5	0	12	0	0			375
04:35:00 PM	0	45	2	0	0	15	46	0	0	0	0	0	0	0	0	8	0	8	0	0	365		
04:40:00 PM	0	44	4	0	0	18	56	0	0	0	0	0	0	0	0	7	0	4	0	0	364		
04:45:00 PM	0	42	4	0	0	9	40	0	0	0	0	0	0	0	0	2	0	12	0	0	366		
04:50:00 PM	0	42	1	0	0	12	54	0	0	0	0	0	0	0	0	10	0	11	0	0	372		
04:55:00 PM	0	33	2	0	0	12	43	0	0	0	0	0	0	0	0	6	0	9	0	0	344	1444	
05:00:00 PM	0	36	1	0	0	13	53	0	0	0	0	0	0	0	0	6	0	10	0	0	354	1438	
05:05:00 PM	0	47	9	0	0	13	50	0	0	0	0	0	0	0	0	3	0	14	0	0	360	1460	
05:10:00 PM	0	44	4	0	0	17	36	0	0	0	0	0	0	0	0	8	0	13	0	0	377	1459	
05:15:00 PM	0	44	5	0	0	15	48	0	0	0	0	0	0	0	0	10	0	11	0	0	391	1486	
05:20:00 PM	0	56	4	0	0	11	60	0	0	0	0	0	0	0	0	2	0	13	0	0	401	1498	
05:25:00 PM	0	38	1	0	0	19	60	0	0	0	0	0	0	0	0	7	0	10	0	0	414	1499	
05:30:00 PM	0	31	2	0	0	18	54	0	0	0	0	0	0	0	0	9	0	10	0	0	405	1516	
05:35:00 PM	0	44	0	0	0	17	66	0	0	0	0	0	0	0	0	7	0	7	0	0	400	1533	
05:40:00 PM	0	36	6	0	0	12	62	0	0	0	0	0	0	0	0	9	0	9	0	0	399	1534	
05:45:00 PM	0	32	3	0	0	14	40	0	0	0	0	0	0	0	0	8	0	7	0	0	379	1529	
05:50:00 PM	0	27	4	0	0	13	48	0	0	0	0	0	0	0	0	5	0	6	0	0	341	1502	
05:55:00 PM	0	17	1	0	0	2	16	0	0	0	0	0	0	0	0	0	0	7	0	0	250	1440	

## Truck Volumes

[illegible]

## Bike Volumes

Time	NB (Cascade Hwy)					SB (Cascade Hwy)					EB (Whitney St)					WB (Whitney St)					Totals	
Time	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	15min	1hr
04:00:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
04:05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
04:10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:20:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:25:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:35:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:40:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:45:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:50:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:55:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:20:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2
05:25:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
05:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
05:35:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
05:40:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
05:45:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
05:50:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
05:55:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2

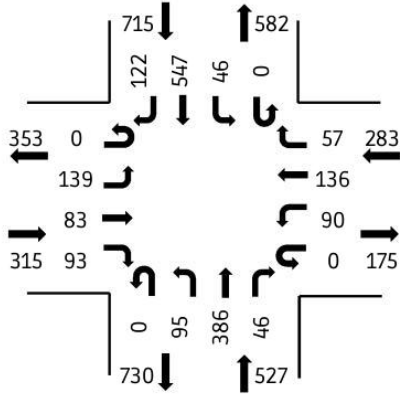
## Pedestrian Volumes

Time	Pedestrians				Totals	
Time	NB	SB	EB	WB	15min	1hr
04:00:00 PM	0	0	0	0		
04:05:00 PM	0	0	0	0		
04:10:00 PM	0	0	0	0	0	
04:15:00 PM	0	0	0	0	0	
04:20:00 PM	0	0	0	0	0	
04:25:00 PM	0	0	0	0	0	
04:30:00 PM	0	0	0	0	0	
04:35:00 PM	0	0	0	0	0	
04:40:00 PM	0	0	0	0	0	
04:45:00 PM	0	0	0	0	0	
04:50:00 PM	0	0	0	0	0	
04:55:00 PM	0	0	0	0	0	0
05:00:00 PM	0	0	0	0	0	0
05:05:00 PM	0	0	0	0	0	0
05:10:00 PM	0	0	0	0	0	0
05:15:00 PM	0	0	0	0	0	0
05:20:00 PM	0	0	0	0	0	0
05:25:00 PM	0	0	0	0	0	0
05:30:00 PM	0	0	0	0	0	0
05:35:00 PM	0	0	0	0	0	0
05:40:00 PM	0	0	0	0	0	0
05:45:00 PM	0	0	0	0	0	0
05:50:00 PM	0	0	0	0	0	0
05:55:00 PM	0	0	0	0	0	0

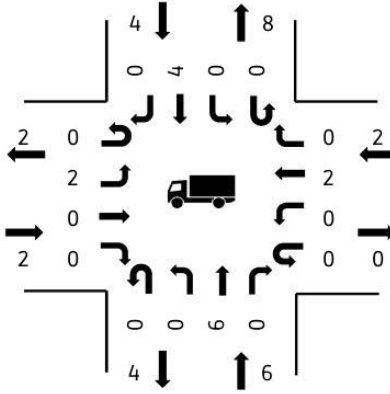


Location: Cascade Hwy & Fern Ridge Rd  
Date: 5/30/2024  
Peak Hour Start: 04:55 PM  
Peak 15 Minute Start: 05:15 PM  
Peak Hour Factor: 0.9

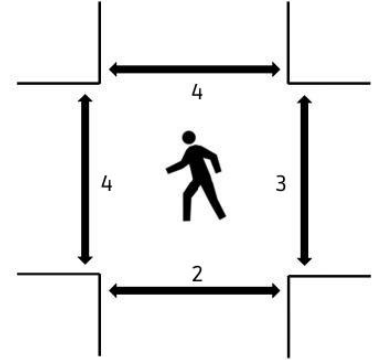
Motorized Vehicles



Heavy Vehicles



Pedestrians



(peak hour)

All Vehicle Volumes

Time	NB (Cascade Hwy)					SB (Cascade Hwy)					EB (Fern Ridge Rd)					WB (Fern Ridge Rd)					Totals	
	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	15min	1hr
04:00:00 PM	8	28	7	0	0	12	30	8	0	0	16	11	12	0	0	6	8	8	0	0		
04:05:00 PM	12	33	6	0	0	3	47	8	0	0	8	14	10	0	0	9	7	4	0	0		
04:10:00 PM	14	44	5	0	0	1	39	13	0	0	7	4	5	0	0	3	8	6	0	0	464	
04:15:00 PM	10	32	7	0	0	1	36	13	0	0	4	7	14	0	0	9	8	6	0	0	457	
04:20:00 PM	7	25	7	0	0	0	28	10	0	0	11	9	9	0	0	11	22	16	0	0	451	
04:25:00 PM	4	43	4	0	0	3	45	7	0	0	12	9	9	0	0	11	11	6	0	0	466	
04:30:00 PM	8	31	2	0	0	2	34	11	0	0	7	13	7	0	0	5	9	11	0	0	459	
04:35:00 PM	10	33	3	0	0	3	46	9	0	0	7	7	8	0	0	4	11	8	0	0	453	
04:40:00 PM	8	36	5	0	0	6	43	9	0	0	8	8	9	0	0	5	14	7	0	0	447	
04:45:00 PM	5	30	3	0	0	4	42	8	0	0	6	8	13	0	0	3	16	6	0	0	451	
04:50:00 PM	10	36	4	0	0	5	41	7	0	0	11	8	4	0	0	5	6	4	0	0	443	
04:55:00 PM	5	32	2	0	0	4	44	10	0	0	8	9	5	0	0	7	11	3	0	0	425	1802
05:00:00 PM	7	20	6	0	0	8	32	10	0	0	11	6	16	0	0	6	12	9	0	0	424	1791
05:05:00 PM	6	35	3	0	0	4	43	12	0	0	7	3	5	0	0	4	8	2	0	0	415	1762
05:10:00 PM	10	25	5	0	0	1	25	6	0	0	17	6	4	0	0	6	12	9	0	0	401	1739
05:15:00 PM	12	42	5	0	0	5	52	5	0	0	13	8	6	0	0	5	11	7	0	0	429	1763
05:20:00 PM	3	48	5	0	0	0	53	10	0	0	13	13	9	0	0	10	11	1	0	0	473	1784
05:25:00 PM	15	38	1	0	0	4	39	11	0	0	18	6	9	0	0	9	10	5	0	0	512	1785
05:30:00 PM	5	32	3	0	0	4	47	11	0	0	13	13	10	0	0	17	11	5	0	0	512	1816
05:35:00 PM	3	24	2	0	0	3	50	10	0	0	15	6	6	0	0	11	11	2	0	0	479	1810
05:40:00 PM	10	36	6	0	0	3	54	15	0	0	7	4	7	0	0	4	12	3	0	0	475	1813
05:45:00 PM	8	29	5	0	0	4	59	9	0	0	8	6	8	0	0	4	12	5	0	0	461	1826
05:50:00 PM	11	25	3	0	0	6	49	13	0	0	9	3	8	0	0	7	15	6	0	0	473	1840
05:55:00 PM	9	19	8	0	0	3	36	2	0	0	9	10	7	0	0	7	11	3	0	0	436	1824

## Car Volumes

Time	NB (Cascade Hwy)					SB (Cascade Hwy)					EB (Fern Ridge Rd)					WB (Fern Ridge Rd)					Totals	
Time	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	15min	1hr
04:00:00 PM	8	25	7	0	0	12	29	8	0	0	16	11	12	0	0	6	8	8	0	0		
04:05:00 PM	12	33	6	0	0	3	47	8	0	0	8	14	10	0	0	8	7	4	0	0		
04:10:00 PM	14	43	5	0	0	1	39	13	0	0	7	4	5	0	0	3	8	5	0	0	457	
04:15:00 PM	10	30	7	0	0	1	35	12	0	0	4	7	14	0	0	9	8	6	0	0	450	
04:20:00 PM	7	24	7	0	0	0	28	10	0	0	11	9	9	0	0	11	22	16	0	0	444	
04:25:00 PM	4	43	4	0	0	3	44	7	0	0	12	9	9	0	0	11	11	6	0	0	460	
04:30:00 PM	8	30	2	0	0	2	34	11	0	0	5	13	7	0	0	5	9	11	0	0	454	
04:35:00 PM	10	33	3	0	0	3	46	9	0	0	7	7	8	0	0	4	10	8	0	0	448	
04:40:00 PM	8	35	5	0	0	6	43	9	0	0	8	8	9	0	0	5	14	7	0	0	442	
04:45:00 PM	5	30	3	0	0	4	41	8	0	0	6	7	13	0	0	3	16	6	0	0	447	
04:50:00 PM	10	36	4	0	0	5	40	7	0	0	11	8	4	0	0	5	6	4	0	0	439	
04:55:00 PM	5	32	2	0	0	4	44	10	0	0	8	9	5	0	0	7	11	3	0	0	422	1781
05:00:00 PM	7	20	6	0	0	8	32	10	0	0	11	6	16	0	0	6	11	9	0	0	422	1773
05:05:00 PM	6	35	3	0	0	4	43	12	0	0	7	3	5	0	0	4	8	2	0	0	414	1745
05:10:00 PM	10	23	5	0	0	1	25	6	0	0	17	6	4	0	0	6	12	9	0	0	398	1722
05:15:00 PM	12	40	5	0	0	5	51	5	0	0	13	8	6	0	0	5	11	7	0	0	424	1747
05:20:00 PM	3	47	5	0	0	0	51	10	0	0	12	13	9	0	0	10	11	1	0	0	464	1765
05:25:00 PM	15	38	1	0	0	4	38	11	0	0	18	6	9	0	0	9	10	5	0	0	504	1766
05:30:00 PM	5	31	3	0	0	4	47	11	0	0	12	13	10	0	0	17	11	5	0	0	505	1798
05:35:00 PM	3	24	2	0	0	3	50	10	0	0	15	6	6	0	0	11	10	2	0	0	475	1792
05:40:00 PM	10	36	6	0	0	3	54	15	0	0	7	4	7	0	0	4	12	3	0	0	472	1796
05:45:00 PM	8	29	5	0	0	4	59	9	0	0	8	6	8	0	0	4	12	5	0	0	460	1811
05:50:00 PM	11	25	3	0	0	6	49	13	0	0	9	3	8	0	0	7	15	6	0	0	473	1826
05:55:00 PM	9	19	8	0	0	3	36	2	0	0	9	10	7	0	0	7	10	3	0	0	435	1809

## Truck Volumes

Time	NB (Cascade Hwy)					SB (Cascade Hwy)					EB (Fern Ridge Rd)					WB (Fern Ridge Rd)					Totals	
Time	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	15min	1hr
04:00:00 PM	0	3	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0		
04:05:00 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0		
04:10:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	8	
04:15:00 PM	0	2	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	8	
04:20:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	
04:25:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	6	
04:30:00 PM	0	1	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	5	
04:35:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	5	
04:40:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	
04:45:00 PM	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	4	
04:50:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	4	
04:55:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	22
05:00:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	19
05:05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	17
05:10:00 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	17
05:15:00 PM	0	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	5	16
05:20:00 PM	0	1	0	0	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	9	19
05:25:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	8	19
05:30:00 PM	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	7	18
05:35:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	4	18
05:40:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	17
05:45:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	15
05:50:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14
05:55:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	15

## Bike Volumes











Time	NB (Cascade Hwy)					SB (Cascade Hwy)					EB (Fern Ridge Rd)					WB (Fern Ridge Rd)					Totals	
Time	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	15min	1hr
04:00:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
04:05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
04:10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:20:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	
04:25:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
04:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
04:35:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:40:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:45:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:50:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:55:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
05:00:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
05:05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
05:10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
05:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
05:20:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:25:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:35:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:40:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:50:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:55:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

## Pedestrian Volumes

Time	Pedestrians				Totals	
Time	NB	SB	EB	WB	15min	1hr
04:00:00 PM	0	0	0	0		
04:05:00 PM	0	0	0	0		
04:10:00 PM	0	0	0	0	0	
04:15:00 PM	0	0	0	0	0	
04:20:00 PM	0	0	0	0	0	
04:25:00 PM	0	0	0	0	0	
04:30:00 PM	1	0	0	0	1	
04:35:00 PM	0	0	0	0	1	
04:40:00 PM	0	0	0	0	1	
04:45:00 PM	0	0	0	0	0	
04:50:00 PM	0	0	0	0	0	
04:55:00 PM	0	0	0	0	0	1
05:00:00 PM	0	0	0	0	0	1
05:05:00 PM	0	0	0	0	0	1
05:10:00 PM	0	0	0	0	0	1
05:15:00 PM	0	0	0	0	0	1
05:20:00 PM	0	0	0	0	0	1
05:25:00 PM	0	0	0	0	0	1
05:30:00 PM	0	0	0	0	0	0
05:35:00 PM	0	1	0	0	1	1
05:40:00 PM	0	2	2	0	5	5
05:45:00 PM	0	1	0	0	6	6
05:50:00 PM	2	0	2	3	12	13
05:55:00 PM	0	0	0	0	8	13

## APPENDIX B: HCM REPORTS - EXISTING

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















Intersection												
Int Delay, s/veh	1.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	3	15	4	9	44	84	307	370	41	361	13
Future Vol, veh/h	6	3	15	4	9	44	84	307	370	41	361	13
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	Yield	-	-	None
Storage Length	200	-	-	-	-	25	250	-	300	250	-	350
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	0	0	0	0	0	5	1	2	3	0	5	0
Mvmt Flow	8	4	19	5	11	55	105	384	463	51	451	16
Major/Minor	Minor2		Minor1		Major1		Major2		Major2		Major2	
Conflicting Flow All	1180	1147	451	1167	1163	384	467	0	0	384	0	0
Stage 1	553	553	-	594	594	-	-	-	-	-	-	-
Stage 2	627	594	-	573	569	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.25	4.11	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.345	2.209	-	-	2.2	-	-
Pot Cap-1 Maneuver	169	201	613	172	196	657	1100	-	-	1186	-	-
Stage 1	521	518	-	495	496	-	-	-	-	-	-	-
Stage 2	475	496	-	508	509	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	132	174	613	147	170	657	1100	-	-	1186	-	-
Mov Cap-2 Maneuver	132	174	-	147	170	-	-	-	-	-	-	-
Stage 1	472	496	-	448	449	-	-	-	-	-	-	-
Stage 2	384	449	-	468	487	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB		SB		SB	
HCM Control Delay, s	18.8		15.3		1		0.8					
HCM LOS	C		C									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR		
Capacity (veh/h)	1100	-	-	132	432	162	657	1186	-	-		
HCM Lane V/C Ratio	0.095	-	-	0.057	0.052	0.1	0.084	0.043	-	-		
HCM Control Delay (s)	8.6	-	-	33.9	13.8	29.7	11	8.2	-	-		
HCM Lane LOS	A	-	-	D	B	D	B	A	-	-		
HCM 95th %tile Q(veh)	0.3	-	-	0.2	0.2	0.3	0.3	0.1	-	-		



# HCM Signalized Intersection Capacity Analysis







## 2: Santiam Hwy Eastbound Ramp & Cascade Hwy

Balanced & Adjusted Existing AM Volumes  
Stayton Golf Lane Subdivision

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	75	0	240	0	0	0	0	686	16	36	344	0
Future Volume (vph)	75	0	240	0	0	0	0	686	16	36	344	0
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)		4.5	4.5					5.7		4.5	5.7	
Lane Util. Factor		1.00	1.00					1.00		1.00	1.00	
Frpb, ped/bikes		1.00	1.00					1.00		1.00	1.00	
Flpb, ped/bikes		1.00	1.00					1.00		1.00	1.00	
Frt		1.00	0.85					1.00		1.00	1.00	
Flt Protected		0.95	1.00					1.00		0.95	1.00	
Satd. Flow (prot)		1614	1458					1676		1309	1699	
Flt Permitted		0.95	1.00					1.00		0.12	1.00	
Satd. Flow (perm)		1614	1458					1676		161	1699	
Peak-hour factor, PHF	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Adj. Flow (vph)	90	0	289	0	0	0	0	827	19	43	414	0
RTOR Reduction (vph)	0	0	241	0	0	0	0	1	0	0	0	0
Lane Group Flow (vph)	0	90	48	0	0	0	0	845	0	43	414	0
Confl. Peds. (#/hr)									1	1		
Heavy Vehicles (%)	3%	0%	2%	0%	0%	0%	0%	4%	7%	27%	3%	0%
Turn Type	Perm	NA	Perm					NA		pm+pt	NA	
Protected Phases		8						6		5	2	
Permitted Phases	8		8							2		
Actuated Green, G (s)		10.1	10.1					29.8		40.8	40.8	
Effective Green, g (s)		10.1	10.1					29.8		40.8	40.8	
Actuated g/C Ratio		0.17	0.17					0.49		0.67	0.67	
Clearance Time (s)		4.5	4.5					5.7		4.5	5.7	
Vehicle Extension (s)		2.5	2.5					4.8		2.5	4.8	
Lane Grp Cap (vph)		266	241					817		229	1134	
v/s Ratio Prot								c0.50		0.02	c0.24	
v/s Ratio Perm		0.06	0.03							0.11		
v/c Ratio		0.34	0.20					1.03		0.19	0.37	
Uniform Delay, d1		22.5	22.0					15.7		9.6	4.5	
Progression Factor		1.00	1.00					1.00		1.00	1.00	
Incremental Delay, d2		0.6	0.3					40.8		0.3	0.4	
Delay (s)		23.1	22.3					56.5		9.9	4.8	
Level of Service		C	C					E		A	A	
Approach Delay (s)		22.5			0.0			56.5			5.3	
Approach LOS		C			A			E			A	
<b>Intersection Summary</b>												
HCM 2000 Control Delay			34.9					HCM 2000 Level of Service			C	
HCM 2000 Volume to Capacity ratio			0.80									
Actuated Cycle Length (s)			61.1					Sum of lost time (s)		14.7		
Intersection Capacity Utilization			53.8%					ICU Level of Service		A		
Analysis Period (min)			15									
c Critical Lane Group												

HCM 6th TWSC  
3: Cascade Hwy & Golf Ln












Balanced & Adjusted Existing AM Volumes  
Stayton Golf Lane Subdivision

Intersection												
Int Delay, s/veh	0.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	0	2	1	0	10	0	690	2	11	573	0
Future Vol, veh/h	2	0	2	1	0	10	0	690	2	11	573	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	75	-	-	75	-	-
Veh in Median Storage, #	-	1	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	0	0	0	0	3	0	0	4	0
Mvmt Flow	2	0	2	1	0	12	0	841	2	13	699	0
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1573	1568	699	1568	1567	842	699	0	0	843	0	0
Stage 1	725	725	-	842	842	-	-	-	-	-	-	-
Stage 2	848	843	-	726	725	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	90	112	443	91	112	367	907	-	-	802	-	-
Stage 1	420	433	-	362	383	-	-	-	-	-	-	-
Stage 2	359	382	-	419	433	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	86	110	443	89	110	367	907	-	-	802	-	-
Mov Cap-2 Maneuver	208	230	-	89	110	-	-	-	-	-	-	-
Stage 1	420	426	-	362	383	-	-	-	-	-	-	-
Stage 2	347	382	-	410	426	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	17.9		18.2		0		0.2					
HCM LOS	C		C									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	907	-	-	283	286	802	-	-				
HCM Lane V/C Ratio	-	-	-	0.017	0.047	0.017	-	-				
HCM Control Delay (s)	0	-	-	17.9	18.2	9.6	-	-				
HCM Lane LOS	A	-	-	C	C	A	-	-				
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0.1	-	-				

# HCM Signalized Intersection Capacity Analysis

## 4: Cascade Hwy & Whitney St





















Balanced & Adjusted Existing AM Volumes  
Stayton Golf Lane Subdivision











						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	24	150	542	40	72	504
Future Volume (vph)	24	150	542	40	72	504
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750
Total Lost time (s)	5.0	5.0	5.7		4.5	5.7
Lane Util. Factor	1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.85	0.99		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1525	1488	1664		1630	1699
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1525	1488	1664		1630	1699
Peak-hour factor, PHF	0.80	0.80	0.80	0.80	0.80	0.80
Adj. Flow (vph)	30	188	678	50	90	630
RTOR Reduction (vph)	0	163	2	0	0	0
Lane Group Flow (vph)	30	25	726	0	90	630
Heavy Vehicles (%)	9%	0%	4%	7%	2%	3%
Turn Type	Prot	Prot	NA		Prot	NA
Protected Phases	4	4	6		5	2
Permitted Phases						
Actuated Green, G (s)	9.0	9.0	37.6		7.1	49.2
Effective Green, g (s)	9.0	9.0	37.6		7.1	49.2
Actuated g/C Ratio	0.13	0.13	0.55		0.10	0.71
Clearance Time (s)	5.0	5.0	5.7		4.5	5.7
Vehicle Extension (s)	2.5	2.5	4.8		2.5	4.8
Lane Grp Cap (vph)	199	194	908		167	1213
v/s Ratio Prot	c0.02	0.02	c0.44		0.06	c0.37
v/s Ratio Perm						
v/c Ratio	0.15	0.13	0.80		0.54	0.52
Uniform Delay, d1	26.6	26.5	12.6		29.3	4.5
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	0.3	0.2	5.6		2.6	0.7
Delay (s)	26.8	26.7	18.3		31.9	5.2
Level of Service	C	C	B		C	A
Approach Delay (s)	26.7		18.3			8.5
Approach LOS	C		B			A
<b>Intersection Summary</b>						
HCM 2000 Control Delay			15.2		HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio			0.67			
Actuated Cycle Length (s)			68.9		Sum of lost time (s)	15.2
Intersection Capacity Utilization			55.6%		ICU Level of Service	B
Analysis Period (min)			15			
c Critical Lane Group						

# HCM Signalized Intersection Capacity Analysis

## 5: Shaff Rd/Fern Ridge Rd & Cascade Hwy

Balanced & Adjusted Existing AM Volumes  
Stayton Golf Lane Subdivision


















												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	94	105	66	66	135	64	72	427	24	67	399	68
Future Volume (vph)	94	105	66	66	135	64	72	427	24	67	399	68
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	4.5	5.0		4.5	5.0		4.5	5.7		4.5	5.7	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frpb, ped/bikes	1.00	0.99		1.00	1.00		1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.94		1.00	0.95		1.00	0.99		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1630	1593		1629	1622		1539	1684		1662	1628	
Flt Permitted	0.31	1.00		0.52	1.00		0.20	1.00		0.25	1.00	
Satd. Flow (perm)	539	1593		888	1622		318	1684		430	1628	
Peak-hour factor, PHF	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Adj. Flow (vph)	122	136	86	86	175	83	94	555	31	87	518	88
RTOR Reduction (vph)	0	16	0	0	0	0	0	2	0	0	4	0
Lane Group Flow (vph)	122	206	0	86	258	0	94	584	0	87	602	0
Confl. Peds. (#/hr)			1	1								
Heavy Vehicles (%)	2%	3%	2%	2%	4%	0%	8%	3%	5%	0%	5%	6%
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases	8			4			6			2		
Actuated Green, G (s)	37.2	26.5		31.2	23.5		58.7	50.4		55.1	48.6	
Effective Green, g (s)	37.2	26.5		31.2	23.5		58.7	50.4		55.1	48.6	
Actuated g/C Ratio	0.34	0.24		0.28	0.21		0.53	0.45		0.50	0.44	
Clearance Time (s)	4.5	5.0		4.5	5.0		4.5	5.7		4.5	5.7	
Vehicle Extension (s)	2.5	2.5		2.5	2.5		2.5	4.0		2.5	4.0	
Lane Grp Cap (vph)	286	380		301	344		259	766		286	714	
v/s Ratio Prot	c0.04	0.13		0.02	c0.16		c0.03	0.35		0.02	c0.37	
v/s Ratio Perm	0.10			0.06			0.16			0.13		
v/c Ratio	0.43	0.54		0.29	0.75		0.36	0.76		0.30	0.84	
Uniform Delay, d1	27.2	36.8		30.3	40.9		17.0	25.2		17.2	27.7	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.7	1.2		0.4	8.5		0.6	4.8		0.4	9.3	
Delay (s)	28.0	38.1		30.6	49.4		17.7	30.0		17.6	36.9	
Level of Service	C	D		C	D		B	C		B	D	
Approach Delay (s)		34.5			44.7			28.3			34.5	
Approach LOS		C			D			C			C	
<b>Intersection Summary</b>												
HCM 2000 Control Delay			34.2			HCM 2000 Level of Service				C		
HCM 2000 Volume to Capacity ratio			0.73									
Actuated Cycle Length (s)			110.8			Sum of lost time (s)			19.7			
Intersection Capacity Utilization			65.6%			ICU Level of Service			C			
Analysis Period (min)			15									
c Critical Lane Group												

Intersection												
Int Delay, s/veh	2.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	32	52	14	1	45	39	377	278	32	477	10
Future Vol, veh/h	15	32	52	14	1	45	39	377	278	32	477	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	1	1	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	Yield	-	-	None
Storage Length	200	-	-	-	-	25	250	-	300	250	-	350
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	2	0	0	5	0	1	2	0	1	0
Mvmt Flow	17	36	58	16	1	50	43	419	309	36	530	11
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1133	1108	530	1161	1119	420	541	0	0	420	0	0
Stage 1	602	602	-	506	506	-	-	-	-	-	-	-
Stage 2	531	506	-	655	613	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.22	7.1	6.5	6.25	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.318	3.5	4	3.345	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	182	212	549	174	209	627	1038	-	-	1150	-	-
Stage 1	490	492	-	552	543	-	-	-	-	-	-	-
Stage 2	536	543	-	458	486	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	158	197	549	127	194	626	1038	-	-	1149	-	-
Mov Cap-2 Maneuver	158	197	-	127	194	-	-	-	-	-	-	-
Stage 1	470	477	-	529	520	-	-	-	-	-	-	-
Stage 2	472	520	-	367	471	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	21.8		17.6		0.5		0.5					
HCM LOS	C		C									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR		
Capacity (veh/h)	1038	-	-	158	327	130	626	1149	-	-		
HCM Lane V/C Ratio	0.042	-	-	0.105	0.285	0.128	0.08	0.031	-	-		
HCM Control Delay (s)	8.6	-	-	30.5	20.3	36.7	11.2	8.2	-	-		
HCM Lane LOS	A	-	-	D	C	E	B	A	-	-		
HCM 95th %tile Q(veh)	0.1	-	-	0.3	1.2	0.4	0.3	0.1	-	-		

# HCM Signalized Intersection Capacity Analysis







## 2: Santiam Hwy Eastbound Ramp & Cascade Hwy

Balanced & Adjusted Existing PM Volumes  
Stayton Golf Lane Subdivision

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	79	0	394	0	0	0	0	615	72	69	474	0
Future Volume (vph)	79	0	394	0	0	0	0	615	72	69	474	0
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)		4.5	4.5					5.7		4.5	5.7	
Lane Util. Factor		1.00	1.00					1.00		1.00	1.00	
Frpb, ped/bikes		1.00	1.00					1.00		1.00	1.00	
Flpb, ped/bikes		1.00	1.00					1.00		1.00	1.00	
Frt		1.00	0.85					0.99		1.00	1.00	
Flt Protected		0.95	1.00					1.00		0.95	1.00	
Satd. Flow (prot)		1662	1488					1705		1630	1733	
Flt Permitted		0.95	1.00					1.00		0.12	1.00	
Satd. Flow (perm)		1662	1488					1705		203	1733	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	88	0	438	0	0	0	0	683	80	77	527	0
RTOR Reduction (vph)	0	0	273	0	0	0	0	4	0	0	0	0
Lane Group Flow (vph)	0	88	165	0	0	0	0	759	0	77	527	0
Confl. Peds. (#/hr)									2	2		
Confl. Bikes (#/hr)									2			
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	1%	0%	2%	1%	0%
Turn Type	Perm	NA	Perm					NA		pm+pt	NA	
Protected Phases		8						6		5	2	
Permitted Phases	8		8							2		
Actuated Green, G (s)		11.8	11.8					29.7		41.2	41.2	
Effective Green, g (s)		11.8	11.8					29.7		41.2	41.2	
Actuated g/C Ratio		0.19	0.19					0.47		0.65	0.65	
Clearance Time (s)		4.5	4.5					5.7		4.5	5.7	
Vehicle Extension (s)		2.5	2.5					4.8		2.5	4.8	
Lane Grp Cap (vph)		310	277					801		290	1129	
v/s Ratio Prot								c0.44		0.03	c0.30	
v/s Ratio Perm		0.05	c0.11							0.14		
v/c Ratio		0.28	0.59					0.95		0.27	0.47	
Uniform Delay, d1		22.1	23.5					16.0		9.0	5.5	
Progression Factor		1.00	1.00					1.00		1.00	1.00	
Incremental Delay, d2		0.4	2.9					20.3		0.4	0.6	
Delay (s)		22.4	26.4					36.3		9.3	6.1	
Level of Service		C	C					D		A	A	
Approach Delay (s)		25.7			0.0			36.3			6.5	
Approach LOS		C			A			D			A	
<b>Intersection Summary</b>												
HCM 2000 Control Delay			23.9					HCM 2000 Level of Service			C	
HCM 2000 Volume to Capacity ratio			0.81									
Actuated Cycle Length (s)			63.2					Sum of lost time (s)		14.7		
Intersection Capacity Utilization			62.1%					ICU Level of Service		B		
Analysis Period (min)			15									
c Critical Lane Group												

HCM 6th TWSC  
3: Cascade Hwy & Golf Ln

Balanced & Adjusted Existing PM Volumes  
Stayton Golf Lane Subdivision












Intersection												
Int Delay, s/veh	0.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	0	2	6	0	19	3	666	11	9	855	4
Future Vol, veh/h	2	0	2	6	0	19	3	666	11	9	855	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	1	1	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	75	-	-	75	-	-
Veh in Median Storage, #	-	1	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0	0	1	0	0	1	0
Mvmt Flow	2	0	2	7	0	21	3	740	12	10	950	4
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1735	1731	952	1726	1727	747	954	0	0	753	0	0
Stage 1	972	972	-	753	753	-	-	-	-	-	-	-
Stage 2	763	759	-	973	974	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	70	89	317	71	90	416	729	-	-	866	-	-
Stage 1	306	333	-	405	420	-	-	-	-	-	-	-
Stage 2	400	418	-	306	333	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	66	87	317	70	88	416	729	-	-	865	-	-
Mov Cap-2 Maneuver	182	205	-	70	88	-	-	-	-	-	-	-
Stage 1	305	329	-	403	418	-	-	-	-	-	-	-
Stage 2	378	416	-	300	329	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	20.9		27.2		0		0.1					
HCM LOS	C		D									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	729	-	-	231	190	865	-	-				
HCM Lane V/C Ratio	0.005	-	-	0.019	0.146	0.012	-	-				
HCM Control Delay (s)	10	-	-	20.9	27.2	9.2	-	-				
HCM Lane LOS	A	-	-	C	D	A	-	-				
HCM 95th %tile Q(veh)	0	-	-	0.1	0.5	0	-	-				



# HCM Signalized Intersection Capacity Analysis

## 4: Cascade Hwy & Whitney St

Balanced & Adjusted Existing PM Volumes  
Stayton Golf Lane Subdivision

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	85	139	541	42	183	680
Future Volume (vph)	85	139	541	42	183	680
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750
Total Lost time (s)	5.0	5.0	5.7		4.5	5.7
Lane Util. Factor	1.00	1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00	1.00		1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.85	0.99		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1662	1488	1717		1646	1733
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1662	1488	1717		1646	1733
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	91	149	582	45	197	731
RTOR Reduction (vph)	0	126	3	0	0	0
Lane Group Flow (vph)	91	23	624	0	197	731
Confl. Bikes (#/hr)		2				
Heavy Vehicles (%)	0%	0%	1%	0%	1%	1%
Turn Type	Prot	Prot	NA		Prot	NA
Protected Phases	4	4	6		5	2
Permitted Phases						
Actuated Green, G (s)	10.3	10.3	31.7		10.6	46.8
Effective Green, g (s)	10.3	10.3	31.7		10.6	46.8
Actuated g/C Ratio	0.15	0.15	0.47		0.16	0.69
Clearance Time (s)	5.0	5.0	5.7		4.5	5.7
Vehicle Extension (s)	2.5	2.5	4.8		2.5	4.8
Lane Grp Cap (vph)	252	226	802		257	1196
v/s Ratio Prot	c0.05	0.02	c0.36		c0.12	0.42
v/s Ratio Perm						
v/c Ratio	0.36	0.10	0.78		0.77	0.61
Uniform Delay, d1	25.8	24.8	15.1		27.4	5.6
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	0.6	0.1	5.5		12.3	1.3
Delay (s)	26.4	24.9	20.6		39.7	6.9
Level of Service	C	C	C		D	A
Approach Delay (s)	25.5		20.6			13.9
Approach LOS	C		C			B
<b>Intersection Summary</b>						
HCM 2000 Control Delay			17.8		HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio			0.69			
Actuated Cycle Length (s)			67.8		Sum of lost time (s)	15.2
Intersection Capacity Utilization			62.5%		ICU Level of Service	B
Analysis Period (min)			15			





















c Critical Lane Group

# HCM Signalized Intersection Capacity Analysis

## 5: Shaff Rd/Fern Ridge Rd & Cascade Hwy











# Balanced & Adjusted Existing PM Volumes

Stayton Golf Lane Subdivision

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	150	90	100	97	147	62	103	417	50	50	591	132
Future Volume (vph)	150	90	100	97	147	62	103	417	50	50	591	132
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	4.5	5.0		4.5	5.0		4.5	5.7		4.5	5.7	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frpb, ped/bikes	1.00	0.98		1.00	0.99		1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.92		1.00	0.96		1.00	0.98		1.00	0.97	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1645	1587		1658	1637		1662	1686		1660	1680	
Flt Permitted	0.29	1.00		0.47	1.00		0.12	1.00		0.38	1.00	
Satd. Flow (perm)	497	1587		824	1637		204	1686		669	1680	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	167	100	111	108	163	69	114	463	56	56	657	147
RTOR Reduction (vph)	0	30	0	0	0	0	0	3	0	0	6	0
Lane Group Flow (vph)	167	181	0	108	232	0	114	516	0	56	798	0
Confl. Peds. (#/hr)	2		4	4		2	3		4	4		3
Heavy Vehicles (%)	1%	0%	0%	0%	2%	0%	0%	2%	0%	0%	1%	0%
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases	8			4			6			2		
Actuated Green, G (s)	33.8	23.7		28.2	20.9		74.7	67.2		66.1	62.9	
Effective Green, g (s)	33.8	23.7		28.2	20.9		74.7	67.2		66.1	62.9	
Actuated g/C Ratio	0.28	0.20		0.23	0.17		0.62	0.55		0.55	0.52	
Clearance Time (s)	4.5	5.0		4.5	5.0		4.5	5.7		4.5	5.7	
Vehicle Extension (s)	2.5	2.5		2.5	2.5		2.5	4.0		2.5	4.0	
Lane Grp Cap (vph)	234	310		242	282		216	935		391	872	
v/s Ratio Prot	c0.06	0.11		0.03	c0.14		c0.03	0.31		0.00	c0.47	
v/s Ratio Perm	0.14			0.08			0.29			0.07		
v/c Ratio	0.71	0.58		0.45	0.82		0.53	0.55		0.14	0.91	
Uniform Delay, d1	35.8	44.2		38.2	48.3		20.0	17.3		13.5	26.6	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	9.2	2.3		1.0	17.0		1.8	0.9		0.1	14.2	
Delay (s)	45.0	46.6		39.2	65.3		21.8	18.2		13.7	40.8	
Level of Service	D	D		D	E		C	B		B	D	
Approach Delay (s)		45.9			57.0			18.8			39.0	
Approach LOS		D			E			B			D	
<b>Intersection Summary</b>												
HCM 2000 Control Delay			37.2			HCM 2000 Level of Service				D		
HCM 2000 Volume to Capacity ratio			0.85									
Actuated Cycle Length (s)			121.1			Sum of lost time (s)				19.7		
Intersection Capacity Utilization			87.3%			ICU Level of Service				E		
Analysis Period (min)			15									
c Critical Lane Group												

## APPENDIX C: HCM REPORTS – FUTURE NO-BUILD


















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Intersection												
Int Delay, s/veh	2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	3	16	5	9	46	87	321	389	43	376	14
Future Vol, veh/h	6	3	16	5	9	46	87	321	389	43	376	14
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	Yield	-	-	None
Storage Length	200	-	-	-	-	25	250	-	300	250	-	350
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	0	0	0	0	0	5	1	2	3	0	5	0
Mvmt Flow	8	4	20	6	11	58	109	401	486	54	470	18
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1232	1197	470	1218	1215	401	488	0	0	401	0	0
Stage 1	578	578	-	619	619	-	-	-	-	-	-	-
Stage 2	654	619	-	599	596	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.25	4.11	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.345	2.209	-	-	2.2	-	-
Pot Cap-1 Maneuver	155	187	598	159	183	643	1080	-	-	1169	-	-
Stage 1	505	504	-	480	483	-	-	-	-	-	-	-
Stage 2	459	483	-	492	495	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	119	160	598	135	157	643	1080	-	-	1169	-	-
Mov Cap-2 Maneuver	119	160	-	135	157	-	-	-	-	-	-	-
Stage 1	454	481	-	432	434	-	-	-	-	-	-	-
Stage 2	366	434	-	450	472	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	19.7			16.1			1			0.8		
HCM LOS	C			C								
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR		
Capacity (veh/h)	1080	-	-	119	418	148	643	1169	-	-		
HCM Lane V/C Ratio	0.101	-	-	0.063	0.057	0.118	0.089	0.046	-	-		
HCM Control Delay (s)	8.7	-	-	37.3	14.1	32.6	11.1	8.2	-	-		
HCM Lane LOS	A	-	-	E	B	D	B	A	-	-		
HCM 95th %tile Q(veh)	0.3	-	-	0.2	0.2	0.4	0.3	0.1	-	-		

# HCM Signalized Intersection Capacity Analysis







## 2: Santiam Hwy Eastbound Ramp & Cascade Hwy

No Build AM Volumes  
Stayton Golf Lane Subdivision

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	78	0	251	0	0	0	0	719	20	37	360	0
Future Volume (vph)	78	0	251	0	0	0	0	719	20	37	360	0
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)		4.5	4.5					5.7		4.5	5.7	
Lane Util. Factor		1.00	1.00					1.00		1.00	1.00	
Frpb, ped/bikes		1.00	1.00					1.00		1.00	1.00	
Flpb, ped/bikes		1.00	1.00					1.00		1.00	1.00	
Frt		1.00	0.85					1.00		1.00	1.00	
Flt Protected		0.95	1.00					1.00		0.95	1.00	
Satd. Flow (prot)		1614	1458					1674		1309	1699	
Flt Permitted		0.95	1.00					1.00		0.12	1.00	
Satd. Flow (perm)		1614	1458					1674		161	1699	
Peak-hour factor, PHF	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Adj. Flow (vph)	94	0	302	0	0	0	0	866	24	45	434	0
RTOR Reduction (vph)	0	0	252	0	0	0	0	1	0	0	0	0
Lane Group Flow (vph)	0	94	50	0	0	0	0	889	0	45	434	0
Confl. Peds. (#/hr)									1	1		
Heavy Vehicles (%)	3%	0%	2%	0%	0%	0%	0%	4%	7%	27%	3%	0%
Turn Type	Perm	NA	Perm					NA		pm+pt	NA	
Protected Phases		8						6		5	2	
Permitted Phases	8		8							2		
Actuated Green, G (s)		10.2	10.2					29.7		40.8	40.8	
Effective Green, g (s)		10.2	10.2					29.7		40.8	40.8	
Actuated g/C Ratio		0.17	0.17					0.49		0.67	0.67	
Clearance Time (s)		4.5	4.5					5.7		4.5	5.7	
Vehicle Extension (s)		2.5	2.5					4.8		2.5	4.8	
Lane Grp Cap (vph)		269	243					812		231	1132	
v/s Ratio Prot								c0.53		0.02	c0.26	
v/s Ratio Perm		0.06	0.03							0.11		
v/c Ratio		0.35	0.21					1.09		0.19	0.38	
Uniform Delay, d1		22.6	22.0					15.8		11.0	4.6	
Progression Factor		1.00	1.00					1.00		1.00	1.00	
Incremental Delay, d2		0.6	0.3					60.7		0.3	0.4	
Delay (s)		23.1	22.3					76.4		11.3	5.0	
Level of Service		C	C					E		B	A	
Approach Delay (s)		22.5			0.0			76.4			5.6	
Approach LOS		C			A			E			A	
<b>Intersection Summary</b>												
HCM 2000 Control Delay			45.1					HCM 2000 Level of Service			D	
HCM 2000 Volume to Capacity ratio			0.85									
Actuated Cycle Length (s)			61.2					Sum of lost time (s)		14.7		
Intersection Capacity Utilization			55.9%					ICU Level of Service		B		
Analysis Period (min)			15									
c Critical Lane Group												

HCM 6th TWSC  
3: Cascade Hwy & Golf Ln












No Build AM Volumes  
Stayton Golf Lane Subdivision

Intersection												
Int Delay, s/veh	0.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	0	2	1	0	10	0	727	2	11	600	0
Future Vol, veh/h	2	0	2	1	0	10	0	727	2	11	600	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	75	-	-	75	-	-
Veh in Median Storage, #	-	1	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	0	0	0	0	3	0	0	4	0
Mvmt Flow	2	0	2	1	0	12	0	887	2	13	732	0
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1652	1647	732	1647	1646	888	732	0	0	889	0	0
Stage 1	758	758	-	888	888	-	-	-	-	-	-	-
Stage 2	894	889	-	759	758	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	79	100	424	80	100	345	882	-	-	771	-	-
Stage 1	402	418	-	341	365	-	-	-	-	-	-	-
Stage 2	338	364	-	402	418	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	75	98	424	78	98	345	882	-	-	771	-	-
Mov Cap-2 Maneuver	194	217	-	78	98	-	-	-	-	-	-	-
Stage 1	402	411	-	341	365	-	-	-	-	-	-	-
Stage 2	326	364	-	393	411	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	18.8		19.4		0		0.2					
HCM LOS	C		C									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	882	-	-	266	263	771	-	-				
HCM Lane V/C Ratio	-	-	-	0.018	0.051	0.017	-	-				
HCM Control Delay (s)	0	-	-	18.8	19.4	9.8	-	-				
HCM Lane LOS	A	-	-	C	C	A	-	-				
HCM 95th %tile Q(veh)	0	-	-	0.1	0.2	0.1	-	-				

# HCM Signalized Intersection Capacity Analysis

## 4: Cascade Hwy & Whitney St

No Build AM Volumes  
Stayton Golf Lane Subdivision





















						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	25	165	564	42	79	524
Future Volume (vph)	25	165	564	42	79	524
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750
Total Lost time (s)	5.0	5.0	5.7		4.5	5.7
Lane Util. Factor	1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.85	0.99		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1525	1488	1663		1630	1699
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1525	1488	1663		1630	1699
Peak-hour factor, PHF	0.80	0.80	0.80	0.80	0.80	0.80
Adj. Flow (vph)	31	206	705	52	99	655
RTOR Reduction (vph)	0	179	2	0	0	0
Lane Group Flow (vph)	31	27	756	0	99	655
Heavy Vehicles (%)	9%	0%	4%	7%	2%	3%
Turn Type	Prot	Prot	NA		Prot	NA
Protected Phases	4	4	6		5	2
Permitted Phases						
Actuated Green, G (s)	9.0	9.0	36.8		7.2	48.5
Effective Green, g (s)	9.0	9.0	36.8		7.2	48.5
Actuated g/C Ratio	0.13	0.13	0.54		0.11	0.71
Clearance Time (s)	5.0	5.0	5.7		4.5	5.7
Vehicle Extension (s)	2.5	2.5	4.8		2.5	4.8
Lane Grp Cap (vph)	201	196	897		172	1208
v/s Ratio Prot	c0.02	0.02	c0.45		0.06	c0.39
v/s Ratio Perm						
v/c Ratio	0.15	0.14	0.84		0.58	0.54
Uniform Delay, d1	26.2	26.2	13.3		29.0	4.6
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	0.3	0.2	7.9		3.8	0.8
Delay (s)	26.5	26.4	21.2		32.8	5.5
Level of Service	C	C	C		C	A
Approach Delay (s)	26.4		21.2			9.1
Approach LOS	C		C			A
<b>Intersection Summary</b>						
HCM 2000 Control Delay			16.7		HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio			0.71			
Actuated Cycle Length (s)			68.2		Sum of lost time (s)	15.2
Intersection Capacity Utilization			57.4%		ICU Level of Service	B
Analysis Period (min)			15			
c Critical Lane Group						













# HCM Signalized Intersection Capacity Analysis

## 5: Shaff Rd/Fern Ridge Rd & Cascade Hwy

No Build AM Volumes  
Stayton Golf Lane Subdivision


















												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	98	110	69	75	143	67	75	444	28	70	415	71
Future Volume (vph)	98	110	69	75	143	67	75	444	28	70	415	71
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	4.5	5.0		4.5	5.0		4.5	5.7		4.5	5.7	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frpb, ped/bikes	1.00	0.99		1.00	1.00		1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.94		1.00	0.95		1.00	0.99		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1630	1593		1629	1622		1539	1682		1662	1628	
Flt Permitted	0.29	1.00		0.43	1.00		0.19	1.00		0.21	1.00	
Satd. Flow (perm)	503	1593		733	1622		309	1682		367	1628	
Peak-hour factor, PHF	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Adj. Flow (vph)	127	143	90	97	186	87	97	577	36	91	539	92
RTOR Reduction (vph)	0	16	0	0	0	0	0	2	0	0	4	0
Lane Group Flow (vph)	127	217	0	97	273	0	97	611	0	91	627	0
Confl. Peds. (#/hr)			1	1								
Heavy Vehicles (%)	2%	3%	2%	2%	4%	0%	8%	3%	5%	0%	5%	6%
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases	8			4			6			2		
Actuated Green, G (s)	35.7	24.5		33.3	23.3		59.7	51.3		59.3	51.1	
Effective Green, g (s)	35.7	24.5		33.3	23.3		59.7	51.3		59.3	51.1	
Actuated g/C Ratio	0.31	0.22		0.29	0.20		0.53	0.45		0.52	0.45	
Clearance Time (s)	4.5	5.0		4.5	5.0		4.5	5.7		4.5	5.7	
Vehicle Extension (s)	2.5	2.5		2.5	2.5		2.5	4.0		2.5	4.0	
Lane Grp Cap (vph)	268	343		293	332		253	758		284	731	
v/s Ratio Prot	c0.05	0.14		0.03	c0.17		c0.03	0.36		0.02	c0.38	
v/s Ratio Perm	0.10			0.07			0.17			0.14		
v/c Ratio	0.47	0.63		0.33	0.82		0.38	0.81		0.32	0.86	
Uniform Delay, d1	29.8	40.5		30.5	43.2		17.8	26.9		17.2	28.0	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	1.0	3.3		0.5	14.7		0.7	6.6		0.5	10.1	
Delay (s)	30.7	43.8		31.0	58.0		18.5	33.5		17.7	38.1	
Level of Service	C	D		C	E		B	C		B	D	
Approach Delay (s)		39.2			50.9			31.5			35.5	
Approach LOS		D			D			C			D	
<b>Intersection Summary</b>												
HCM 2000 Control Delay			37.4			HCM 2000 Level of Service				D		
HCM 2000 Volume to Capacity ratio			0.76									
Actuated Cycle Length (s)			113.7			Sum of lost time (s)				19.7		
Intersection Capacity Utilization			67.8%			ICU Level of Service				C		
Analysis Period (min)			15									
c Critical Lane Group												

Intersection												
Int Delay, s/veh	3.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	16	33	54	18	1	47	41	393	293	33	497	10
Future Vol, veh/h	16	33	54	18	1	47	41	393	293	33	497	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	1	1	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	Yield	-	-	None
Storage Length	200	-	-	-	-	25	250	-	300	250	-	350
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	2	0	0	5	0	1	2	0	1	0
Mvmt Flow	18	37	60	20	1	52	46	437	326	37	552	11
Major/Minor	Minor2		Minor1		Major1		Major2		Major2		Major2	
Conflicting Flow All	1182	1156	552	1210	1167	438	563	0	0	438	0	0
Stage 1	626	626	-	530	530	-	-	-	-	-	-	-
Stage 2	556	530	-	680	637	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.22	7.1	6.5	6.25	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.318	3.5	4	3.345	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	168	198	533	161	195	612	1019	-	-	1133	-	-
Stage 1	475	480	-	536	530	-	-	-	-	-	-	-
Stage 2	519	530	-	444	475	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	144	183	533	114	180	611	1019	-	-	1132	-	-
Mov Cap-2 Maneuver	144	183	-	114	180	-	-	-	-	-	-	-
Stage 1	454	464	-	511	506	-	-	-	-	-	-	-
Stage 2	452	506	-	351	459	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB		SB		SB	
HCM Control Delay, s	23.7		20.4		0.5		0.5		0.5		0.5	
HCM LOS	C		C									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR		
Capacity (veh/h)	1019	-	-	144	309	116	611	1132	-	-		
HCM Lane V/C Ratio	0.045	-	-	0.123	0.313	0.182	0.085	0.032	-	-		
HCM Control Delay (s)	8.7	-	-	33.5	21.9	42.8	11.4	8.3	-	-		
HCM Lane LOS	A	-	-	D	C	E	B	A	-	-		
HCM 95th %tile Q(veh)	0.1	-	-	0.4	1.3	0.6	0.3	0.1	-	-		

# HCM Signalized Intersection Capacity Analysis







## 2: Santiam Hwy Eastbound Ramp & Cascade Hwy

No Build PM Volumes  
Stayton Golf Lane Subdivision

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	82	0	414	0	0	0	0	645	76	72	497	0
Future Volume (vph)	82	0	414	0	0	0	0	645	76	72	497	0
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)		4.5	4.5					5.7		4.5	5.7	
Lane Util. Factor		1.00	1.00					1.00		1.00	1.00	
Frpb, ped/bikes		1.00	1.00					1.00		1.00	1.00	
Flpb, ped/bikes		1.00	1.00					1.00		1.00	1.00	
Frt		1.00	0.85					0.99		1.00	1.00	
Flt Protected		0.95	1.00					1.00		0.95	1.00	
Satd. Flow (prot)		1662	1488					1705		1630	1733	
Flt Permitted		0.95	1.00					1.00		0.12	1.00	
Satd. Flow (perm)		1662	1488					1705		199	1733	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	91	0	460	0	0	0	0	717	84	80	552	0
RTOR Reduction (vph)	0	0	251	0	0	0	0	4	0	0	0	0
Lane Group Flow (vph)	0	91	209	0	0	0	0	797	0	80	552	0
Confl. Peds. (#/hr)									2	2		
Confl. Bikes (#/hr)									2			
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	1%	0%	2%	1%	0%
Turn Type	Perm	NA	Perm					NA		pm+pt	NA	
Protected Phases		8						6		5	2	
Permitted Phases	8		8							2		
Actuated Green, G (s)		13.5	13.5					29.9		41.4	41.4	
Effective Green, g (s)		13.5	13.5					29.9		41.4	41.4	
Actuated g/C Ratio		0.21	0.21					0.46		0.64	0.64	
Clearance Time (s)		4.5	4.5					5.7		4.5	5.7	
Vehicle Extension (s)		2.5	2.5					4.8		2.5	4.8	
Lane Grp Cap (vph)		344	308					783		280	1102	
v/s Ratio Prot								c0.47		0.03	c0.32	
v/s Ratio Perm		0.05	c0.14							0.15		
v/c Ratio		0.26	0.68					1.02		0.29	0.50	
Uniform Delay, d1		21.6	23.8					17.6		10.7	6.3	
Progression Factor		1.00	1.00					1.00		1.00	1.00	
Incremental Delay, d2		0.3	5.3					36.6		0.4	0.7	
Delay (s)		21.9	29.1					54.2		11.1	7.0	
Level of Service		C	C					D		B	A	
Approach Delay (s)		27.9			0.0			54.2			7.5	
Approach LOS		C			A			D			A	
<b>Intersection Summary</b>												
HCM 2000 Control Delay			32.0					HCM 2000 Level of Service			C	
HCM 2000 Volume to Capacity ratio			0.87									
Actuated Cycle Length (s)			65.1					Sum of lost time (s)		14.7		
Intersection Capacity Utilization			64.7%					ICU Level of Service		C		
Analysis Period (min)			15									
c Critical Lane Group												

HCM 6th TWSC  
3: Cascade Hwy & Golf Ln












No Build PM Volumes  
Stayton Golf Lane Subdivision

Intersection												
Int Delay, s/veh	0.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	0	2	6	0	20	4	699	11	9	898	4
Future Vol, veh/h	2	0	2	6	0	20	4	699	11	9	898	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	1	1	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	75	-	-	75	-	-
Veh in Median Storage, #	-	1	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0	0	1	0	0	1	0
Mvmt Flow	2	0	2	7	0	22	4	777	12	10	998	4
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1822	1818	1000	1813	1814	784	1002	0	0	790	0	0
Stage 1	1020	1020	-	792	792	-	-	-	-	-	-	-
Stage 2	802	798	-	1021	1022	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	60	79	298	61	79	396	699	-	-	839	-	-
Stage 1	288	317	-	385	404	-	-	-	-	-	-	-
Stage 2	381	401	-	288	316	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	56	77	298	60	77	396	699	-	-	838	-	-
Mov Cap-2 Maneuver	169	193	-	60	77	-	-	-	-	-	-	-
Stage 1	286	313	-	382	401	-	-	-	-	-	-	-
Stage 2	358	398	-	282	312	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	22		29.9		0.1		0.1					
HCM LOS	C		D									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	699	-	-	216	173	838	-	-				
HCM Lane V/C Ratio	0.006	-	-	0.021	0.167	0.012	-	-				
HCM Control Delay (s)	10.2	-	-	22	29.9	9.3	-	-				
HCM Lane LOS	B	-	-	C	D	A	-	-				
HCM 95th %tile Q(veh)	0	-	-	0.1	0.6	0	-	-				

# HCM Signalized Intersection Capacity Analysis

## 4: Cascade Hwy & Whitney St





















No Build PM Volumes  
Stayton Golf Lane Subdivision

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	88	151	563	44	199	707
Future Volume (vph)	88	151	563	44	199	707
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750
Total Lost time (s)	5.0	5.0	5.7		4.5	5.7
Lane Util. Factor	1.00	1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00	1.00		1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.85	0.99		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1662	1488	1717		1646	1733
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1662	1488	1717		1646	1733
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	95	162	605	47	214	760
RTOR Reduction (vph)	0	137	3	0	0	0
Lane Group Flow (vph)	95	25	649	0	214	760
Confl. Bikes (#/hr)		2				
Heavy Vehicles (%)	0%	0%	1%	0%	1%	1%
Turn Type	Prot	Prot	NA		Prot	NA
Protected Phases	4	4	6		5	2
Permitted Phases						
Actuated Green, G (s)	10.4	10.4	32.5		10.6	47.6
Effective Green, g (s)	10.4	10.4	32.5		10.6	47.6
Actuated g/C Ratio	0.15	0.15	0.47		0.15	0.69
Clearance Time (s)	5.0	5.0	5.7		4.5	5.7
Vehicle Extension (s)	2.5	2.5	4.8		2.5	4.8
Lane Grp Cap (vph)	251	225	812		253	1200
v/s Ratio Prot	c0.06	0.02	c0.38		c0.13	0.44
v/s Ratio Perm						
v/c Ratio	0.38	0.11	0.80		0.85	0.63
Uniform Delay, d1	26.2	25.2	15.3		28.3	5.8
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	0.7	0.2	6.3		21.8	1.5
Delay (s)	26.9	25.3	21.6		50.0	7.2
Level of Service	C	C	C		D	A
Approach Delay (s)	25.9		21.6			16.6
Approach LOS	C		C			B
<b>Intersection Summary</b>						
HCM 2000 Control Delay			19.6		HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio			0.73			
Actuated Cycle Length (s)			68.7		Sum of lost time (s)	15.2
Intersection Capacity Utilization			65.0%		ICU Level of Service	C
Analysis Period (min)			15			
c Critical Lane Group						

# HCM Signalized Intersection Capacity Analysis




## 5: Shaff Rd/Fern Ridge Rd & Cascade Hwy

No Build PM Volumes  
Stayton Golf Lane Subdivision

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	156	97	104	107	155	64	107	434	59	52	615	137
Future Volume (vph)	156	97	104	107	155	64	107	434	59	52	615	137
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	4.5	5.0		4.5	5.0		4.5	5.7		4.5	5.7	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frpb, ped/bikes	1.00	0.98		1.00	0.99		1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.92		1.00	0.96		1.00	0.98		1.00	0.97	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1645	1589		1658	1638		1662	1682		1661	1680	
Flt Permitted	0.26	1.00		0.45	1.00		0.11	1.00		0.36	1.00	
Satd. Flow (perm)	456	1589		783	1638		195	1682		622	1680	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	173	108	116	119	172	71	119	482	66	58	683	152
RTOR Reduction (vph)	0	29	0	0	0	0	0	4	0	0	6	0
Lane Group Flow (vph)	173	195	0	119	243	0	119	544	0	58	829	0
Confl. Peds. (#/hr)	2		4	4		2	3		4	4		3
Heavy Vehicles (%)	1%	0%	0%	0%	2%	0%	0%	2%	0%	0%	1%	0%
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases	8			4			6			2		
Actuated Green, G (s)	34.4	24.7		28.2	21.6		75.7	69.2		69.3	66.0	
Effective Green, g (s)	34.4	24.7		28.2	21.6		75.7	69.2		69.3	66.0	
Actuated g/C Ratio	0.28	0.20		0.23	0.17		0.61	0.56		0.56	0.53	
Clearance Time (s)	4.5	5.0		4.5	5.0		4.5	5.7		4.5	5.7	
Vehicle Extension (s)	2.5	2.5		2.5	2.5		2.5	4.0		2.5	4.0	
Lane Grp Cap (vph)	220	317		225	286		196	942		376	897	
v/s Ratio Prot	c0.06	0.12		0.03	0.15		c0.03	0.32		0.00	c0.49	
v/s Ratio Perm	c0.16			0.09			0.34			0.08		
v/c Ratio	0.79	0.62		0.53	0.85		0.61	0.58		0.15	0.92	
Uniform Delay, d1	37.8	45.1		40.3	49.4		21.2	17.7		13.3	26.4	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	16.2	3.0		1.7	20.1		4.4	1.0		0.1	15.1	
Delay (s)	54.0	48.1		42.0	69.5		25.6	18.7		13.4	41.5	
Level of Service	D	D		D	E		C	B		B	D	
Approach Delay (s)		50.6			60.4			19.9			39.7	
Approach LOS		D			E			B			D	
<b>Intersection Summary</b>												
HCM 2000 Control Delay			39.1			HCM 2000 Level of Service				D		
HCM 2000 Volume to Capacity ratio			0.88									
Actuated Cycle Length (s)			123.5			Sum of lost time (s)				19.7		
Intersection Capacity Utilization			90.1%			ICU Level of Service				E		
Analysis Period (min)			15									
c Critical Lane Group												

HCM 6th TWSC  
6: Site Access & Golf Ln











No Build PM Volumes  
Stayton Golf Lane Subdivision

Intersection						
Int Delay, s/veh	6.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	34	58	8	4	0
Future Vol, veh/h	0	34	58	8	4	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	71	71	71	71	71	71
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	48	82	11	6	0
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	181	6	6	0	-	0
Stage 1	6	-	-	-	-	-
Stage 2	175	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	813	1083	1628	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	860	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	772	1083	1628	-	-	-
Mov Cap-2 Maneuver	772	-	-	-	-	-
Stage 1	970	-	-	-	-	-
Stage 2	860	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	8.5	6.4		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1628	-	1083	-	-	
HCM Lane V/C Ratio	0.05	-	0.044	-	-	
HCM Control Delay (s)	7.3	0	8.5	-	-	
HCM Lane LOS	A	A	A	-	-	
HCM 95th %tile Q(veh)	0.2	-	0.1	-	-	



## **APPENDIX D: HCM REPORTS – FUTURE BUILD**


















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Intersection												
Int Delay, s/veh	1.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	3	16	6	9	46	87	324	407	43	377	14
Future Vol, veh/h	6	3	16	6	9	46	87	324	407	43	377	14
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	Yield	-	-	None
Storage Length	200	-	-	-	-	25	250	-	300	250	-	350
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	0	0	0	0	0	5	1	2	3	0	5	0
Mvmt Flow	8	4	20	8	11	58	109	405	509	54	471	18
Major/Minor	Minor2		Minor1		Major1		Major2		Major2		Major2	
Conflicting Flow All	1237	1202	471	1223	1220	405	489	0	0	405	0	0
Stage 1	579	579	-	623	623	-	-	-	-	-	-	-
Stage 2	658	623	-	600	597	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.25	4.11	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.345	2.209	-	-	2.2	-	-
Pot Cap-1 Maneuver	154	186	597	158	182	639	1079	-	-	1165	-	-
Stage 1	504	504	-	477	481	-	-	-	-	-	-	-
Stage 2	457	481	-	491	495	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	118	160	597	134	156	639	1079	-	-	1165	-	-
Mov Cap-2 Maneuver	118	160	-	134	156	-	-	-	-	-	-	-
Stage 1	453	481	-	429	432	-	-	-	-	-	-	-
Stage 2	364	432	-	449	472	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB		SB		SB	
HCM Control Delay, s	19.8		16.6		0.9		0.8					
HCM LOS	C		C									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR		
Capacity (veh/h)	1079	-	-	118	417	146	639	1165	-	-		
HCM Lane V/C Ratio	0.101	-	-	0.064	0.057	0.128	0.09	0.046	-	-		
HCM Control Delay (s)	8.7	-	-	37.6	14.2	33.3	11.2	8.2	-	-		
HCM Lane LOS	A	-	-	E	B	D	B	A	-	-		
HCM 95th %tile Q(veh)	0.3	-	-	0.2	0.2	0.4	0.3	0.1	-	-		

# HCM Signalized Intersection Capacity Analysis







## 2: Santiam Hwy Eastbound Ramp & Cascade Hwy

Build AM Volumes  
Stayton Golf Lane Subdivision

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	78	0	257	0	0	0	0	740	22	37	362	0
Future Volume (vph)	78	0	257	0	0	0	0	740	22	37	362	0
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)		4.5	4.5					5.7		4.5	5.7	
Lane Util. Factor		1.00	1.00					1.00		1.00	1.00	
Frpb, ped/bikes		1.00	1.00					1.00		1.00	1.00	
Flpb, ped/bikes		1.00	1.00					1.00		1.00	1.00	
Frt		1.00	0.85					1.00		1.00	1.00	
Flt Protected		0.95	1.00					1.00		0.95	1.00	
Satd. Flow (prot)		1614	1458					1674		1309	1699	
Flt Permitted		0.95	1.00					1.00		0.12	1.00	
Satd. Flow (perm)		1614	1458					1674		161	1699	
Peak-hour factor, PHF	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Adj. Flow (vph)	94	0	310	0	0	0	0	892	27	45	436	0
RTOR Reduction (vph)	0	0	258	0	0	0	0	1	0	0	0	0
Lane Group Flow (vph)	0	94	52	0	0	0	0	918	0	45	436	0
Confl. Peds. (#/hr)									1	1		
Heavy Vehicles (%)	3%	0%	2%	0%	0%	0%	0%	4%	7%	27%	3%	0%
Turn Type	Perm	NA	Perm					NA		pm+pt	NA	
Protected Phases		8						6		5	2	
Permitted Phases	8		8							2		
Actuated Green, G (s)		10.2	10.2					29.7		40.8	40.8	
Effective Green, g (s)		10.2	10.2					29.7		40.8	40.8	
Actuated g/C Ratio		0.17	0.17					0.49		0.67	0.67	
Clearance Time (s)		4.5	4.5					5.7		4.5	5.7	
Vehicle Extension (s)		2.5	2.5					4.8		2.5	4.8	
Lane Grp Cap (vph)		269	243					812		231	1132	
v/s Ratio Prot								c0.55		0.02	c0.26	
v/s Ratio Perm		0.06	0.04							0.11		
v/c Ratio		0.35	0.21					1.13		0.19	0.39	
Uniform Delay, d1		22.6	22.0					15.8		11.2	4.6	
Progression Factor		1.00	1.00					1.00		1.00	1.00	
Incremental Delay, d2		0.6	0.3					74.0		0.3	0.4	
Delay (s)		23.1	22.4					89.7		11.5	5.0	
Level of Service		C	C					F		B	A	
Approach Delay (s)		22.5			0.0			89.7			5.6	
Approach LOS		C			A			F			A	
<b>Intersection Summary</b>												
HCM 2000 Control Delay			52.2					HCM 2000 Level of Service			D	
HCM 2000 Volume to Capacity ratio			0.87									
Actuated Cycle Length (s)			61.2					Sum of lost time (s)		14.7		
Intersection Capacity Utilization			57.2%					ICU Level of Service		B		
Analysis Period (min)			15									
c Critical Lane Group												

HCM 6th TWSC  
3: Cascade Hwy & Golf Ln












Build AM Volumes  
Stayton Golf Lane Subdivision

Intersection												
Int Delay, s/veh	1.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	25	0	31	1	0	10	9	727	2	11	600	8
Future Vol, veh/h	25	0	31	1	0	10	9	727	2	11	600	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	75	-	-	75	-	-
Veh in Median Storage, #	-	1	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	0	0	0	0	3	0	0	4	0
Mvmt Flow	30	0	38	1	0	12	11	887	2	13	732	10
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1679	1674	737	1692	1678	888	742	0	0	889	0	0
Stage 1	763	763	-	910	910	-	-	-	-	-	-	-
Stage 2	916	911	-	782	768	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	76	97	422	75	96	345	874	-	-	771	-	-
Stage 1	400	416	-	332	356	-	-	-	-	-	-	-
Stage 2	329	356	-	390	414	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	72	94	422	67	93	345	874	-	-	771	-	-
Mov Cap-2 Maneuver	188	211	-	67	93	-	-	-	-	-	-	-
Stage 1	395	409	-	328	351	-	-	-	-	-	-	-
Stage 2	313	351	-	349	407	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	22.7		20.2		0.1		0.2					
HCM LOS	C		C									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	874	-	-	271	251	771	-	-				
HCM Lane V/C Ratio	0.013	-	-	0.252	0.053	0.017	-	-				
HCM Control Delay (s)	9.2	-	-	22.7	20.2	9.8	-	-				
HCM Lane LOS	A	-	-	C	C	A	-	-				
HCM 95th %tile Q(veh)	0	-	-	1	0.2	0.1	-	-				

# HCM Signalized Intersection Capacity Analysis

## 4: Cascade Hwy & Whitney St





















Build AM Volumes  
Stayton Golf Lane Subdivision

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	25	165	573	42	79	553
Future Volume (vph)	25	165	573	42	79	553
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750
Total Lost time (s)	5.0	5.0	5.7		4.5	5.7
Lane Util. Factor	1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.85	0.99		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1525	1488	1664		1630	1699
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1525	1488	1664		1630	1699
Peak-hour factor, PHF	0.80	0.80	0.80	0.80	0.80	0.80
Adj. Flow (vph)	31	206	716	52	99	691
RTOR Reduction (vph)	0	179	2	0	0	0
Lane Group Flow (vph)	31	27	767	0	99	691
Heavy Vehicles (%)	9%	0%	4%	7%	2%	3%
Turn Type	Prot	Prot	NA		Prot	NA
Protected Phases	4	4	6		5	2
Permitted Phases						
Actuated Green, G (s)	9.0	9.0	36.8		7.2	48.5
Effective Green, g (s)	9.0	9.0	36.8		7.2	48.5
Actuated g/C Ratio	0.13	0.13	0.54		0.11	0.71
Clearance Time (s)	5.0	5.0	5.7		4.5	5.7
Vehicle Extension (s)	2.5	2.5	4.8		2.5	4.8
Lane Grp Cap (vph)	201	196	897		172	1208
v/s Ratio Prot	c0.02	0.02	c0.46		0.06	c0.41
v/s Ratio Perm						
v/c Ratio	0.15	0.14	0.85		0.58	0.57
Uniform Delay, d1	26.2	26.2	13.4		29.0	4.8
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	0.3	0.2	8.7		3.8	1.0
Delay (s)	26.5	26.4	22.1		32.8	5.8
Level of Service	C	C	C		C	A
Approach Delay (s)	26.4		22.1			9.2
Approach LOS	C		C			A
<b>Intersection Summary</b>						
HCM 2000 Control Delay			17.0		HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio			0.72			
Actuated Cycle Length (s)			68.2		Sum of lost time (s)	15.2
Intersection Capacity Utilization			57.9%		ICU Level of Service	B
Analysis Period (min)			15			
c Critical Lane Group						

# HCM Signalized Intersection Capacity Analysis




## 5: Shaff Rd/Fern Ridge Rd & Cascade Hwy

Build AM Volumes  
Stayton Golf Lane Subdivision











												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	100	110	69	75	143	69	75	449	28	75	433	77
Future Volume (vph)	100	110	69	75	143	69	75	449	28	75	433	77
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	4.5	5.0		4.5	5.0		4.5	5.7		4.5	5.7	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frpb, ped/bikes	1.00	0.99		1.00	1.00		1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.94		1.00	0.95		1.00	0.99		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1630	1593		1629	1621		1539	1682		1662	1627	
Flt Permitted	0.27	1.00		0.42	1.00		0.18	1.00		0.22	1.00	
Satd. Flow (perm)	455	1593		724	1621		292	1682		385	1627	
Peak-hour factor, PHF	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Adj. Flow (vph)	130	143	90	97	186	90	97	583	36	97	562	100
RTOR Reduction (vph)	0	17	0	0	0	0	0	2	0	0	4	0
Lane Group Flow (vph)	130	216	0	97	276	0	97	617	0	97	658	0
Confl. Peds. (#/hr)			1	1								
Heavy Vehicles (%)	2%	3%	2%	2%	4%	0%	8%	3%	5%	0%	5%	6%
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases	8			4			6			2		
Actuated Green, G (s)	36.9	25.3		33.7	23.7		64.6	56.0		64.0	55.7	
Effective Green, g (s)	36.9	25.3		33.7	23.7		64.6	56.0		64.0	55.7	
Actuated g/C Ratio	0.31	0.21		0.28	0.20		0.54	0.47		0.54	0.47	
Clearance Time (s)	4.5	5.0		4.5	5.0		4.5	5.7		4.5	5.7	
Vehicle Extension (s)	2.5	2.5		2.5	2.5		2.5	4.0		2.5	4.0	
Lane Grp Cap (vph)	254	337		280	322		248	789		295	759	
v/s Ratio Prot	c0.05	0.14		0.03	c0.17		c0.03	0.37		0.02	c0.40	
v/s Ratio Perm	0.11			0.07			0.18			0.15		
v/c Ratio	0.51	0.64		0.35	0.86		0.39	0.78		0.33	0.87	
Uniform Delay, d1	31.9	42.9		32.9	46.2		18.3	26.5		17.2	28.5	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	1.3	3.7		0.5	19.3		0.7	5.4		0.5	10.5	
Delay (s)	33.2	46.5		33.4	65.5		19.0	31.9		17.6	39.0	
Level of Service	C	D		C	E		B	C		B	D	
Approach Delay (s)		41.8			57.2			30.2			36.3	
Approach LOS		D			E			C			D	
<b>Intersection Summary</b>												
HCM 2000 Control Delay			38.7			HCM 2000 Level of Service				D		
HCM 2000 Volume to Capacity ratio			0.78									
Actuated Cycle Length (s)			119.3			Sum of lost time (s)			19.7			
Intersection Capacity Utilization			69.5%			ICU Level of Service			C			
Analysis Period (min)			15									
c Critical Lane Group												

HCM 6th TWSC  
6: Site Access & Golf Ln

Build AM Volumes  
Stayton Golf Lane Subdivision

Intersection						
Int Delay, s/veh	7.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	52	17	0	4	0
Future Vol, veh/h	0	52	17	0	4	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	63	20	0	5	0
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	45	5	5	0	-	0
Stage 1	5	-	-	-	-	-
Stage 2	40	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	970	1084	1630	-	-	-
Stage 1	1023	-	-	-	-	-
Stage 2	988	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	958	1084	1630	-	-	-
Mov Cap-2 Maneuver	958	-	-	-	-	-
Stage 1	1011	-	-	-	-	-
Stage 2	988	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	8.5	7.2		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1630	-	1084	-	-	
HCM Lane V/C Ratio	0.013	-	0.058	-	-	
HCM Control Delay (s)	7.2	0	8.5	-	-	
HCM Lane LOS	A	A	A	-	-	
HCM 95th %tile Q(veh)	0	-	0.2	-	-	




















Intersection												
Int Delay, s/veh	3.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	16	33	54	21	1	47	41	395	304	33	500	10
Future Vol, veh/h	16	33	54	21	1	47	41	395	304	33	500	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	1	1	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	Yield	-	-	None
Storage Length	200	-	-	-	-	25	250	-	300	250	-	350
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	2	0	0	5	0	1	2	0	1	0
Mvmt Flow	18	37	60	23	1	52	46	439	338	37	556	11
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1188	1162	556	1216	1173	440	567	0	0	440	0	0
Stage 1	630	630	-	532	532	-	-	-	-	-	-	-
Stage 2	558	532	-	684	641	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.22	7.1	6.5	6.25	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.318	3.5	4	3.345	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	167	197	531	159	194	611	1015	-	-	1131	-	-
Stage 1	473	478	-	535	529	-	-	-	-	-	-	-
Stage 2	518	529	-	442	473	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	143	182	531	112	179	610	1015	-	-	1130	-	-
Mov Cap-2 Maneuver	143	182	-	112	179	-	-	-	-	-	-	-
Stage 1	452	462	-	510	505	-	-	-	-	-	-	-
Stage 2	451	505	-	349	457	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	23.8			22.2			0.5			0.5		
HCM LOS	C			C								
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR		
Capacity (veh/h)	1015	-	-	143	307	114	610	1130	-	-		
HCM Lane V/C Ratio	0.045	-	-	0.124	0.315	0.214	0.086	0.032	-	-		
HCM Control Delay (s)	8.7	-	-	33.7	22	45	11.5	8.3	-	-		
HCM Lane LOS	A	-	-	D	C	E	B	A	-	-		
HCM 95th %tile Q(veh)	0.1	-	-	0.4	1.3	0.8	0.3	0.1	-	-		

# HCM Signalized Intersection Capacity Analysis







## 2: Santiam Hwy Eastbound Ramp & Cascade Hwy

Build PM Volumes  
Stayton Golf Lane Subdivision

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	82	0	434	0	0	0	0	658	78	72	503	0
Future Volume (vph)	82	0	434	0	0	0	0	658	78	72	503	0
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)		4.5	4.5					5.7		4.5	5.7	
Lane Util. Factor		1.00	1.00					1.00		1.00	1.00	
Frpb, ped/bikes		1.00	1.00					1.00		1.00	1.00	
Flpb, ped/bikes		1.00	1.00					1.00		1.00	1.00	
Frt		1.00	0.85					0.99		1.00	1.00	
Flt Protected		0.95	1.00					1.00		0.95	1.00	
Satd. Flow (prot)		1662	1488					1705		1630	1733	
Flt Permitted		0.95	1.00					1.00		0.11	1.00	
Satd. Flow (perm)		1662	1488					1705		194	1733	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	91	0	482	0	0	0	0	731	87	80	559	0
RTOR Reduction (vph)	0	0	253	0	0	0	0	4	0	0	0	0
Lane Group Flow (vph)	0	91	229	0	0	0	0	814	0	80	559	0
Confl. Peds. (#/hr)									2	2		
Confl. Bikes (#/hr)									2			
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	1%	0%	2%	1%	0%
Turn Type	Perm	NA	Perm					NA		pm+pt	NA	
Protected Phases		8						6		5	2	
Permitted Phases	8		8							2		
Actuated Green, G (s)		14.0	14.0					30.8		42.4	42.4	
Effective Green, g (s)		14.0	14.0					30.8		42.4	42.4	
Actuated g/C Ratio		0.21	0.21					0.46		0.64	0.64	
Clearance Time (s)		4.5	4.5					5.7		4.5	5.7	
Vehicle Extension (s)		2.5	2.5					4.8		2.5	4.8	
Lane Grp Cap (vph)		349	312					788		276	1103	
v/s Ratio Prot								c0.48		0.03	c0.32	
v/s Ratio Perm		0.05	c0.15							0.15		
v/c Ratio		0.26	0.73					1.03		0.29	0.51	
Uniform Delay, d1		22.0	24.6					17.9		11.3	6.5	
Progression Factor		1.00	1.00					1.00		1.00	1.00	
Incremental Delay, d2		0.3	8.2					40.7		0.4	0.7	
Delay (s)		22.3	32.8					58.6		11.7	7.2	
Level of Service		C	C					E		B	A	
Approach Delay (s)		31.1			0.0			58.6			7.8	
Approach LOS		C			A			E			A	
<b>Intersection Summary</b>												
HCM 2000 Control Delay			34.9					HCM 2000 Level of Service			C	
HCM 2000 Volume to Capacity ratio			0.90									
Actuated Cycle Length (s)			66.6					Sum of lost time (s)		14.7		
Intersection Capacity Utilization			66.4%					ICU Level of Service		C		
Analysis Period (min)			15									
c Critical Lane Group												

HCM 6th TWSC  
3: Cascade Hwy & Golf Ln












Build PM Volumes  
Stayton Golf Lane Subdivision

Intersection												
Int Delay, s/veh	1.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	17	0	21	6	0	20	36	699	11	9	898	30
Future Vol, veh/h	17	0	21	6	0	20	36	699	11	9	898	30
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	1	1	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	75	-	-	75	-	-
Veh in Median Storage, #	-	1	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0	0	1	0	0	1	0
Mvmt Flow	19	0	23	7	0	22	40	777	12	10	998	33
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	1909	1905	1015	1910	1915	784	1031	0	0	790	0	0
Stage 1	1035	1035	-	864	864	-	-	-	-	-	-	-
Stage 2	874	870	-	1046	1051	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	52	69	292	52	68	396	682	-	-	839	-	-
Stage 1	282	312	-	352	374	-	-	-	-	-	-	-
Stage 2	347	372	-	278	306	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	46	64	292	45	63	396	682	-	-	838	-	-
Mov Cap-2 Maneuver	149	177	-	45	63	-	-	-	-	-	-	-
Stage 1	265	308	-	331	352	-	-	-	-	-	-	-
Stage 2	308	350	-	253	302	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	27.2		37			0.5			0.1			
HCM LOS	D		E									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	682	-	-	204	141	838	-	-				
HCM Lane V/C Ratio	0.059	-	-	0.207	0.205	0.012	-	-				
HCM Control Delay (s)	10.6	-	-	27.2	37	9.3	-	-				
HCM Lane LOS	B	-	-	D	E	A	-	-				
HCM 95th %tile Q(veh)	0.2	-	-	0.8	0.7	0	-	-				

# HCM Signalized Intersection Capacity Analysis

## 4: Cascade Hwy & Whitney St





















Build PM Volumes  
Stayton Golf Lane Subdivision

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	88	151	595	44	199	726
Future Volume (vph)	88	151	595	44	199	726
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750
Total Lost time (s)	5.0	5.0	5.7		4.5	5.7
Lane Util. Factor	1.00	1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00	1.00		1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.85	0.99		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1662	1488	1718		1646	1733
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1662	1488	1718		1646	1733
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	95	162	640	47	214	781
RTOR Reduction (vph)	0	138	3	0	0	0
Lane Group Flow (vph)	95	24	684	0	214	781
Confl. Bikes (#/hr)		2				
Heavy Vehicles (%)	0%	0%	1%	0%	1%	1%
Turn Type	Prot	Prot	NA		Prot	NA
Protected Phases	4	4	6		5	2
Permitted Phases						
Actuated Green, G (s)	10.5	10.5	34.6		10.6	49.7
Effective Green, g (s)	10.5	10.5	34.6		10.6	49.7
Actuated g/C Ratio	0.15	0.15	0.49		0.15	0.70
Clearance Time (s)	5.0	5.0	5.7		4.5	5.7
Vehicle Extension (s)	2.5	2.5	4.8		2.5	4.8
Lane Grp Cap (vph)	246	220	838		246	1214
v/s Ratio Prot	c0.06	0.02	c0.40		c0.13	0.45
v/s Ratio Perm						
v/c Ratio	0.39	0.11	0.82		0.87	0.64
Uniform Delay, d1	27.3	26.1	15.5		29.5	5.8
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	0.7	0.2	6.9		26.0	1.5
Delay (s)	28.0	26.3	22.4		55.5	7.3
Level of Service	C	C	C		E	A
Approach Delay (s)	26.9		22.4			17.7
Approach LOS	C		C			B
<b>Intersection Summary</b>						
HCM 2000 Control Delay			20.6		HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio			0.75			
Actuated Cycle Length (s)			70.9		Sum of lost time (s)	15.2
Intersection Capacity Utilization			66.8%		ICU Level of Service	C
Analysis Period (min)			15			
c Critical Lane Group						

# HCM Signalized Intersection Capacity Analysis




## 5: Shaff Rd/Fern Ridge Rd & Cascade Hwy

Build PM Volumes  
Stayton Golf Lane Subdivision

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	162	97	104	107	155	70	107	454	59	55	628	140
Future Volume (vph)	162	97	104	107	155	70	107	454	59	55	628	140
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	4.5	5.0		4.5	5.0		4.5	5.7		4.5	5.7	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frpb, ped/bikes	1.00	0.98		1.00	0.99		1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.92		1.00	0.95		1.00	0.98		1.00	0.97	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1645	1589		1658	1633		1662	1684		1661	1680	
Flt Permitted	0.25	1.00		0.44	1.00		0.10	1.00		0.34	1.00	
Satd. Flow (perm)	436	1589		773	1633		180	1684		595	1680	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	180	108	116	119	172	78	119	504	66	61	698	156
RTOR Reduction (vph)	0	29	0	0	0	0	0	3	0	0	6	0
Lane Group Flow (vph)	180	195	0	119	250	0	119	567	0	61	848	0
Confl. Peds. (#/hr)	2		4	4		2	3		4	4		3
Heavy Vehicles (%)	1%	0%	0%	0%	2%	0%	0%	2%	0%	0%	1%	0%
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases	8			4			6			2		
Actuated Green, G (s)	34.9	25.3		28.9	22.3		77.8	71.2		71.4	68.0	
Effective Green, g (s)	34.9	25.3		28.9	22.3		77.8	71.2		71.4	68.0	
Actuated g/C Ratio	0.28	0.20		0.23	0.18		0.62	0.56		0.57	0.54	
Clearance Time (s)	4.5	5.0		4.5	5.0		4.5	5.7		4.5	5.7	
Vehicle Extension (s)	2.5	2.5		2.5	2.5		2.5	4.0		2.5	4.0	
Lane Grp Cap (vph)	212	318		223	288		188	950		365	905	
v/s Ratio Prot	c0.06	0.12		0.03	0.15		c0.03	0.34		0.00	c0.50	
v/s Ratio Perm	c0.17			0.09			0.36			0.09		
v/c Ratio	0.85	0.61		0.53	0.87		0.63	0.60		0.17	0.94	
Uniform Delay, d1	40.0	46.0		41.3	50.5		22.3	18.1		13.5	27.1	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	25.4	3.0		1.9	22.8		6.0	1.2		0.2	16.8	
Delay (s)	65.5	49.0		43.2	73.3		28.3	19.2		13.7	43.9	
Level of Service	E	D		D	E		C	B		B	D	
Approach Delay (s)		56.3			63.6			20.8			41.9	
Approach LOS		E			E			C			D	
<b>Intersection Summary</b>												
HCM 2000 Control Delay			41.6			HCM 2000 Level of Service				D		
HCM 2000 Volume to Capacity ratio			0.91									
Actuated Cycle Length (s)			126.2			Sum of lost time (s)				19.7		
Intersection Capacity Utilization			91.8%			ICU Level of Service				F		
Analysis Period (min)			15									
c Critical Lane Group												

HCM 6th TWSC  
6: Site Access & Golf Ln

Build PM Volumes  
Stayton Golf Lane Subdivision

Intersection						
Int Delay, s/veh	6.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	34	58	8	4	0
Future Vol, veh/h	0	34	58	8	4	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	71	71	71	71	71	71
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	48	82	11	6	0
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	181	6	6	0	-	0
Stage 1	6	-	-	-	-	-
Stage 2	175	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	813	1083	1628	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	860	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	772	1083	1628	-	-	-
Mov Cap-2 Maneuver	772	-	-	-	-	-
Stage 1	970	-	-	-	-	-
Stage 2	860	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	8.5	6.4		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1628	-	1083	-	-	
HCM Lane V/C Ratio	0.05	-	0.044	-	-	
HCM Control Delay (s)	7.3	0	8.5	-	-	
HCM Lane LOS	A	A	A	-	-	
HCM 95th %tile Q(veh)	0.2	-	0.1	-	-	

## APPENDIX E: QUEUING REPORTS

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## Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	7:10	7:10	7:10	7:10	7:10	7:10
Total Time (min)	13	13	13	13	13	13
Time Recorded (min)	10	10	10	10	10	10
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	467	444	412	414	400	427
Vehs Exited	434	413	410	403	422	417
Starting Vehs	92	82	83	90	98	89
Ending Vehs	125	113	85	101	76	100
Travel Distance (mi)	335	318	303	308	305	314
Travel Time (hr)	19.8	16.2	15.3	15.2	15.4	16.4
Total Delay (hr)	8.0	5.0	4.6	4.4	4.7	5.3
Total Stops	677	552	522	485	535	553
Fuel Used (gal)	12.7	11.8	10.8	11.1	11.1	11.5

## Interval #0 Information Seeding

Start Time	6:57
End Time	7:00
Total Time (min)	3
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

## Interval #1 Information Recording

Start Time	7:00
End Time	7:10
Total Time (min)	10
Volumes adjusted by Growth Factors.	

Run Number	1	2	3	4	5	Avg
Vehs Entered	467	444	412	414	400	427
Vehs Exited	434	413	410	403	422	417
Starting Vehs	92	82	83	90	98	89
Ending Vehs	125	113	85	101	76	100
Travel Distance (mi)	335	318	303	308	305	314
Travel Time (hr)	19.8	16.2	15.3	15.2	15.4	16.4
Total Delay (hr)	8.0	5.0	4.6	4.4	4.7	5.3
Total Stops	677	552	522	485	535	553
Fuel Used (gal)	12.7	11.8	10.8	11.1	11.1	11.5

Intersection: 1: Cascade Hwy & Sublimity Blvd/Santiam Hwy Westbound Ramp

Movement	EB	EB	WB	WB	NB	SB
Directions Served	L	TR	LT	R	L	L
Maximum Queue (ft)	19	42	30	46	30	21
Average Queue (ft)	10	26	14	32	14	7
95th Queue (ft)	29	50	38	59	39	27
Link Distance (ft)		640	1184			
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	200			25	250	250
Storage Blk Time (%)			4	7		
Queuing Penalty (veh)			2	1		

Intersection: 2: Santiam Hwy Eastbound Ramp & Cascade Hwy

Movement	EB	EB	NB	SB	SB
Directions Served	LT	R	TR	L	T
Maximum Queue (ft)	68	129	252	58	108
Average Queue (ft)	44	69	171	28	62
95th Queue (ft)	76	182	274	66	119
Link Distance (ft)	918		470		815
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		550		275	
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 3: Cascade Hwy & Golf Ln

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	L	L
Maximum Queue (ft)	10	31	6	18
Average Queue (ft)	4	15	1	6
95th Queue (ft)	17	40	11	25
Link Distance (ft)		263		
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)			75	75
Storage Blk Time (%)				
Queuing Penalty (veh)				

## Intersection: 4: Cascade Hwy &amp; Whitney St

Movement	WB	WB	NB	SB	SB
Directions Served	L	R	TR	L	T
Maximum Queue (ft)	78	103	221	128	137
Average Queue (ft)	53	68	160	87	101
95th Queue (ft)	91	113	248	135	163
Link Distance (ft)		674	1290		429
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	150			200	
Storage Blk Time (%)					0
Queuing Penalty (veh)					0

## Intersection: 5: Shaff Rd/Fern Ridge Rd &amp; Cascade Hwy

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	L	TR	L	TR
Maximum Queue (ft)	112	159	107	178	90	218	108	430
Average Queue (ft)	73	95	53	99	59	140	35	331
95th Queue (ft)	127	174	121	191	99	235	153	647
Link Distance (ft)		806		960		1174		1290
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	200		200		250		350	
Storage Blk Time (%)		0		2		1		11
Queuing Penalty (veh)		1		2		1		5

## Zone Summary

Zone wide Queuing Penalty: 11

## Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	7:20	7:20	7:20	7:20	7:20	7:20
End Time	8:30	8:30	8:30	8:30	8:30	8:30
Total Time (min)	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	3	3	3	3	3	3
# of Recorded Intervals	2	2	2	2	2	2
Vehs Entered	2205	2270	2227	2200	2260	2232
Vehs Exited	2223	2268	2227	2208	2236	2232
Starting Vehs	84	74	78	67	64	70
Ending Vehs	66	76	78	59	88	70
Travel Distance (mi)	1669	1701	1647	1641	1704	1672
Travel Time (hr)	84.1	88.3	82.9	82.7	86.3	84.9
Total Delay (hr)	25.4	28.4	24.8	25.2	26.3	26.0
Total Stops	2879	2921	2773	2742	2781	2819
Fuel Used (gal)	60.7	62.7	60.3	59.8	62.0	61.1

## Interval #0 Information Seeding

Start Time	7:20
End Time	7:30
Total Time (min)	10
Volumes adjusted by Growth Factors, Anti PHF.	
No data recorded this interval.	

## Interval #1 Information Recording

Start Time	7:30
End Time	7:45
Total Time (min)	15
Volumes adjusted by PHF, Growth Factors.	

Run Number	1	2	3	4	5	Avg
Vehs Entered	727	734	722	738	703	727
Vehs Exited	694	685	688	676	648	679
Starting Vehs	84	74	78	67	64	70
Ending Vehs	117	123	112	129	119	120
Travel Distance (mi)	520	525	501	503	501	510
Travel Time (hr)	29.4	30.3	27.6	27.9	27.5	28.5
Total Delay (hr)	11.1	11.8	9.9	10.2	9.8	10.6
Total Stops	1137	1053	971	952	905	1003
Fuel Used (gal)	19.7	20.0	18.8	19.0	18.7	19.2

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Interval #2 Information Recording

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Start Time 7:45

End Time 8:30

Total Time (min) 45

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	2	3	4	5	Avg
Vehs Entered	1478	1536	1505	1462	1557	1509
Vehs Exited	1529	1583	1539	1532	1588	1553
Starting Vehs	117	123	112	129	119	120
Ending Vehs	66	76	78	59	88	70
Travel Distance (mi)	1148	1176	1146	1137	1204	1162
Travel Time (hr)	54.8	58.0	55.3	54.8	58.9	56.4
Total Delay (hr)	14.3	16.6	14.9	14.9	16.5	15.5
Total Stops	1742	1868	1802	1790	1876	1812
Fuel Used (gal)	41.0	42.7	41.5	40.8	43.4	41.9

## Intersection: 1: Cascade Hwy &amp; Sublimity Blvd/Santiam Hwy Westbound Ramp

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	LT	R	L	R	L	R
Maximum Queue (ft)	28	37	54	55	66	33	49	3
Average Queue (ft)	5	11	15	31	21	1	10	0
95th Queue (ft)	20	30	46	58	52	24	35	0
Link Distance (ft)		640	1184					
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	200			25	250	300	250	350
Storage Blk Time (%)			3	6				
Queuing Penalty (veh)			2	1				

## Intersection: 2: Santiam Hwy Eastbound Ramp &amp; Cascade Hwy

Movement	EB	EB	NB	SB	SB
Directions Served	LT	R	TR	L	T
Maximum Queue (ft)	115	93	392	70	130
Average Queue (ft)	43	23	190	21	44
95th Queue (ft)	85	76	341	56	105
Link Distance (ft)	918		470		815
Upstream Blk Time (%)			0		
Queuing Penalty (veh)			1		
Storage Bay Dist (ft)		550		275	
Storage Blk Time (%)					
Queuing Penalty (veh)					

## Intersection: 3: Cascade Hwy &amp; Golf Ln

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	TR	L
Maximum Queue (ft)	27	40	38	29
Average Queue (ft)	3	13	2	4
95th Queue (ft)	18	37	28	21
Link Distance (ft)		263	429	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				75
Storage Blk Time (%)			0	
Queuing Penalty (veh)			0	

Intersection: 4: Cascade Hwy & Whitney St

Movement	WB	WB	NB	SB	SB
Directions Served	L	R	TR	L	T
Maximum Queue (ft)	98	166	444	108	231
Average Queue (ft)	21	81	174	45	90
95th Queue (ft)	61	140	342	83	174
Link Distance (ft)		674	1290		429
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	150			200	
Storage Blk Time (%)		0			0
Queuing Penalty (veh)		0			0

Intersection: 5: Shaff Rd/Fern Ridge Rd & Cascade Hwy

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	L	TR	L	TR
Maximum Queue (ft)	133	241	147	292	243	360	208	536
Average Queue (ft)	56	81	46	116	54	160	48	195
95th Queue (ft)	112	159	99	219	140	296	157	412
Link Distance (ft)		806		960		1174		1290
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	200		200		250		350	
Storage Blk Time (%)	0	0		3	0	3		3
Queuing Penalty (veh)	0	1		2	0	3		2

Zone Summary

Zone wide Queuing Penalty: 13
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## Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	7:10	7:10	7:10	7:10	7:10	7:10
Total Time (min)	13	13	13	13	13	13
Time Recorded (min)	10	10	10	10	10	10
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	473	525	474	480	457	480
Vehs Exited	468	495	454	477	431	465
Starting Vehs	103	90	93	103	86	96
Ending Vehs	108	120	113	106	112	111
Travel Distance (mi)	351	373	340	347	324	347
Travel Time (hr)	19.0	20.6	18.1	18.2	17.0	18.6
Total Delay (hr)	6.7	7.5	6.0	6.0	5.5	6.3
Total Stops	657	713	591	618	559	627
Fuel Used (gal)	13.3	14.1	12.4	12.7	11.7	12.8

## Interval #0 Information Seeding

Start Time	6:57
End Time	7:00
Total Time (min)	3
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

## Interval #1 Information Recording

Start Time	7:00
End Time	7:10
Total Time (min)	10
Volumes adjusted by Growth Factors.	

Run Number	1	2	3	4	5	Avg
Vehs Entered	473	525	474	480	457	480
Vehs Exited	468	495	454	477	431	465
Starting Vehs	103	90	93	103	86	96
Ending Vehs	108	120	113	106	112	111
Travel Distance (mi)	351	373	340	347	324	347
Travel Time (hr)	19.0	20.6	18.1	18.2	17.0	18.6
Total Delay (hr)	6.7	7.5	6.0	6.0	5.5	6.3
Total Stops	657	713	591	618	559	627
Fuel Used (gal)	13.3	14.1	12.4	12.7	11.7	12.8

## Intersection: 1: Cascade Hwy &amp; Sublimity Blvd/Santiam Hwy Westbound Ramp

Movement	EB	EB	WB	WB	NB	SB
Directions Served	L	TR	LT	R	L	L
Maximum Queue (ft)	32	67	30	61	28	27
Average Queue (ft)	14	31	11	29	12	8
95th Queue (ft)	40	71	34	68	39	28
Link Distance (ft)		640	1184			
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	200			25	250	250
Storage Blk Time (%)			4	6		
Queuing Penalty (veh)			2	1		

## Intersection: 2: Santiam Hwy Eastbound Ramp &amp; Cascade Hwy

Movement	EB	EB	NB	SB	SB
Directions Served	LT	R	TR	L	T
Maximum Queue (ft)	78	133	307	46	140
Average Queue (ft)	50	86	187	27	72
95th Queue (ft)	89	152	357	57	166
Link Distance (ft)	918		470		815
Upstream Blk Time (%)			0		
Queuing Penalty (veh)			2		
Storage Bay Dist (ft)		550		275	
Storage Blk Time (%)					
Queuing Penalty (veh)					

## Intersection: 3: Cascade Hwy &amp; Golf Ln

Movement	EB	WB	NB	NB	SB
Directions Served	LTR	LTR	L	TR	L
Maximum Queue (ft)	16	31	11	11	17
Average Queue (ft)	5	17	2	2	6
95th Queue (ft)	21	40	15	20	24
Link Distance (ft)	969	263		429	
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)			75		75
Storage Blk Time (%)					
Queuing Penalty (veh)					

## Intersection: 4: Cascade Hwy &amp; Whitney St

Movement	WB	WB	NB	SB	SB
Directions Served	L	R	TR	L	T
Maximum Queue (ft)	78	97	253	149	188
Average Queue (ft)	54	75	201	106	114
95th Queue (ft)	93	115	313	169	204
Link Distance (ft)		674	1290		429
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	150			200	
Storage Blk Time (%)		0		1	1
Queuing Penalty (veh)		0		6	1

## Intersection: 5: Shaff Rd/Fern Ridge Rd &amp; Cascade Hwy

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	L	TR	L	TR
Maximum Queue (ft)	136	155	146	206	118	260	117	420
Average Queue (ft)	83	101	90	148	63	174	46	329
95th Queue (ft)	151	176	167	219	143	291	159	491
Link Distance (ft)		806		960		1174		1290
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	200		200		250		350	
Storage Blk Time (%)		0		3		2		7
Queuing Penalty (veh)		1		4		2		4

## Zone Summary

Zone wide Queuing Penalty: 22

## Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	7:20	7:20	7:20	7:20	7:20	7:20
End Time	8:30	8:30	8:30	8:30	8:30	8:30
Total Time (min)	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	3	3	3	3	3	3
# of Recorded Intervals	2	2	2	2	2	2
Vehs Entered	2368	2249	2205	2242	2334	2275
Vehs Exited	2360	2249	2208	2266	2316	2278
Starting Vehs	90	76	73	95	67	74
Ending Vehs	98	76	70	71	85	75
Travel Distance (mi)	1779	1701	1661	1698	1745	1717
Travel Time (hr)	95.0	88.6	82.9	85.6	88.6	88.1
Total Delay (hr)	32.2	28.5	24.3	25.7	26.7	27.5
Total Stops	3470	3094	2720	2879	2994	3032
Fuel Used (gal)	65.8	62.7	60.5	61.8	63.6	62.9

## Interval #0 Information Seeding

Start Time	7:20
End Time	7:30
Total Time (min)	10
Volumes adjusted by Growth Factors, Anti PHF.	
No data recorded this interval.	

## Interval #1 Information Recording

Start Time	7:30
End Time	7:45
Total Time (min)	15
Volumes adjusted by PHF, Growth Factors.	

Run Number	1	2	3	4	5	Avg
Vehs Entered	745	728	713	685	710	713
Vehs Exited	704	683	678	681	669	685
Starting Vehs	90	76	73	95	67	74
Ending Vehs	131	121	108	99	108	110
Travel Distance (mi)	539	528	511	487	499	513
Travel Time (hr)	31.9	31.7	27.0	26.2	26.8	28.7
Total Delay (hr)	12.9	13.0	9.0	8.9	9.1	10.6
Total Stops	1260	1183	901	890	879	1022
Fuel Used (gal)	20.8	20.5	19.0	18.3	18.5	19.4

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Interval #2 Information Recording

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Start Time 7:45

End Time 8:30

Total Time (min) 45

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	2	3	4	5	Avg
Vehs Entered	1623	1521	1492	1557	1624	1563
Vehs Exited	1656	1566	1530	1585	1647	1598
Starting Vehs	131	121	108	99	108	110
Ending Vehs	98	76	70	71	85	75
Travel Distance (mi)	1240	1172	1150	1211	1246	1204
Travel Time (hr)	63.1	56.9	55.9	59.4	61.8	59.4
Total Delay (hr)	19.3	15.5	15.4	16.7	17.7	16.9
Total Stops	2210	1911	1819	1989	2115	2005
Fuel Used (gal)	45.0	42.2	41.5	43.6	45.2	43.5

## Intersection: 1: Cascade Hwy &amp; Sublimity Blvd/Santiam Hwy Westbound Ramp

Movement	EB	EB	WB	WB	NB	NB	SB
Directions Served	L	TR	LT	R	L	R	L
Maximum Queue (ft)	28	28	58	56	58	79	48
Average Queue (ft)	5	9	16	30	20	3	9
95th Queue (ft)	21	25	49	60	50	41	32
Link Distance (ft)		640	1184				
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	200			25	250	300	250
Storage Blk Time (%)			4	5			
Queuing Penalty (veh)			2	1			

## Intersection: 2: Santiam Hwy Eastbound Ramp &amp; Cascade Hwy

Movement	EB	EB	NB	SB	SB
Directions Served	LT	R	TR	L	T
Maximum Queue (ft)	115	109	429	83	134
Average Queue (ft)	47	23	209	21	46
95th Queue (ft)	91	78	406	59	106
Link Distance (ft)	918		470		815
Upstream Blk Time (%)			1		
Queuing Penalty (veh)			6		
Storage Bay Dist (ft)		550		275	
Storage Blk Time (%)					
Queuing Penalty (veh)					

## Intersection: 3: Cascade Hwy &amp; Golf Ln

Movement	EB	WB	NB	NB	SB	SB
Directions Served	LTR	LTR	L	TR	L	TR
Maximum Queue (ft)	123	39	33	97	32	4
Average Queue (ft)	36	11	5	11	6	0
95th Queue (ft)	91	35	24	92	24	3
Link Distance (ft)	969	263		429		470
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)			75		75	
Storage Blk Time (%)				1		
Queuing Penalty (veh)				0		

### Intersection: 4: Cascade Hwy & Whitney St

Movement	WB	WB	NB	SB	SB
Directions Served	L	R	TR	L	T
Maximum Queue (ft)	85	152	406	131	194
Average Queue (ft)	18	79	165	50	94
95th Queue (ft)	55	132	321	96	164
Link Distance (ft)		674	1290		429
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	150			200	
Storage Blk Time (%)		0			0
Queuing Penalty (veh)		0			0

### Intersection: 5: Shaff Rd/Fern Ridge Rd & Cascade Hwy

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	L	TR	L	TR
Maximum Queue (ft)	147	183	139	256	207	387	208	394
Average Queue (ft)	55	87	45	119	52	164	47	199
95th Queue (ft)	112	156	107	214	120	304	118	338
Link Distance (ft)		806		960		1174		1290
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	200		200		250		350	
Storage Blk Time (%)	0	0		2		2		1
Queuing Penalty (veh)	1	0		1		2		1

### Zone Summary

Zone wide Queuing Penalty: 14



## Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	4:20	4:20	4:20	4:20	4:20	4:20
End Time	5:30	5:30	5:30	5:30	5:30	5:30
Total Time (min)	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	3	3	3	3	3	3
# of Recorded Intervals	2	2	2	2	2	2
Vehs Entered	2944	2841	2835	2835	2906	2873
Vehs Exited	2971	2848	2829	2834	2875	2868
Starting Vehs	122	93	107	107	111	102
Ending Vehs	95	86	113	108	142	104
Travel Distance (mi)	2145	2092	2066	2079	2116	2100
Travel Time (hr)	127.7	114.9	111.5	115.0	116.8	117.2
Total Delay (hr)	51.6	40.8	38.3	41.3	41.6	42.7
Total Stops	4227	3807	3687	3859	3891	3897
Fuel Used (gal)	82.5	78.6	76.7	78.8	79.1	79.1

## Interval #0 Information Seeding

Start Time	4:20
End Time	4:30
Total Time (min)	10
Volumes adjusted by Growth Factors, Anti PHF.	
No data recorded this interval.	

## Interval #1 Information Recording

Start Time	4:30
End Time	4:45
Total Time (min)	15
Volumes adjusted by PHF, Growth Factors.	

Run Number	1	2	3	4	5	Avg
Vehs Entered	872	804	801	799	780	809
Vehs Exited	831	767	777	755	751	775
Starting Vehs	122	93	107	107	111	102
Ending Vehs	163	130	131	151	140	142
Travel Distance (mi)	613	558	567	562	537	567
Travel Time (hr)	39.6	32.3	32.0	32.8	29.5	33.2
Total Delay (hr)	17.9	12.5	11.9	12.8	10.4	13.1
Total Stops	1295	1118	1028	1098	946	1095
Fuel Used (gal)	24.1	21.5	21.2	21.6	19.9	21.6

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Interval #2 Information Recording

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Start Time 4:45

End Time 5:30

Total Time (min) 45

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	2	3	4	5	Avg
Vehs Entered	2072	2037	2034	2036	2126	2060
Vehs Exited	2140	2081	2052	2079	2124	2097
Starting Vehs	163	130	131	151	140	142
Ending Vehs	95	86	113	108	142	104
Travel Distance (mi)	1532	1533	1499	1517	1579	1532
Travel Time (hr)	88.1	82.6	79.5	82.3	87.3	84.0
Total Delay (hr)	33.7	28.3	26.4	28.5	31.2	29.6
Total Stops	2932	2689	2659	2761	2945	2796
Fuel Used (gal)	58.4	57.1	55.5	57.2	59.2	57.5

Intersection: 1: Cascade Hwy & Sublimity Blvd/Santiam Hwy Westbound Ramp

Movement	EB	EB	WB	WB	NB	NB	SB
Directions Served	L	TR	LT	R	L	R	L
Maximum Queue (ft)	40	63	57	60	45	32	45
Average Queue (ft)	10	26	20	32	15	1	13
95th Queue (ft)	30	50	52	60	41	23	38
Link Distance (ft)		640	1184				
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	200			25	250	300	250
Storage Blk Time (%)			7	6			
Queuing Penalty (veh)			3	1			

Intersection: 2: Santiam Hwy Eastbound Ramp & Cascade Hwy

Movement	EB	EB	NB	SB	SB
Directions Served	LT	R	TR	L	T
Maximum Queue (ft)	100	276	377	75	180
Average Queue (ft)	49	104	175	30	66
95th Queue (ft)	88	219	317	58	144
Link Distance (ft)	918		470		815
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		550		275	
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 3: Cascade Hwy & Golf Ln

Movement	EB	WB	NB	NB	SB	SB
Directions Served	LTR	LTR	L	TR	L	TR
Maximum Queue (ft)	70	61	48	6	33	10
Average Queue (ft)	24	21	18	0	4	1
95th Queue (ft)	56	49	44	4	21	6
Link Distance (ft)	969	263		429		470
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)			75		75	
Storage Blk Time (%)			0			
Queuing Penalty (veh)			0			

## Intersection: 4: Cascade Hwy &amp; Whitney St

Movement	WB	WB	NB	SB	SB
Directions Served	L	R	TR	L	T
Maximum Queue (ft)	103	155	391	185	247
Average Queue (ft)	46	77	199	101	124
95th Queue (ft)	87	131	334	166	213
Link Distance (ft)		674	1290		429
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	150			200	
Storage Blk Time (%)		0		0	1
Queuing Penalty (veh)		0		2	2

## Intersection: 5: Shaff Rd/Fern Ridge Rd &amp; Cascade Hwy

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	L	TR	L	TR
Maximum Queue (ft)	219	321	225	360	212	377	374	639
Average Queue (ft)	120	131	90	170	77	182	81	346
95th Queue (ft)	214	254	187	302	162	307	277	594
Link Distance (ft)		806		960		1174		1290
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	200		200		250		350	
Storage Blk Time (%)	5	2	0	9		2		9
Queuing Penalty (veh)	10	3	0	9		3		5

## Zone Summary

Zone wide Queuing Penalty: 40

## APPENDIX F: CRASH DATA

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013 Lat	014 Long	117 Severity	000 Crash Id	002 Year	005 Region	007 County1	008 Jurisdiction	015 Street Name
44.81870004	-122.7943326	Minor Injury (B)	1847246	2019	2	Marion	Sublimity	NORTH SANTIAM
44.81869722	-122.7943278	PDO	1805699	2018	2	Marion	Sublimity	NORTH SANTIAM
44.81869548	-122.7943359	PDO	1863335	2019	2	Marion	Sublimity	NORTH SANTIAM
44.81869254	-122.7943342	PDO	1873569	2019	2	Marion	Sublimity	NORTH SANTIAM
44.81869603	-122.7943253	Minor Injury (B)	1843689	2019	2	Marion	Sublimity	NORTH SANTIAM
44.81869722	-122.7943278	Possible Injury (C)	1782099	2018	2	Marion	Sublimity	NORTH SANTIAM
44.81871891	-122.7939208	Possible Injury (C)	1845291	2019	2	Marion		NORTH SANTIAM
44.81869962	-122.7943375	PDO	1895810	2020	2	Marion	Sublimity	NORTH SANTIAM
44.81869472	-122.7943337	PDO	1897397	2020	2	Marion	Sublimity	NORTH SANTIAM
44.81869722	-122.7943278	Serious Injury (A)	1787368	2018	2	Marion	Sublimity	NORTH SANTIAM
44.81869646	-122.7943285	Minor Injury (B)	2002835	2022	2	Marion	Sublimity	NORTH SANTIAM
44.81869646	-122.7943285	Minor Injury (B)	1982223	2022	2	Marion	Sublimity	NORTH SANTIAM
44.81633889	-122.7942528	PDO	1806637	2018	2	Marion		NORTH SANTIAM
44.81633333	-122.7942444	PDO	1806880	2018	2	Marion		NORTH SANTIAM
44.81633381	-122.7942489	PDO	1862793	2019	2	Marion		NORTH SANTIAM
44.81633378	-122.7942452	PDO	1864930	2019	2	Marion		NORTH SANTIAM
44.81633623	-122.7942582	PDO	1865825	2019	2	Marion		NORTH SANTIAM
44.81633325	-122.7942445	PDO	2003074	2022	2	Marion		NORTH SANTIAM
44.81633325	-122.7942445	Minor Injury (B)	1976366	2022	2	Marion		NORTH SANTIAM
44.81633333	-122.7942444	PDO	1818009	2018	2	Marion		NORTH SANTIAM
44.81633531	-122.7942459	Minor Injury (B)	1965202	2022	2	Marion		NORTH SANTIAM
44.81633325	-122.7942445	Possible Injury (C)	1827976	2019	2	Marion		NORTH SANTIAM
44.81632866	-122.7942461	Possible Injury (C)	1882113	2020	2	Marion		NORTH SANTIAM
44.81633637	-122.7942502	Minor Injury (B)	1924721	2021	2	Marion		CASCADE HWY SE
44.81633325	-122.7942445	Minor Injury (B)	1985258	2022	2	Marion		CASCADE HWY SE
44.81632637	-122.7942471	PDO	1898989	2020	2	Marion		NORTH SANTIAM
44.81633465	-122.794249	PDO	1897371	2020	2	Marion		NORTH SANTIAM
44.81633581	-122.7942434	PDO	1895802	2020	2	Marion		NORTH SANTIAM
44.816336	-122.7942462	PDO	1954561	2021	2	Marion		NORTH SANTIAM
44.81633515	-122.7942403	Minor Injury (B)	1929956	2021	2	Marion		NORTH SANTIAM
44.81633435	-122.7942436	Possible Injury (C)	1923539	2021	2	Marion		NORTH SANTIAM
44.81633325	-122.7942445	PDO	2003594	2022	2	Marion		NORTH SANTIAM
44.81633325	-122.7942445	PDO	1994693	2022	2	Marion		NORTH SANTIAM
44.81633333	-122.7942472	PDO	1811907	2018	2	Marion		NORTH SANTIAM
44.81632973	-122.7946608	PDO	1980364	2022	2	Marion		NORTH SANTIAM
44.81356919	-122.7942973	Possible Injury (C)	1917270	2021	2	Marion	Stayton	CASCADE HWY
44.81356944	-122.7943	PDO	1804536	2018	2	Marion	Stayton	CASCADE HWY
44.813573	-122.7943	PDO	1902144	2020	2	Marion	Stayton	CASCADE HWY
44.8135706	-122.7942997	PDO	1946450	2021	2	Marion	Stayton	CASCADE HWY
44.8135711	-122.7943053	Possible Injury (C)	1892107	2020	2	Marion	Stayton	CASCADE HWY
44.81356389	-122.7938556	PDO	1805411	2018	2	Marion	Stayton	WHITNEY ST
44.81310111	-122.7943027	PDO	1952144	2021	2	Marion	Stayton	CASCADE HWY
44.80978611	-122.7942667	PDO	1809311	2018	2	Marion	Stayton	SHAFF RD
44.80978601	-122.7942654	Possible Injury (C)	1839109	2019	2	Marion	Stayton	CASCADE HWY
44.80979034	-122.7942628	PDO	1871161	2019	2	Marion	Stayton	CASCADE HWY
44.80978805	-122.7942669	PDO	1865120	2019	2	Marion	Stayton	CASCADE HWY
44.80978674	-122.7942697	PDO	1943129	2021	2	Marion	Stayton	FERN RIDGE RD
44.80979001	-122.7942684	PDO	1903451	2020	2	Marion	Stayton	FERN RIDGE RD
44.80942482	-122.7942681	Possible Injury (C)	1971372	2022	2	Marion	Stayton	1ST AVE
44.81013056	-122.794275	Possible Injury (C)	1776412	2018	2	Marion	Stayton	CASCADE HWY
44.80978611	-122.7942639	Minor Injury (B)	1792539	2018	2	Marion	Stayton	CASCADE HWY
44.80978847	-122.7942679	PDO	1902097	2020	2	Marion	Stayton	CASCADE HWY
44.80978789	-122.7942631	PDO	1953644	2021	2	Marion	Stayton	FERN RIDGE RD
44.80978611	-122.7942639	PDO	1803040	2018	2	Marion	Stayton	FERN RIDGE RD
44.80944444	-122.7942694	PDO	1804626	2018	2	Marion	Stayton	1ST AVE
44.80978724	-122.7942652	Possible Injury (C)	1888738	2020	2	Marion	Stayton	FERN RIDGE RD
44.80942222	-122.7942694	Possible Injury (C)	1792514	2018	2	Marion	Stayton	1ST AVE
44.80932883	-122.7942691	Possible Injury (C)	1831554	2019	2	Marion	Stayton	1ST AVE

021 Road Characteristics	022 Off Roadway Flag	036 Crash Cause 1	114 Road Departure Flag	118 Intersection Flag
INTER	FALSE	NO-YIELD	No	Yes
INTER	FALSE	NO-YIELD	No	Yes
INTER	FALSE	F AVOID	No	Yes
INTER	FALSE	NO-YIELD	No	Yes
INTER	FALSE	NO-YIELD	No	Yes
INTER	FALSE	IMP-TURN	No	Yes
STRGHT	FALSE	F AVOID	No	Yes
INTER	FALSE	NO-YIELD	No	Yes
INTER	FALSE	VIEW OBS	No	Yes
INTER	FALSE	NO-YIELD	No	Yes
INTER	FALSE	PAS-STOP	No	Yes
INTER	FALSE	NO-YIELD	No	Yes
INTER	FALSE	F AVOID	No	Yes
INTER	FALSE	F AVOID	No	Yes
INTER	FALSE	F AVOID	No	Yes
INTER	FALSE	F AVOID	No	Yes
INTER	FALSE	F AVOID	No	Yes
INTER	TRUE	OTHER	No	Yes
INTER	FALSE	DIS SIG	No	Yes
INTER	FALSE	F AVOID	No	Yes
INTER	FALSE	TOO-FAST	No	Yes
INTER	FALSE	F AVOID	No	Yes
INTER	FALSE	F AVOID	No	Yes
INTER	FALSE	F AVOID	No	Yes
INTER	FALSE	F AVOID	No	Yes
INTER	FALSE	F AVOID	No	Yes
INTER	FALSE	F AVOID	No	Yes
INTER	FALSE	F AVOID	No	Yes
INTER	FALSE	F AVOID	No	Yes
INTER	FALSE	F AVOID	No	Yes
INTER	FALSE	F AVOID	No	Yes
INTER	FALSE	F AVOID	No	Yes
INTER	FALSE	F AVOID	No	Yes
INTER	FALSE	CARELESS	No	Yes
STRGHT	FALSE	F AVOID	No	Yes
INTER	FALSE	INATTENT	No	Yes
INTER	FALSE	DIS SIG	No	Yes
INTER	FALSE	DIS SIG	No	Yes
INTER	TRUE	IMP-TURN	No	Yes
INTER	FALSE	F AVOID	No	Yes
STRGHT	FALSE	IMP LN C	No	Yes
STRGHT	FALSE	F AVOID	No	Yes
INTER	FALSE	TOO-FAST	No	Yes
INTER	FALSE	INATTENT	No	Yes
INTER	FALSE	F AVOID	No	Yes
INTER	FALSE	NO-YIELD	No	Yes
INTER	FALSE	DIS SIG	No	Yes
INTER	FALSE	F AVOID	No	Yes
STRGHT	FALSE	F AVOID	No	Yes
STRGHT	FALSE	TOO-CLOS	No	Yes
INTER	FALSE	F AVOID	No	Yes
INTER	FALSE	DIS SIG	No	Yes
INTER	FALSE	DIS SIG	No	Yes
INTER	FALSE	NO-YIELD	No	Yes
STRGHT	FALSE	MECH-DEF	No	Yes
INTER	FALSE	DIS SIG	No	Yes
STRGHT	FALSE	INATTENT	No	Yes
STRGHT	FALSE	CARELESS	No	Yes



119 State Highway Flag1	126 Bike / Ped Related	127 Driveway Flag	128 Jurisdiction Complete	011 Hwy No	001 CRASH Date
Yes	Neither	No	Sublimity	162	11/12/2019
Yes	Neither	No	Sublimity	162	4/30/2018
Yes	Neither	No	Sublimity	162	6/14/2019
Yes	Neither	No	Sublimity	162	12/14/2019
Yes	Neither	No	Sublimity	162	9/21/2019
Yes	Neither	No	Sublimity	162	4/22/2018
Yes	Neither	No	Marion County	162	10/15/2019
Yes	Neither	No	Sublimity	162	1/8/2020
Yes	Neither	No	Sublimity	162	2/10/2020
Yes	Neither	No	Sublimity	162	7/2/2018
Yes	Neither	No	Sublimity	162	12/27/2022
Yes	Neither	No	Sublimity	162	10/18/2022
Yes	Neither	No	Marion County	162	5/17/2018
Yes	Neither	No	Marion County	162	6/11/2018
Yes	Neither	No	Marion County	162	5/31/2019
Yes	Neither	No	Marion County	162	7/12/2019
Yes	Neither	No	Marion County	162	7/25/2019
Yes	Neither	No	Marion County	162	12/23/2022
Yes	Neither	No	Marion County	162	9/8/2022
Yes	Neither	No	Marion County	162	10/16/2018
Yes	Neither	No	Marion County	162	4/18/2022
Yes	Neither	No	Marion County	162	1/17/2019
Yes	Neither	No	Marion County	162	4/23/2020
No	Neither	No	Marion County		7/21/2021
No	Neither	No	Marion County		6/10/2022
Yes	Neither	No	Marion County	162	3/17/2020
Yes	Neither	No	Marion County	162	2/9/2020
Yes	Neither	No	Marion County	162	1/8/2020
Yes	Neither	No	Marion County	162	10/22/2021
Yes	Neither	No	Marion County	162	10/22/2021
Yes	Neither	No	Marion County	162	6/17/2021
Yes	Neither	No	Marion County	162	11/17/2022
Yes	Neither	No	Marion County	162	10/17/2022
Yes	Neither	No	Marion County	162	9/21/2018
Yes	Neither	No	Marion County	162	3/16/2022
No	Neither	No	Stayton		4/1/2021
No	Neither	No	Stayton		3/2/2018
No	Neither	No	Stayton		7/12/2020
No	Neither	No	Stayton		5/21/2021
No	Neither	No	Stayton		11/23/2020
No	Neither	No	Stayton		4/16/2018
No	Neither	No	Stayton		8/25/2021
No	Neither	No	Stayton		8/22/2018
No	Neither	No	Stayton		7/19/2019
No	Neither	No	Stayton		10/30/2019
No	Neither	No	Stayton		7/17/2019
No	Neither	No	Stayton		3/10/2021
No	Neither	No	Stayton		8/3/2020
No	Neither	No	Stayton		6/29/2022
No	Neither	No	Stayton		1/19/2018
No	Neither	No	Stayton		9/14/2018
No	Neither	No	Stayton		7/4/2020
No	Neither	No	Stayton		9/3/2021
No	Neither	No	Stayton		1/1/2018
No	Neither	No	Stayton		3/7/2018
No	Neither	No	Stayton		9/11/2020
No	Neither	No	Stayton		9/13/2018
No	Neither	No	Stayton		3/19/2019

# APPENDIX G: SEASONAL ADJUSTMENT FACTOR SPREADSHEET

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Seasonal Adjustment Factor

Seasonal Adjustment Using ATR #24-005

		Month		2022	2021	2020	2019	2018	2017	Seasonal Adjustment 1.08
Weekday Traffic	Peak Counts	July or August May		25487 23652	25871 24841	* *	26620 24215	26440 23985	25341 23351	
	Peak Counts	July or August May		117 108	116 111	* *	116 106	116 105	116 107	
Percent ADT										

116  
107

## APPENDIX H: SIGNAL WARRANT CALCULATIONS

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Traffic Signal Warrant Analysis

Analysis Volumes			
Hour	Major (N/S) Casade Hwy	Minor (EB) Golf Ln	Major Ped Crossing
12 am - 1 am	41	0	0
1 am - 2 am	43	0	0
2 am - 3 am	34	0	0
3 am - 4 am	83	8	0
4 am - 5 am	172	8	0
5 am - 6 am	389	16	0
6 am - 7 am	647	8	0
7 am - 8 am	1023	31	0
8 am - 9 am	1047	47	0
9 am - 10 am	989	47	0
10 am - 11 am	1092	31	0
11 am - 12 pm	1143	62	0
12 pm - 1 pm	1220	62	0
1 pm - 2 pm	1229	54	0
2 pm - 3 pm	1444	31	0
3 pm - 4 pm	1452	16	0
4 pm - 5 pm	1515	8	0
5 pm - 6 pm	1520	31	0
6 pm - 7 pm	929	23	0
7 pm - 8 pm	728	0	0
8 pm - 9 pm	614	31	0
9 pm - 10 pm	384	0	0
10 pm - 11 pm	161	0	0
11 pm - 12 am	103	23	0

Roadway Characteristics

Lanes

Major: N/S 1

Minor: E/W 1

Use APM Reduction?

No

EB RT Lane Capacity

Reduction: 0

vph

WB RT Lane Capacity

Reduction: 0

vph

Above 40 mph on Major Street?

No

Isolated community with population less than 10,000?

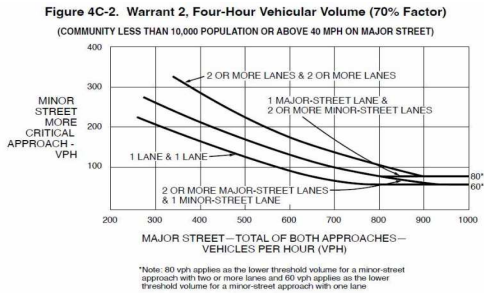
Yes

Use 70% Factor

WARRANT #1	Volume Criteria		# of Hours	8 Hours Met?
	Major	Minor		
Condition A (70%)	350	105	0	FALSE
Condition B (70%)	525	53	3	FALSE
Condition A (56%)	280	84	0	FALSE
Condition B (56%)	420	42	5	

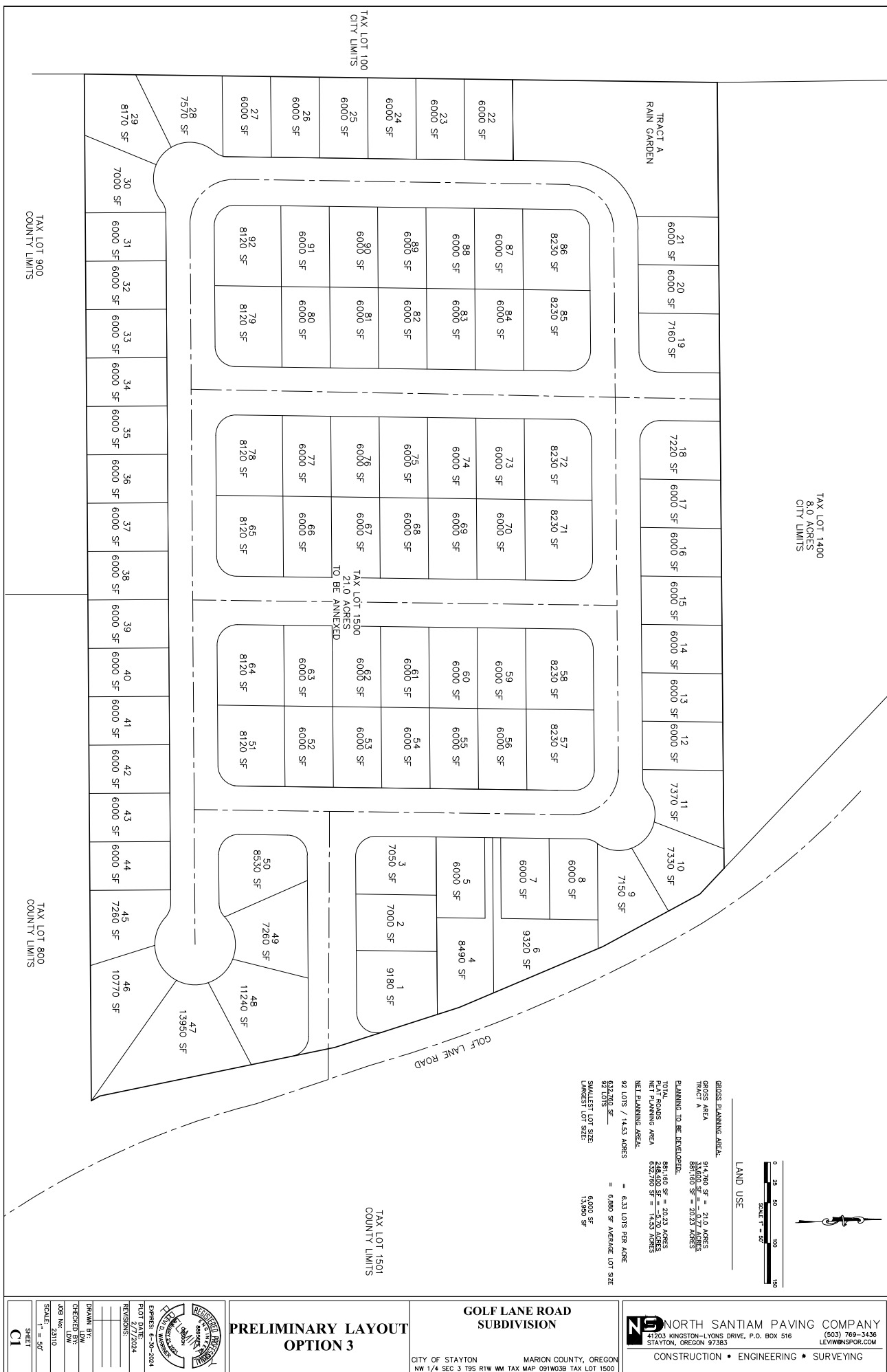
No

WARRANT #2No2 of 4 hours met



## APPENDIX I: SITE PLAN

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**E NORTH SANTIAM PAVING COMPANY**  
41203 KINGSTON-LYONS DRIVE, P.O. BOX 516 (503) 769-3436  
STAYTON, OREGON 97383 LEVIWNSPOR.COM

CONSTRUCTION • ENGINEERING • SURVEYING

**GOLF LANE ROAD  
SUBDIVISION**

CITY OF STAYTON                      MARION COUNTY, OREGON  
NW 1/4 SEC 3 T9S R1W WM TAX MAP 091W03B TAX LOT 1500

### PRELIMINARY LAYOUT OPTION 3



EXPIRES: 6-30-2024

REVISIONS:

[illegible]

DRAWN BY:  
LDW

LDW

JOB No:

SCALE: 1" = 50'

## 2

U



## Exhibit I – Pre-Application Conference Notes

City of Stayton  
Preapplication Meeting  
April 4, 2024  
2:00 p.m.

KDS Golf Lane SE Annexation

**Applicant:** KSD Properties, LLC, 500 SW Sublimity BLVD, Sublimity, OR 97385

**Staff:** Jennifer Siciliano, Community and Economic Development Director, Public Works Director, City Engineer, and Fire Department

**Project Description:** Annex a 21-acre property, taxlot 091W03B001500, for residential use.

**Comprehensive Plan Map Designation:** Residential

**Zoning District:** Low or Medium Density Residential

*The following comments are intended for discussion purposes only and may not include all applicable code requirements.*

**Applicable Stayton Land Use and Development Code (code) provisions:**

**17.12.210 ANNEXATIONS**

**2. METHOD OF ADOPTION**

**a. Major Annexations.**

1) A Major Annexation is an annexation that meets one or more of the following characteristics.

- i. Consists of two or more parcels, except proposed annexations that consist of contiguous parcels in the same ownership.
- ii. The area proposed for annexation exceeds 1 acre, except a health hazard annexation.

2) describes the approval procedure which has not been amended since Senate Bill 1573 passed. The bill states:

" ... the legislative body of the city shall annex the territory without submitting the proposal to the electors of the city if:

- (a) The territory is included within an urban growth boundary adopted by the city or Metro, as defined in ORS 197.015;
- (b) The territory is, or upon annexation of the territory into the city will be, subject to the acknowledged comprehensive plan of the city;
- (c) At least one lot or parcel within the territory is contiguous to the city limits or is separated from the city limits only by a public right of way or a body of water; and

(d) The proposal conforms to all other requirements of the city's ordinances. ..."

*A general timetable is the following:*

- *An application for annexation is submitted to the City Planner.*
- *The City Planner has 30 days to deem the application complete or incomplete.*
- *Once the application is deemed complete, it can be scheduled for a Planning Commission Public Hearing. Abutters need to be notified 20 days in advance of this hearing. The Planning Commission only meets on the last Monday of the month.*
- *The Planning Commission submits its recommendations to the City Council to schedule another Public Hearing in front of the Council. This hearing needs to be advertised at least two weeks before the hearing. The City Council meets the first and third Mondays of the month.*
- *A Notice of Decision is sent out to the abutters within 3 days of the decision.*
- *From the Notice of Decision there is a 14-day appeal period.*

3. SUBMITTAL REQUIREMENTS. In order to be accepted as complete and be processed in a timely manner by the City, requests for annexation of territory shall include the following materials and information:

- a. Completed application forms as supplied by the City Planner.
- b. Three copies of a site plan, drawn to a scale of 1 inch equals not more than 50 feet, shown as a graphic scale, of the property for which the annexation is requested. The site plan shall depict the surrounding properties, neighboring streets and roads, and existing uses of the property. If the application for annexation is not accompanied by a concurrent application for site plan, subdivision, or other land use approval, three copies of a conceptual plan of proposed uses of the property subsequent to annexation. In addition, 18 reduced copies of the plan sized as 11 inches by 17 inches shall be submitted.
- c. A plan showing the boundary lines of the properties, certified by a professional land surveyor, and the approximate area of the properties in acres or square feet.
- d. A legal description of the property, meeting the requirements of ORS 308.225.
- e. A narrative statement fully explaining the request and fully addressing the criteria for approval of an annexation.

*See the application checklist for guidance.*

4. APPROVAL CRITERIA. In order to approve an application for annexation, the following affirmative findings concerning the action must be made by the decision authority:

- a. Need exists in the community for the land proposed to be annexed.

- b. The site is or is capable of being serviced by adequate City public services including such services as may be provided subject to the terms of a contract annexation agreement between the applicant and the City.
- c. The proposed annexation is property contiguous to the existing City limits.
- d. The proposed annexation is compatible with the character of the surrounding area and complies with the urban growth program and policies of the City of Stayton.
- e. The annexation request complies, or can be made to comply, with all applicable provisions of state and local law.
- f. If a proposed contract annexation, within the terms and conditions of the contract the cost of City facility and service extensions to the annexed area shall be calculated by the Public Works Director.

5. ZONING OF ANNEXED TERRITORY. All lands that are annexed to the City shall be zoned in accordance with the designation of the property in the Comprehensive Plan. The specific zone assigned to the land being annexed shall be determined by the City Council in accordance with the proposed uses of the land and the needs identified by the buildable lands analysis in the Comprehensive Plan. This requirement does not prohibit an application to amend the Comprehensive Plan Map concurrent with the application for annexation.

*According to the Comprehensive Plan, this parcel is considered residential. It could be approved for Low or Medium Density Residential Zone.*

**Table 17.16.070.2 Minimum Dimensional Requirements for Lots**

Low Residential Density Zone

Lot Area (square feet)	8,000
Lot Width (feet)	80 (40 feet for lots with frontage on a cul-de-sac)
Average Width (feet)	80

Medium Residential Density Zone

Lot Area (square feet)	7,000 (A Triplex requires a minimum lot area of 10,500 square feet.)
Lot Width (feet)	70 (40 feet for lots with frontage on a cul-de-sac)
Average Width (feet)	70

**Table 17.16.070.3 Dimensional Requirements for Structures**

Low Residential Density Zone

Front Yard Setback (feet)	20 <sup>2</sup>
Side Yard Setback (feet)	5
Rear Yard Setback (feet)	20
Building Height (feet)	35 <sup>6</sup>

<sup>2</sup> 25 feet to a garage entrance, except a garage on a back lot or flag lot.

<sup>6</sup> Or 2 ½ stories

Medium Residential Density Zone

Front Yard Setback (feet)	20 <sup>2</sup>
Side Yard Setback (feet)	5
Rear Yard Setback (feet)	15
Building Height (feet)	35 <sup>6</sup>

<sup>2</sup> 25 feet to a garage entrance, except a garage on a back lot or flag lot.

<sup>6</sup> Or 2 ½ stories

#### **4. ADDITIONAL REGULATIONS FOR SINGLE FAMILY DETACHED DWELLINGS AND MANUFACTURED HOMES ON INDIVIDUAL LOTS.**

Within the Low Density and Medium Density Residential Districts, all new single-family detached dwellings, including manufactured homes not in a mobile home park, are subject to the following development and design standards:

1) Floor Area. A dwelling shall have a minimum floor area of 1,000 square feet. The dwelling must have a minimum horizontal dimension of at least 24 feet.

2) Repealed.

3) Design Features. All new dwellings shall contain the following design feature requirements:

- a) The site must include an attached or detached garage with exterior materials that are the same exterior materials as the primary home.
- b) The building shall be provided with gutters and downspouts.
- c) The dwelling must have a composition asphalt, fiberglass, shake, or tile roof with a minimum pitch of 3 feet in height for each 12 feet in length.
- d) The dwelling must have horizontally applied wood siding, horizontally applied fiber-cement siding, brick or stone masonry siding, or textured plywood siding with vertical grooves.
- e) The base of the new dwelling must be enclosed continuously at the perimeter with either concrete, concrete block, brick, stone, or combination thereof. Unless the home is placed on a basement, the home shall sit so that no more than 12 inches of the enclosing material is exposed above grade. Where the building site has a grade with a slope of more than 10%, no more than 12 inches of the enclosing material shall be exposed on the uphill side of the home.
- f) If a manufactured home, the transportation mechanisms, including wheels, axles, and hitch, shall be removed.

4) In addition, to provide architectural relief, new dwellings shall contain at least 3 of the following design elements on the side(s) of the home which fronts on a street:

- a) Dormers or gables.
- b) Cupolas.
- c) Bay or bow windows.
- d) Exterior shutters.
- e) Recessed entries.

- f) Front porch of at least 100 square feet, which may extend into the required front yard.
- g) Covered porch entries.
- h) Pillars or posts in the front entry area.
- i) (Repealed, Ord 1060, May 17, 2023.)
- j) Front-side exterior brickwork or masonry.

### **17.20.190 MULTI-FAMILY RESIDENTIAL DESIGN STANDARDS**

1. These standards shall apply to any new attached residential structure.

#### **2. SITE DESIGN.**

a. Maximum Lot Coverage. Lot coverage shall not exceed the percentages shown in Table 17.20.190.2.a:

**Table 17.20.190.2.a Maximum Lot Coverage for Multi-family Uses**

Multi-Family Use	Maximum Coverage
Single Family Attached, Duplex or Triplex	50%
Multi-family dwellings	60%

Lot coverage is calculated as the percentage of a lot or parcel covered by buildings or structures (as defined by the foundation plan area) and other structures with surfaces greater than 36 inches above the finished grade. It does not include paved surface-level development such as driveways, parking pads, and patios.

b. Height Step Down. To provide compatible scale and relationships between new multi-story attached residential structures and adjacent single-family dwellings, the multi-story building(s) shall “step down” to create a building height transition to adjacent single-family building(s).

The transition standard is met when the height of any portion of the taller structure does not exceed 1 foot of height for every foot of separation between the adjacent single-family building and that portion of the taller structure.

c. Building Orientation Standards. All new attached residential structures shall have buildings that are oriented to the street. The following standards will apply:

1) All buildings shall comply with the setback standards of the zoning district where the development is located.

2) Except as provided in subsections 3 and 4, below, all attached residential structures shall have at least 1 primary building entrance (i.e. dwelling entrance, a tenant space entrance, a lobby entrance, or breezeway/courtyard entrance serving a cluster of units)

facing an adjoining street, or if on a side elevation, not more than 20 feet from a front lot line.

3) Any duplex located on a corner lot shall be oriented so that the architectural front of each unit faces a separate street.

4) Repealed.

5) Off street parking, driveways, and other vehicle areas shall not be placed between buildings and the street(s) to which they are oriented, except that townhouses with garages that face a street may have 1 driveway access located between the street and primary building entrance for every 2 dwelling units following vehicle areas when the decision authority finds they will not adversely affect pedestrian safety and convenience.

6) Parking and maneuvering areas, driveways, active recreation areas, loading areas, and dumpsters shall not be located between attached residential structures and adjacent single family homes.

7) When there is insufficient street frontage for building orientation in a development with multiple buildings to face the street, a primary entrance may be oriented to a common green, plaza or courtyard. When oriented this way, the primary entrance(s) and common green, plaza or courtyard shall be connected to the street by a pedestrian walkway meeting the standards of Section 17.26.020.5.

8) Outdoor Service Areas. Trash receptacles shall be oriented away from building entrances and set back at least 10 feet from any public right-of-way and adjacent residences. Outdoor service areas shall be screened with an evergreen hedge or solid fence of materials similar to the primary building of not less than 6 feet in height. If the outdoor service area includes trash receptacles, the receptacle must be accessible to trash pick-up trucks.

### 3. ARCHITECTURAL STANDARDS.

a. Building Length. The continuous horizontal distance as measured from end wall to end wall of individual buildings shall not exceed 100 feet.

b. Articulation. All attached residential structures shall incorporate design features to break up large expanses of uninterrupted walls or roof planes. Along the vertical face of all building stories, such elements shall occur at a minimum interval of 30 feet and each floor shall contain at least 2 of the following elements.

1) Recess (e.g. deck, patio, courtyard, entrance or similar feature) that has a minimum depth of 4 feet.

2) Extension (e.g. deck, patio, entrance, overhang, or similar feature) that projects a minimum of 2 feet and runs horizontally for a minimum length of 4 feet.

- 3) Dormers with peaked roofs and windows or offsets or breaks in roof elevation of 2 feet or greater in height.
- c. Street-side facades. All building elevations visible from a street right-of-way shall provide prominent defined entrances and a combination of architectural features as specified in Section 17.20.190.3.e below.
- d. Exterior Stairways. Stairways shall be incorporated into the building design. External stairways, when necessary, shall be recessed into the building, sided using the same siding materials as the building, or otherwise incorporated into the building architecture. Access balconies and/or outdoor corridors longer than 16 feet shall not be used. No more than 4 units shall access from a single balcony.
- e. Design Features. The minimum number of required design features for an attached residential structure is determined by the number of dwelling units in each building as shown in Table 17.20.190.3.e.

**Table 17.20.190.3.e Minimum Number of Design Features**

Number of Units	Minimum Number of Features
2 - 6	5
7 - 20	8
21 or more	10

The following design features may be used to meet the requirements of this subsection. Features not included on the list may be used if approved by decision authority.

- 1) Dormers
- 2) Gables
- 3) Entries recessed a minimum of 30 inches
- 4) Covered porch entries or porticos
- 5) Cupolas or towers
- 6) Pillars or posts
- 7) Eaves; a minimum 18 inches of projection
- 8) Off-sets in building face or roof; a minimum 16 inches
- 9) Window trim; minimum of 3 inches wide
- 10) Bay windows
- 11) Balconies
- 12) Decorative patterns on exterior finish such as: shingles, wainscoting, ornamentation or similar features.
- 13) Decorative cornice or pediments (for flat roofs)

f. Building Materials. Plain concrete, corrugated metal, plywood, sheet press board, or textured plywood siding with vertical grooves shall not be used as exterior finish material.

#### 4. OPEN SPACE.



a. Common Open Space. Of the landscaping required by Section 17.20.090, a minimum of 10% of the site area shall be designated and permanently reserved as common open space in all multi-family developments with more than 10 units, in accordance with the following criteria:

- 1) The site area is defined as the lot or parcel on which the development is to be located, after subtracting any required dedication of street right-of-way.
- 2) Streets, driveways, and parking areas, including areas required to satisfy parking area landscape standards, shall not be applied towards the minimum useable open space requirement.
- 3) In meeting the common open space standard, the multi-family development shall contain one or more of the following: outdoor recreation area, protection of sensitive lands, play fields, outdoor playgrounds, outdoor sports courts, swimming pools, walking paths, or similar open space amenities for residents.
- 4) The common open space shall have a minimum average width of 15 feet and a minimum average length of 15 feet.

b. Private Open Space. Private open space areas shall be required for dwelling units based on all of the following criteria:

- 1) All ground-floor housing units shall have front or rear patios or decks measuring at least 40 square feet.
- 2) All upper-floor housing units shall have balconies or porches measuring at least 30 square feet.

5. LIGHTING. All attached residential structures shall meet the standards of Section 17.20.170.

Pre-application questions:

**Land Use Requirements**

1. It is anticipated the following applications are required, please confirm this is accurate: annexation application. Yes
2. Please confirm the property will be annexed into the City of Stayton as Residential, which aligns with the comprehensive plan. If the City Council approves the annexation, it will be for residential use since that aligns with the Comprehensive Plan.
3. Please confirm the setbacks for each property line that will be applicable at the time of development following a successful annexation. See Table 17.16.070.3 in zoning.
4. Please confirm if Golf Lane SE is subject to a special setback along the subject property frontage. Golf Lane does not have special setbacks.
5. Are any open spaces or parks required for future development? There are requirements for open space for multi-family structures including duplexes. There are also open space requirements for master plan developments – see 17.24.100.d.
6. Please confirm there are no previous land use actions on this property which would impact or disallow the proposal. None.
7. Please confirm application corresponding fees for land use approval. \$2,000 deposit
8. Please discuss the typical processing timeline for annexations under the City's process for which do not request a comprehensive plan amendment. The applicant understands

annexation applications are not held to any jurisdictional deadlines. See general timetable described above.

9. Please discuss how the applicant may expedite the review process for this application, if applicable. There is no expedited process.

10. Please provide a list of information which is required to be submitted with the land use application for the proposed annexation. See checklist in the annexation application.

11. Please confirm what supplemental studies or reports are required to be submitted with this application. Transportation Impact Analysis may be required.

12. Please confirm if the proposal will trigger any local, state, or federal notifications. The city usually notifies Marion County. After an annexation is approved, there are notification requirements – see 17.12.210.7.

## **BEFORE THE STAYTON PLANNING DEPARTMENT**

In the matter of  
The application of  
JoAnne Drake

) Site Plan Review  
) File # 6-05/25  
)

### **ORDER OF CONDITIONAL APPROVAL**

#### **I. NATURE OF APPLICATION**

The application is for site plan review approval to expand an existing 960-square-foot commercial building by an additional 326 square feet by enclosing porch areas. The building is mixed use with both a thrift store and a residential unit located at 155 N Second Avenue (tax lot number: 091W10DC11000) in the Downtown Commercial Mixed Use (DCMW) zone.

#### **II. FINDINGS OF FACT**

##### **A. GENERAL FINDINGS**

1. The owner is Bryon Hatch, P.O. Box 553, Stayton, OR 97383.
2. The applicant is JoAnne Drake, 155 N 2<sup>nd</sup> Avenue, Stayton, OR 97383.
3. The property can be described on Marion County Assessors Map as 155 N Second Avenue (tax lot 091W10DC11000).
4. The property is approximately .18 acres, 7,841 square feet.
5. The property is zoned Downtown Commercial Mixed Use (DCMU).
6. The neighboring properties to the north, east across N Second Avenue, and south are Downtown Commercial Mixed Use (DCMU) and properties to the west are Commercial Retail (CR).

##### **B. EXISTING CONDITIONS**

The subject property is developed with a 1,286-square-foot building that includes a thrift store and a residential unit. The original structure was 960 square feet with a porch that was later enclosed—without land use approval or building permits—adding approximately 326 square feet of additional space.

##### **C. PROPOSAL**

The proposal is to approve the existing 326-square-foot enclosed porch addition to the 1,286-square-foot building and bring the structure into compliance through land use process of a Site Plan Review.

##### **D. AGENCY COMMENTS**

The following agencies were notified of the proposal: City of Stayton Public Works, Marion County Public Works, WAVE Broadband, Stayton Cooperative Telephone Company, Pacific Power, Northwest Natural Gas, Santiam Water Control District, Stayton Fire District, Stayton Police Department, Salem Development Services, and Santiam Hospital.

Responses were received from Santiam Hospital Ambulance, Stayton Fire District, and the City of Salem, all of whom reported no comments or concerns regarding the proposed

development, as well as from the City of Stayton's Transportation Consultant, whose comments are reflected in the findings below.

## E. ANALYSIS

Site plan review applications are required to satisfy approval criteria contained within Stayton Municipal Code (SMC) Title 17, Section 17.12.220 and applicable provisions of the Development and Improvement Standards of Title 17 Chapter 20. The applicable sections of Chapter 20 are 17.20.090 – Landscaping and Screening General Standards, and 17.20.220 – Downtown Development Design Standards.

## F. APPROVAL CRITERIA

Pursuant to SMC 17.12.220.5 the following criteria must be demonstrated as being satisfied by the application:

- a. *The existence of, or ability to obtain, adequate utility systems (including water, sewer, surface water drainage, power, and communications), and connections, including easements, to properly serve development in accordance with City's Master Plans and Standard Specifications.*

Analysis: The building is existing, occupied, and already served by adequate utility water, sewer, and other utility systems.

Finding: The application meets criteria.

- b. *Provisions for safe and efficient internal traffic circulation, including both pedestrian and motor vehicle traffic, and for safe access to the property from those public streets and roads which serve the property in accordance with the City's Transportation System Plan and Standard Specifications.*

Analysis: The application demonstrates safe and efficient internal circulation, as the site has no off-street parking or driveway and already provides direct pedestrian access from the sidewalk to the front entrance.

Finding: The application meets criteria.

- c. *Provision of all necessary improvements to local streets and roads, including the dedication of additional right-of-way to the City and/or the actual improvement of traffic facilities to accommodate the additional traffic load generated by the proposed development of the site.*

Analysis: According to the City's traffic engineer, the proposed expansion of the enclosed area would generate fewer than one additional peak-hour trip and does not trigger the need for a traffic impact analysis. Based on the minimal trip increase, a waiver of the transportation assessment letter requirement is recommended.

Finding: The application meets criteria.

- d. *Provision has been made for parking and loading facilities as required by Section 17.20.060.*

Analysis: No off-street parking is proposed or currently provided for the site; all available parking consists of on-street public parking. Under SMC 17.20.060.7.e, non-residential uses in the CCMU, DCMU, and DRMU zones are not subject to minimum off-street parking requirements. Because the proposed enclosure does not create a new residential

unit, no additional parking is required. However, residential uses must provide at least one off-street parking space per dwelling unit, and the absence of such a space for the existing residential use renders it a legal non-conforming condition.

Finding: The application meets criteria.

- e. *Open storage areas or outdoor storage yards shall meet the standards of Section 17.20.070*

Finding: No new open storage areas or outdoor storage are being proposed.

- f. *Site design shall minimize off site impacts of noise, odors, fumes or impacts.*

Finding: There will be no off-site noise, odor or fumes from the proposed development project.

- g. *The proposed improvements shall meet all applicable criteria of Section 17.20.220 Downtown Development Design Standards*

Analysis: The building is a mixed-use structure, a retail and residential unit, in a DCMU – Downtown Commercial Mixed Use zone. It needs to follow the design standards for 17.20.220.3. Standards for All Commercial and Mixed Use Structures.

a. Building placement and the street. The design standards require one of two options for all street-facing building either 1. Foundation Landscaping Option or 2. Hard-Surface Sidewalk Extension Option.

Option 1 requires a 3-foot-wide landscaped area that includes at least one shrub and must meet the plant material requirements of Section 17.20.090.8 for every 3 lineal feet of foundation. Lineal feet of the foundation calculated from plans equals 147 feet ½ inch making plant material requirements for 49 feet. The applicant did not submit a landscaped plan. It appears that the landscaped area is not 3-feet-wide by 49 feet. Section 17.20.090.8 requires that at least 75% of the required landscaping area shall be planted with a suitable combination of trees, shrubs, evergreens and/or ground cover.

Option 2 requires buildings set back more than 6 feet from street lot line are designed as a public plaza. For each 100 square feet of hard-surface area at least one of the following amenities must be provided: bench or seating, a tree, landscape planter, a drinking fountain, or kiosk. The applicant do not provide the amount of area that is hard-surface. There are no amenities within the hard-surface area.

b. Reinforce the corner. The building is not on a corner lot. This design standard is not applicable.

c. Avoid large monumental building elevations. The front elevation of the building is approximately 192 square feet (23 feet 9 1/2 inches by 8 feet 5/8 inches). It is not considered a large structure of more than 750 square foot area. It does not need to be divided into additional district planes.

d. Residential Buffer. The property is not adjacent to Low Density Residential (LD) or Medium Density Residential (MD) zones or across the street from residential zones. This design standard is not applicable.

e. Building Orientation and Primary Entrance. This section is applicable only to new buildings. This is not a new building and this design standard is not applicable.

f. Vehicle areas. There is no off-street parking. There is only on street parking available. This design standard is not applicable.

g. Exterior finish materials. The design standards require siding to range between 4½ inches and 10 inches in height. Although the applicant did not provide the exact siding dimensions, the materials appear to fall within this range. The exposed foundation does not exceed the maximum permitted height of 3 feet.

While the exterior paint colors are visually compatible, the siding materials are not consistent across the façade. The siding on the left side of the front is noticeably thicker than the siding on the right side, resulting in a visual mismatch that does not meet the design compatibility standard. The colors are the required earthtones. There is contrasting color on the window and door. There is no trim.

h. Roof-mounted equipment. There is no roof-mounted equipment. This design standard is not applicable.

i. Ground floor windows. The applicant did not provide the exact dimensions or total area of the front-facing windows. However, the plans indicate that each window is 5 feet in width and appears to be taller than it is wide. The development standards require that windows comprise at least 50 percent of the building's ground-level façade length and a minimum of 25 percent of the ground-level wall area.

Based on the applicable frontage dimension of 8 feet 5/8 inches, the required minimum window height is 4 feet 5/16 inches to satisfy the 50-percent length standard. Because the proposed windows are taller than they are wide, their height necessarily exceeds 5 feet, thereby meeting the length requirement.

The total ground-level façade area is 192 square feet, requiring a minimum of 48 square feet of window area. Two windows with dimensions exceeding 5 feet by 5 feet each provide approximately 25 square feet per window, or a combined total of 50 square feet. Accordingly, the proposal exceeds the minimum required window area.

The windows allow views into the working area, and the bottom of the windows appears to be no more than 4 feet above the exterior grade.

j. Distinct ground floor. There is no upper story. This design standard is not applicable.

k. Roofs. This building is located in the DCMU zone and has a roof with a pitch less than 6/12 (35 feet 5 15/16 inches run and the rise is 6 feet 5 13/16 inches) and the building height is 10 feet or less. It shall have a cornice or parapet that is at least 12 inches high. There is an existing board approximately 6 feet 5 13/16 inches off the roof that may be considered a parapet.

Finding: The following are the findings for meeting the Downtown Design Standards criteria.

a. Building placement and the street. The application does not meet the requirements of the Foundation Landscaping Option because no landscape plan was submitted and the area along the foundation does not appear to provide the required 3-foot width, plant materials, or coverage. It also does not meet the Hard-Surface Sidewalk Extension Option because the applicant did not identify the amount of hard-surface area and no required pedestrian amenities are provided.

b. Reinforce the corner. This design standard is not applicable.

- c. Avoid large monumental building elevations. This design standard is not applicable.
- d. Residential Buffer. This design standard is not applicable.
- e. Building Orientation and Primary Entrance. This design standard is not applicable.
- f. Vehicle areas. There is no off-street parking. This design standard is not applicable.
- g. Exterior finish materials. The siding on the front façade is inconsistent in size and appearance, creating a visual mismatch that does not meet the design compatibility standard.
- h. Roof-mounted equipment. This design standard is not applicable.
- i. Ground floor windows. Ground floor windows design standard is met.
- j. Distinct ground floor. This design standard is not applicable.
- k. Roofs. Roofs design standard is met.

Condition: The condition for building placement and the street can be met by complying with Option 1 through the submission of a landscape plan that provides a continuous 3-foot-wide landscaped area along the required 49 feet of building frontage. At least 75 percent of this area must be planted with an appropriate combination of trees, shrubs, evergreens, and/or ground cover in accordance with Section 17.20.090.8, with ground cover plants filling the remainder. The plan must be approved by the City Planner and installed within a reasonable period, not to exceed six months.

Alternatively, this condition can be met by complying with Option 2 through the creation of a public plaza, submission of calculations documenting the total hard-surface area, and installation of the required pedestrian amenities. If the improvements add 500 square feet or more of impervious surface, stormwater mitigation will be required and must be reviewed and approved by Stayton Public Works in accordance with Stayton Public Works Design Standards.

The condition for building Exterior finish materials can be met by replacing the siding on the front façade to ensure consistency in size within the required 4½-inch to 10-inch range and by maintaining a unified earth-tone color scheme. Window and door trim shall also be installed using a contrasting color to comply with the design compatibility standards.

- h. *(Repealed Ord. 913, September 2, 2009)*
- i. *(Repealed Ord. 913, September 2, 2009)*
- j. *Landscaping of the site shall prevent unnecessary destruction of major vegetation, preserve unique or unusual natural or historical features, provide for vegetative ground cover and dust control, present an attractive interface with adjacent land uses and be consistent with the requirements for landscaping and screening in Section 17.20.090.*

Analysis: There is no in-ground landscaping as required by the downtown design standards; only planter containers are provided.

Finding: The landscaping requirement are not met.

Condition: This condition can be met by submitting a landscape plan that provides a continuous 3-foot-wide landscaped area along the required 49 feet of building frontage. At least 75 percent of this area must be planted with an appropriate combination of trees, shrubs, evergreens, and/or ground cover in accordance with Section 17.20.090.8, with

ground cover plants filling the remainder. The plan must be approved by the City Planner and installed within a reasonable period, not to exceed six months.

- k. *The design of any visual, sound, or physical barriers around the property such as fences, walls, vegetative screening, or hedges, shall allow them to perform their intended function without undue adverse impact on existing land uses.*

Finding: No new visual, sound, or physical barriers are proposed for this site plan development.

- l. *The lighting plan satisfies the requirements of Section 17.20.170.*

Finding: No additional lighting is proposed for this addition.

- m. *The applicant has established continuing provisions for maintenance and upkeep of all improvements and facilities.*

Finding: The applicant will be responsible for the upkeep and maintenance of the building and grounds.

- n. *When any portion of an application is within 100 feet of the North Santiam River or Mill Creek or within 25 feet of Salem Ditch, the proposed project will not have an adverse impact on fish habitat.*

Findings: The proposed development site is not within 100 feet of the North Santiam River or Mill Creek or within 25 feet of the Salem Ditch. This criterion is not applicable.

- o. *Notwithstanding the above requirements the decision authority may approve a site plan for a property on the National Register of Historic Places that does not meet all of the development and improvement standards of Chapter 17.20 and the access spacing standards of Chapter 17.26 provided the decision authority finds that improvements proposed are in conformance with Secretary of the Interior's Standards for Treatment of Historic Properties, the site will provide safe ingress and egress to the public street system, and that adequate stormwater management will be provided.*

Finding: This criterion is not applicable since no building on the property is listed on the National Register of Historic Places.

### III. CONCLUSION

Based on the facts above, the Planning Commission concludes that the application meets the requirements for Sections 17.12.220 Site Plan Review, 17.20.090 Landscaping Requirements, and 17.20.220 Downtown Development Design Standards, except for the following:

1. 17.20.220.3.a. This section requires that the area between the structure and the property line must be improved either with foundation landscaping or a hard-surfaced pedestrian area that includes required amenities, ensuring an attractive and functional streetscape.
2. 17.20.220.3.g. This section requires the use of high-quality, complementary exterior materials and earth-tone colors on downtown buildings, while prohibiting incompatible finishes and ensuring that any alterations visually match or meet approved downtown design standards.



3. 17.20.090.8. Requirements For Plant Materials. This section requires that landscaping consist primarily of appropriately sized trees, shrubs, evergreens, vines, and ground cover—using suitable species and meeting specified planting standards—to ensure a well-vegetated, visually functional landscape area rather than large expanses of lawn.

#### **IV. ORDER**

Based on the conclusions above, the Planning Commission approves the application for site plan review as shown on sheets P4 Plot Plan, P1 Project Overview, P2 and P3 Elevations, and P1 Floor Plan prepared by Bob Thatcher for The Treasure Hunt Thrift Store dated June 30, 2025 and the accompanying materials that comprising the complete application subject to the attached standard conditions of approval and the following specific conditions for approval:

1. The applicant shall submit a landscape plan demonstrating compliance with SMC 17.20.220.3.a and SMC 17.20.090.8. to the Stayton City Planner. The plan must show a continuous 3-foot-wide foundation landscape strip along the required 49 linear feet of frontage, with at least 75 percent of the area planted in conformance with Section 17.20.090.8, including the required combination of shrubs, trees, evergreens, and/or groundcover. The landscape plan shall be reviewed and approved by the City Planner and installed within six (6) months of this approval.

Alternatively, the applicant may comply with the Hard-Surface Sidewalk Extension Option by submitting hard-surface calculations and providing the required pedestrian amenities consistent with SMC 17.20.220.3.a.2, and if the improvements result in 500 square feet or more of new impervious surface, stormwater mitigation will be required and must be reviewed and approved by Stayton Public Works in accordance with the Stayton Public Works Design Standards..

2. The applicant shall revise the exterior finish materials on the front façade to demonstrate compliance with SMC 17.20.220.3.g within six (6) months of this approval. The revised plans shall show siding that is uniform in appearance and between 4½ and 10 inches in width, maintain a single earth-tone body color, and include contrasting trim around windows and doors. All revised exterior materials shall be submitted to and approved by the City Planner and installed.

#### **V. OTHER PERMITS AND RESTRICTIONS**

The applicant is herein advised that the use of the property involved in this application may require additional permits from the City or other local, State or Federal agencies.

The City of Stayton Land Use review and approval process does not take the place of, or relieve the Applicant of responsibility for acquiring such other permits, or satisfy any restrictions or conditions there on. The land use permit approval herein does not remove, alter, or impair in any way the covenants or restrictions imposed on this property by deed or other instrument.

In accordance with Section 17.12.120.7, the land use approval granted by this decision shall be effective only when the exercise of the rights granted herein is commenced within 1 year of the effective date of the decision. In case such right has not been exercised or extension obtained, the approval shall be void. A written request for an extension of time may be filed with the City Planner at least 30 days prior to the expiration date of the approval.

## VI. APPEAL DATES

The Planning Commission's action may be appealed to the Stayton City Council pursuant to Stayton Municipal Code Section 17.12.110 APPEALS.

\_\_\_\_\_  
Planning Commission Chairperson

\_\_\_\_\_  
Date

\_\_\_\_\_  
Jennifer Siciliano,  
Director of Community and Economic Development

\_\_\_\_\_  
Date

## **Standard Conditions of Approval for Land Use Applications**

1. Minor variations to the approved plan shall be permitted provided the development substantially conforms to the submitted plans, conditions of approval, and all applicable standards contained in the Stayton Land Use and Development Code.
2. Permit Approval: The applicant shall obtain all necessary permits and approvals from the City of Stayton prior to construction of the project.
3. Change in Use - Any change in the use of the premises from that identified in the application shall require the City Planner to determine that the proposed use is an allowed use and that adequate parking is provided on the parcel.
4. Landscaping - The applicant shall remain in substantial conformance to the approved landscaping plan and follow the criteria established in SMC 17.20.090 for maintenance and irrigation. Dead plants shall be replaced within six months with a specimen of the same species and similar size class.
5. Utilities - Utility companies shall be notified early in the design process and in advance of construction to coordinate all parties impacted by the construction.
6. Agency Approval - The Developer shall be responsible for all costs relating to the required public improvements identified in the approved plan and the specific conditions of approval and within the City Ordinances and Standard Specifications. The developer is also responsible for securing design approval from all City, State and Federal agencies having jurisdiction over the work proposed. This includes, but is not limited to, the City of Stayton, the Fire District, Marion County, DEQ, ODHS (water design), DSL, 1200C (state excavation permit), etc.
7. Construction Bonding - Bonding shall be required if there are any public improvements. Prior to start of construction of any public improvement, the developer shall provide a construction bond in the amount of 100% of the total project costs, plus added City costs associated with public construction. The bond shall be in a form acceptable to the Director of Public Works.
8. Inspection - At least five days prior to commencing construction of any public improvements, the Developer shall notify the Director of Public Works in writing of the date when (s)he proposes to commence construction of the improvements, so that the City can arrange for inspection. The written notification shall include the name and phone number of the contracting company and the responsible contact person. City inspection will not relieve the developer or his engineer of providing sufficient inspection to enforce the approved plans and specifications.
9. Public Works Standards - Where public improvements are required, all public and private public works facilities within the development will be designed to the City of Stayton, Standard Specifications, Design Standards & Drawings (PW Standards) plus the requirements of the Stayton Municipal Code (SMC). (SMC 12.08.310.1)

10. Engineered Plans - Where public improvements are required, the applicant's engineer shall submit design plans for approval of all public improvements identified on the approved plan or as specified in conditions of approval. All design plans must meet the Stayton PW Standards. Engineered construction plans and specifications shall be reviewed by the City Engineer and signed approved by the City Engineer, or Stayton Public Works Department, prior to construction.
11. Street Acceptance - Where public improvements are required, acceptance of completed public street improvements associated with the project shall be in accordance with SMC 12.04.210.
12. Construction Approval - All public improvements and public utilities shall be fully constructed and a letter of substantial completion provided by the City Engineer prior to any building permit applications being accepted or issued unless the required improvements are deferred under a non-remonstrance or other agreement approved and signed by the City. Construction items must be completed within a specified period of time provided in the approval letter or the approval of any additional building permits will be withdrawn by the City.
13. Maintenance Bond - After completion and acceptance of a public improvement by the City, the developer shall provide a 1-year maintenance bond in the amount of 30% of the construction bond amount. The bond shall be in a form acceptable to the Director of Public Works.
14. As-Builts - Where public improvements are required, the developer shall submit to the City, reproducible as-built drawings and an electronic file of all public improvements constructed during and in conjunction with this project. Field changes made during construction shall be drafted to the drawings in the same manner as the original plans with clear indication of all modifications (strike out old with new added beside). As-built drawings shall be submitted prior to final acceptance of the construction, initiating the one-year maintenance period.
15. Drainage Permit – A 1200C permit will be secured by the developer if required under the rules of the Oregon State DEQ.
16. SDC - Systems Development Charges are applied to the project at the time of issuance of a building permit.