City Council
November 4, 2024
Newberg Public Safety Building 401 E. Third Street
Denise Bacon Community Room
Online: https://us06web.zoom.us/j/89536547180
Public Comment Registration: https://bit.ly/nbgcomment

View Slides

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1. **CALL TO ORDER**

2. **ROLL CALL**

3. **PLEDGE OF ALLEGIANCE**

4. **SMALL BUSINESS SATURDAY PROCLAMATION**

5. **CITY MANAGER'S REPORT**
   - 5.1. **August Statistical Report**
     - i RCA: City Manager Report
     - ii Presentation

6. **PUBLIC COMMENTS**

7. **CONSENT CALENDAR**
   - 7.1. 2024-2025 Notice of Funding Availability for the Newberg Construction Excise Tax Fund
     - i Attachment 1 Website Announcement
     - ii Attachment 2 Graphic Announcement
     - iii CET Fund Application

8. **NEW BUSINESS**
   - 8.1. Taste Newberg Yearly Report
     - i Financial Statement

8.2. Annexation of 3809 NE Springbrook Road

i Exhibit A Legal Description, Map, Findings, and Conditions of Approval

ii Exhibit B Aerial Photo

iii Exhibit C Comprehensive Plan Map

iv Exhibit D Proposed Zoning Map

v Exhibit E Application and Supplemental Materials

vi Exhibit F Agency Comments

vii Exhibit G Planning Commission Public Comments

viii Exhibit H Planning Commission Resolution No. 2024-396

ix Presentation

x Public Comment*

1 Public Comment Visuals*

9. CONTINUED BUSINESS

9.1. Utility Billing Policy Update

i Utility Billing Policies

9.2. Biennial Budget Updates

i Resolution

ii Ordinance changes

iii Presentation

10. COUNCIL BUSINESS

11. ADJOURNMENT

ADA STATEMENT

Contact the City Recorder’s Office for physical or language accommodations at least 2 business days before the meeting. Call (503) 537-1283 or email cityrecorder@newbergoregon.gov. For TTY services please dial 711.

*Indicates supplementary item

REQUEST FOR COUNCIL ACTION

Date Action Requested: November 4, 2024

Order ☐ Ordinance ☐ Resolution ☐ Motion ☐ Information ☐ Proclamation ☒	
Subject: Proclamation declaring Small Business Saturday	Staff: Rachel Thomas Department: City Recorder
Business Session	Order On Agenda: Proclamations

Is this item state mandated? Yes ☐ No ☒

If yes, please cite the state house bill or order that necessitated this action:

Recommendation: Council should recognize and support our small local businesses by declaring November 30, 2024 as Small Business Saturday.

Executive Summary:

Celebrating its 15th year on November 30, 2024, Small Business Saturday, has illuminated the significance of supporting small, independently owned businesses across the country. Falling between Black Friday and Cyber Monday, it's a day dedicated to supporting the local small businesses that help create jobs, boost the economy, and keep communities thriving across the country.

PROCLAMATION

Whereas, the government of Newberg, Oregon celebrates our local small businesses and the contributions they make to our local economy and community; and

Whereas, according to the United States Small Business Administration, there are 34.7 million small businesses in the United States, small businesses represent 99.7% of firms with paid employees, small businesses are responsible for 61.1% of net new jobs created since 1995, and small businesses employ 45.9% of the employees in the private sector in the United States, and

Whereas, 68 cents of every dollar spent at a small business in the U.S. stays in the local community and every dollar spent at small businesses creates an additional 48 cents in local business activity as a result of employees and local businesses purchasing local goods and services; and

Whereas, 59% of U.S. consumers aware of Small Business Saturday shopped or ate at a small, independently owned retailer or restaurant on Small Business Saturday 2023; and

Whereas, Newberg, Oregon supports our local businesses that create jobs, boost our local economy, and preserve our communities; and

Whereas, advocacy groups, as well as public and private organizations, across the country have endorsed the Saturday after Thanksgiving as Small Business Saturday.

NOW, THEREFORE, IT IS PROCLAIMED, by the Mayor and City Council, and on behalf of the people of the City of Newberg, Oregon, that we declare November 30, 2024 as Small Business Saturday.

IN WITNESS WHEREOF, I have hereunto set my hand and cause the Seal of the City of Newberg to be affixed on this 4th day of November 2024.

Space below is for city seal

_____

Bill Rosacker, Mayor

REQUEST FOR COUNCIL ACTION

Date Action Requested: (November 04, 2024)

Order ☐ Ordinance ☐ Resolution ☐ Motion ☐ Information ☒ Proclamation ☐	
Subject: CM narrative for October 2024 events	Staff: Will Worthey CM Department: Administration
Work Session ☐ Business Session ☒	Order On Agenda: CM report

Is this item state mandated? Yes ☐ No ☒

If yes, please cite the state house bill or order that necessitated this action: NA

Recommendation: NA

Executive Summary: The summary of events conducted by city departments in October 2024.

Fiscal Impact: All were conventionally budgeted items.

Council Goals:
Goal 5: Create and maintain a high level of transparency with our residents in order to build trust.

Effective CM reporting assists with Objective 1:

Expand communication outreach in regard to regular city events and additional involvement with city businesses.

Newberg CM report

Monthly Events for October 2024

Engineering – Road Repairs Update

City Management selected a set of contractors based upon a wide-ranging RFP for street resurfacing operations this year. With 2nd street complete the city has completed grind and inlay work for two badly worn blocks near Edwards Elementary school. We were lucky to get some September sunshine!

This required the installation or upgrade of 12 ADA ramps or driveways. The 2nd street crosswalks and stop bars have been re-painted. This brings road repairs using transportation utility funds to a close for 2024.

In December there will be a meeting to choose our street sections for repairs in 2025.

Basin Covers at the Water Plant:

In a letter dated 10/18/21, the Oregon Health Authority placed an unfunded mandate on the City to install new covers over the existing exposed filter and set basins at the groundwater treatment plant so that no pests, or other items can enter the city drinking water system at this location.

Keller Associates working as the City Engineer was able to provide the alternative analysis tech memo for the WTP basin covers for City staff to review. After looking at the options the most affordable one was chosen.

The cost of design work is anticipated at $95,000 and design is underway right now. I anticipate construction in 2025.

Wynooski Storm Outfall Project:

Groundwater seepage flow from a spring was noticed in the spreader structure area, requiring a slight adjustment to the plan. Maintenance and the contractor (Pihl) recommend additional work to stabilize the slope and improve drainage around the structure.

The estimated cost for this work $50,750 means that we are still under the total budget of $350,000 (but only just). This is an example of how we can never really know the cost of below grade work until it starts!

On the next slide is an image of this needed extra work.



The spreader structure



Water Quality Manhole insulation

Wastewater Operations

The EPA discharge monitoring results are in, and our in-house lab passed with flying colors on each parameter that we test for with no re-analysis required. This is a big deal every year to demonstrate that our lab is proficient in analyzing the samples. A big thank you to our regulatory compliance staff (Andrew and April) for their excellent work.

Out in the treatment plant we are preparing for another wet season as all our equipment is back online and operational after the summer maintenance and inspection activities.

Wastewater Operations Continued

While we are beginning to see some rainfall, we typically do not see an increase in our flows until the ground becomes saturated, and that has yet to happen so far.

Our operators have been busy playing catch up in our composting system after a two-week shutdown for the PLC replacement. Recent plant work:

- Completed a full rebuild of headworks screen 1
- Assisted with repairs to Fernwood lift station force main
- Fixed a seal leak on screw press 2
- Resolved a plugged drain issue in the reuse trough floor drain
- Installed check valves on air system in sludge storage tank 1
- Many other preventative maintenance and repair activities

WWTP Emergency Programmable Logic Controller Replacement & Reprogramming Project:

We have exciting news to report with this project as we have completed our first shutdown and cutover of both our composter and solids handling control panel (September 20th and October 4th). The electricians doing the cutover work were extremely efficient and had their portion of the job completed two full days ahead of schedule.

This allowed for some extra time for testing the new PLC program which was very useful.

While we encountered several challenges testing the new PLC, by the end of the two-week period we were back to being operational with only some minor punch list items to be addressed.

At this point we are down to just a couple outstanding items that should get resolved during the next visit. I want to recognize our Sr. Operator Jon for his patience and dedication through this.

Our next scheduled shutdown is coming up on Monday October 28th and that will be our headworks facility. This cutover and testing is scheduled to be completed by the end of that week as this should be a much simpler process to deal with.

Public Works Maintenance:

On the next several slides are images of tasks completed in October:



Well # 4 Abandonment Well discharge pipe removed from wellfield piping and connection capped.

S. Lincoln St. 6” Emergency Water Main Repair



901 McKern Ct Water Tap



N. Sherman St
Water Tap Install



Crestview St Emergency
Shut-off and Repair



E. Coffey Ln - Catch Basin Install

Before

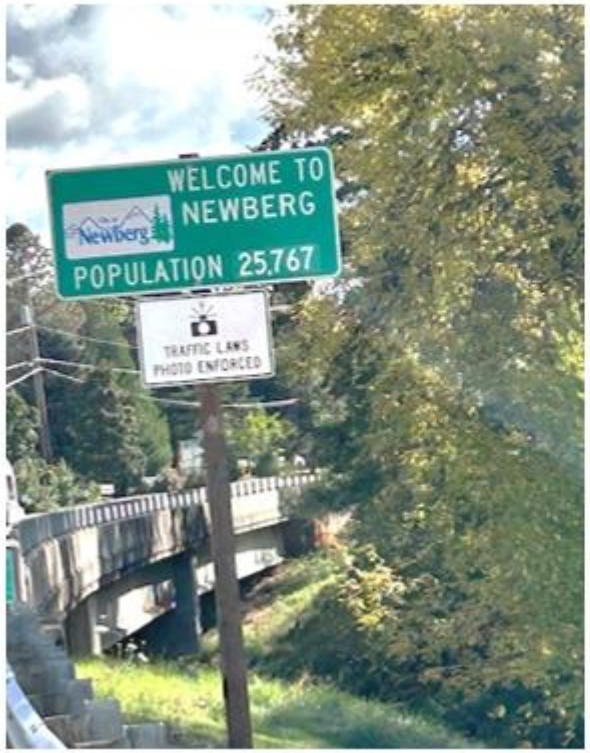


After





12 Speed & Photo Enforcement signs installed around city entrances







CDD Happenings:

2 vacation rental applications occurred, minor design review for a downtown parking area off First Street; and a 10-lot townhome subdivision at 1929 E Orchard Dr.

We kicked off Vacation Rental Home Regulations Update meeting with the City Council and the Planning Commission; we commissioned new Rentalscape software for short term rental inventory; and announced community engagement activities for November and December.

More CDD Happenings:

3 pre-application meetings occurred for a partition and 5 new residences at N College St and E Foothills Dr; a triplex at E 10th St and S School St; and annexation / connection to city services, and lot line adjustment for property along N College St.

Planning Commission approved a conditional use permit for ARK to operate small animal pet rescue in the former music store space on E First St; an application was reviewed for a property west of NE Springbrook Rd for a proposed 100-lot residential development.

More CDD Happenings:

The Affordable Housing Commission met to review the Notice of Funding Availability for the second round of the Construction Excise Tax Fund.

Staff received trainings through the Oregon Economic Development Association, OpenGov, and Oregon Chapter of the American Planning Association.

CDD was invited by Taste Newberg to participate in a steering committee with other local organization for an upcoming application for Travel Oregon's "Recreation Ready Program" which seeks to boost capacity and additional resources for outdoor recreation tourism and activities.

NDPD Recent Events:

Officers assisted with Edwards Elementary with Walk and Roll to school day. Kids, parents, Eddie the Eagle, and staff appreciated our involvement!



NDPD Recent Events:

The department did their annual EVOC (Emergency Vehicle Operations Course). No vehicles were injured during the training.



Officer Brooks taking advantage of Drone training:

I would like to take a moment to recognize Brooks for the work he is doing at city hall on CAT6 wiring to help us move back!



The City Recorder's Office began the month with an Employee Appreciation luncheon executed by Melissa. The event was well received! The majority of the month was spent doing intensive web editing to prepare our new website which will launch in the new year. The new web site is a key element of our customer service goals.

After a user experience design process, the City Recorder and Community Engagement team worked together to organize the site in a customer friendly manner and create templates for departments. This will make their information more accessible. In addition, we have been receiving and processing applications for city boards, committees, and commissions. Applications are set to close October 31st.

HR News:

HR completed Open Enrollment this month with 121 enrollments for plan year 2025. Alison Seiler and Will Worthey presented a progressive discipline training to our newest supervisors, and plan to present again to the members of staff that were unable to attend this time around.

HR also coordinated with the Finance team to put on another Lunch and Learn this month, this time on valuable Excel tips and tricks led by Dawn and Dan from finance.

HR Running Recruitments:
6 (PWM Crew Chief, Accounts Payable Specialist, Concrete Finisher II, Concrete Finisher I, Project Manager – Engineering Department, Librarian II – Circulation Librarian)

Hires:
3 (all promotions: Jose – Tech II to Crew Chief, Kase – Tech I to Tech II, Dillon – Circulation Supervisor to Digital Archivist and Grant Writer)

Separations:
3 (Including an AP specialist and the retirement of Dan Wilson).

Claims Processed: 3

Finance Events:

During the month of October, Finance has continued to prepare for the upcoming audit in November. Additionally, Finance has also proceeded with *Operation Quadratic* research to align our internal processes and software to a two-year budget cycle.

Finance also attended a second CIP meeting with Engineering, Public Works, and Planning and are ready to move forward on the first biennium of capital projects. Finance will now start working those projects into the biennial budget and will have lots of time to do so since we started this project very early in the year!

Members of Finance attended a day long training for Incode at the City of Happy Valley where implementation specialists from Tyler Technologies were there to help answer users' questions on the software (and we got some questions answered on biennial budgeting).

Members of Finance attended the Oregon Government Finance Officers Association (OGFOA) at the end of the month for professional development training.

Court attended a training on the red-light cameras for integration into our Incode courts system and covered how citations will be issued looking at examples from the warning period.

IT Events of the Month:

We spent time preparing for, beginning, and completing, a number of significant migrations we've been planning.

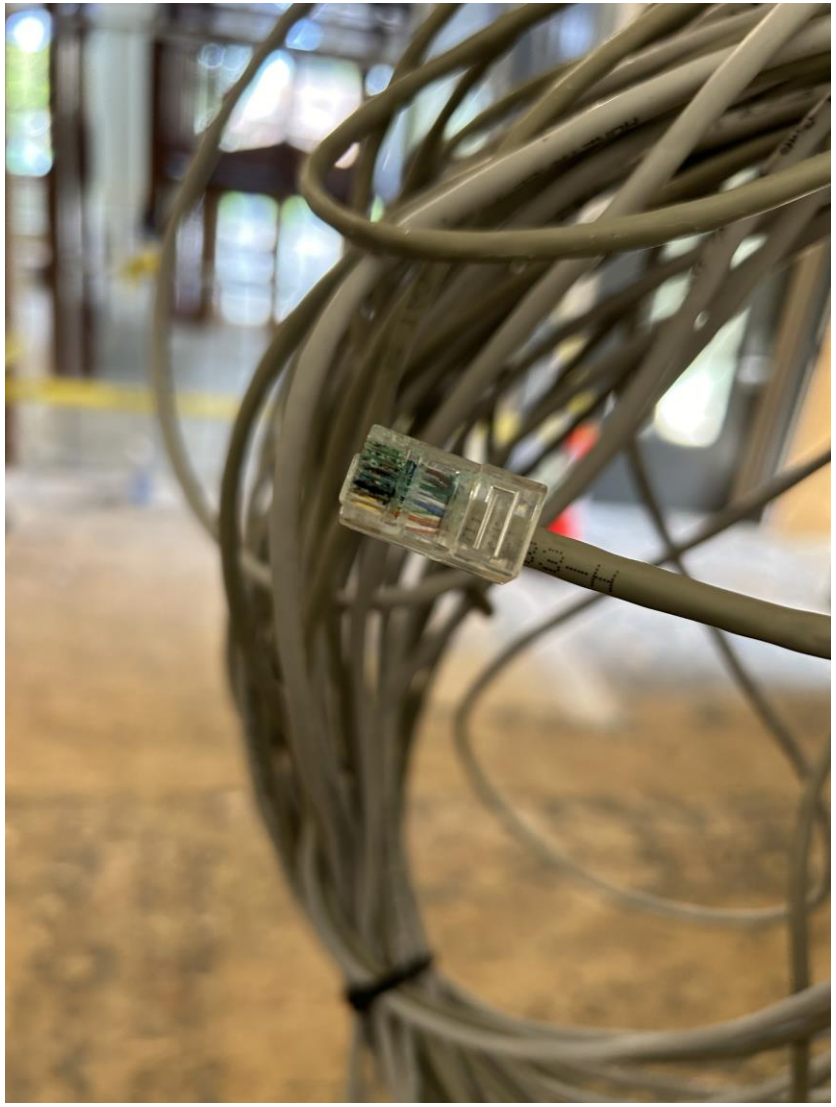
One of the big migrations we're currently undertaking is moving all of the city's data to the new storage appliance we purchased over the summer. This is not the first time we've done a large-scale data migration, we tend to take them very slowly and methodically, making sure the data we're moving is what we need and that there aren't any unexpected issues that occur.

IT Events:

We also continued preparing for the move back into City Hall; double and triple-checking our inventory lists, making sure any potentially water-exposed equipment is still functioning properly after several months, and ordering replacements for any that aren’t.

We've also upgraded some of the IT infrastructure in City Hall and are studying the Operation Homecoming game plan to make sure we're prepared for the move back.

IT Events (examples of corroded equipment due to the flooding):





IT Events:

Finally, we are excited to welcome Brandon Harris to our team as our new help desk technician! Brandon comes from another city's parks and rec department, where he gained a lot of customer service experience - something we were specifically looking for. We're all very excited to have Brandon join our team!

At less than a week in, he was already answering help desk calls on his own, so if you call our IT help desk, there's a good chance you'll be talking to him! Please be sure to say hi and give him a warm welcome to the Newberg team!

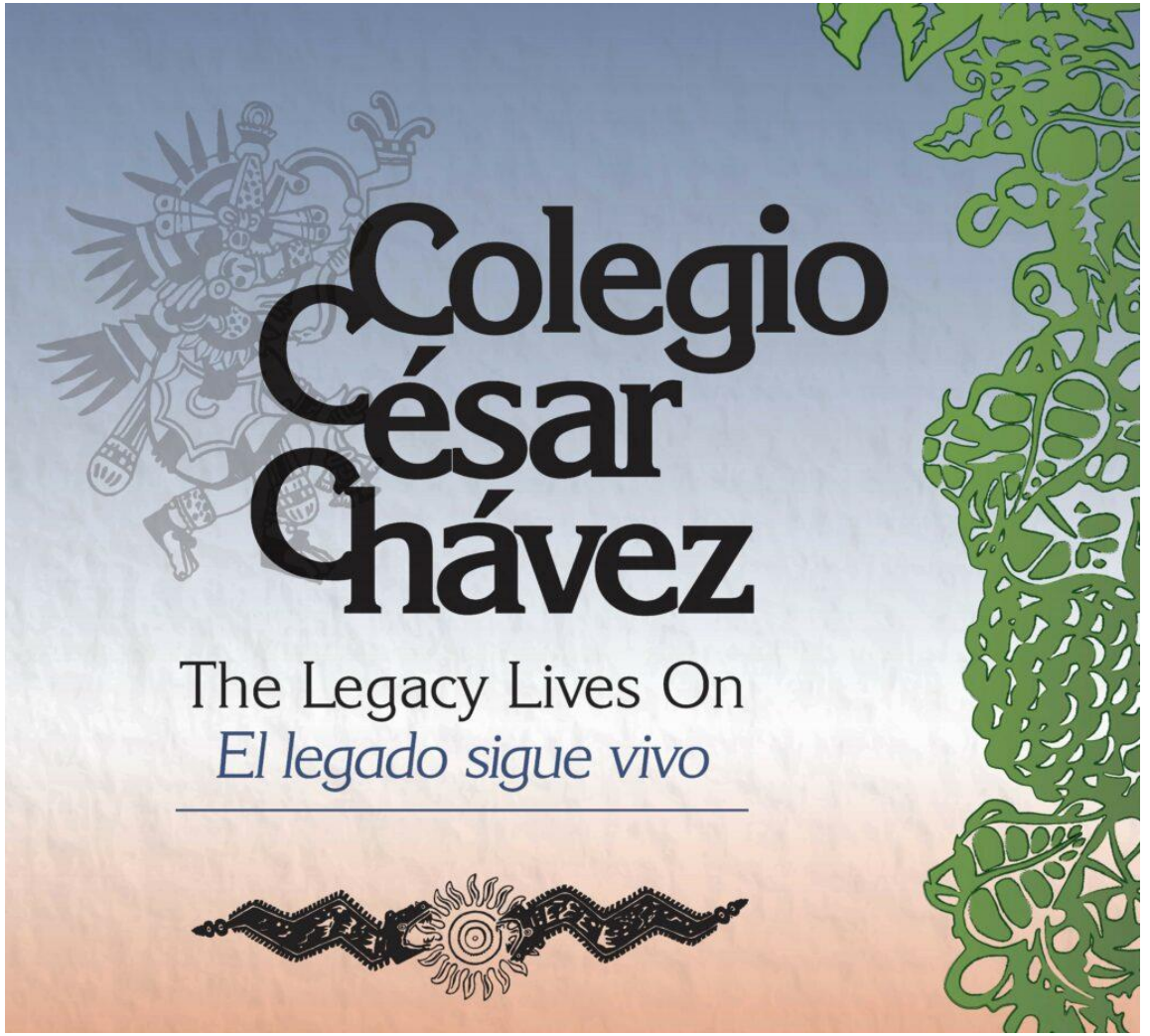
Community Engagement:

In October, CE assisted with messaging surrounding the launch of the red-light running cameras in Newberg, located at Villa and Highway 99W. This messaging was distributed in several forms, including two press releases, an FAQ page, and social media notifications leading up to the activation of the cameras.

CE and the city recorder's office have been working diligently on the new city website, which is slated to go live in Q1 of 2025. Primary editing staff in each department have been assigned and our team is currently working hard to get all the information on the website up to date so it's ready for the public.

Library Land:

In October we celebrated Hispanic Heritage Month with an all-ages craft program, and a library exhibit on Colegio Cesar Chavez, the nation's first four-year independent Chicano university which was founded down the road in Mt. Angel. This exhibit was borrowed for the month from Oregon State University.



October also marked the first “Newberg Memory Café,” a social gathering for adults living with memory loss and their care partners.

The gathering was a success as people shared their experiences and made connections with each other.

This will be a once-a-month library event and is a partnership with Yamhill County Behavioral Health.

Administration:

The whole Admin and HR team has been getting ready for our move back to City Hall - *Operation Homecoming* (now in its 4th edition).

This involved mapping not only the new cubicle layout but also numerous trips to all remote locations to label contents for the return journey. The plan calls for four movements of different teams to different floors or locations and is based upon lean principles.

Over 300 boxes were assessed and labeled…

At this time, we believe city Hall weill be iope to the public right after Thanksgiving.

So that’s it for October 2024 events!

As you can see, residents’ tax dollars have been hard at work as usual.

Questions?

REQUEST FOR COUNCIL ACTION

Date Action Requested: November 4, 2024

Order ☐ Ordinance ☐ Resolution ☐ Motion ☒ Information ☐	
Subject: Authorization to publish the FY2024-2025 Notice of Funding Availability for the Construction Excise Tax Fund for an amount of $1,000,000.	Staff: Leanne Wagener, Assistant Planner File No. GEN24-0016
Business Session	Order On Agenda: Consent

Is this item state mandated? Yes ☐ No ☒

If yes, please cite the state house bill or order that necessitated this action:

Recommendation:

1. Authorize staff to publish the FY2024-2025 Notice of Funding Availability for the Construction Excise Tax Fund for an amount of $1,000,000.

Executive Summary:

On August 19, 2024, the City Council provided direction to Community Development Department staff during their deliberations related to the use of Construction Excise Tax (CET) monies to prepare a Notice of Funding Availability (NOFA) for publication in November 2024. On October 22, 2024, Newberg's Affordable Housing Commission convened to review and discuss the draft documents for the FY2024-2025 CET NOFA (Attachments 1 and 2) for a second round of CET Fund monies. After discussion, the Commission agreed by a 4-0 vote to recommend to City Council that the City of Newberg release the second round Notice of Funding Availability for the Construction Excise Tax Fund for an amount of $1,000,000.

Background:

On January 11, 2024, the City of Newberg published a CET NOFA that closed on April 4, 2024. Two eligible applications were submitted for the FY2023-2024 first round disbursal, one from Yamhill County Affordable Housing Corporation requesting $262,500, and one from Catholic Charities of Oregon et al. requesting $397,050 with consideration for the second (Legacy) disbursal.

City staff calculated the available award allocations of the CET Fund monies pursuant to Newberg Municipal Code Chapter 3.60 and with prior direction from the Newberg City Council to retain specified funding for a second (Legacy) disbursal in the amount of $1,000,000.

On April 23, 2024, the Newberg Affordable Housing Commission held a public meeting to review and discuss the applications against the applicable criteria. The Commission recommended that Yamhill

County Affordable Housing Corporation be awarded the amount of $262,500 from the CET Fund first round allocation, and that the Catholic Charities of Oregon et al. be awarded the remainder of the first round CET fund monies, which were later determined to be up to $48,238.35.

On August 19th, 2024, Leanne Wagener, Assistant Planner, presented the Affordable Housing Commission's recommendation for the first round CET Fund allocations for the 2023-2024 fiscal year to City Council. Ms. Wagener presented the recommended award allocation of $262,500 to the Yamhill County Housing Corporation, and the remaining CET fund monies available from the first disbursal round to Catholic Charities of Oregon, Edlen & Company and Community Wellness Collective in partnership with Providence, in the amount of $48,238.35. During Council deliberations it was decided that the entirety of the first round disbursal monies would be awarded to the Yamhill County Housing Corporation (YCHC) in the amount of $310,738.35, pending award acceptance. Subsequent to the August 19th meeting, YCHC agreed to accept the total award of $310,738.35. Contract documents reflecting this award are being drafted by Miller Nash in conjunction with the City Manager. Staff also requested direction on issuing a second notice of funding availability for use of the remaining $1,000,000 of CET funds for what City Council has described as a "Legacy Project". The mayor indicated that the second round NOFA should go out in November of this year.

Construction Excise Tax in Newberg:

The City of Newberg adopted a Construction Excise Tax in November of 2020. Senate Bill 1533 from the 2016 Oregon Legislative session is the enabling legislation that allows local jurisdictions to implement a Construction Excise Tax (CET). Revenues generated from this tax is 1% on the project building permit value, to be used to address housing affordability issues for homeowners or renters within Newberg for families that earn 80% or less of the median family income.

The City of Newberg defines affordable housing as residential housing primarily for households or persons earning less than 80% of the Median Family Income (MFI) and where housing and/or rental costs do not constitute more than 30% of a household's income. For 2023, the Median Family Income (for a family of 4) in the City of Newberg was $114,400. 80% of that amount for a family of four is $91,520.

Available CET 24-25 Funding and Eligibility:

Eligible recipients of resources from the CET Fund are organizations with interests in developing and/or preserving affordable housing in Newberg. Potential recipients include governmental subdivisions, community development corporations, local housing authorities, community action agencies, community-based or neighborhood-based non-profit housing organizations, other nonprofit organizations, for-profit entities and private employers, and private landlords.

The funds received through the CET can be used in a variety of ways, with some limitations, and for projects that address housing affordability issues for homeowners or renters within Newberg for households that earn 80% or less of the median family income (MFI). The ordinance also states that any

affordable housing that receives CET funds must remain affordable (80% or below MFI) for a period of at least 60 years following the date of construction.

The state legislation limits the funding awards towards two categories:

- Developer incentives and
- Affordable housing programs

Per ORS 197.309(5)(c) and (d) and 197.309(7), *developer incentives* allowed or offered include, but are not limited to:

- System development; and
- Land acquisition; and
- Local public improvements required by municipal governments.

Per Section 9, Chapter 59, Oregon Laws 2016, *affordable housing programs* include, but are not limited to:

- Rent buy-downs and subsidies; and
- Down-payment assistance; and Newberg Community Development
- Foreclosure-prevention assistance.

Available CET fund monies for the current disbursal to these uses total $1,000,000.00.

Prior Review and Discussion:

The Affordable Housing Commission convened to review and discuss the draft documents (Attachments 1, 2, and 3) associated with publishing the second round NOFA for the CET fund monies. After discussion, the Commission agreed by a 4-0 vote to recommend to City Council that The City of Newberg release the second round Notice of Funding Availability for the Construction Excise Tax Fund for an amount of $1,000,000.

The Affordable Housing Commission recommended on October 22, 2024, that:

1. The City of Newberg release the second round Notice of Funding Availability for the Construction Excise Tax Fund for an amount of $1,000,000.

Fiscal Impact:

Funds are available within budgeted *Special Payments* of the Economic Development Fund (#14-9130) for the future awards and summarized in the table below. However, due to the issuance of refunds towards the end of FY 2024-2024, a Supplemental Budget will be required to reconcile funding allocations for the CET Fund.

Account Number (Description)	Budgeted 24/25 ($)	Recalculated for Supplemental Budget ($)	CET Monies Awarded for FY23-24	CET Monies Available for FY24-25
14-9130-605001 (Developer Incentives)	408,345.00	411,831.90	0.00	411,831.90
14-9130-605002 (Oregon Housing & Community Services Department)	122,503.00	123,549.57	n/a	n/a
14-9130-605003 (Developer Incentives & Affordable Housing Programs)	988,507.00	898,906.45	310,738.35	588,168.10
Total	***1,519,355.00***	***1,434,287.92***	***310,738.35***	***1,000,000.00***

Council Goals:

Goal G6: Implement a careful and prudent fiscal policy. Objective 4: Ensure that the city has a long-term financial plan that supports its goals and objectives.

Attachments:

1. CET NOFA Website Announcement
2. CET NOFA Graphic Announcement
3. CET NOFA Application Form

ATTACHMENT 1

CET NOFA Website Announcement

Release Date: November XX, 2024

Notice of Funding Availability
Construction Excise Tax Fund
Fiscal Year 2024 - 2025

This Notice of Funding Availability (NOFA) is directed to organizations (non-profit and for-profit) and individuals that provide affordable housing and/or related services within the City of Newberg. The goal of this NOFA is to inform the intended audience of the availability of funds for activities that will assist with the creation/acquisition of new affordable housing or the assistance of programs that help lower income individuals and families to continue renting, prevent foreclosure, or buy housing.

Funding Availability

Funding of up to $1,000,000 is available for the fiscal year 2024-2025 ending June 30, 2025. For this funding cycle, the Newberg Affordable Housing Commission will consider awarding available funds towards developer incentives and affordable housing programs.

Deadlines:

Applications will be initially reviewed by the Affordable Housing Commission (AHC). The AHC will then recommend applications and their amount of funding to the City Council. The AHC meets quarterly, and deadlines are based on the upcoming AHC meetings for 2025:

CET Fund Application Deadline	Affordable Housing Commission Meeting
April 1, 2024	April 15, 2025

What is the Construction Excise Tax (CET) Fund?

The City of Newberg adopted by ordinance a Construction Excise Tax (CET) in December 2020. Senate Bill 1533 from the 2016 Oregon Legislative session is the enabling legislation that allows local jurisdictions to implement a Construction Excise Tax. Revenues generated from a tax, 1% on the project building permit value, would be used to address housing affordability issues for homeowners or renters within Newberg for families that earn 80% or less of the median family income.

The City of Newberg defines affordable housing as residential housing primarily for households or persons earning less than 80% of the median family income (MFI) and where housing and/or

rental costs do not constitute more than 30% of a household's income. MFI shall be established by the most current U.S. Department of Housing and Urban Development Department data for Yamhill County, Oregon as determined by the Community Development Director in the year of application submission.

*For 2023, the Median Family Income for the City of Newberg was $114,400.

Who can access funding from the CET Fund?

Eligible recipients of resources from the CET Fund are organizations with interests in developing and/or preserving affordable housing in Newberg. Potential recipients include governmental subdivisions, community development corporations, local housing authorities, community action agencies, community-based or neighborhood-based non-profit housing organizations, other non-profit organizations, for-profit entities and private employers, and private landlords.

What types of projects qualify for funding under the CET?

The funds received through the CET can be used in a variety of ways, with some limitations, and for projects that address housing affordability issues for homeowners or renters within Newberg for households that earn 80% or less of the median family income (MFI). The ordinance also states that any affordable housing that receives CET funds ***must remain affordable (80% or below MFI) for a period of at least 60 years following the date of construction***.

The state legislation limits the funding towards two categories:

- Developer incentives
- Affordable housing programs

Per ORS 197.309(5)(c) and (d) and 197.309(7), developer incentives allowed or offered include, but are not limited to:

- System development; and
- Land acquisition; and
- Local public improvements required by municipal governments.

Per Section 9, Chapter 59, Oregon Laws 2016, affordable housing programs include, but are not limited to:

- Rent buy-downs and subsidies; and
- Down-payment assistance; and

- Foreclosure-prevention assistance.

Examples of development proposals that could use CET funds based on the limitations above:

- Funds to pay the System Development Charges (SDCs) for a multi-family affordable housing project.
- Funds to pay for certain amount of land acquisition of a parcel that a non-profit is buying for permanently affordable homeownership options.
- Funds towards the cost of street frontage improvements for a subsidized affordable housing project for seniors.
- Funds provided for a local organization's rental assistance program.

Competitive Selection Criteria - Minimum Threshold and Scored Criteria:
Minimum threshold and additional scored criteria are located in Attachment A of the CET Fund application.

A project may receive additional points towards being awarded CET Funds if it meets some of the additional scored criteria. A few examples are:

- The project provides deeply affordable housing for households earning less than 50% of the median family income. *(Up to 10 points could be awarded)*
- Project concepts and designs showing close proximity to schools, parks, commercial areas, public transportation, services and jobs, and demonstration of cost-effective sustainability and energy-efficiency measures. *(Up to 10 points could be awarded)*
- The project maximizes partnerships in the community (volunteers, in-kind contributions, cash contributions, multiple organization involved, etc.) and demonstrates alliance building that directly benefits community members in need, such as helping build household wealth. *(Up to 5 points could be awarded)*

Up to 70 points can be awarded to a project. The higher the points awarded, the more likely they are to be recommended for funding by the Affordable Housing Commission to City Council.

How does one apply for funding under CET Fund?
The application form for funding under the CET Fund can be found at (https://www.newbergoregon.gov/planning/page/construction-excise-tax) or may be picked up at the Newberg City Hall at 414 E First Street.

Who do I contact with questions about the CET Fund?

For questions about the CET Fund, please contact Leanne Wagener at 503-849-9774 or at Leanne.Wagener@newbergoregon.gov, P.O. Box 970 Newberg, OR 97132

DEFINITIONS:

"Gross Income" (AGI) is income before taxes for all members of one family in the previous twelve months. Income can be derived from salaries, investments, self-employment, farming, and other sources. Assets such as a house or a farm are not income. For people who have wages, gross income means the figure that they would have received in their paychecks if there were no taxes. Gross income before taxes when applied to farm income means the figure that results when farm expenses are subtracted from farm sales. Gross income also includes unemployment and disability compensation, worker's compensation and severance pay; and welfare assistance payments.

"Family" means all persons living in the same household who are related by birth, marriage or adoption.

"Median Family Income" (MFI) includes the income of the householder and all other individuals 15 years old and over in the household, whether they are related to the householder or not. Because many households consist of only one person, average household income is usually less than average family income. Although the household income statistics cover the past 12 months, the characteristics of individuals and the composition of households refer to the time of application. Thus, the income of the household does not include amounts received by individuals who were members of the household during all or part of the past 12 months if these individuals no longer resided in the household at the time of application. Similarly, income amounts reported by individuals who did not reside in the household during the past 12 months but who were members of the household at the time of application are included. However, the composition of most households was the same during the past 12 months as at the time of application, as defined by the U.S. Census.

ATTACHMENT 2

CET NOFA Graphic Announcement

Notice of Funding Availability
Construction Excise Tax (CET) Fund
Fiscal Year 2024 - 2025

This Notice of Funding Availability (NOFA) is directed to organizations (non-profit and for-profit) and individuals that provide affordable housing and/or related services within the City of Newberg. The goal of this NOFA is to inform the intended audience of the availability of funds for activities that will assist with the creation/acquisition of new affordable housing or the assistance of programs that help lower income individuals and families to continue renting, prevent foreclosure, or buy housing.

Deadline and Funding Availability

Funding of up to $1,000,000 is available for the fiscal year 2024-2025 ending June 30, 2025. For this funding cycle, the Newberg Affordable Housing Commission will consider awarding available funds towards developer incentives and affordable housing programs.

Deadlines:

Applications will be initially reviewed by the Affordable Housing Commission (AHC). The AHC will then recommend applications and their amount of funding to the City Council. The AHC meets quarterly, and deadlines are based on the upcoming AHC meetings for 2025:

CET Fund Application Deadline	Affordable Housing Commission Meeting
April 1, 2025	April 15, 2025

For a more detailed description of this Notice of Funding Application (NOFA), please visit the following website link https://www.newbergoregon.gov/planning/page/construction-excise-tax or visit City Hall at 414 E First Street.

For questions about the CET Fund, please contact Leanne Wagener at 503-849-9774 or at Leanne.Wagener@newbergoregon.gov or planning@newbergoregon.gov
Mailing Address: P.O. Box 970 Newberg, OR 97132.

*For 2023, the Median Family Income for the City of Newberg was $114,400.

DEFINITIONS:

"Gross Income" (GI) is income before taxes for all members of one family in the previous twelve months. Income can be derived from salaries, investments, self-employment, farming, and other sources. Assets such as a house or a farm are not income. For people who have wages, gross income means the figure that they would have received in their paychecks if there were no taxes. Gross income before taxes when applied to farm income means the figure that results when farm expenses are subtracted from farm sales. Gross income also includes unemployment and disability compensation, worker's compensation and severance pay; and welfare assistance payments.

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ATTACHMENT 3

CET NOFA Application Form

Newberg Construction Excise Tax (CET) Funding Request Application

NOTE: The second round of applications are due April 1, 2025 at 4:30 p.m.
Applications are to be submitted to Leanne Wagener, Assistant Planner by email at leanne.wagener@newbergoregon.gov or by postal mail via City of Newberg, PO Box 970, Newberg, Oregon, 97132 or by hand delivery to City Hall, 414 E First Street.

CONTACT INFORMATION:

Project Name:			
Organization Name:		☐ For-proft	☐ Non-proft
Contact Name/Title:			
Mailing Address:		State/Zip:	
Phone:	Email:		

PROJECT INFORMATION:

Total project cost: _____

Requested amount of CET funding: _____

Has this project requested or will request funds from the Affordable Housing Trust Fund? ☐ No ☐ Yes Amount requested: _____

Amount and description of other matching funds being contributed to the project, if applicable:

_____

Has this organization received Newberg CET funds in the past? ☐ No ☐ Yes Amount received: _____

Project Partners and their Contributions to the Project: _____

_____

_____

_____

Estimated project beginning date:	Completion date:

COMMUNITY DEVELOPMENT
PLANNING DIVISION
(503) 537-1240
planning@newbergoregon.gov

Please see next page

Please briefly describe the affordable housing problem this project is trying to solve and how it helps in solving that challenge:

Please attach additional information that describes how this project will address the Competitive Awards Selection Criteria described in "Attachment A" of this form, including additional documentation/evidence as needed.

☐ Information that addresses Competative Selection Criteria, attached (please select)

Briefly describe what is attached:

ATTACHMENT A

Construction Excise Tax (CET) Fund
FY 2024-2025 Competative Selection Criteria

Minimum Threshold Criteria	**Potential Points**
1. The project is considered an eligible use or activity under Section 3, and benefits households earning less than 80% of the median family income for a period of at least 60 years following the date of construction (threshold verification)*.	NA
2. The project is ready for implementation with documentation to demonstrate financial feasibility.	NA
3. If the project includes the acquisition of property, the identified property is currently available for acquisition and the applicant has secured either a purchase option or letter of interest from the seller. If the applicant is also applying for federal funding, review procurement requirements and limitations before obtaining a purchase option.	NA
4. That relocation of existing residents will be minimized, and when necessary, the applicant has included accurate relocation assistance costs as part of the project pro forma.	NA
5.The proposal demonstrates that the Construction Excise Tax (CET) Funds are the most appropriate funding source for the project. Provide a description of a financing gap that includes funding sources or demonstrates budget constraints that limit the ability to pay or finance projects.	NA
Scored Application Criteria	
7. The project provides new affordable housing, or new affordability, through retention or rehabilitation of existing housing, within the city.	Up to 10 points
8. The project provides deeply affordable housing for households earning less than 50% of the median family income.	Up to 10 points
9. The project provides extremely affordable housing for households earning less than 30% of the median family income. Projects could include permanent supportive housing and/or transitional housing for families or individuals who are houseless.	Up to 5 points
10. Project concepts and designs showing close proximity to schools, parks, commercial areas, public transportation, services and jobs, and demonstration of cost-effective sustainability and energy-efficiency measures.	Up to 10 points
11. The project maximizes partnerships in the community (volunteers, in-kind contributions, cash contributions, multiple organization involved, etc.) and demonstrates alliance building that directly benefits community members in need, such as helping build household wealth.	Up to 5 points
12. The project utilizes already existing resources in effective and innovative ways. The project shall not duplicate services provided by another organization.	Up to 10 points
13. The agency submitting the proposal has the capacity to carry out the project and has had demonstrated successes completing projects of similar scope. Higher points to projects that demonstrate engagement and contracting with D/M/W/ESB/SDVBE businesses in the last 10+ years.	Up to 10 points
14. The budget and timeline are thorough and realistic (evidence of construction and/ or service costs required with application).	Up to 10 points
Total Potential Points	**70**

***FOR 2023, the Median Family Income for the City of Newberg was $114, 400.**

DEFINITIONS:

"D/M/W/ESB/SDVBE" means a business that is Disadvantaged, Minority-Owned, Women-Owned, Emerging Small Businesses, and/or Service Disabled Veterans Business Enterprises.

"Gross Income" (GI) is income before taxes for all members of one family in the previous twelve months. Income can be derived from salaries, investments, self-employment, farming, and other sources. Assets such as a house or a farm are not income. For people who have wages, gross income means the figure that they would have received in their paychecks if there were no taxes. Gross income before taxes when applied to farm income means the figure that results when farm expenses are subtracted from farm sales. Gross income also includes unemployment and disability compensation, worker's compensation and severance pay; and welfare assistance payments.

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November 4, 2025

2023-2024 Taste Newberg Annual Report

Leigh Jensen - Executive Director
Katie McFall - Deputy Director

Taste Newberg

Mission Statement:

Stimulate a Year-Round Visitor Economy in Newberg

Vision Statement:

Newberg will be widely acknowledged as one of the most extraordinary and distinctive destination in Oregon and a best-in-class tourism resource in Yamhill County.



Tourism as an Economic Driver



Travel Oregon Tourism Data



Taste Newberg Guiding Principles



Marketing Report

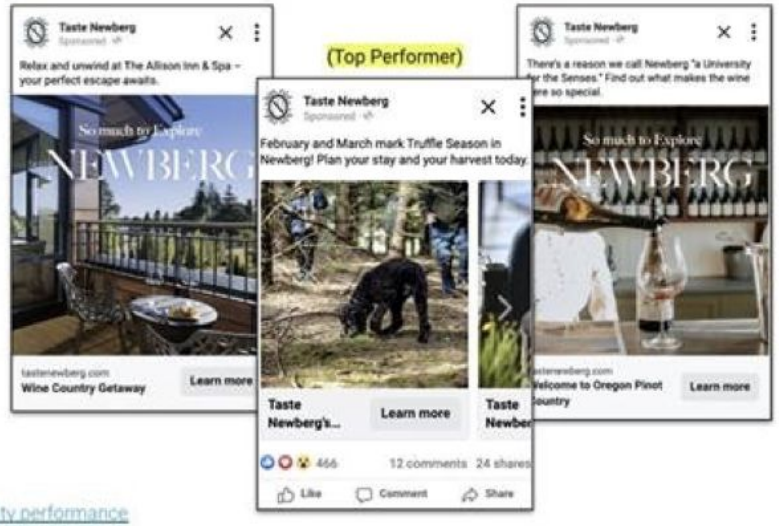
META CAMPAIGNS

Impressions: 6,905,834
Clicks: 140,243
CTR: 2.03%
CPC: $0.29

Overall, Meta campaign performance was extremely strong with the average CTR of 2.03%, which is 225% above benchmarks.

CPC is also very low at $0.29, and with a high CTR, indicates great efficiency in ad spend.

The winter campaign drove the most traffic with the best performance for the year.



Benchmarks
CTR: 0.90%
CPC: $0.63

Travel & Hospitality performance benchmarks from Wordstream

Marketing Report

PRIMARY TAKEAWAYS:

- Overall website users grew 14% from last year. New users grew 16%.
- Paid social & search drove 53% of all site traffic. Datafy drove over 12% & organic contributed 10%.
- We saw an increase in website traffic from Sacramento & San Francisco in FY 23/24.
- The truffle campaign was the most successful campaign of the year as it brought over 24,000 users to the site.
- The Datafy campaign resulted in 6.2M impressions, 16,782 clicks, and a CTR of 0.27%, which is higher than benchmarks.
- With an average Datafy rate of $240, during the campaign, and an average visitor spend at $84/trip, there is an estimated $3,389,652 total economic impact from this campaign to date.

Public Relations Wins

Secured Media Coverage

Pieces of coverage secured June 2023 - July 2024: **57** (compared to 56 pieces of coverage secured June 2022 - June 2023)

Total circulation in 2024: **195 Million**

Coverage audience:

- 36% Regional (Portland, N.W. Oregon, Oregon)
- 48% National
- 16% Local (Newberg, Yamhill County)

Coverage content mix:

- 36% Lavender Trail
- 20% Dining
- 16% Truffle Trail
- 11% Tourism (General)
- 7% Wine
- 5% Arts & Culture
- 5% Whiskey Trail



Please find the full list of coverage HERE.

Social Media Engagement

Total Reach:

316K Instagram

1.9 M Facebook







Budget Document

Budget Summary Recap

	July - June 2023 Final	July - June 2024 Final	2023 - 2024 Annual Budget	2024 - 2025 Annual Budget
Beginning Balance	$ -	$ 81,106	$ 81,106	$ 5,015
Revenues				
City of Newberg (TLT Funds)	$ 453,075	$ 458,283	$ 470,705	$ 535,815
Interest - CDs, City Interest	$ 3,860	$ 14,721	$ 240	$ 240
Other - Grants	$ 25,591	$ 9,600	$ 4,788	$ 6,400
Total Revenue	$ 482,527	$ 482,604	$ 556,839	$ 542,455
Payroll Expenses	$ 104,648	$ 118,062	$ 121,252	$ 199,757
General Operations	$ 19,824	$ 24,048	$ 14,013	$ 20,077
Marketing Expenses	$ 276,949	$ 416,584	$ 398,006	$ 322,621
Total Expenses	$ 401,421	$ 558,694	$ 556,806	$ 542,455
Net Income	$ 81,106	$ 5,015	$ -	$ 5,015

TASTE NEWBERG
OREGON

STRATEGIC PLANNING 2024

Mission

Stimulate a year-round visitor economy in Newberg.

Vision

Taste Newberg will be widely acknowledged as on of the most extraordinary and distinctive destinations in Oregon ans the best-in-class tourism resource in Yamhill County.

Guiding Principles



Destination Development

2-Year

Leverage existing assets to drive tourism in shoulder season

- ACTION: Identify which local businesses are most tourism focused
- ACTION: Survey and share info on existing assets
- ACTION: Survey and understand local business' goals and needs

5-Year

Create New OFF-Season Events/Assets

- ACTION: Develop new tourism products

Marketing & PR

2-Year

Develop & maintain "best-in-category" Marketing & PR plans

- ACTION: Create award winning website
- ACTION: Leverage PR to showcase Newberg in a positive light

5-Year

Streamline collection of marketing efforts of tourism businesses

- ACTION: Explore & evaluate the effectiveness of OTIS, and other tourism promotion programs

Improve Community & Industry relationships

- ACTION: Build cross regional destination referral program
- ACTION: Engage more tourism related industries to work together on driving tourism

Industry Relations

5-Year

Create Hospitality Training & Awards

- ACTION: Access current statewide efforts for inspiration and potential opportunities
- ACTION: Evaluate Newberg training options with support from the stable table

TASTE NEWBERG
OREGON

STRATEGIC PLANNING 2024

Destination Development

2-Year

Leverage existing assets to drive tourism in shoulder season

- ACTION: Identify which local businesses are most tourism-focused
  - Compile a comprehensive list of tourism partners in Newberg:
    - Lodging
    - Restaurants
    - Wineries
    - Other
- ACTION: Survey and share info on existing assets
- ACTION: Survey and understand local businesses' goals and needs
  - Compile Industry stories and information for PR initiatives

5-Year

Create New OFF-Season Events/Assets

- ACTION: Develop new tourism products\
  - Develop 2/3 Destination experiences/events for Newberg.

Marketing & PR

2-Year

Develop & maintain "best-in-category" Marketing & PR plans

- ACTION: Create award winning website
  - Rebranding of Website, currently under contract – Proposed launch December 2024
- ACTION: Leverage PR to showcase Newberg in a positive light
  - Contract with New PR Company – Contracted August 2024
  - Goal to expand national PR coverage

5-Year

Streamline collection of marketing efforts of tourism businesses

- ACTION: Explore & evaluate the effectiveness of OTIS, and other tourism promotion programs
  - Measure listing information for accuracy
  - Assess current marketing material
  - Research new opportunities

Improve Community & Industry Relationships

- ACTION: Build cross regional destination referral program
  - Connect with local regions for more coop opportunities
- ACTION: Engage more tourism related industries to work together on driving tourism
  - Continue to work with local community partners through stable table
  - Advocate for Newberg at regional and state levels

Industry Relations

5-Year

Create Hospitality Training & Awards

- ACTION: Access current statewide efforts for inspiration and potential opportunities
- ACTION: Evaluate Newberg training options with support from the stable table

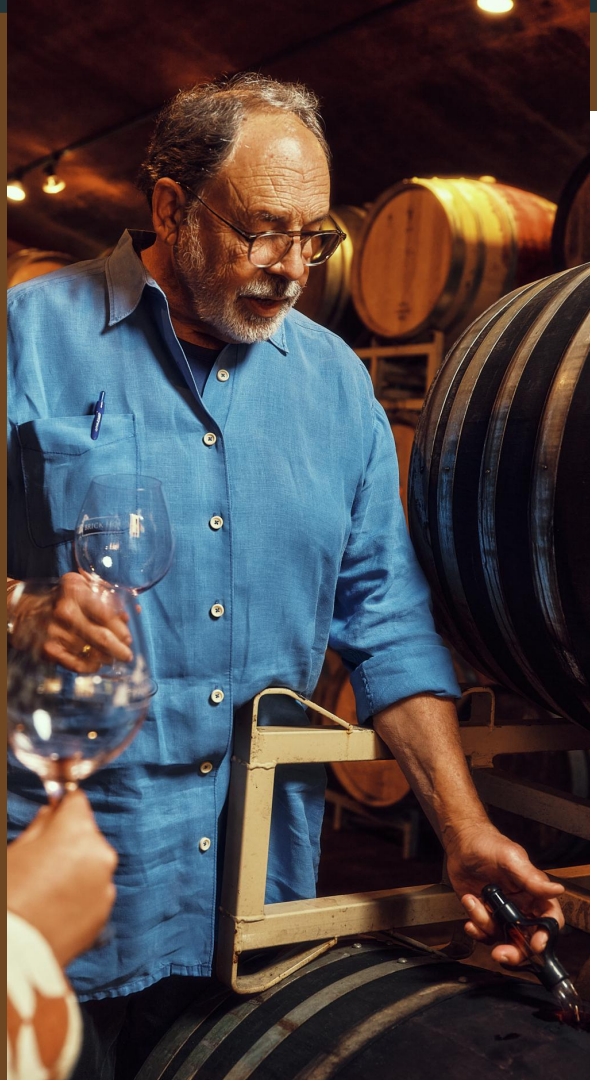




Destination Development

DARK SKY EXPERIENCE & SHOULDER SEASON

- Piloting Stargazing experience on the Willamette River
- Wheel the World
- Collaboration for Shoulder Season
- E-Sports with George Fox University
- Events



Marketing Insights

WILLAMETTE VALLEY INSIGHTS

- Goal 1: Maximize our resources to target markets outside of the State of Oregon to drive Visitation.
- Goal 2: Generate various media publications to write about Newberg and it's surrounding wine country.
- Goal 3: Produce additional photo & video assets used to market the destination to maintain fresh content.

Industry Engagement







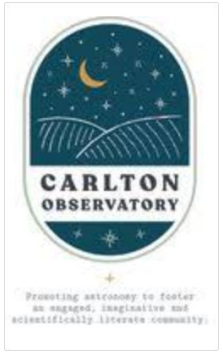














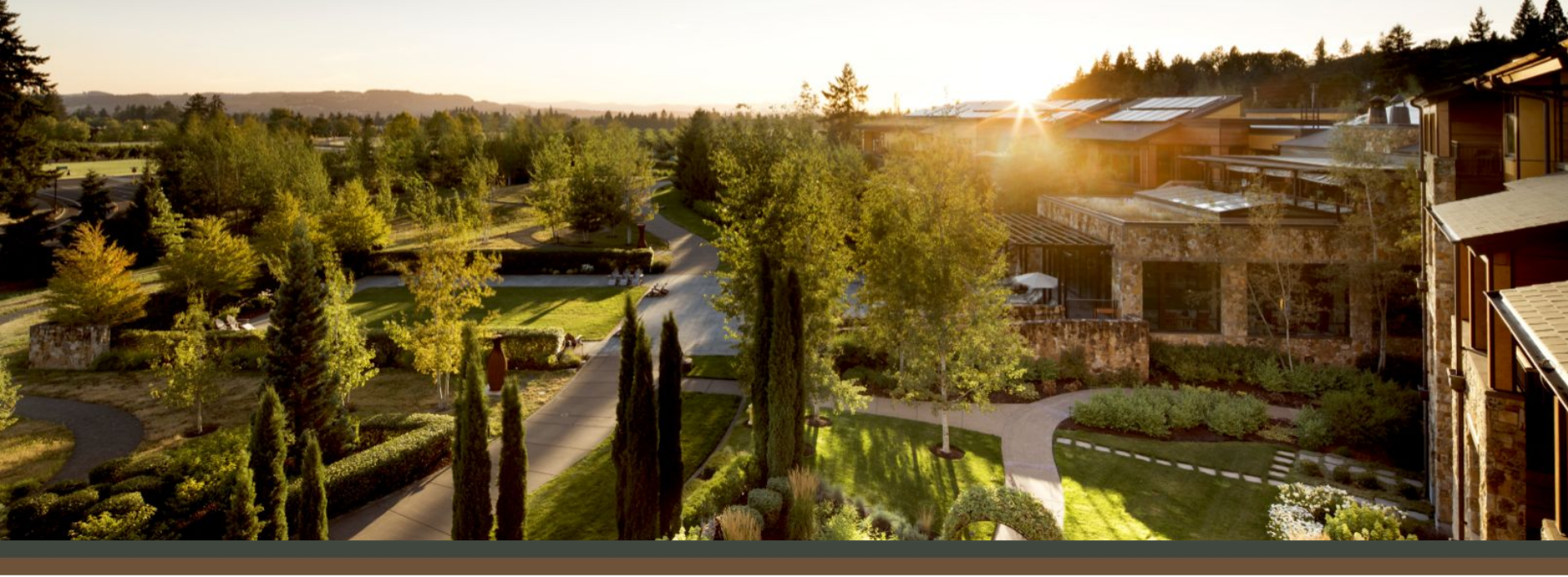












TASTE NEWBERG

OREGON

VISIT NEWBERG

FINANCIAL STATEMENT

Year Ended June 30, 2024

with

Independent Accountants' Review Report

VISIT NEWBERG

Table of Contents

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HOFFMAN, STEWART & SCHMIDT, P.C.
CERTIFIED PUBLIC ACCOUNTANTS

3 Centerpointe Drive, Suite 300 • Lake Oswego, Oregon 97035-8663
Telephone: (503) 220-5900 • Facsimile: (503) 220-8836

Independent Accountants' Review Report

The Board of Directors
Visit Newberg, dba Taste Newberg:

We have reviewed the accompanying statement of cash receipts and disbursements of Visit Newberg, dba Taste Newberg for the year ended June 30, 2024, and the related notes to the financial statement. A review includes primarily applying analytical procedures to management's financial data and making inquiries of management. A review is substantially less in scope than an audit, the objective of which is the expression of an opinion regarding the financial statements as a whole. Accordingly, we do not express such an opinion.

Management's Responsibility for the Financial Statement

Management is responsible for the preparation and fair presentation of this financial statement in accordance with the cash basis of accounting; this includes determining that the cash basis of accounting is an acceptable basis for the preparation of the financial statement in the circumstances. Management is also responsible for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of a financial statement that is free from material misstatement, whether due to fraud or error.

Accountants' Responsibility

Our responsibility is to conduct the review engagement in accordance with Statements on Standards for Accounting and Review Services promulgated by the Accounting and Review Services Committee of the American Institute of Certified Public Accountants (AICPA). Those standards require us to perform procedures to obtain limited assurance as a basis for reporting whether we are aware of any material modifications that should be made to the financial statement for it to be in accordance with the cash basis of accounting. We believe that the results of our procedures provide a reasonable basis for our conclusion.

We are required to be independent of Visit Newberg and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements related to our review.

Accountants' Conclusion

Based on our review, we are not aware of any material modifications that should be made to the accompanying financial statement in order for it to be in accordance with the cash basis of accounting.

Basis of Accounting

We draw attention to *Note 1* of the financial statement, which describes the basis of accounting. The financial statement is prepared on the cash basis of accounting, which is a basis of accounting other than accounting principles generally accepted in the United States of America. Our conclusion is not modified with respect to this matter.

Hamman, Stewart & Schmidt, P.C.

Lake Oswego, Oregon
September 10, 2024

VISIT NEWBERG

Statement of Cash Receipts and Disbursements

(See Independent Accountants' Review Report)

Year Ended June 30, 2024	
Cash receipts:	
Transient lodging tax	$ 457,408
Interest income	14,721
Other income	10,475
Total cash receipts	**482,604**
Cash disbursements *(Note 2)* :	
Salaries, payroll taxes, and benefits	118,062
Website development	21,194
Advertising and marketing	295,015
Photography and video	11,142
Social media	7,700
Media relations	66,412
Professional services	15,238
Information technology	701
Conferences and meetings	4,912
Memberships and dues	2,016
Office expense	2,876
Travel	7,501
Insurance	2,026
Total cash disbursements	**554,795**
Cash disbursements in excess of receipts	**(72,191)**
Cash and certificates of deposit:	
Beginning of year	453,418
End of year	**$ 381,227**

The accompanying notes are an integral part of the financial statement.

1. Organization and Summary of Significant Accounting Policies

Organization - Visit Newberg, dba Taste Newberg (the Organization) was formed as a mutual benefit nonprofit corporation in the State of Oregon in 2019 as a destination marketing organization dedicated to enhancing Newberg, Oregon's economy by attracting tourists to the region and ensuring they support local businesses during their visit. The Organization receives a substantial amount of its funding under an agreement with the City of Newberg (the City) under which a percentage of Transient Lodging Tax (TLT) revenues collected by the City are remitted to the Organization on a quarterly basis in exchange for various tourism promotion activities and administrative and management functions outlined in the agreement. Substantially all of the Organization's cash and certificates of deposit are restricted for use under the terms of the agreement with the City.

The significant accounting policies followed by the Organization are described below to enhance the usefulness of the financial statement to the reader:

Basis of Accounting - The accompanying financial statement has been prepared on the cash basis of accounting, which is a basis of accounting other than accounting principles generally accepted in the United States of America (GAAP). Under this basis, the only asset recognized is cash and certificates of deposit, and no liabilities are recognized. All transactions are recognized as either cash receipts or disbursements, and noncash transactions, if any, are not recorded. The cash basis of accounting differs from GAAP primarily because accounts receivable from the City of Newberg and accounts payable to vendors are not included in the financial statement, and long-lived assets, such as the Organization's website, are not capitalized and depreciated over an estimated useful life.

Cash - The Organization maintains a checking account with one financial institution. The balance in the checking account at June 30, 2024 was $39,653.

Certificates of Deposit - At June 30, 2024 the Organization held five certificates of deposit with interest rates ranging from 4.5 percent to 4.8 percent. The certificates either mature within 90 days of year-end or contain liquidity provisions that allow the Organization to draw upon the certificate for operational needs without penalty. As such, the Organization considers all certificates of deposit to represent cash equivalents at June 30, 2024. The certificates of deposit are carried at cost plus accumulated interest and their values totaled $341,574 at June 30, 2024.

Concentration of Credit Risk - The Organization maintains four of its five certificates of deposit with one financial institution. The combined value of certificates of deposit at June 30, 2024 did not exceed the Federal Deposit Insurance Corporation limit of $250,000.

Income Tax Status - The organization is exempt from income tax under Section 501(c)(6) of the Internal Revenue Code and applicable state law.

Management does not believe the Organization has any uncertain tax positions. Any assessed interest or penalties associated with the Organization's tax positions would be included with operating disbursements. There are currently no tax examinations for any period in process.

2. Functional Allocation of Disbursements

The costs of providing various program services and general operations activities are summarized on a functional basis below. Accordingly, certain costs have been allocated among the program and supporting services benefited. Salaries and related costs are allocated based on estimates of time and effort. Other costs are specifically allocated based on the nature and purpose of the disbursement.

	Program Services	Management and General	Total
Salaries, payroll taxes, and benefits	$ 59,031	$ 59,031	$ 118,062
Website development	21,194	-	21,194
Advertising and marketing	295,015	-	295,015
Photography and video	11,142	-	11,142
Social media	7,700	-	7,700
Media relations	66,412	-	66,412
Professional services	-	15,238	15,238
Information technology	-	701	701
Conferences and meetings	4,620	292	4,912
Memberships and dues	500	1,516	2,016
Office expense	-	2,876	2,876
Travel	7,501	-	7,501
Insurance	-	2,026	2,026
Total	**$ 473,115**	**$ 81,680**	**$ 554,795**

3. Retirement Plan

The Organization makes matching contributions to a SIMPLE IRA Plan on behalf of employees who participate in the Plan. Matching contributions are limited to 3 percent of the employee's compensation. The total contributed to the Plan by the Organization for the year ended June 30, 2024 was $2,935.

4. Subsequent Events

Management has evaluated subsequent events through September 10, 2024, the date the financial statement was available for issue.

REQUEST FOR COUNCIL ACTION

Date Action Requested: November 4, 2024

Order ☐ Ordinance ☒ Resolution ☐ Motion ☐ Information ☐ Proclamation ☐ No. 2024-2931	
Subject: An Ordinance annexing property into the City of Newberg, amending the Comprehensive Plan Map, and amending the Zoning Map for a property located at 3809 NE Springbrook Road (File No. ANX24-0001/CPMA24-0001/ZMA24-0001)	Staff: James Dingwall Department: Community Development
Business Session	Order On Agenda: Quasi-judicial Hearings
Hearing Type: Legislative ☐ Quasi-Judicial ☒ Administrative ☐ Not Applicable ☐	

Is this item state mandated? Yes ☐ No ☒

If yes, please cite the state house bill or order that necessitated this action: N/A

Recommendation: Adopt Ordinance No. 2024-2931.

Executive Summary: Ichijo USA Co. LTD c/o Masaki Narita (Applicant), on behalf of Ross D Kerr and Rolland G Kerr Jr. (Owners) requested annexation of 19.16 acres comprising one tax lot (Tax Map and Parcel number R3209 02300) as described in Exhibit "A-1" into Newberg's city limits and a concurrent comprehensive plan map and zoning map amendment. Exhibit "B" includes an aerial map depicting the annexation area. As discussed in Exhibit "A-2", the proposed project will meet the criteria for a Type III quasi-judicial annexation, comprehensive plan map amendment, and zoning map amendment upon adherence to provided conditions of approval in Exhibit "A-3".

On October 10, 2024, the Planning Commission approved Planning Commission Resolution No. 2024-396 (Exhibit "H) which recommends that the Newberg City Council annex 3809 NE Springbrook Road and approve a comprehensive plan map and zoning map amendment as shown in Exhibit "A-1", based on Findings in Exhibit "A-2", and subject to conditions of approval in Exhibit "A-3".

The subject property is located within the City of Newberg's Urban Growth Boundary and is adjacent to the existing City of Newberg's city limits. The subject property has a Comprehensive Plan Designation of Low Density Residential (LDR) which is depicted in Exhibit "C". If approved for annexation, the area annexed would be automatically zoned to the corresponding land use zoning classification which implements the Newberg Comprehensive Plan, which would be the City zoning district designation of Low Density Residential (R-1) according to NMC 15.250.080(B). Per NMC 15.250.030, where large (greater than 15 net acres, after

subtracting for land in stream corridor overlays) LDR-designated parcels are to be annexed, the applicant shall concurrently apply for a comprehensive plan map amendment to include some HDR-designated/R-3 zoned lands (10 percent of the net size of the application), consistent with the Newberg Comprehensive Plan policy of distributing R-3 multifamily housing throughout the community. The applicant has proposed approximately 16 percent of the net size of the site as HDR-designated/R-3 zoned land and submitted concurrent Comprehensive Plan Map Amendment and Zoning Map Amendment applications. Exhibit "D" depicts the proposed City zoning designation.

The request for annexation was coordinated with affected public and private agencies. Agency comments received are provided in Exhibit "F".

Site Map:

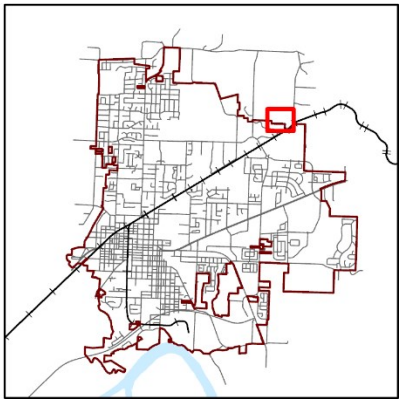


3809 NE Springbrook Road

- Subject Property
- Taxlots
- City Limits
- Urban Growth Boundary
- Urban Reserve Area

N
W E
S

0 200 400 Feet



City of Newberg

IMPORTANT NOTICE TO ALL USERS:

DISCLAIMER AND LIMITATION OF LIABILITY
This information is not guaranteed to be accurate and may contain errors and omissions. The City of Newberg provides NO WARRANTY AS TO THE MERCHANTABILITY OR FITNESS FOR THE ARTICULARY PURPOSE FOR ANY INFORMATION HEREIN.

The map is created from various data sources and is subject to change without notice.
This map is intended for general planning purposes only.
Map updated: 11/13/2023

SITE INFORMATION:

1. Location: 3809 NE Springbrook Road (R3209 02300)
2. Size: ±19.16 acres (±830,311 square feet)
3. Current Land Uses: Residential (Single-family dwelling), Agricultural
4. Natural Features: Agricultural landscaping, wooded areas
5. Adjacent Land Uses:
    a. North: Agricultural
    b. South: Commercial, Agricultural
    c. East: Residential, Commercial
    d. West: Commercial, Agricultural
6. Zoning: The following zoning districts abut the subject property.
    a. North: Unincorporated
    b. East: Unincorporated, Springbrook District/Low Density Residential (SD/LDR)
    c. South: Springbrook District/Hospitality (SD/H), Springbrook District/Low Density Residential (SD/LDR)
    d. West: Unincorporated, Springbrook District/Hospitality (SD/H)
7. Comprehensive Plan Designations: The following Comprehensive Plan districts abut the subject property.
    a. North: Outside the Urban Growth Boundary
    b. East: Outside the Urban Growth Boundary, Springbrook District/Low Density Residential (SD/LDR)
    c. South: Specific District/Hospitality (SD/H), Springbrook District/Low Density Residential (SD/LDR)
    d. West: Low Density Residential (LDR), Springbrook District/Hospitality (SD/H)
8. Access and Transportation: The property's boundaries have frontage on the public right-of-way on N Springbrook Road to the south. Vehicular access is available from this frontage.
9. Utilities:

a. Water, Wastewater, and Stormwater: There are existing public water, sanitary sewer, and stormwater services available that terminate at N Springbrook Road that can be extended to serve the proposed annexation site. See the finding for NMC 15.250.030(B) for the provision of adequate urban services to the site.

b. Overhead Lines: The subject property is served by overhead utility lines. Existing utilities relocated and new utility lines shall be placed underground per NMC 15.430.010.

PROCESS:

This Annexation request is initiated by the owners of the subject property and filed pursuant to ORS 222.120 - 222.125. All owners of the subject property and all electors residing on the property have consented to this annexation. Therefore, as provided by ORS 222.120 - ORS 222.125, "Upon receiving written consent to annexation by owners and electors under this section, the legislative body of the city, by resolution or ordinance, may set the final boundaries of the area to be annexed by a legal description and proclaim the annexation."

Under Newberg Municipal Code 15.250 and 15.302.030, annexation, comprehensive plan map amendment, and zoning map amendment applications are subject to the Type III procedures in Newberg Municipal Code (NMC) Chapter 15.100. The Planning Commission held a quasi-judicial public hearing on the application and adopted Resolution 2024-396 (Exhibit "H") recommending City Council approval on October 11, 2024. The Planning Commission recommendation to City Council is based on the criteria listed in the attached findings. The City Council must conduct a quasi-judicial public hearing and render a final decision on the application.

Notwithstanding the procedures in NMC 15.250 for referral of City Council approved annexations to Newberg's electorate, the City is not permitted to refer annexation requests to the voters. State law changed with the passage and adoption of Oregon Senate Bill 1573 (2016), which added language to ORS 222.111 preempting Newberg's requirement that annexations go to a public vote when properties meet certain requirements.

Important dates related to this application are as follows:

8/28/2024:	The Community Development Director deemed the application complete. Application materials are provided in Exhibit "E".
9/5/2024:	A Post-Acknowledgement Plan Amendment notice was submitted to the Department of Land Conservation and Development.
9/17/2024:	The Applicant mailed public notice pursuant to NMC 15.100.200.
9/18/2024:	The Applicant posted public notice pursuant to NMC 15.100.200.

9/19/2024: Application was routed for a 15-day referral review.

9/26/2024: The *Newberg Graphic* published notice of the Planning Commission hearing and City published notice in four public places.

10/10/2024: The Planning Commission held a quasi-judicial hearing and approved Planning Commission Resolution No. 2024-396

10/17/2024: The *Newberg Graphic* published notice of the City Council hearing and City published notice in four public places per NMC 15.100.240 and NMC 15.100.270.

10/23/2024: The Applicant mailed public notice of the City Council hearing pursuant to NMC 15.100.200.

10/24/2024: The *Newberg Graphic* published notice of the City Council hearing and City published notice in four public places per NMC 15.100.240.

11/4/2024: The City Council may conduct a public hearing before adopting an ordinance approving the annexation and application of City zoning, comprehensive plan amendment, and zoning map amendment.

Agency Comments:

The application was routed to several public agencies for review and comment which are provided in Exhibit "F". Comments and recommendations from city departments have been incorporated into the findings and conditions.

As of the writing of this report, the city received the following agency comments:

1. City Manager – Reviewed, no conflict.
2. Community Development Director: Reviewed, no conflict.
3. Finance – Reviewed, no conflict.
4. Police – Reviewed, no conflict.
5. Portland General Electric – Reviewed, no conflict.
6. Public Works Engineering – Comments were provided and are incorporated into the Findings for NMC 15.250.030 and conditions of approval.
7. Public Works Maintenance – The following comment was received:

Annotations on Application Sheet C200/TVF&R Service Provider Permit: Crosswalk striping must be warranted otherwise no striping will be installed as it creates excessive work loads for maintenance. Maintenance of stormwater management features by HOA required. Tract B must have an approved water quality manhole installed prior to stormwater entering the pond. Annotations and additional comments are provided in Exhibit "F".

[Maintenance is] also concerned about wastewater flows for this trunk line. Make sure any pump station doesn't enter the trunk line at a 90 degree angle to flow.

8. Public Works Wastewater – Reviewed, no conflict.
9. Public Works Water Operations – Reviewed, no conflict.
10. Ziply Fiber – Reviewed, no conflict, and the following comment was received:

    Ziply Fiber has a vault, underground path, and an aerial lead cross the frontage of this new subdivision. Will need more info for the frontage improvements to ensure no conflict.

Analysis

This is an annexation, comprehensive plan map amendment, and zoning map amendment request for approximately 19.16 acres located within the City's Urban Growth Boundary and adjacent to city limits, which are located to the south and west of the subject property. The site is developed with an existing single-family dwelling and agricultural uses, and adequate urban services can be available to serve the site. The subject property has frontage onto NE Springbrook Road.

As discussed elsewhere in this staff report, the subject property is within the Urban Growth Boundary, contiguous to City limits, and meets the city's adopted criteria for annexation subject to conditions of approval noted elsewhere including Exhibits "A-2" and "A-3". As shown on Exhibit "C", the proposed annexation and application of R-1 zoning is subject to the Comprehensive Plan of the City. As a large parcel (greater than 15 net acres), the Applicant is required to also designated some (10 percent of the net size of the application) of the site High Density Residential (HDR). The Applicant has submitted concurrent comprehensive plan map amendment and zoning map amendment applications to designate approximately 16 percent of the site as HDR designated/R-3 zoned land. Pursuant to the procedures in NMC Chapter 15.100, the Planning Commission has recommended the City Council approve the application.

Fiscal Impact: Annexation will add land to the city limits which is estimated to generate approximately $1,541.61 in city property taxes based on existing development. New

development would increase the city's tax base. Community Development has received an application for residential development that has not yet been deemed complete.

Council Goals:

G7: Increase land availability for housing.

3. Look at annexation opportunities.

Exhibits:

Exhibit "A": City Council Ordinance No. 2024-2931

Exhibit "A-1": Legal Description and Map
Exhibit "A-2": Findings
Exhibit "A-3": Conditions of Approval

Exhibit "B": Aerial Photo
Exhibit "C": Comprehensive Plan Map
Exhibit "D": Proposed Zoning Map
Exhibit "E": Application and Supplemental Materials
Exhibit "F": Agency Comments
Exhibit "G": Public Comments
Exhibit "H": Planning Commission Resolution No. 2024-396

ORDINANCE NO. 2024-2931

AN ORDINANCE ANNEXING 19.16 ACRES (YAMHILL COUNTY TAX LOT R3209 02300) INTO THE CITY OF NEWBERG AND CHANGE THE ZONING FROM YAMHILL COUNTY ZONING TO CITY OF NEWBERG LOW DENSITY RESIDENTIAL (R-1) ZONING AND APPROVE A COMPREHENSIVE PLAN MAP AND ZONING MAP AMENDMENT TO CHANGE 3.02 ACRES OF CITY OF NEWBERG LOW DENSITY RESIDENTIAL (R-1) ZONING TO CITY OF NEWBERG HIGH DENSITY RESIDENTIAL (R-3) ZONING.

Recitals:

1. Ichijo USA Co. LTD c/o Masaki Narita submitted an application to annex 19.16 acres of property into the City of Newberg pursuant to ORS 222.125 and apply City zoning, amending the zoning from the Yamhill County AF-10 zone to City of Newberg R-1 and R-3 zones.

2. The property has a City of Newberg Comprehensive Plan designation of LDR which corresponds to the R-1 zoning district. Pursuant to NMC 15.250.030, the application proposes redesignating a portion of site from LDR to High Density Residential (HDR), which corresponds to the R-3 zoning district.

3. As a large parcel to be annexed, 10 percent of the net size of the application must be zoned Residential High Density (R-3). The application provides 16 percent of the site be zoned R-3.

4. The Newberg Planning Commission held a properly noticed hearing on October 10, 2024, to consider the application. The Commission considered testimony, closed public testimony, and deliberated. The Planning Commission voted to adopt Resolution No. 2024-396 recommending that the City Council approve the annexation, comprehensive plan map amendment and zoning map amendment request.

5. State law changed with the passage and adoption of Oregon Senate Bill 1573, which added language to ORS 222.111 that preempts Newberg's requirement that annexations go to a public vote, and instead directs the legislative body of the city to annex property without a public vote when the property meets certain requirements, including: being within the Urban Growth Boundary (UGB); subject to the Comprehensive Plan of the City; contiguous to city limits; and meeting the City's adopted Development Code criteria for annexation. This property meets those criteria.

6. After proper notice, including posting in the Newberg Graphic on October 17 and October 24, 2024, the Newberg City Council held a public hearing on November 4, 2024, to consider the proposed annexation, comprehensive plan map amendment, and zoning map amendment. After staff report and public testimony, the City Council finds the proposal has met the required criteria for annexation, comprehensive plan map amendment, and zoning map amendment.

The City of Newberg Ordains as Follows:

1. The property shown and described in Exhibit "A-1" is hereby annexed into the Newberg City limits.

2. The Comprehensive Plan Map is amended to redesignate 3.02 acres from LDR to HDR as depicted in Exhibit "D".

3. Zoning of the property is changed from Yamhill County AF-10 to City of Newberg R-1 and R-3 zoning. Exhibit "A-1" is hereby adopted and by this reference incorporated.

2. This decision is based on the findings shown in Exhibit "A-2" and the conditions of approval shown in Exhibit "A-3". Exhibits "A-2" and "A-3" are hereby adopted and by this reference incorporated.

Effective Date of this ordinance is 30 days after the adoption date, which is: December 4, 2024. **Adopted** by the City Council of Newberg, Oregon, this 4th day of November, 2024, by the following votes: **AYE:** **NAY:** **ABSTAIN:**

_____
Rachel Thomas, City Recorder

Attest by the Mayor this _____ day of _____, 2024.

_____
Bill Rosacker, Mayor

EXHIBIT "A-1" TO CITY COUNCIL ORDINANCE NO. 2024-2931
LEGAL DESCRIPTION AND MAP – CITY OF NEWBERG
Annexation, Comprehensive Plan Map Amendment, Zoning Map Amendment
3809 NE Springbrook Road (File No. ANX24-0001/CPMA24-0001/ZMA124-0001)

EXHIBIT “A”
LEGAL DESCRIPTION

A TRACT OF LAND, LOCATED IN THE SOUTHWEST ONE-QUARTER OF SECTION 9, TOWNSHIP 3 SOUTH, RANGE 2 WEST, WILLAMETTE MERIDIAN, YAMHILL COUNTY, OREGON, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT A 5/8 INCH DIAMETER IRON ROD WITH A YELLOW PLASTIC CAP STAMPED “SUMMERS LS 1042” AT THE SOUTHWEST CORNER OF PARCEL 2, PARTITION PLAT NO. 1996-14, YAMHILL COUNTY SURVEY RECORDS; THENCE ALONG THE SOUTH LINE THEREOF AND IT’S EASTERLY EXTENSION, S.87°35’42”E., 1012.14 FEET TO A 5/8 INCH DIAMETER IRON ROD WITH A YELLOW PLASTIC CAP STAMPED “SUMMERS LS 1042” AT THE WEST REENRANT CORNER OF PARCEL 1 OF SAID PARTITION PLAT NO. 1996-14, THENCE ALONG THE SOUTHERLY WEST LINE OF SAID PARCEL 1, S.01°48’53”W., 435.67 FEET TO A 5/8 INCH DIAMETER IRON ROD WITH A YELLOW PLASTIC CAP STAMPED “SUMMERS LS 1042” AT THE SOUTHWEST CORNER THEREOF; THENCE ALONG THE WESTERLY PORTION OF THE SOUTH LINE OF SAID PARCEL 1, S.88°09’28”E., 129.87 FEET TO A 5/8 INCH DIAMETER IRON ROD WITH A YELLOW PLASTIC CAP STAMPED “D. COOLEY PLS 1806” AT THE MOST WESTERLY NORTHWEST CORNER OF THAT TRACT OF LAND DESCRIBED IN INSTRUMENT NO. 2012-05337, YAMHILL COUNTY DEED RECORDS; THENCE ALONG THE WEST LINE OF SAID TRACT, S.01°46’28”W., 240.12 FEET TO A 5/8 INCH DIAMETER IRON ROD AT THE MOST WESTERLY SOUTHWEST CORNER OF SAID TRACT; THENCE S.87°55”36”E., 13.96 FEET TO A 5/8 INCH DIAMETER IRON ROD WITH A YELLOW PLASTIC CAP STAMPED “D. COOLEY PLS 1806” AT THE WEST REENTRANT CORNER OF SAID TRACT; THENCE ALONG THE MOST SOUTHERLY WEST LINE OF SAID TRACT, S.01°46’28”W., 54.05 FEET TO THE SOUTHWEST CORNER OF SAID TRACT; THENCE ALONG THE SOUTH LINE THEREOF, S.88°20’05”E., 156.81 FEET TO A 5/8 INCH DIAMETER IRON ROD WITH A YELLOW PLASTIC CAP STAMPED “COMPASS LAND SURVEYORS” ON THE NORTHWESTERLY RIGHT OF WAY LINE OF SPRINGBROOK ROAD (C.R NO. 55, 20.00 FEET FROM CENTERLINE); THENCE ALONG SAID NORTHWESTERLY RIGHT OF WAY LINE, S.44°03’45”W., 134.63 FEET TO A 5/8 INCH DIAMETER IRON ROD WITH A YELLOW PLASTIC CAP STAMPED “COMPASS LAND SURVEYORS” AT A POINT OF CURVATURE; THENCE CONTINUING ALONG SAID RIGHT OF WAY LINE, 214.36 FEET ALONG THE ARC OF A 820.00 FOOT RADIUS CURVE TO THE RIGHT, THROUGH A CENTRAL ANGLE OF 14°58’40”, THE CHORD OF WHICH BEARS, S.51°33’05”W., 213.75 FEET TO A 5/8 INCH DIAMETER IRON ROD WITH A YELLOW PLASTIC CAP STAMPED “COMPASS LAND SURVEYORS” AT A POINT OF TANGENCY; THENCE CONTINUING ALONG SAID RIGHT OF WAY LINE, S.59°02’25”W., 173.36 FEET TO A 1-5/32 INCH DIAMETER BRASS PLUG STAMPED “CARDNO WRG INC”; THENCE NORTHERLY, ALONG THE SOUTHERLY EXTENSION OF AND EAST LINE OF LOT 10, “SPRINGBROOK DISTRICT”, VOLUME 15, PAGE 2, YAMHILL COUNTY PLAT RECORDS, N.02°14’51”E., 330.63 FEET TO A 5/8 INCH DIAMETER IRON ROD WITH A YELLOW PLASTIC CAP STAMPED “COMPASS LAND SURVEYORS” AT THE NORTHEAST CORNER OF SAID LOT 10; THENCE WESTERLY ALONG THE NORTH LINE OF SAID LOT 10 AND THE MOST EASTERLY NORTH LINE OF LOT 7 OF SAID PLAT, N.88°20’05”W., 763.30 FEET TO A 5/8 INCH DIAMETER IRON ROD WITH A YELLOW PLASTIC CAP (ILLEGIBLE STAMP) AT THE MOST EASTERLY NORTH REENTRANT CORNER OF SAID LOT 7; THENCE ALONG THE NORTHERLY EAST LINE OF SAID LOT 7, N.01°42’26”E., 148.03 FEET TO A 5/8 INCH DIAMETER IRON ROD WITH A YELLOW PLASTIC CAP STAMPED “CARDNO WRG INC” AT THE NORTHERLY EAST CORNER OF SAID LOT 7; THENCE ALONG THE NORTH LINE OF SAID LOT 7, N.88°16’58”W., 148.05 FEET TO A 5/8 INCH DIAMETER IRON ROD WITH A YELLOW PLASTIC CAP STAMPED “CARDNO WRG INC” AT THE NORTHERLY REENTRANT CORNER OF SAID LOT 7; THENCE NORTHERLY AND ALONG THE EAST LINE OF THAT TRACT OF LAND DESCRIBED IN INSTRUMENT NO. 2022-04258, YAMHILL COUNTY DEED RECORDS, N.01°23’23”E., 595.25 FEET TO THE POINT OF BEGINNING, CONTAINING 834,806 SQUARE FEET (19.16 ACRES), MORE OR LESS.

THE BASIS OF BEARING FOR THIS DESCRIPTION BASED YAMHILL COUNTY SURVEY CS-13948.

CS-13948 Received 6/4/2024 County Surveyor

RECORD OF SURVEY

LOCATED IN THE SW 1/4 SECTION 9, T.3S, R.2W., W.M.

YAMHILL COUNTY, OREGON

MAY 29, 2024 SCALE: 1" = 100'

PREPARED FOR 3J CONSULTING

Survey prepared by:

Compass Land Surveyors
4107 International Way, Suite 705
Milwaukie, Oregon 97222
Phone: 503-653-9093
8776 Bnd.dwg

N

W E

S

100' 0' 100'

SCALE: 1" = 100'

FOUND 5/8" IR/YPC STAMPED "W.L. JONES" (CSP 9693)

FOUND 3/4" IP S22°02'54"W 1.69' (U.O.)

Point of Beginning

FOUND 5/8" IR/YPC STAMPED "SUMMERS LS 1042" (P1) HELD

N01°23'23"E 113.74' (113.77' P1)

PARCEL 2
PARTITION PLAT 1996-14

BASIS OF BEARINGS:
S87°35'42"E 1012.14' (1012.24' P1)

FOUND 5/8" IR/YPC STAMPED "SUMMERS PLS 1042" (P1) ON LINE

FOUND 5/8" IR/YPC STAMPED "SUMMERS PLS 1042" (P1) HELD

53.90' M (54.00' P1)

INSTR. NO. 2022-04258

N01°23'23"E 595.25'

S01°48'53"W 435.67' (435.75' P1)

PARCEL 1
PARTITION PLAT 1996-14

FOUND 5/8" IR/YPC ILLEGIBLE (P1)

30' 30'

SPRINGBROOK ROAD (CR NO. 55)

N01°47'53"E 794.78' (794.95' P1)

FOUND 5/8" IR/YPC STAMPED "LING PLS 1433" (P3)

258.75' (258.76' P3)

LOT 5

FOUND 5/8" IR, NO CAP, (P3)

213.73' (213.76' P3)

LOT 6

"COUNTRY ESTATES"

FOUND 5/8" IR/YPC STAMPED "LING PLS 1433" (P3)

N01°47'53"E 1038.16' (1038.33' P3)

LOT 7

565.67' (565.81' P3)

LOT 8

DETAIL
SCALE: 1" = 50'

S88°12'07"E 30.00'

FOUND 5/8" IR/YPC STAMPED "LING PLS 1433" (P3)

30'

MONUMENT FALLS IN A TREE. SET N01°46'28"E 2.00' FROM TRUE CORNER.

MONUMENT FALLS IN A TREE. SET S88°20'05"E 2.00' FROM TRUE CORNER.

S01°46'28"W

S88°20'05"E 156.81'

S44°03'45"W

FOUND 5/8" IR N88°20'05"W 0.33'

N01°47'53"E 89.69'

SOUTHERN PACIFIC RAILROAD

30'

NE BENJAMIN RD

N88°20'05"W 258.96' (259.00' R1, 258.62' R3)

S88°20'05"E 659.06' M/M (659.39', 659.41' P1 & P2)

20'

FOUND 5/8" IR, NO CAP, (CSP 4474)

FOUND 3/4" IP S85°31'43"W 1.65' (1.72' P2)

S88°20'05"E 631.00' (630.91' P2)

30'

S21°23'23"E 21.74'

N44°11'52"E 13.57' M&P2

FOUND 5/8" IR/YPC STAMPED "CARDNO WRG INC"

FOUND 5/8" IR, NO CAP, (U.O.) N01°39'55"E 0.27'

S46°51'57"W 28.00' M/M

FOUND 3/4" IP (CS 2805) ON LINE

FOUND 5/8" IR/YPC STAMPED "SUMMERS PLS 1042" (P1) HELD

S88°09'28"E 129.87'

FOUND 5/8" IR, BENT, (P1)

N89°24'52"E 10.00'

FOUND 5/8" IR/YPC STAMPED "D. COOLEY PLS 1806" (R1) HELD

INSTR. NO. 2012-05337

N01°47'53"E 146.65'

FOUND 1" IP (CSP 2206) ON LINE

FOUND 1-1/2" IP N89°54'54"W 0.10' (U.O.)

N88°16'58"W HELD

HELD

148.05' (148.00' P2)

N01°42'26"E 148.03' M & P2

FOUND 3/4" IP N01°39'55"E 3.60' (CSP 5753)

191.32' (191.47' R3)

529.30' (529.24' P2)

FOUND 5/8" IR/YPC ILLEGIBLE (P2) HELD

N88°20'05"W 763.30' (763.21' P2)

ON LINE

234.00' (233.97' P2)

FOUND 3/4" IP N02°14'51"E 1.57' (1.67' P2) HELD FOR EAST-WEST LINE

S88°20'05"E 1921.40' M (1921.28' R2)

LOT 7
"SPRINGBROOK DISTRICT"

LOT 10
"SPRINGBROOK DISTRICT"

N02°14'51"E 330.63' (330.55' P2)

CENTERLINE TRAVELED ROADWAY

S01°46'28"W 240.12' (240.00' R1)

S87°55'36"E 13.96' (14.00' R1)

L=184.41'
R=250.00'
D=42°15'52"
CH=N22°55'49"E
180.26'

FOUND 5/8" IR/YPC STAMPED "LING PLS 1433" (P3)

FOUND 5/8" IR, NO CAP, (R1) HELD

FOUND 5/8" IR/YPC STAMPED "D. COOLEY PLS 1806" (R1) HELD

N44°03'45"E 25.52'

S01°46'26"W 54.05' (54.00' R1)

S88°20'05"E 156.81'

240.09' (240.00' R3)

FOUND 5/8" IR, NO CAP, DOWN 0.3', N88°20'05"W 0.33'

NE BENJAMIN RD (CR NO. 54)

S88°20'05"E 659.06' M/M (659.39')

(659.41' P1 & P2)

30' 20'

S44°03'45"W 134.63'

L=214.36'
R=820.00'
D=14°58'40"
CH=S51°33'05"W
213.75'

S41°11'32"W 157.65' (157.66' P2)

FOUND 5/8" IR, NO CAP, (U.O.) N01°39'55"E 0.27'

LOT 9
"SPRINGBROOK DISTRICT"

SOUTHERN PACIFIC RAILROAD

FOUND 5/8" IR/YPC STAMPED "WRG DESIGN INC" (R2)

SPIRAL CHORD S43°53'46"W 122.32'

FOUND 3/4" IP N45°16'02"E 6.71' FROM P.C. (U.O.)

L=81.28' (81.27' P2)
R=793.94'
D=05°51'55"
CH=S51°37'49"W 81.24'

56.02' (56.00'P2)

66.30' (66.32'P2)

SPIRAL CHORD S57°21'53"W

S36°57'35"E 20.00'

FOUND 5/8" IR/YPC STAMPED "WRG DESIGN INC" (R2)

17.92' (17.93' P2)

S59°02'25"W 173.36'

59.71' (59.75' P2)

ON LINE

S59°02'25"W 823.90' (823.95' P2)

FOUND 1-5/32" BRASS PLUG STAMPED "CARDNO WRG INC" (R2) HELD

LEGEND:

○	DENOTES 5/8" DIAMETER BY 30 INCH LONG IRON ROD WITH A YELLOW PLASTIC CAP STAMPED "COMPASS LAND SURVEYORS", UNLESS NOTED OTHERWISE, SET ON MAY 29, 2024
⊗	DENOTES 5/8" DIAMETER IRON ROD WITH A YELLOW PLASTIC CAP STAMPED "CARDNO WRG INC" (P2)
●	DENOTES MONUMENT FOUND AS NOTED
IR	IRON ROD
IP	IRON PIPE
P	PLAT DIMENSION, SEE REFERENCE SURVEYS
R	RECORD DIMENSION, SEE REFERENCE SURVEYS
YPC	YELLOW PLASTIC CAP
(O.U.)	ORIGIN UNKNOWN
M/M	MONUMENT TO MONUMENT
INSTR.	INSTRUMENT (YAMHILL COUNTY DEED RECORDS)

REFERENCE SURVEYS

R1	CSP 8558
R2	CS 12375
R3	CSP 9350
	CS 2805
	CS 5753
	CS 12764
	CRS 393
	CSP 8401
	CSP 5760
	CSP 7568
	CSP 8103
	CSP 9693
P1	PARTITION PLAT NO. 1996-14
P2	"SPRINGBROOK DISTRICT", VOL 15, PAGE 2
P3	"COUNTRY ESTATES", VOL 10, PAGE 27
	"SANDBAK ACRES", VOL 8, PAGE 28
	PARTITION PLAT NO. 2017-16

NARRATIVE:

1. PURPOSE: THE PURPOSE OF THIS SURVEY WAS TO LOCATE PARCELS 1 AND 2 AS DESCRIBED IN INSTRUMENT NO. 2002-06401, YAMHILL COUNTY DEED RECORDS, FOR THE OUTBOUNDS OF A PROPOSED SUBDIVISION.

2. BASIS OF BEARINGS: THE NORTH LINE OF THE SUBJECT PROPERTY, BEING THE SOUTH LINE OF OF PARCEL 2 AND THE WESTERLY REENTRANT LINE OF PARCEL 1, PARTITION PLAT 1996-14, YAMHILL COUNTY PLAT RECORDS, BETWEEN THE 5/8 INCH DIAMETER IRON ROD WITH A YELLOW PLASTIC CAP STAMPED "SUMMERS LS 1042" FOUND AT THE SOUTHWEST CORNER OF SAID PARCEL 2 AND THE 5/8 INCH DIAMETER IRON ROD WITH A YELLOW PLASTIC CAP STAMPED "SUMMERS LS 1042", FOUND AT THE WESTERLY REENTRANT CORNER OF SAID PARCEL 1, WAS HELD TO BE S.87°35'42"E., BEING BASED UPON GPS OBSERVATIONS TIED TO THE OREGON REAL-TIME GNSS NETWORK (ORGN) NAD 83 (2011) EPOCH 2010.00.

3. THE EAST LINE OF THE SUBJECT PROPERTY WAS HELD FROM THE MONUMENT AT THE AFORESAID SOUTHWEST CORNER OF PARCEL 2 TO THE MONUMENT MOST NORTHERLY EAST CORNER OF LOT 7, "SPRINGBROOK DISTRICT", VOL 15, PAGE 2, YAMHILL COUNTY PLAT RECORDS.

4. THE SOUTH LINE OF THE SUBJECT PROPERTY WAS HELD TO THE NORTH LINES OF LOT 7 AND 10, AND THE EAST LINE OF LOT 10, AS MONUMENTED, NOTED AND SHOWN BY SAID PLAT "SPRINGBROOK DISTRICT", TO THE MONUMENTS AND NOTED POSITIONS THEREOF.

5. THE NORTHERLY EAST LINE OF THE SUBJECT PROPERTY WAS HELD TO THE MONUMENTED WEST AND SOUTH LINES OF AFORESAID PARCEL 1, PARTITION PLAT NO 1996-14. THE SOUTHERLY PORTION WAS HELD TO WEST AND SOUTH LINES OF INSTRUMENT NO. 2012-05337, YAMHILL COUNTY DEED RECORDS AS MONUMENTED AND SHOWN IN CSP-8558, YAMHILL COUNTY SURVEY RECORDS, TO THE MONUMENTS AND NOTED POSITIONS THEREOF.

6. THE NORTHWESTERLY RIGHT OF WAY OF SPRINGBROOK ROAD (CR NO. 55, 40.00 FEET WIDE) WAS HELD 20.00 FEET NORTHWESTERLY OF AND PARALLEL WITH THE SURVEYED TRAVELED CENTERLINE AS DESCRIBED IN AFORESAID INSTRUMENT NO. 2002-06401.

REGISTERED PROFESSIONAL LAND SURVEYOR

OREGON
FEBRUARY 8, 2000
JOSEPH C. McALLISTER
49695

DATE OF SIGNATURE: 5/30/24

EXPIRES: 12/31/2024

EXHIBIT "A-2" TO CITY COUNCIL ORDINANCE NO. 2024-2931
FINDINGS
Annexation, Comprehensive Plan Map Amendment, Zoning Map Amendment
3809 NE Springbrook Road (File No. ANX24-0001/CPMA24-0001/ZMA24-0001)

The Newberg Municipal Code (NMC) criteria and development standards are written in ***italic bold*** font and the findings are written in regular font. The NMC criteria will be presented first, followed by the findings of fact.

Findings of fact with underlined font indicate subsequent inclusion into Conditions of Approval.

A. FINDINGS FOR LAND USE PROCESSES AND PROCEDURES (NMC DIVISION 15.100)

Chapter 15.100 LAND USE PROCESSES AND PROCEDURES

15.100.050 Type III procedure – Quasi-judicial hearing.
[…]

B. Type III actions include, but are not limited to:

[..]

7. Comprehensive plan map amendments: This action is a recommendation to the city council.

8. Zoning map amendments and designation of subdistricts: This action is a recommendation to the city council.

9. Annexation: This action is a recommendation to the city council.

[…]

Finding: Because this application is for a proposed annexation, comprehensive plan map amendment, and zoning map amendment, it is processed as a Type III action including a recommendation of the Newberg Planning Commission to City Council, and a final decision by the City Council.

C. Planning Commission Decisions and Recommendation Actions.

1. Planning Commission Decision. Development actions shall be decided by the planning commission for those land use actions that require a Type III procedure and do not require the adoption of an ordinance. The decision shall be made after public notice and a public hearing is held in accordance with the requirements of NMC 15.100.090 et seq. A Type III decision may be appealed to the city council by a Type III affected party in accordance with NMC 15.100.160 et seq.

2. Planning Commission Recommendation to City Council. Land use actions that would require the adoption of an ordinance shall be referred to the city council by the planning

commission together with the record and a recommendation. The recommendation shall be made after public notice and a public hearing is held in accordance with the requirements of NMC 15.100.090 et seq.

Finding: Because the proposed annexation requires the adoption of an ordinance by the Newberg City Council, the Planning Commission decision shall be referred to the City Council together with the record and a recommendation. On October 10, 2024, the Planning Commission approved Planning Commission Resolution No. 2024-396, recommending that the City Council approve the annexation, comprehensive plan map amendment, and zoning map amendment request. Planning Commission Resolution No. 2024-396 is included in Exhibit "H"

D. City Council Action. If a recommendation to the city council is required, the matter shall be reviewed by the city council as a new hearing. The final decision on these actions is made by the city council.

Finding: The recommendation of the Planning Commission shall be reviewed by the City Council as a new hearing for a final decision.

E. The applicant shall provide notice pursuant to NMC 15.100.200 et seq.

Finding: The Applicant submitted an affidavit that the required notice for the Planning Commission Hearing was mailed on September 17, 2024, and posted on the site on September 18, 2024. The City posted notice in four public places and in a newspaper of record on September 26, 2024. The Applicant submitted an affidavit that the required notice for the City Council Hearing was mailed on October 23, 2024. The City posted notice in four public places and in a newspaper of record on October 17 and 24, 2024.

Because the Applicant provided notice pursuant to NMC 15.100.200 et seq., this criterion is met.

F. The hearing body may attach certain conditions necessary to ensure compliance with this code.

Finding: Conditions of approval are attached as Exhibit "A-3" to Ordinance No. 2024-2931.

[…]

B. FINDINGS FOR LAND USE APPLICATIONS (NMC DIVISION 15.200)

Chapter 15.250 ANNEXATIONS

15.250.020 Conditions for annexation.
The following conditions must be met prior to or concurrent with city processing of any annexation request:

A. The subject site must be located within the Newberg urban growth boundary or Newberg urban reserve areas.

Finding: As shown on Exhibit "B", the subject property is located entirely within the Newberg Urban Growth Boundary.

Because the subject property is located within the Newberg Urban Growth Boundary, this criterion is met.

B. The subject site must be contiguous to the existing city limits. [Ord. 2745 § 1 (Exh. A), 7-18-11; Ord. 2451, 12-2-96. Code 2001 § 151.261.]

Finding: As shown on Exhibit "B", the subject property is contiguous to the existing city limits along its southern boundary.

Because the subject property is contiguous to the existing city limits, this criterion is met.

15.250.030 Quasi-judicial annexation criteria.
Quasi-judicial annexation applications are those filed pursuant to the application of property owners and exclude legislative annexations. The following criteria shall apply to all quasi-judicial annexation requests:

A. The proposed use for the site complies with the Newberg comprehensive plan and with the designation on the Newberg comprehensive plan map. If a redesignation of the plan map is requested concurrent with annexation, the uses allowed under the proposed designation must comply with the Newberg comprehensive plan.

Finding: The Newberg Comprehensive Plan designation of the subject property is Low Density Residential (LDR) and the current uses are a single-family dwelling and agricultural uses. The application does not propose any new use or development at this time. However, it indicates that future development would include residential use, and that a development application will be submitted separately after annexation is complete.

A redesignation of the comprehensive plan map to High Density Residential (HDR) and zoning map amendment to High Density Residential (R-3) on a portion of the subject property is requested concurrent with the application as required by NMC 15.250.030(A)(1), as the subject property is larger than 15 net acres.

Because the proposed comprehensive plan map designations and zoning designations for the site complies with the Newberg Comprehensive Plan and requirements of the Newberg Municipal Code, this criterion is met.

> ***1. Where large LDR or MDR designated parcels or groups of parcels are to be annexed, the applicant(s) shall concurrently apply for a comprehensive plan map amendment to include some HDR-designated/R-3 zoned lands, consistent with the policy of distributing R-3 multifamily housing throughout the community. Such zoning shall be applied to portions of the property that are most suitable for high density development.***
>
> ***For the purposes of this policy, "large" is defined as an area greater than 15 net acres, after subtracting for land in stream corridor overlays. "Some" is defined as 10 percent of the net size of the application.***
>
> **Finding:** The subject property proposed to be annexed is 19.16 gross acres in size. After subtracting land in the stream corridor overlays, the subject property is 18.82 net acres. The applicant is proposing 3.01 net acres of High Density Residential (R-3) zoned land,

approximately 16 percent of the net size of the subject property. The above requirement that 10 percent of the net size of the application be designated HDR/R-3 is a minimum requirement. The applicant has proposed 16 percent of the net site be designated HDR/R-3. Staff finds the additional 1.13 acres or 6 percent of the net site, above the 10 percent standard, meets a need for high-density residential uses and may be approved based on the following facts:

The Housing and Residential Land Needs Analysis of the Newberg Comprehensive Plan V. Land Need and Supply indicates that 83 buildable acres of High Density Residential Land are needed (Table V-7) to accommodate 1,467 needed High Density housing dwelling units (Table V-2) between 2026-2040. The proposed comprehensive plan map and zoning map amendments' provision of additional HDR-designated/R-3 zoned land serves to meet this identified need.

The Applicant provided additional findings that the proposed location of the high density residential designation and zoning districts are most suitable for high density development based on the Location Policies of the Newberg Comprehensive Plan, which provide guidance on where medium and high density should be located. The Location Policy I(2)(a) indicates that medium and high density areas should be located for immediate access to collector streets or minor arterials and should not cause traffic to move through low density areas, be easily accessible to arterial streets, and be located near commercial services and public open spaces. The Applicant has indicated the location of the proposed HDR/R-3 lands is proximate to Springbrook Road, a major collector and the higher road classification serving the site.

Because the subject property is larger than 15 net acres, and the Applicant is proposing 10 percent of the net size of the application to be redesignated as HDR-designated/R-3 zoned land, and the additional land proposed as HDR-designated/R-3 zoned land meets the need identified in the Newberg Comprehensive Plan, this criterion is met.

B. An adequate level of urban services must be available, or made available, within three years' time of annexation, except as noted in subsection (E) of this section. An "adequate level of urban services" shall be defined as:

1. Municipal wastewater and water service meeting the requirements enumerated in the Newberg comprehensive plan for provision of these services.

Finding: The Applicant is requesting annexation into the City of Newberg.

The City's online GIS mapping shows there is an existing 15-inch wastewater line in NE Springbrook Road approximately 380 feet southwest of the property. The City's wastewater system master plan shows the system has a capacity issue further south in Springbrook Road. It is modeled from the wastewater line in NE Springbrook Road. Project 12 Springbrook Road Alternative B Parallel Pipe is identified to address the capacity issues.

<u>With future development of the site, the development will be required to provide a downstream wastewater analysis to determine if downstream deficiencies exist that need to be addressed by the development.</u>

The City's online GIS mapping shows there is an existing 12-inch water service line in NE Springbrook Road approximately 380 feet Southwest of the property. This system is in pressure zone 1 which ranges from 80 to 310 feet in elevation. the applicant's design team determined that a portion of the project site is above the elevation served by pressure zone 1. This resulted in the need for a localized water booster pump station or for a larger regional water pump station and new reservoir as identified in the current Water Master Plan, Projects P-1, R-1 and M-16.

With future development of the site, the development will be required to provide a scoping memo for the water booster pump station design. the City of Newberg is to be provided with a water booster pump station design scoping memo for coordination prior to the development beginning design.

With future development of the site, the development will also be required to extend public water and wastewater lines to and through the development site.

This criterion will be met if the aforementioned condition of approval is adhered to.

2. Roads with an adequate design capacity for the proposed use and projected future uses. Where construction of the road is not deemed necessary within the three-year time period, the city shall note requirements such as dedication of right-of-way, waiver of remonstrance against assessment for road improvement costs, or participation in other traffic improvement costs, for application at the appropriate level of the planning process. The city shall also consider public costs for improvement and the ability of the city to provide for those costs.

Finding: The property has access frontage NE Springbrook Road. It is classified as Major Collector and is under the jurisdiction of Yamhill County. The Southern Pacific Railroad right-of-way is shown adjacent to the public road right-of-way on the City Online GIS. That right-of-way measures approximately 40 feet of public right-of-way and 60 feet of railroad right-of-way. Improvements will require a Yamhill County permit and will need to be built to City of Newberg Standards.

Information regarding existing right-of-way and cross-sections can be seen below and is consistent with the City's Transportation System Plan, Municipal Code and Public Works Design and Construction Standards.

Roadway	Functional Classification	Existing Right-of-way	Existing Pavement Width	Minimum Right-of-way	Minimum Pavement Width	Typical Cross-Section (per Transportation System Plan)

NE Springbrook Road	**Major Collector** (57-feet to 80-feet)	Approx. 40-feet	Approx. 25-feet	60-feet For typical section per TSP. 68-feet if parking allowed on one side.	36-feet	• 1-foot from back of walk to right-of-way** • 5-foot sidewalk • 5.5-foot planter* • 0.5-foot curb • 6-foot bike lane • 12-foot travel lane • 12-foot travel lane • 6-foot bike lane • 0.5-foot curb • 5.5-foot planter* • 5-foot sidewalk • 1-foot from back of walk to right-of-way**

*5-foot minimum inclusive of the curb per NMC 15.505.030(G)(8), **Per PWDCS 5.14

With future development of the site, the development will be required to locate the center line of the street based on the dimensions of a major collector and dedicate the amount of additional right-of-way necessary to provide for that full cross section.

With future development of the site, since the existing railroad right-of-way is adjacent to the public road right-of-way, the developer will be required to build full street improvements for NE Springbrook Road. This would include street lighting and is to be consistent with existing street improvements on both sides of NE Springbrook Road southwest of the site.

With future development of the site, the development will be required to complete transportation system mitigations recommended in the Traffic Impact Analysis for the future development.

This criterion will be met if the aforementioned conditions of approval are adhered to.

C. Findings documenting the availability of police, fire, parks, and school facilities and services shall be made to allow for conclusionary findings either for or against the proposed annexation. The adequacy of these services shall be considered in relation to annexation proposals.

Finding: The Applicant's materials indicate that the subject property is developed and located within the Tualatin Valley Fire and Rescue (TVF&R) service area and that TVF&R Station 21 is located at 3100 Middlebrook Drive, approximately 0.8 miles from the subject property. The

subject property is also located within the Chehalem Park and Recreation boundary, and Spring Meadow Park located at 3815 Vittoria Way is approximately 1.2 miles from the subject property and the Chehalem Aquatic and Fitness Center located at 1802 Haworth Avenue is approximately 1.8 miles from the subject property. The subject property is within Newberg School District, and police service is available from the Newberg-Dundee Police Department. The City sends the application information to the aforementioned agencies, among others, for comments prior to the staff report. There are no comments to suggest that City services could not support the addition of the approximately 19.16 acres of land to the city limits.

Other private service providers, including garbage, telephone, postal and internet services, and facilities required to serve future development of the subject property will be determined by the City at the time of development permit review and approval.

It should be noted that the City of Newberg does not do future planning for the Parks District or the School District. However, the City coordinates with those agencies on a regular basis regarding future planning efforts. This type of coordination is typically done at the time of annexation and urban growth boundary expansions, when properties are added to serve the future 20-year urbanizable area, or areas where the city limits is expected to expand to meet growth needs.

Because the availability of police, fire, parks, and school facilities and services has been demonstrated by the Applicant, this criterion is met.

D. The burden for providing the findings for subsections (A), (B) and (C) of this section is placed upon the applicant.

Finding: Because the Applicant submitted adequate information to allow the City to make findings that demonstrate compliance with the applicable criteria, this criterion is met.

E. The city council may annex properties where urban services are not and cannot practically be made available within the three-year time frame noted in subsection (B) of this section, but where annexation is needed to address a health hazard, to annex an island, to address wastewater or water connection issues for existing development, to address specific legal or contract issues, to annex property where the timing and provision of adequate services in relation to development is or will be addressed through legislatively adopted specific area plans or similar plans, or to address similar situations. In these cases, absent a specific legal or contractual constraint, the city council shall apply an interim zone, such as a limited-use overlay, that would limit development of the property until such time as the services become available. [Ord. 2826 § 1 (Exh. A), 5-7-18; Ord. 2745 § 1 (Exh. A), 7-18-11; Ord. 2640, 2-21-06; Ord. 2451, 12-2-96. Code 2001 § 151.262.]

Finding: As indicated in the findings for NMC 15.250.030(B)(1) and (2), urban services can be made available within a three-year time frame. Therefore, this criterion is not applicable.

15.250.040 Quasi-judicial annexation procedures.
All quasi-judicial annexation requests approved by the city council shall be referred to the voters in accordance with the requirements of this code and ORS Chapter 222.

Finding: The passage and adoption of Oregon Senate Bill 1573 (2016) added language to ORS 222.111 that preempts Newberg's requirement that annexations go to a public vote, and instead directs the legislative body of a city to annex property without a public vote when the property meets certain requirements, including:

- Being within the urban growth boundary;
- Subject to the Comprehensive Plan of the City;
- Contiguous to city limits; and
- Meeting the city's adopted Development Code criteria for annexation.

As discussed elsewhere in this staff report, the subject property is located within the City of Newberg's Urban Growth Boundary, contiguous to City limits, and meets the City's adopted Development Code criteria for annexation. As shown on Exhibit "C", the subject property is subject to the Comprehensive Plan of the City.

Because the proposed annexation meets these criteria, the legislative body may annex the property without a public vote. The criterion is not applicable.

15.250.050 Application requirements for quasi-judicial annexations.
Applications for quasi-judicial annexations shall be made on forms provided by the planning division and include the following material:

A. Written consent to the annexation signed by the requisite number of affected property owners, electors, or both to conduct an election within the area to be annexed, as provided by state law. The consent shall include a waiver stating that the owner will not file any demand against the city under Measure 49, approved November 6, 2007, that amended ORS Chapters 195 and 197.

Finding: A land use application form was signed by the owner of the subject property and is provided in Exhibit "E". An Annexation Consent Form and Measure 49 Waiver signed by the property owners were submitted by the Applicant and provided in Exhibit "E".

Because a land use application form, annexation consent form, and Measure 49 waiver were submitted by the Applicant, this criterion is met.

B. Legal description of the property to be annexed and a boundary survey certified by a registered engineer or surveyor.

Finding: A legal description and boundary survey certified by a registered engineer or surveyor were submitted by the Applicant and are provided in Exhibits "A-1" and "E".

Because a legal description and boundary survey certified by a registered engineer or surveyor were submitted by the Applicant, this criterion is met.

C. Vicinity map and map of the area to be annexed including adjacent city territory.

A vicinity map and map of the area was submitted by the Applicant and is provided in Exhibit"E".

Because a vicinity map and map of the area were submitted by the Applicant, this criterion is met.

D. General land use plan indicating types and intensities of proposed development, transportation corridors (including pedestrian and vehicular corridors), watercourses, significant natural features, open space, significant stands of mature trees, wildlife travel corridors, and adjoining development.

Finding: A general land use plan showing the types of zoning districts, proposed right of way and proposed centerline, and existing stream corridor was submitted by the Applicant and is provided in Exhibit "E".

Because a general land use plan was submitted by the Applicant, this criterion is met.

E. Statement of overall development concept and methods by which physical and related social environment of the site, surrounding area, and community will be enhanced.

Finding: The Applicant provided the following statement of overall development concept and a discussion of the physical and social environment of the site, which is also provided in Exhibit "E". Although the statement is not binding on any future land use application, submission of the statement meets the above application requirement.

> "The overall development concept after annexation of the property is for a residential neighborhood. The Applicant intends to use the provisions of the Planned Unit Development Regulations for future development of the site as detailed in Chapter 15.240 of the Newberg Municipal Code.
>
> Upon development of the site, the annexed area will enhance the community with greater access to the surrounding area with an improved right-of-way on the property frontage along NE Springbrook Road. The community will also be provided with a new residential neighborhood that is comprehensively planned with homes that are attractive, energy efficient, and compatible to the surrounding area. By integrating sustainable practices, the development will respect the natural areas adjacent to the site and manage stormwater effectively. The future development will provide new streetscapes and upgraded infrastructure to ensure seamless connectivity and reliability. These measures will foster a visually appealing community neighborhood.
>
> Socially, the subdivision will provide high-quality housing that caters to the needs of its residents. Safety and accessibility will be provided with well-designed and safe crosswalks and routes for individuals with disabilities. Overall, this project is designed to enhance the quality of life for residents in Newberg to create a vibrant and connected community."

Because the Applicant provided a statement of the overall development concept and methods by which the physical and related social environment of the site will be enhanced, this criterion is met.

F. Annexation fees, as set by city council resolution.

Finding: Applicable annexation fees were paid by the Applicant on July 16, 2024.

Because annexation fees, as set by City Council resolution, have been paid, this criterion is met.

G. Statement outlining method and source of financing to provide additional public facilities.

Finding: The Applicant provided the following statement outlining the method and source of financing to provide additional public facilities, which is also provided in Exhibit "E".

> "The extension and improvement of public infrastructure and right-of-way infrastructure necessary to serve the future development of the subject property will be financed through a combination of System Development Charges determined at the time of building permit applications, as well as on-site and off-site improvements constructed by a developer that may be conditions of approval through the appropriate land use review process after a development application is submitted."

Because the Applicant provided a statement outlining the method and source of financing to provide additional public facilities, this criterion is met. (Note that the annexation application does not include an application for development or request for system development charge credits. Therefore, it is premature to determine whether system development charge credits would be used to finance any future development.)

H. Comprehensive narrative of potential positive and negative physical, aesthetic, and related social effects of the proposed development on the community as a whole and on the smaller subcommunity or neighborhood of which it will become a part and proposed actions to mitigate such effects.

Finding: The Applicant provided the following narrative of potential positive and negative effects of the proposed annexation:

> "The proposed development after annexation will be a positive community asset. Drawing inspiration from sustainable principles the property owner and developer aims to enhance the natural beauty of the area by integrating modern infrastructure to create an aesthetically pleasing environment. The development will foster a sense of community by providing high-quality housing and promote social interaction and engagement among residents.
>
> While construction may temporarily disrupt the area, the property owner and developer are committed to minimizing inconvenience through careful management practices and clear communication. Safety is a top priority and will be ensured with secure fencing around construction zones and clear signage to protect the community and the construction workers."

Because the Applicant provided a narrative of potential effects, the criterion is met. It is noted that the annexation application does not include an application for development. Therefore, it is premature to evaluate potential impacts of future development or to identify mitigation measures.

I. Concurrent with application for annexation, the property may be assigned one of the following methods for development plan review:

> ***1. A planned unit development approved through a Type III procedure.***
>
> ***2. A development agreement approved by the city council.***
>
> ***3. A contract annexation as provided for in the state statutes. Development plans must be approved and an annexation contract must be signed by the city council in order to use the contract annexation process. [Ord. 2745 § 1 (Exh. A), 7-18-11; Ord. 2693 § 1 (Exh. A(4)), 3-3-08; Ord. 2612, 12-6-04; Ord. 2451, 12-2-96. Code 2001 § 151.264.]***

Cross-reference: See ORS 222.111 for annexation eligibility and ORS 222.010 – 222.750, pertaining to annexation procedures.

Finding: No concurrent development applications have been submitted with this annexation request.

Because there is no additional development proposed with this proposed annexation, concurrent development plan review is not required. This criterion is not applicable.

15.250.080 Comprehensive plan and zoning designations.
A. The comprehensive plan map designation of the property at the time of annexation shall be used as a criterion to determine whether or not the proposed request complies with the Newberg comprehensive plan. A redesignation of the comprehensive plan map may be requested concurrent with annexation. The proposed redesignation shall then be used to determine compliance with the Newberg comprehensive plan.

Finding: The Comprehensive Plan map designation of the subject property is Low Density Residential (LDR), and the Applicant has requested to designate 16.14 gross acres of the subject property as the Low Density Residential (R-1) zoning district, which is the appropriate zoning classification per NMC 15.250.080(B) consistent with the Newberg Comprehensive Plan. Because the parcel is larger than 15 acres, NMC 15.250.030(A)(1) requires that the Applicant submit a concurrent comprehensive plan map amendment and zoning map amendment to include some (10 percent of the net size of the application) HDR-designated/R-3 zoned lands, consistent with Comprehensive Plan policy II(I)(3)(y). The Applicant has proposed zoning 3.01 gross acres as High Density Residential (R-3), approximately 16 percent of the net size of the application. See the table below for the gross and net acreage of each zoning designation. The above requirement that 10 percent of the net size of the application be designated HDR/R-3 is a minimum requirement. Staff finds the additional 1.13 acres or 6 percent of the net site, above the 10 percent standard, meets a need for high-density residential uses and may be approved based on the following facts:

The Housing and Residential Land Needs Analysis of the Newberg Comprehensive Plan V. Land Need and Supply indicates that 83 buildable acres of High Density Residential Land are needed

(Table V-7) to accommodate 1,467 needed High Density housing dwelling units (Table V-2) between 2026-2040. The proposed comprehensive plan map and zoning map amendments' provision of additional HDR-designated/R-3 zoned land serves to meet this identified need.

Zone	Gross Size (Acre)	Net Size (Acre)
R-1	16.14	15.81
R-3	3.02	3.01
Total	19.16	18.82

Because the proposed comprehensive plan map and zoning map designations comply with the Newberg Comprehensive Plan, this criterion is met.

B. Upon annexation, the area annexed shall be automatically zoned to the corresponding land use zoning classification which implements the Newberg comprehensive plan map designation. The corresponding designations are shown in the table below. The procedures and criteria of NMC 15.302.030 shall not be required.

Comprehensive Plan Classification	*Appropriate Zoning Classification*
OS	***Any zoning classification***
LDR	***R-1***
MDR	***R-2, R-4***
HDR	***R-3, R-4***
COM	***C-1, C-2, or C-3 as determined by the director***
MIX	***C-2, M-1, M-2, or M-E as determined by the director***
IND	***M-1, M-2, M-3, M-4, or AI as determined by the director***
PQ	***Any zoning classification***
P	***CF***

Finding: The Comprehensive Plan map designation of the subject property is Low Density Residential (LDR). Per NMC 15.250.080(B), the appropriate zoning classification is R-1. The Applicant has requested to designate 15.81 net acres of the subject property as the R-1 zoning district, which is the appropriate zoning classification per NMC 15.250.080(B) for consistency with the Newberg Comprehensive Plan. Because the parcel is larger than 15 acres, NMC 15.250.030(A)(1) requires that the Applicant submit a concurrent comprehensive plan map amendment and zoning map amendment to include some (10 percent of the net size of the application) HDR-designated/R-3 zoned lands, consistent with Comprehensive Plan policy II(I)(3)(y). The Applicant has proposed zoning 3.01 net acres as High Density Residential (R-3),

approximately 16 percent of the net size of the application. The above requirement that 10 percent of the net size of the application be designated HDR/R-3 is a minimum requirement. Staff finds the additional 1.13 net acres or 6 percent of the site, above the 10 percent standard, meets a need for high-density residential uses and may be approved based on the following facts:

The Housing and Residential Land Needs Analysis of the Newberg Comprehensive Plan V. Land Need and Supply indicates that 83 buildable acres of High Density Residential Land are needed (Table V-7) to accommodate 1,467 needed High Density housing dwelling units (Table V-2) between 2026-2040. The proposed comprehensive plan map and zoning map amendments' provision of additional HDR-designated/R-3 zoned land serves to meet this identified need.

Because the Applicant has requested that the subject property of the proposed annexation be classified with an appropriate zoning classification for the LDR Comprehensive Plan designation and requested a comprehensive plan map and zoning map amendment to comply with NMC 15.250.230(A)(1), this criterion is met.

C. If a zoning classification is requested by the applicant for other than that described in subsection (B) of this section, the criteria of NMC 15.302.030 shall apply. This application shall be submitted concurrently with the annexation application.

Finding: The Applicant has submitted a concurrent comprehensive plan map and zoning map amendment to zone some of the subject property High Density Residential (R-3) per NMC 15.250.230(A)(1). The criteria of NMC 15.302.030 apply and area addressed elsewhere in this staff report.

D. In the event that the annexation request is denied, the zone change request shall also be denied. [Ord. 2883 § 1 (Exh. A § 1), 6-7-21; Ord. 2747 § 1 (Exh. A § 6), 9-6-11; Ord. 2720 § 1(9), 11-2-09; Ord. 2451, 12-2-96. Code 2001 § 151.267.]

Finding: Because a comprehensive plan map and zoning map amendment were submitted with this application, the Applicant has indicated that they understand that if the annexation is denied these requests shall also be denied.

15.250.090 Coordination.
Annexation requests shall be coordinated with affected public and private agencies, including, but not limited to, Yamhill County, Chehalem Park and Recreation District, Newberg School District, Northwest Natural Gas, Portland General Electric, and, where appropriate, various state agencies. Coordination shall be made by referral of annexation request to these bodies sufficiently in advance of final city action to allow for reviews and recommendations to be incorporated into the city records. [Ord. 2745 § 1 (Exh. A), 7-18-11; Ord. 2451, 12-2-96. Code 2001 § 151.268.]

Finding:

Upon determination that the application for the proposed annexation was complete, the City referred the application materials to affected public and private agencies on September 19, 2024. This referral included Yamhill County, Chehalem Park and Recreation District, Newberg School District, Northwest Natural Gas, Portland General Electric, the Oregon Department of Transportation, the Oregon Department of Aviation, Tualatin Valley Fire and Rescue, Sportsman

Airpark, and other utility providers. Comments received are incorporated into this staff report and addressed in findings where applicable.

Because a referral review of the proposed annexation request was provided by the City to affected public and private agencies sufficiently in advance of final city action to allow for reviews and recommendations to be incorporated into City records, this criterion is met.

C. FINDINGS FOR ZONING DISTRICTS (NMC DIVISION 15.300)

Chapter 15.302 DISTRICTS AND THEIR AMENDMENT

15.302.030 Procedures for comprehensive plan map and zoning map amendments.
This section describes the procedures and criteria that apply to any application to amend the land use designations identified on the comprehensive plan map, zoning map and land use regulations.

A. Type III Plan and Zoning Map Amendments – One Parcel or Small Group of Parcels.

1. Property owners or the city may initiate a map amendment for one parcel or a small group of parcels under the Type III procedure. May be initiated by a resolution of the planning commission or city council. Unlike other Type III procedures, the decision of the planning commission on a Type III plan map amendment shall be in the form of a recommendation to the city council. The city council shall hold another new hearing and make a final decision.

2. Where an application has been denied, no new application for the same purpose shall be filed within one year of the date of the previous denial unless the city council for good cause shall grant permission to do so.

3. Amendment Criteria. The owner must demonstrate compliance with the following criteria:

a. The proposed change is consistent with and promotes the goals and policies of the Newberg comprehensive plan and this code;

b. Public facilities and services are or can be reasonably made available to support the uses allowed by the proposed change;

c. Compliance with the State Transportation Planning Rule (OAR 660-012-0060) for proposals that significantly affect transportation facilities.

4. The property owner who desired to have their property reclassified has the burden of establishing that the requested classification meets the requirements of this section. As part of the application, the property owner requesting a change shall file a waiver stating that the owner will not file any demand against the city under Ballot Measure 49, approved November 6, 2007, that amended ORS Chapters 195 and 197.

5. A traffic study shall be submitted for any proposed change that would significantly affect a transportation facility, or that would allow uses that would increase trip generation in excess of 40 trips per p.m. peak hour. This requirement may be waived by

the director when a determination is made that a previous traffic study adequately addresses the proposal and/or when off-site and frontage improvements have already been completed, which adequately mitigate any traffic impacts and/or the proposed use is not in a location, which is adjacent to an intersection, which is functioning at a poor level of service. A traffic study may be required by the director for changes in areas below 40 trips per p.m. peak hour where the use is located immediately adjacent to an intersection functioning at a poor level of service. The traffic study shall be conducted according to the City of Newberg design standards.

[…]

Findings: The findings corresponding to each subsection are as follows:

1. The map amendment for Yamhill County tax lot R3209 02300 was initiated by the property owners of the subject property under the Type III procedure. Because the comprehensive plan map and zoning map amendments were initiated by the property owners in accordance with this code, the criterion is met.

2. No previous application for a zone change of the subject property was denied within the last year prior to the application's submission. The Applicant acknowledges in the application materials that if the application is denied no new application for the same purpose shall be filed within one year of the date of the previous denial unless granted permission by City Council. Because no previous zone change application was denied, this criterion is met.

3. The proposed comprehensive plan map and zoning map change from LDR/R-1 to HDR/R-3 are to comply with NMC 15.250.030(A)(1) to designate 10 percent of proposed annexations larger than 15 acres for high density residential uses consistent with the Newberg Comprehensive Plan policies. The Applicant has also provided responses to applicable goals and policies of the Newberg Comprehensive Plan, included as Exhibit "E". The subject property is within Newberg Urban Growth Boundary, and the Applicant has provided findings that public facilities and services will be made available to support the uses allowed by the proposed changes. The Applicant has also provided a Traffic Impact Analysis, included in Exhibit "E", demonstrating compliance with the State Transportation Planning Rule. Because the proposed change is consistent with and promotes the goals of the Newberg Comprehensive Plan and this code, public facilities can reasonably be made available to support the uses allowed by the proposed change, and the Applicant has demonstrated compliance with the State Transportation Rule, these criteria are met.

4. The Applicant has provided materials to support findings that the requested classification meets the requirements of this section and submitted a Measure 49 waiver, included in Exhibit "E". Because the applicant has provided sufficient material for the City to make findings and a Measure 49 waiver, this criterion is met.

5. A traffic impact analysis has been submitted by the Applicant, which is included in Exhibit "E". The analysis demonstrates the impacts to the level of service on four study

intersections upon completion of a residential subdivision on the subject property. Because a traffic study has been submitted, this criterion is met.

The criteria are met.

Chapter 15.340 AIRPORT OVERLAY (AO) SUBDISTRICT

15.340.010 Purpose.
A. In order to carry out the provisions of this airport overlay subdistrict, there are created and established certain zones which include all of the land lying beneath the airport imaginary surfaces as they apply to Sportsman Airpark in Yamhill County. Such zones are shown on the current airport overlay zone map and the displaced threshold approach surface map, prepared by the Newberg engineering department (see Appendix B, Maps 2 and 3).

B. Further, this overlay zone is intended to prevent the establishment of air space obstructions in airport approaches and surrounding areas through height restrictions and other land use controls as deemed essential to protect the health, safety and welfare of the people of the City of Newberg and Yamhill County. [Ord. 2451, 12-2-96. Code 2001 § 151.450.]

Finding: The subject property is within the Conical imaginary surface of Sportsman Airpark as described in NMC 15.340.010(A) and on NMC Title 15 Development Code's Appendix B (Maps 2 and 3). Therefore, any future development will be subject to the procedures and limitations of the Airport Overlay Subdistrict.

In accordance with FAR Part 77.9 and OAR 738-070-0060, future development at this site may be required to undergo aeronautical evaluations by the Federal Aviation Administration (FAA) and Oregon Department of Aviation (ODAV). The aeronautical evaluations are initiated by the Applicant providing separate notices to both the FAA and ODAV to determine if the proposal poses an obstruction to aviation safety. The Applicant should receive aeronautical determination letters from the FAA and ODAV prior to approval of any building permits.

Upon adherence to the aforementioned condition of approval, this criterion will be met.

Chapter 15.342 STREAM CORRIDOR OVERLAY (SC) SUBDISTRICT

15.342.020 Where these regulations apply.
The regulations of this chapter apply to the portion of any lot or development site which is within an SC overlay subdistrict. Unless specifically exempted by NMC 15.342.040, these regulations apply to the following:

A. New structures, additions, accessory structures, decks, addition of concrete or other impervious surfaces;

B. Any action requiring a development permit by this code;

C. Changing of topography by filling or grading;

D. Installation or expansion of utilities including but not limited to phone, cable TV, electrical, wastewater, storm drain, water or other utilities;

E. Installation of pathways, bridges, or other physical improvements which alter the lands within the stream corridor overlay subdistrict. [Ord. 2451, 12-2-96. Code 2001 § 151.466.]

Finding: Approximately 0.34 acres along the eastern portion of the subject property is within the Stream Corridor Overlay Subdistrict. Any future development or redevelopment may be subject to the procedures and limitations of the Stream Corridor Overlay Subdistrict.

Upon adherence to the aforementioned condition of approval, this criterion is applicable.

D. FINDINGS FOR DEVELOPMENT STANDARDS (NMC DIVISION 400)

Chapter 15.430 UNDERGROUND UTILITY INSTALLATION

15.430.010 Underground utility installation.

A. All new utility lines, including but not limited to electric, communication, natural gas, and cable television transmission lines, shall be placed underground. This does not include surface-mounted transformers, connections boxes, meter cabinets, service cabinets, temporary facilities during construction, and high-capacity electric lines operating at 50,000 volts or above.

Finding: No development is proposed with this annexation, comprehensive plan map amendment, and zoning map amendment application.

Because no new development is currently proposed, this criterion is not applicable.

B. Existing utility lines shall be placed underground when they are relocated, or when an addition or remodel requiring a Type II design review is proposed, or when a developed area is annexed to the city.

Finding: Existing utility lines at the subject property are overhead. No development is proposed with this annexation, comprehensive plan map amendment, and zoning map amendment application. If relocated, the existing overhead utility lines on the property shall be placed underground, except where the Community Development Director approves an exception to the requirement to underground utilities.

Upon adherence to the aforementioned condition of approval the criterion is met.

C. The director may make exceptions to the requirement to underground utilities based on one or more of the following criteria:

- ***1. The cost of undergrounding is extraordinarily expensive.***
- ***2. There are physical factors that make undergrounding extraordinarily difficult.***
- ***3. Existing utility facilities in the area are overhead and are unlikely to be changed.***

Finding: At the time of writing this staff report, no request has been received from the Applicant for an exception to NMC 15.430(B)'s utility undergrounding requirement. The Applicant may submit a request to the Community Development Director for an exception to the requirement to

underground utilities if one or more of the criteria listed in NMC 15.430(B) are applicable to the subject property. Such request can be made with any future development application.

Because a request has not been made to the Community Development Director to exempt the utility undergrounding requirement, this criterion is not applicable.

CONCLUSION:
Based on the above-mentioned findings and adherence to the above-mentioned conditions of approval, the application meets the criteria of the Newberg Development Code for the annexation of the subject property into the City of Newberg and the application of the Comprehensive Plan and zoning designations to the property as noted in this staff report.

EXHIBIT "A-3" TO CITY COUNCIL ORDINANCE NO. 2024-2931
CONDITIONS OF APPROVAL
Annexation, Comprehensive Plan Map Amendment, Zoning Map Amendment
3809 NE Springbrook Road (File No. ANX24-0001/CPMA24-0001/ZMA24-0001)

THE FOLLOWING MUST BE COMPLETED BEFORE THE CITY WILL ISSUE A BUILDING PERMIT:

1. **Urban Services – Municipal Wastewater and Water Service**

   a. With future development of the site, the development will be required to provide a downstream wastewater analysis to determine if downstream deficiencies exist that need to be addressed by the development.

   b. With future development of the site, the development will be required to provide a scoping memo for the water booster pump station design. the City of Newberg is to be provided with a water booster pump station design scoping memo for coordination prior to the development beginning design.

   c. With future development of the site, the development will also be required to extend public water and wastewater lines to and through the development site.

2. **Urban Services – Roads**

   a. With future development of the site, the development will be required to locate the center line of the street based on the dimensions of a major collector and dedicate the amount of additional right-of-way necessary to provide for that full cross section.

   b. With future development of the site, since the existing railroad right-of-way is adjacent to the public road right-of-way, the developer will be required to build full street improvements for NE Springbrook Road. This would include street lighting and is to be consistent with existing street improvements on both sides of NE Springbrook Road southwest of the site.

   c. With future development of the site, the development will be required to complete transportation system mitigations recommended in the Traffic Impact Analysis for the future development.

3. **Stream Corridor Overlay Subdistrict:** Any future development or redevelopment may be subject to the procedures and limitations of the Stream Corridor Overlay Subdistrict.

4. **Underground Utilities:** If relocated, the existing overhead utility lines on the property shall be placed underground except where the Community Development Director approves an exception to the requirement to underground utilities.

EXHIBIT "B"
AERIAL PHOTO

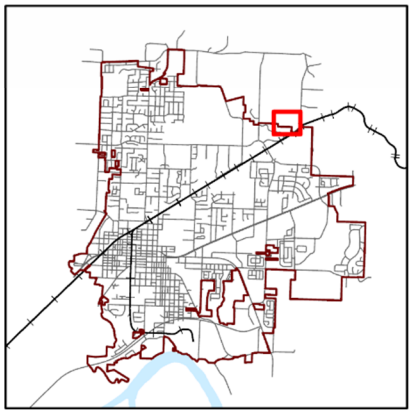


3809 NE Springbrook Road

- Subject Property
- Taxlots
- City Limits
- Urban Growth Boundary
- Urban Reserve Area

N
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S

0 200 400 Feet



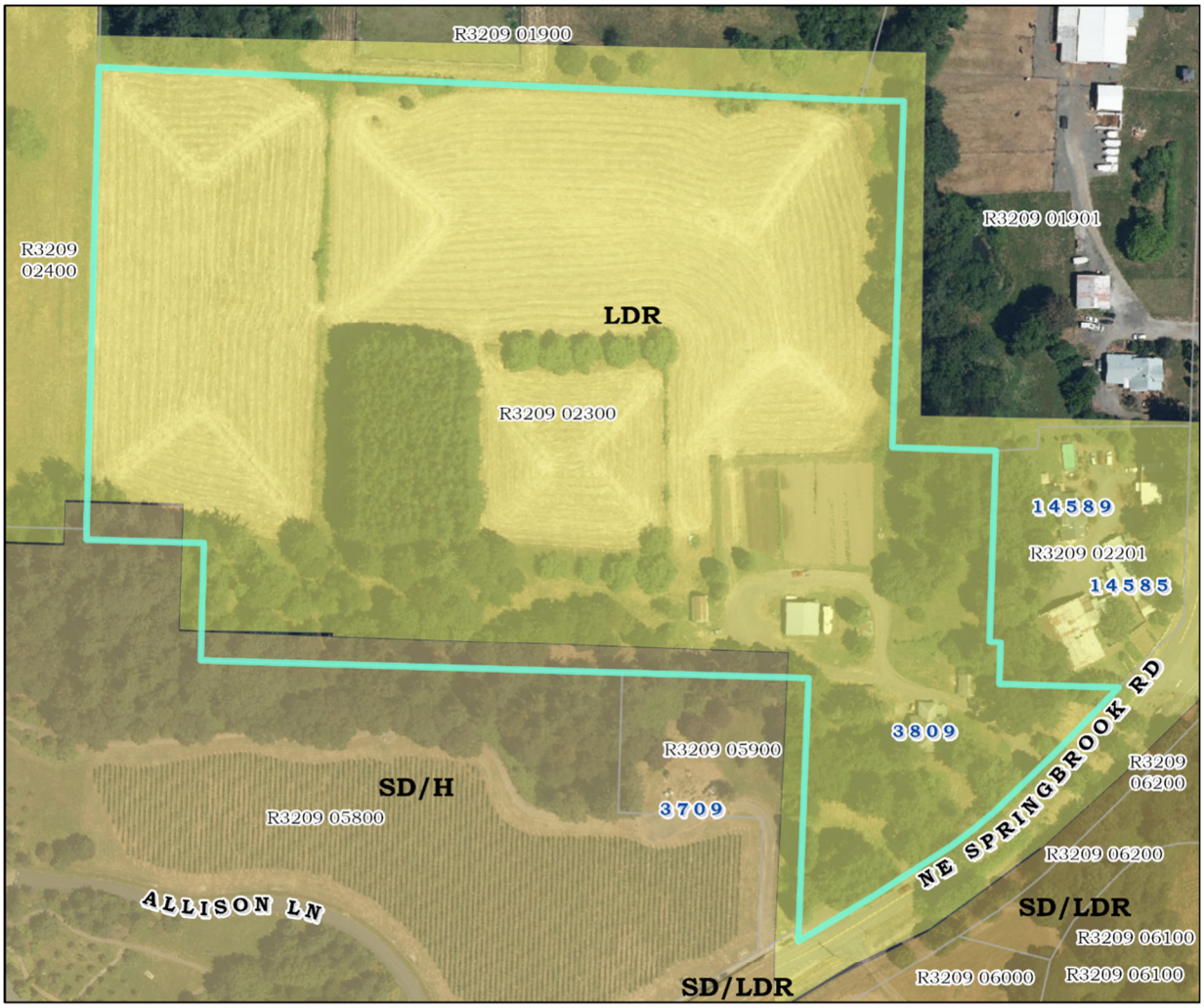
City of Newberg

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The map is created from various data sources and is subject to change without notice.
This map is intended for general planning purposes only.
Map updated: 11/13/2023

EXHIBIT "C"
COMPREHENSIVE PLAN MAP



3809 NE Springbrook Road - Comprehensive Plan Designation

N
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0 200 400 Feet

Subject Property

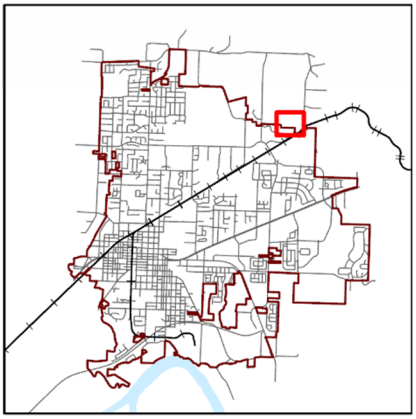
Taxlots

Comprehensive Plan

LDR

SD/H

SD/LDR



City of Newberg

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Date Exported: 9/3/2024 10:13 AM

EXHIBIT "D"
PROPOSED ZONING MAP

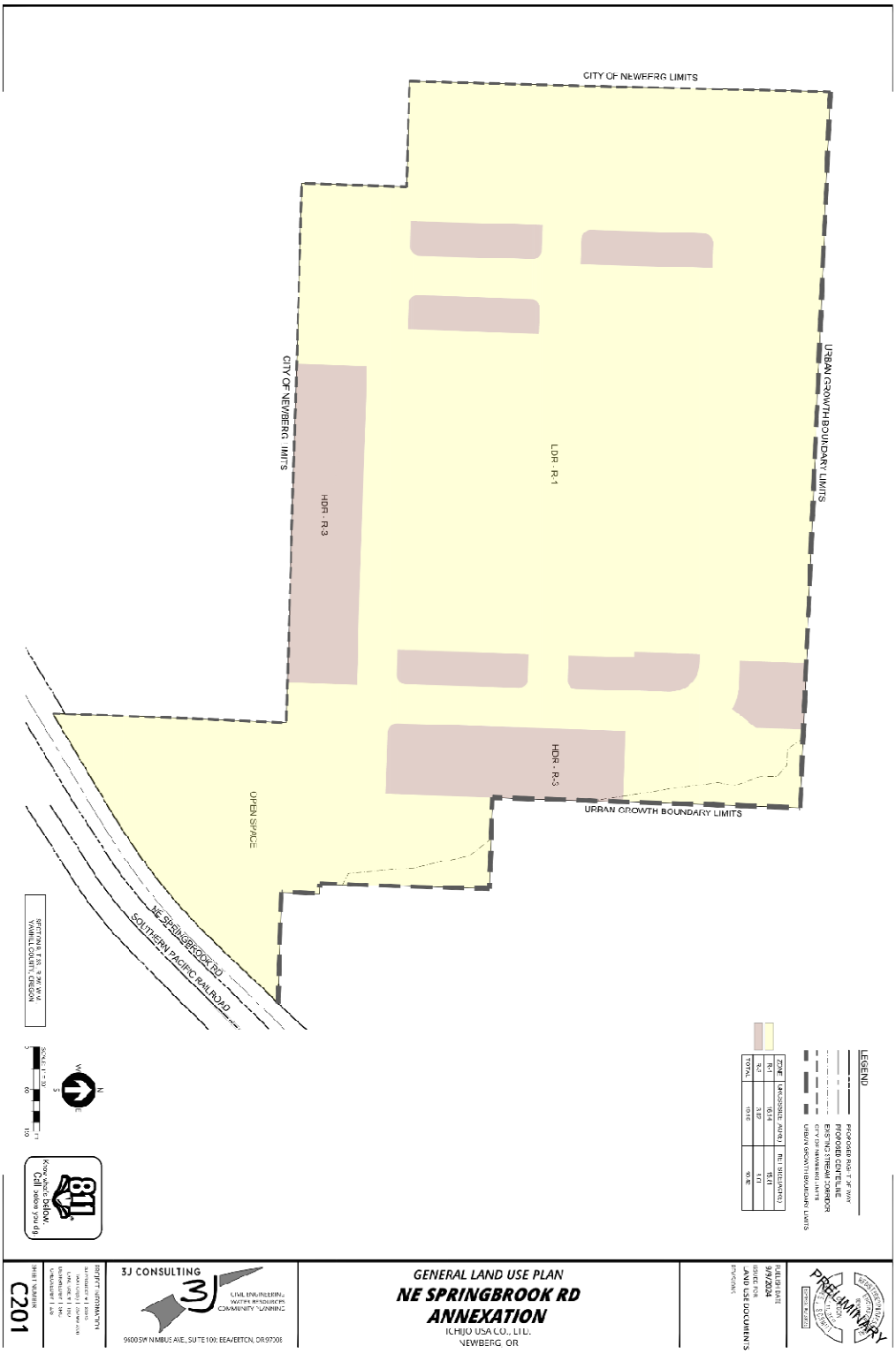


EXHIBIT "E"
APPLICATION AND SUPPLEMENTAL MATERIALS

3J CONSULTING
9600 SW NIMBUS AVENUE, SUITE 100
BEAVERTON, OREGON 97008
PH: (503) 946.9365
WWW.3JCONSULTING.COM

MEMORANDUM

To: James Dingwall
Assistant Planner
City of Newberg

From: Sam Huck
Planner

Date: August 16, 2024

Project Name: 3809 NE Springbrook Road Annexation
Project No: ANX24-0001
RE: Incomplete Notice Letter Response

This memorandum has been prepared to respond to the comments and request for additional information from the City in the Incomplete Notice letter dated August 12, 2024, for case file ANX24-0001. Submitted with this memorandum is a current title report submitted in the revised Appendix A, and a water systems analysis report submitted as Appendix H. In addition to these items requested by the City, a revised full land use submittal package with all appendices updated has been submitted.

Additional Information Requested by the City:

Planning:

- A current title report.

Applicant's Response: The Applicant provided the City with a current title report with this letter that has been delivered by email to James Dingwall and the City, dated August 16, 2024.

Engineering:

- The narrative references a need for a water booster pump station, however the submitted materials do not include a water system analysis report.

Applicant's Response: The Applicant provided the City with a draft water system analysis report with this letter that has been delivered by email to James Dingwall and the City, dated August 16, 2024.

Thank you for providing this opportunity to provide a response to the Incomplete Notice letter. Please find the additional and revised application materials submitted with this letter, and please don't hesitate to reach out with any questions.

Sincerely,

Sam Huck, AICP Candidate
Planner
3J Consulting, Inc.

Attached:

1. Full land use application packet with revised appendices and materials requested.

3J CONSULTING
CIVIL ENGINEERING | WATER RESOURCES | LAND USE PLANNING



3809 NE SPRINGBROOK ROAD ANNEXATION

3809 NE SPRINGBROOK ROAD, NEWBERG, OR 97132

APPLICANT

ICHIJO USA CO., LTD.
3800 SW CEDAR HILLS BOULEVARD, SUITE 131
BEAVERTON, OR 97005
CONTACT: MASAKI NARITA

APPLICANT'S REPRESENTATIVE

3J CONSULTING, INC.
9600 NW NIMBUS AVENUE, SUITE 100
BEAVERTON, OR 97008
CONTACT: SAM HUCK
PHONE: (503) 946-9365 x251

APPLICATION TYPE

TYPE III - ANNEXATION
TYPE III - COMPREHENSIVE PLAN MAP AMENDMENT
TYPE III - ZONING MAP AMENDMENT

SUBMITTAL DATE

JULY 11, 2024

SUBMITTAL DATE - REVISED/ADDITIONAL MATERIALS

AUGUST 16, 2024

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GENERAL INFORMATION

Property Owner and Applicant:	**Ichijo USA Co., LTD.** 3800 SW Cedar Hills Boulevard, Suite 131 Beaverton, OR 97005 Contact: Masaki Narita Phone: (503) 430-7413 Email: m-narita@ichijousa.com
Planning Consultant:	**3J Consulting, Inc.** 9600 SW Nimbus Avenue, Suite 100 Beaverton, OR 97008 Contact: Sam Huck Phone: (503) 946-9365 x251 Email: sam.huck@3j-consulting.com
Civil Engineer:	**3J Consulting, Inc.** 9600 SW Nimbus Avenue, Suite 100 Beaverton, OR 97008 Contact: Chase Welborn, PE Phone: (503) 946-9365 x215 Email: chase.welborn@3j-consulting.com

SITE INFORMATION

Parcel Number:	R3209-02300
Address:	3809 NE Springbrook Road
Gross Site Area:	19.16 acres
Existing Zoning Designation:	AF-10
Comprehensive Plan Designation:	Low Density Residential (LDR)
Existing Use:	Single Family Residential – Farm Use
Surrounding Zoning:	The properties to the north, east, and west are located in unincorporated Yamhill County and are zoned AF-10. The properties to the South are located in the City of Newberg and are zoned Springbrook District Hospitality (SD/H).
Street Classification:	N Springbrook Road is classified as a Major Collector.

INTRODUCTION

APPLICANT'S REQUEST

Ichijo USA ("the Applicant") is proposing to annex the subject property into the City of Newberg and seeks approval of concurrent annexation, comprehensive plan map amendment, and zoning map amendment applications. This narrative describes the proposed annexation and demonstrates compliance with the relevant approval standards of Newberg's Title 15 Development Code ("NMC").

Annexations, comprehensive plan map amendments, and zoning map amendments are evaluated under the Type III Quasi-Judicial decision process. The proposal will be heard by the Planning Commission who will make a recommendation to the City Council. The City Council will render the Type III decision after a public hearing on the application is held.

SITE DESCRIPTION/SURROUNDING LAND USE

Located at 3809 Northeast Springbrook Road, the subject site is 19.16 acres in size. Identified as tax lot 3209 02300, the site is located within unincorporated Yamhill County. The site currently is zoned with a Agriculture/Forestry Small Holding District zoning designation (AF-10). The site is located within the City of Newberg's Urban Growth Boundary, and is designated Low Density Residential (LDR) on the City's Comprehensive Plan Map. The terrain of the property has a generally sloping topography from the west to the east /southeast of the property.

Portions of the property along the southern edge abut the Springbrook Master Plan boundary. However, the subject site itself is not included within the Springbrook District. The property has frontage on and takes access from Northeast Springbrook Road, which is classified as a Major Collector. A mapped stream and its associated vegetative corridor run along portions of the east property boundary. The site currently has a single-family residence, and several other structures that are used for agricultural purposes. The site has a number of trees, a stand of fir trees that is a matured tree farm, and fields that have been used for agriculture in the past.

PROPOSAL

The Applicant proposes an annexation, comprehensive plan map amendment, and zoning map amendment (zone change) for the subject property in order to bring the property into the City of Newberg. The concurrent applications will prepare the property for future development of residential housing as designated on the City's comprehensive plan map. A development application will be submitted separately after the annexation is complete.

The subject property is considered a large LDR designated parcel because it is greater than 15 net acres. The Newberg Municipal Code requires the Applicant to apply for a comprehensive plan map amendment to include some HDR-designated/R-3 zoned lands upon annexation. The Applicant proposes to annex some of the property as HDR/R-3 lands, which is consistent with the City of Newbery policy of distributing housing types throughout the community. Approximately 16 percent of the net acreage is proposed as R-3 zoned land.

APPLICABLE CRITERIA

The following sections of the Newberg Development Code have been extracted as they have been deemed to be applicable to the proposal. Following each **bold** applicable criteria or design standard, the Applicant has provided a series of draft findings. The intent of providing code and detailed responses and findings is to document, with absolute certainty, that the proposed development has satisfied the approval criteria for the annexation, comprehensive plan map amendment, and zone change applications.

Title 15 Development Code
Chapter 15.100 Land Use Processes and Procedures
15.100.050 Type III procedure-Quasi-judicial hearing
A. All Type III decisions shall be heard and decided by the planning commission. The planning commission's decision shall be final unless the decision is appealed or the decision is a recommendation to the city council.
B. Type III actions include, but are not limited to:

9. Annexation: This action is a recommendation to the city council.

Finding: In accordance with NMC 15.100.050.B.9 the proposed Annexation will follow the Type III process and procedures. The Applicant acknowledges the applicable provisions of Section 15.100.050.C through Section 15.100.050.H regarding the Type III review procedures. This criteria is met.

15.100.090 Development permit application.
Applications for development permits shall be submitted upon forms established by the director.
An application shall consist of all materials required by this code, including the following information:
A. A completed development permit application form.
B. Proof that the property affected by the application is in the exclusive ownership of the applicant, or that the applicant has the consent of all owners of the affected property.
C. Other information required by this code.
D. The applicable fees.

Finding: A completed land use application form is included with this narrative, provided in Appendix A. Proof of ownership is also provided in Appendix A through the signed application from the property owner. All other applicable information required by this code is included in this narrative and the provided appendices. All application fees have been paid with this application. This criteria is met.

15.100.200 Compliance required.
Notice on all Type I through Type IV actions, including appeals, shall be conducted in accordance with this article.

Finding: The provisions of this section are applicable to the proposed applications.

15.100.210 Mailed notice.
Mailed notice shall be provided as follows:
B. Type II and Type III Actions. The applicant shall provide public notice to:

1. **The owner of the site for which the application is made; and**
2. **Owners of property within 500 feet of the entire site for which the application is made. The list shall be compiled from the most recent property tax assessment roll. For purposes of review, this requirement shall be deemed met when the applicant can provide an affidavit or other certification that such notice was deposited in the mail or personally delivered.**

Finding: In accordance with this code, mailed notice will be provided by the Applicant to all applicable parties. The Applicant acknowledges and will adhere to the noticing requirements of Section 15.100.210.C through Section 15.100.210.J. This criteria is met.

Division 15.200 Land Use Applications
Chapter 15.250 ANNEXATIONS
15.250.020 Conditions for annexation.
The following conditions must be met prior to or concurrent with city processing of any annexation request:

A. **The subject site must be located within the Newberg urban growth boundary or Newberg urban reserve areas.**
B. **The subject site must be contiguous to the existing city limits.**

Finding: The subject site is located within the Newberg Urban Growth Boundary and is contiguous to the existing city limits to the south. This standard is met.

15.250.030 Quasi-judicial annexation criteria.
Quasi-judicial annexation applications are those filed pursuant to the application of property owners and exclude legislative annexations. The following criteria shall apply to all quasi-judicial annexation requests:

A. **The proposed use for the site complies with the Newberg comprehensive plan and with the designation on the Newberg comprehensive plan map. If a redesignation of the plan map is requested concurrent with annexation, the uses allowed under the proposed designation must comply with the Newberg comprehensive plan.**

Finding: The proposed use of the site upon annexation approval is residential development. The current comprehensive plan map designation is Low Density Residential (LDR). In accordance with this code a portion of the LDR designated lands on the subject property is proposed to be redesignated as High Density Residential (HDR) concurrent with this annexation application. The uses allowed under the proposed HDR designation complies with the Newberg comprehensive plan. This standard is met.

1. **Where large LDR or MDR designated parcels or groups of parcels are to be annexed, the applicant(s) shall concurrently apply for a comprehensive plan map amendment to include some HDR-designated/R-3 zoned lands, consistent with the policy of distributing R-3 multifamily housing throughout the community. Such zoning shall be applied to portions of the property that are most suitable for high density development.**

   For the purposes of this policy, "large" is defined as an area greater than 15 net acres, after subtracting for land in stream corridor overlays. "Some" is defined as 10 percent of the net size of the application.

Finding: The subject property is 19.16 gross acres. After subtracting land in stream corridor overlays, the site is 18.82 net acres, therefore the requirements of this section apply. A portion of the LDR designated parcels will be redesignated through a concurrent comprehensive plan map amendment to include HDR designated/R-3 zoned lands.

The Applicant proposes approximately 16 percent of the net size of the site as HDR-designated/R-3 zoned lands, as demonstrated in the General Land Use Plan (Sheet C201) provided in Appendix E. This standard is met.

B. An adequate level of urban services must be available, or made available, within three years' time of annexation, except as noted in subsection (E) of this section. An "adequate level of urban services" shall be defined as:

1. **Municipal wastewater and water service meeting the requirements enumerated in the Newberg comprehensive plan for provision of these services.**

Finding: As shown in the illustration below, sewer and water services terminate near the subject property. Upon annexation approval the Applicant will submit a development application for the subject property to develop the property for residential uses. The future development application will propose a water pump station to serve residential development on the site, and will be located in a separate tract. Ownership of the pump station will be transferred to the City upon completion. The pump station will meet the water supply needs of the future residential development on the subject property and meet the City's Operations and Maintenance requirements within three years' time of annexation. This standard is met.

The Applicant has coordinated with City staff on potential improvements to the wastewater system. Municipal wastewater improvements will be addressed during the future development application. With the future development application an adequate level of urban services for wastewater will be made available within three years time of annexation. This standard is met.



2. **Roads with an adequate design capacity for the proposed use and projected future uses. Where construction of the road is not deemed necessary within the three-year time period, the city shall note requirements such as dedication of right-of-way, waiver of remonstrance against assessment for road improvement costs, or participation in other traffic improvement costs, for application at the appropriate level of the planning process. The city shall also consider public costs for improvement and the ability of the city to provide for those costs.**

Finding: The Newberg Transportation System Plan does not identify any capacity concerns for this portion of NE Springbrook Road. After annexation approval, the Applicant will submit a development application for the subject property. A Traffic Impact Analysis (TIA) has been provided with this application in Appendix D outlining potential impacts on four study intersections due to future development of the site. The submitted TIA demonstrates that with transportation system mitigations the future development of the site will meet the City's operating standards. This standard is met.

C. **Findings documenting the availability of police, fire, parks, and school facilities and services shall be made to allow for conclusionary findings either for or against the proposed annexation. The adequacy of these services shall be considered in relation to annexation proposals.**

Finding: The subject property is within the Tualatin Valley Fire and Rescue (TVF&R) service area. TVF&R Station 21 is located at 3100 Middlebrook Drive, approximately 0.8 miles from the subject property.

The subject property is within the Chehalem Parks and Recreation District (CPRD) boundary therefore these services are available and will be provided. Spring Meadow Park located at 3815 Vittoria Way is approximately 1.2 miles from the subject property,

and the Chehalem Aquatic and Fitness Center located at 1802 Haworth Avenue is approximately 1.8 miles from the subject property.

The subject property is within the Newberg-Dundee School District boundary and will be served by the School District.

The Newberg-Dundee Police Department located at 401 E Third Street is approximately 2.9 miles from the subject property. During review of this requested annexation application the City will request comments from the Newberg-Dundee Police Department prior to issuance of a staff report to ensure adequate services are available to serve the future development of the subject property.

The City will send the application information to TVF&R, the Chehalem Park and Recreation District (CPRD), the Newberg School District, and the Newberg-Dundee Police Department, among other agencies, for comments prior to the staff report. Publicly available information indicate that City services will support the addition of the 19.16 acres proposed for annexation into the City limits.

This standard is met.

D. The burden for providing the findings for subsections (A), (B) and (C) of this section is placed upon the applicant.

Finding: The Applicant has submitted adequate information to allow the City to make findings that demonstrate compliance with this criteria. This standard is met.

15.250.040 Quasi-judicial annexation procedures.
All quasi-judicial annexation requests approved by the city council shall be referred to the voters in accordance with the requirements of this code and ORS Chapter 222.

Finding: This Annexation request was initiated by the owner of the subject property and filed pursuant to ORS 222.120 - 222.125. All owners of the subject property and all electors residing on the property have consented to this annexation. Therefore, as provided by ORS 222.125, "Upon receiving written consent to annexation by owners and electors under this section, the legislative body of the city, by resolution or ordinance, may set the final boundaries of the area to be annexed by a legal description and proclaim the annexation." This standard is met.

15.250.050 Application requirements for quasi-judicial annexations.
Applications for quasi-judicial annexations shall be made on forms provided by the planning division and include the following material:

A. Written consent to the annexation signed by the requisite number of affected property owners, electors, or both to conduct an election within the area to be annexed, as provided by state law. The consent shall include a waiver stating that the owner will not file any demand against the city under Measure 49, approved November 6, 2007, that amended ORS Chapters 195 and 197.

Finding: The Applicant has provided all required application materials for an annexation request within this narrative and within the corresponding attached appendices.

B. Legal description of the property to be annexed and a boundary survey certified by a registered engineer or surveyor.

Finding: The Applicant has provided a legal description and boundary survey certified by a registered land survey of the subject property proposed to be annexed, which is provided in Appendix A.

C. Vicinity map and map of the area to be annexed including adjacent city territory.

Finding: The Applicant provided a vicinity map and map of area to be annexed, including the adjacent city territory and the existing Newberg Urban Growth Boundary. The vicinity map is provided in Appendix B. This standard is met.

D. General land use plan indicating types and intensities of proposed development, transportation corridors (including pedestrian and vehicular corridors), watercourses, significant natural features, open space, significant stands of mature trees, wildlife travel corridors, and adjoining development.

Finding: A general land use plan is provided with this application indicating the concept for future development, transportation corridors (including vehicular and pedestrian corridors), existing watercourses, significant natural features, open space, stands of mature trees, wildlife corridors, and adjoining development as applicable to the subject property. The General Land Use Plan (Sheet C210) provided in Appendix E. This standard is met.

E. Statement of overall development concept and methods by which physical and related social environment of the site, surrounding area, and community will be enhanced.

Finding: The overall development concept after annexation of the property is for a residential neighborhood. The Applicant intends to use the provisions of the Planned Unit Development Regulations for future development of the site as detailed in Chapter 15.240 of the Newberg Municipal Code.

Upon development of the site, the annexed area will enhance the community with greater access to the surrounding area with an improved right-of-way on the property frontage along NE Springbrook Road. The community will also be provided with a new residential neighborhood that is comprehensively planned with homes that are attractive, energy efficient, and compatible to the surrounding area. By integrating sustainable practices, the development will respect the natural areas adjacent to the site and manage stormwater effectively. The future development will provide new streetscapes and upgraded infrastructure to ensure seamless connectivity and reliability. These measures will foster a visually appealing community neighborhood.

Socially, the subdivision will provide high-quality housing that caters to the needs of its residents. Safety and accessibility will be provided with well-designed and safe crosswalks and routes for individuals with disabilities. Overall, this project is designed to enhance the quality of life for residents in Newberg to create a vibrant and connected community.

This standard is met.

F. Annexation fees, as set by city council resolution.

Finding: The Applicant has submitted the appropriate annexation fees with this application. This standard is met.

G. Statement outlining method and source of financing to provide additional public facilities.

Finding: The extension and improvement of public infrastructure and right-of-way infrastructure necessary to serve the future development of the subject property will be financed through a combination of System Development Charges determined at the time of building permit applications, as well as on-site and off-site improvements constructed by a developer that may be conditions of approval through the appropriate land use review process after a development application is submitted.

This standard is met.

H. Comprehensive narrative of potential positive and negative physical, aesthetic, and related social effects of the proposed development on the community as a whole and on the smaller subcommunity or neighborhood of which it will become a part and proposed actions to mitigate such effects.

Finding: The proposed development after annexation will be a positive community asset. Drawing inspiration from sustainable principles the property owner and developer aims to enhance the natural beauty of the area by integrating modern infrastructure to create an aesthetically pleasing environment. The development will foster a sense of community by providing high-quality housing and promote social interaction and engagement among residents.

While construction may temporarily disrupt the area, the property owner and developer are committed to minimizing inconvenience through careful management practices and clear communication. Safety is a top priority and will be ensured with secure fencing around construction zones and clear signage to protect the community and the construction workers.

This standard is met.

I. Concurrent with application for annexation, the property may be assigned one of the following methods for development plan review:

1. A planned unit development approved through a Type III procedure.

2. **A development agreement approved by the city council.**
3. **A contract annexation as provided for in the state statutes. Development plans must be approved and an annexation contract must be signed by the city council in order to use the contract annexation process.**

Finding: No concurrent development applications are submitted with this annexation request, therefore there is no request or need for a development review type at this time.

15.250.080 Comprehensive plan and zoning designations.

A. The comprehensive plan map designation of the property at the time of annexation shall be used as a criterion to determine whether or not the proposed request complies with the Newberg comprehensive plan. A redesignation of the comprehensive plan map may be requested concurrent with annexation. The proposed redesignation shall then be used to determine compliance with the Newberg comprehensive plan.

Finding: The existing comprehensive plan map designation on the subject property is LDR (Low Density Residential), and in accordance with this code, approximately 18 percent of the net area being annexed into the City will be redesignated as HDR (High Density Residential). A redesignation and zone change are requested concurrent with this annexation application. The existing and proposed designations comply with the Newberg comprehensive plan. This standard is met.

B. Upon annexation, the area annexed shall be automatically zoned to the corresponding land use zoning classification which implements the Newberg comprehensive plan map designation. The corresponding designations are shown in the table below. The procedures and criteria of NMC 15.302.030 shall not be required.

Comprehensive Plan Classification	Appropriate Zoning Classification
LDR	R-1
HDR	R-3

Finding: The proposed area will contain mostly R-1 zoned lands upon approval of the annexation application. In accordance with 15.250.030.A.1., the area to be annexed shall concurrently apply for a comprehensive plan map amendment to include some HDR-designated/R-3 zoned lands. This annexation application qualifies as a "large" area because it is greater than 15 acres in size, therefore "some" of the area to be annexed, (defined as 10 percent of the net size of the application) will be zoned as HDR-designated R-3 lands.

The total area of the subject property is 834,807 square feet, or 19.16 acres. After subtracting land in stream corridor overlays the subject property is 819,882 square feet, or 18.82 net acres. A total of 129,552 square feet, or 2.92 acres of land will be designated as HDR/R-3 lands after annexation. This is approximately 16 percent of the net size of the subject property, which exceeds the requirement.

The R-3 lands are located dispersed throughout the proposed annexation. The proposed HDR/R-3 zoning areas are demonstrated on the Proposed Comprehensive and Zoning

Designations submitted in Appendix B, and on the General Land Use Plan (Sheet C210) provided in Appendix E. This standard is met.

C. If a zoning classification is requested by the applicant for other than that described in subsection (B) of this section, the criteria of NMC 15.302.030 shall apply. This application shall be submitted concurrently with the annexation application.

Finding: The criteria of NMC 15.302.030 is addressed in this narrative.

D. In the event that the annexation request is denied, the zone change request shall also be denied.

Finding: The Applicant understands and acknowledges this standard.

15.250.090 Coordination.
Annexation requests shall be coordinated with affected public and private agencies, including, but not limited to, Yamhill County, Chehalem Park and Recreation District, Newberg School District, Northwest Natural Gas, Portland General Electric, and, where appropriate, various state agencies. Coordination shall be made by referral of annexation request to these bodies sufficiently in advance of final city action to allow for reviews and recommendations to be incorporated into the

Finding: The Applicant understands and acknowledges this criteria.

Division 15.300 Zoning Districts
Chapter 15.302 DISTRICTS AND THEIR AMENDMENT
15.302.030 Procedures for comprehensive plan map and zoning map amendments.
This section describes the procedures and criteria that apply to any application to amend the land use designations identified on the comprehensive plan map, zoning map and land use regulations.

A. Type III Plan and Zoning Map Amendments – One Parcel or Small Group of Parcels.

1. **Property owners or the city may initiate a map amendment for one parcel or a small group of parcels under the Type III procedure. May be initiated by a resolution of the planning commission or city council. Unlike other Type III procedures, the decision of the planning commission on a Type III plan map amendment shall be in the form of a recommendation to the city council. The city council shall hold another new hearing and make a final decision.**
2. **Where an application has been denied, no new application for the same purpose shall be filed within one year of the date of the previous denial unless the city council for good cause shall grant permission to do so.**

Finding: This Type III comprehensive plan map and zoning map amendment request for a single parcel was initiated by the owner of the subject property in accordance with this code.

The Applicant acknowledges the applicable provisions of Section 15.303.030.A.1-2. regarding the Type III review procedures. This standard is met.

3. **Amendment Criteria. The owner must demonstrate compliance with the following criteria:**
   a. **The proposed change is consistent with and promotes the goals and policies of the Newberg comprehensive plan and this code;**

Finding: The proposed zone change meets the requirement to provide 10 percent of the net size of the application as HDR/R-3 designated land, demonstrating the proposed change is consistent with this code. Each applicable section of the Newberg Development Code, and the applicable goals and policies of the Newberg Comprehensive Plan have been addressed in this narrative. This standard is met.

   b. **Public facilities and services are or can be reasonably made available to support the uses allowed by the proposed change;**

Finding: The proposed zone change on the subject parcel is located within the UGB and upon annexation will be within the Newberg city limits. The Applicant has provided findings in this narrative discussing how public facilities and services will be made available to support the uses allowed by the proposed change. This standard is met.

   c. **Compliance with the State Transportation Planning Rule (OAR 660-012-0060) for proposals that significantly affect transportation facilities.**

Finding: In accordance with this code, the Applicant has submitted a Traffic Impact Analysis with this application provided in Appendix D, demonstrating compliance with the State Transportation Planning Rule (OAR 660-012-0060). Specific findings detailing compliance with the Goal 12, Transportation element are included in this narrative.

4. **The property owner who desired to have their property reclassified has the burden of establishing that the requested classification meets the requirements of this section. As part of the application, the property owner requesting a change shall file a waiver stating that the owner will not file any demand against the city under Ballot Measure 49, approved November 6, 2007, that amended ORS Chapters 195 and 197.**

Finding: A Ballot Measure 49 waiver included in Appendix A has been submitted by the Applicant stating that a demand against the City will not be filed. This standard is met.

5. **A traffic study shall be submitted for any proposed change that would significantly affect a transportation facility, or that would allow uses that would increase trip generation in excess of 40 trips per p.m. peak hour. This requirement may be waived by the director when a determination is made that a previous traffic study adequately addresses the proposal and/or when off-site and frontage**

improvements have already been completed, which adequately mitigate any traffic impacts and/or the proposed use is not in a location, which is adjacent to an intersection, which is functioning at a poor level of service. A traffic study may be required by the director for changes in areas below 40 trips per p.m. peak hour where the use is located immediately adjacent to an intersection functioning at a poor level of service. The traffic study shall be conducted according to the City of Newberg design standards.

Finding: A Traffic Impact Analysis (TIA) has been submitted with this application that demonstrates the impacts to the level of service on four study intersections upon completion of a residential subdivision on the subject property. Recommendations for mitigating the impacts are included in the report. The TIA is submitted with this application in Appendix D. This standard is met.

15.302.032 Purposes of each zoning district.

A. R-1 Low Density Residential District.

1. **The purpose of this land use designation is to provide a stable and healthful residential environment together with the full range of urban services. The R-1 zone is intended for low density urban residential uses at an average overall density of 4.4 units per gross buildable acre, and/or middle housing densities consistent with applicable minimum lot sizes, in the district.**
2. **Typical housing types will include single-family dwellings, duplex dwellings, triplex dwellings, quadplex dwellings, townhouse dwellings, cottage cluster projects, limited multifamily dwellings and planned unit developments. The district also is intended to allow low intensity institutional uses that operate consistent with peaceful enjoyment of residential neighborhoods. The R-1 district is intended to be consistent with the low density residential (LDR) designation of the comprehensive plan.**

Finding: The subject property is primary designated LDR, with R-1 Zoning. The Applicant acknowledges the purpose and typical housing types for the R-1 zone. Future development of the subject parcel will provide residential housing that will meet the density standards of the code which will be verified during the development application review procedures in accordance with the Newberg Title 15 Development Code. This standard is met.

C. R-3 High Density Residential District.

1. **The purpose of this land use designation is to provide dwellings of different types and styles at an average overall density of 16.5 units per gross buildable acre, and/or middle housing densities consistent with applicable minimum lot sizes, in the district.**
2. **Typical housing types will include duplex dwellings, triplex dwellings, quadplex dwellings, townhouse dwellings, cottage cluster projects, multifamily dwellings, and manufactured dwelling and mobile home parks. The district also is intended to**

allow low intensity institutional uses that operate consistent with peaceful enjoyment of residential neighborhoods. Density may vary depending on lot size, off-street parking area, transportation, landscaping and other site considerations. The R-3 district is intended to be consistent with the high density residential (HDR) designation of the comprehensive plan.

Finding: As required by 15.250.030.A.1., this annexation application will redesignate a portion of the subject parcel as HDR/R-3 zoning. The proposal exceeds the requirement of providing 10 percent of the net area of the parcel as HDR/R-3 land, as demonstrated on the General Land Use Plan (Sheet C210) provided in Appendix E. The Applicant acknowledges the purpose and typical housing types for the R-3 zone. Future development of the subject parcel will provide residential housing that will meet the density standards of the code which will be verified during the development application review procedures in accordance with the Newberg Title 15 Development Code. This standard is met.

CITY OF NEWBERG COMPREHENSIVE PLAN

Applicable goals and policies of the Newbery Comprehensive Plan are set forth below with findings demonstrating the proposals consistency with these goals and policies.

A. CITIZEN INVOLVEMENT

GOAL: To maintain a Citizen Involvement Program that offers citizens the opportunity for involvement in all phases of the planning process.

Finding: This application for an annexation, comprehensive plan map amendment, and zone change will be reviewed and decided upon concurrently through the Type III procedures. The City's public hearing procedures for the concurrent applications meet the requirements of this Goal for citizen involvement in the land use process.

The planning director will review a public notice letter that will be sent at least twenty days before the first public hearing on this application. A public notice sign will be reviewed by the director and posted at least 10 days before the first scheduled hearing. The mailed public notices will be sent to neighboring community members and the posted notice will be made visible from the right-of-way adjacent to the subject property in accordance with the Newberg Title 15 Development Code. Both public notices will invite community members to be involved in the land use process. Interested community members are given the opportunity to provide written and verbal comments that will be entered into the public record during the planning commission hearing. The Applicant finds that the proposal is consistent with this goal.

B. LAND USE PLANNING

GOAL: To maintain an on-going land use planning program to implement statewide and local goals. The program shall be consistent with natural and cultural resources and needs.

POLICIES:

2. **The Comprehensive Plan and implementing ordinances shall be reviewed continually and revised as needed. Major reviews shall be conducted during the State periodic review process.**

Finding: The proposed single parcel annexation, comprehensive plan map amendment, and zone change is not considered a major review and therefore separate from the State periodic review process. The Applicant will demonstrate compliance with all development standards in a subsequent development application for the subject parcel. The proposed comprehensive plan map amendment for a portion of the subject parcel is in compliance with the Newberg Title 15 Development Code, and therefore is consistent with this policy and comprehensive plan goal.

C. AGRICULTURAL LANDS

GOAL: To provide for the orderly and efficient transition from rural to urban land uses.

POLICIES:

1. **The conversion of urbanizable land from agricultural to urban land uses shall be orderly and efficient.**
2. **Agriculture is a part of our heritage, uniqueness, culture and future. Inclusion of lands in agricultural use within the Urban Growth Boundary is recognition of a commitment to future urbanization, as such lands are necessary to meet long-range population and economic needs, based on criteria outlined in the statewide Urbanization Goal. Urbanization of agricultural land shall be carefully considered and balanced with the needs of the community as a whole.**

Finding: This proposal is the first step for the conversion of urbanizable land from agricultural to urban land uses. The subject parcel is within the Urban Growth Boundary, therefore it has been recognized by the City as necessary to meet long-range population and economic needs. The urbanization of the agricultural land has been carefully considered by the Applicant and this initial step of annexation, comprehensive plan map amendment, and zone change applications will provide for the orderly and efficient conversion of this land to developable land. The future development of the site will maximize the utility of the land resource and enable the logical and efficient extension of services to future residential parcels. The Applicant finds that the proposal is consistent with this goal.

I. HOUSING

GOAL: To provide for diversity in the type, density and location of housing within the City to ensure there is an adequate supply of affordable housing units to meet the needs of City residents of various income levels.

POLICIES:

1. **Density Policies**
   a. **Needed housing, as identified in the Newberg Housing Needs Analysis shall be considered when examining different types of residential areas on the plan.**
   b. **Target densities shall be as follows: [density table omitted]**

c. **In determining net residential densities, developers may be given density credit for land donated and accepted by the City for needed public facilities.**
d. **The City encourages the creation of affordable housing through density bonuses. Developers may be given density bonuses for projects meeting minimum City standards for housing affordability and design, as defined under subsection 3, Housing Mix and Affordability.**

Finding: The future residential development that will occur after annexation helps alleviate some of the stated residential need identified in the 2021 Newberg Housing Needs Analysis (HNA). The HNA states that the forecast of demand for new dwelling units on vacant and partially vacant lands inside the Newberg UGB for the planning period of 2021 to 2041 is 1,881 Single-family detached dwelling units, 254 Single-family attached dwelling units, and 914 Multifamily dwelling units for a total of 3,049 dwelling units requiring vacant or partially vacant land. The future development of the site will address some of this need therefore this proposal is consistent with the policies and this comprehensive plan goal. The density of the future development will be consistent with the Newberg Title 15 Development Code. The Applicant finds that the proposal is consistent with this goal.

2. **Location Policies**
   a. **Medium and high density areas should be located for immediate access to collector streets or minor arterials and should not cause traffic to move through low density areas. High density areas should be easily accessible to arterial streets. They should also be located near commercial services and public open spaces.**
   b. **While the policies in (a) above are desirable, they are not absolute requirements and are a lower priority than the goal of dispersing R-3 multi-family housing throughout the City.**
   c. **The City will encourage medium - to high density- housing in and adjacent to the commercial core of the Riverfront District medium-density residential uses in the western and northern portions of the Riverfront District.**

Finding: The proposal proposes HDR/R-3 designated areas dispersed throughout the site, consistent with the location policies of the comprehensive plan Housing Goal.

3. **Mix Policies**

   [...]

   y. **Where large LDR or MDR designated parcels or groups of parcels are to be annexed, the applicant(s) shall concurrently apply for a comprehensive plan map amendment to include some HDR-designated/R-3 zoned lands, consistent with the policy of distributing R-3 multi-family housing throughout the community. Such zoning shall be**

applied to portions of the property that are most suitable for high density development.

For the purposes of this policy, "large" is defined as an area greater than 15 net acres, after subtracting for land in stream corridor overlays. "Some" is defined as 10% of the net size of the application.

Finding: This proposal is for a large LDR designated parcel to be annexed into the City, therefore the Applicant is concurrently applying for a comprehensive plan map amendment and zone change to include some HDR/R-3 lands, consistent with the policy of distributing R-3 zoned lands throughout the community. The Applicant finds that the proposal is consistent with the Mix Policies of the comprehensive plan Housing Goal.

J. URBAN DESIGN

Finding: Future development of the site under the proposed LDR/HDR designations will require development review approval by the City of Newberg. The Newberg Development code have standards implementing the urban design goals and policies that any development on the site must meet. Therefore, the Applicant finds that the proposal is consistent with this goal.

K. TRANSPORTATION

GOAL 2: Establish consistent policies which require concurrent consideration of transportation/land use system impacts.

POLICIES:

a. Transportation improvements should be used to guide urban development and should be designed to serve anticipated future needs.

Finding: A Traffic Impact Analysis (TIA) was prepared by DKS Associates and is submitted in Appendix D. As demonstrated in the TIA, the Applicant has evaluated the project impacts for the proposed annexation and future development scenarios. The TIA include recommendations for paying a percentage of fee for the future intersection improvements to mitigate impacts associated with future development on the transportation network. The Applicant finds that the proposal is consistent with this goal.

N. URBANIAZATION

GOALS:

1. **To provide for the orderly and efficient transition from rural to urban land uses.**
2. **To maintain Newberg's identity as a community which is separate from the Portland Metropolitan area.**
3. **To create a quality living environment through a balanced growth of urban and cultural activities.**

POLICIES:

1. **Urban Growth Boundary and Urban Reserve Area Policies**

a. The conversion of lands from rural to urban uses within the Urban Growth Boundary will be based on a specific plan for the extension of urban services.

Finding: The subject site is within the Urban Growth Boundary and this proposal demonstrates the plan for the extension of urban services to the subject site. The proposed plan for extension of urban services will accommodate future development of the site. The Applicant finds that the proposal is consistent with this policy.

b. The City shall oppose urban development outside the City limits but within the Newberg Area Influence.

Finding: The Newberg Urban Area Growth Management Agreement defines the Area of Influence as the area that extends one mile outside Newberg's Urban Growth Boundary. The subject property is within the Urban Growth Boundary, therefore it is not within the Newberg Area of Influence. The Applicant finds that the proposal is consistent with this policy.

d. The Urban Growth Boundary shall designate urbanizable land.

Finding: The subject site is within the Newberg Urban Growth Boundary, therefore it is designated as urbanizable land. The Applicant finds that the proposal is consistent with this policy.

e. The City will support development within the areas outside the City limits but within the Newberg Urban Growth Boundary or Urban Reserve Area based on the following standards or restrictions:

- **Residential development will be allowed on the basis of one house per 10 acres, or any lot of record created prior to January 1, 1989.**
- **New commercial and industrial uses will generally be discouraged within the UGB and Urban Reserve Area.**
- **Agricultural uses will be in accordance with the Yamhill County Comprehensive Plan.**
- **The City and County shall coordinate plans for interim rural residential development within the designated Urban Reserve Area. After street and utility corridor plans are adopted, overall rural residential densities shall be limited to one dwelling per five acres. The following strategies will be used to ensure that interim rural development does not inhibit long-term urbanization of lands within the Newberg UGB and Urban Reserve Area (these include but are not limited to):**
    1) **shadow plats**
    2) **cluster development**
    3) **redevelopment plans**

4) **non-remonstrance agreements for annexation and provision of urban facilities**

Development not meeting the standards may be opposed by the City.

Finding: The subject site is within the Urban Growth Boundary and is proposed to be annexed into the city limits with this application. Residential development will be proposed in a development application submitted at a later date, and will likely propose development through the use of the PUD procedures. No new commercial, industrial, or agricultural uses will be proposed with the PUD development application for the subject site, as it will be proposed for residential uses only. The Applicant finds that the proposal is consistent with this policy and recommends support by the City.

2. **Annexation Policies**
   a. **The City shall amend the annexation ordinance to streamline the procedures used for annexations.**
   b. **If it appears that a proposed annexation would create excessive public costs or impacts on the surrounding area, an analysis of costs and/or impacts will be required.**
   c. **Property outside the Urban Growth Boundary may be annexed only upon inclusion of such property into the Urban Growth Boundary.**

Finding: The proposal will result in minimal public costs or impacts on the surrounding area, therefore an analysis of costs or impacts has not been required by the City. The subject site is located within the Urban Growth Boundary and is feasible for annexation into the city limits. The Applicant finds that the proposal is consistent with these policies, and with the Urbanization goals of the Newberg Comprehensive Plan.

SUMMARY AND CONCLUSION

Based upon the materials submitted herein, the application is consistent with the applicable provisions of the Newberg Municipal Code and City of Newberg Comprehensive Plan. The evidence in the record is substantial and supports approval of this application. The Applicant respectfully requests approval from the City of Newberg City Council for this annexation, comprehensive plan map amendment, and zone change on the subject property.

Appendix A - Application Forms

3809 NE Springbrook Road Annexation

08/16/2024

- Application Form
- Legal Description
- Boundary Survey
- Consent to Annex
- Waiver of Expiration of Annexation Consent
- Measure 49 Waiver
- Current Title Report

TYPE III APPLICATION (QUASI-JUDICIAL REVIEW)

File #: _____

TYPES – PLEASE CHECK ONE:

- ☑ **Annexation**
- ☑ **Comprehensive Plan Amendment (site specific)**
- ☑ **Zoning Amendment (site specific)**
- ☐ **Historic Landmark Modification/alteration**
- ☐ **Conditional Use Permit**
- ☐ **Type III Major Modification**
- ☐ **Planned Unit Development**
- ☐ **Other: (Explain)** _____

APPLICANT INFORMATION:

APPLICANT: Ichijo USA Co.LTD C/O Masaki Narita

ADDRESS: 3800 Cedar Hills BLVD Suite 131 CITY: Beaverton STATE: OR ZIP: 97005

EMAIL ADDRESS: m-narita@ichijousa.com PHONE: (503) 430-7413 MOBILE:

OWNER *(if different from above)*: Ross D Kerr, Rolland G Kerr Jr PHONE: 503-537-6664

ADDRESS: 3809 NE Springbrook Rd CITY: Newberg STATE: OR ZIP: 97132

ENGINEER/SURVEYOR: 3J Consulting, Inc. CONTACT: Chase Welborn, PE

EMAIL ADDRESS: chase.welborn@3j-consulting.com PHONE: (503) 946-9365 MOBILE:

GENERAL INFORMATION:

PROJECT LOCATION: 3809 NE Springbrook Road PROJECT VALUATION: $

PROJECT DESCRIPTION/USE: Annexation

MAP/TAX LOT NO. (i.e.3200AB-400): R3209 02300 SITE SIZE: 19.16 SQ. FT. ☐ ACRE ☑

COMP PLAN DESIGNATION: Low Density Residential (LDR) CURRENT ZONING: None

CURRENT USE: Single Family Home TOPOGRAPY: Sloping

SURROUNDING USES:

NORTH: Yamhill County AF-10 SOUTH: SD/H Springbrook District - Hospitality

EAST: Yamhill County AF-10 / VLRD 2.5 WEST: Yamhill County AF-10

ATTACHED PROJECT CRITERIA AND REQUIREMENTS *(check all that is included)*

General Checklist: ☑ Fees ☑ Public Notice Information ☑ Current Title Report(*60 days*) ☑ Written Criteria Response ☑ Owner Signature ☑ 1 -Digital Copy of Full Application Packet

For the type of project detailed checklists and applicable criteria for the written criteria response, turn to:

Annexation	**p. 11**
Comprehensive Plan / Zoning Map Amendment (site specific)	**p. 20**
Conditional Use Permit	**p. 26**
Historic Landmark Modification/Alteration	**p. 32**
Planned Unit Development	**p. 34**

Submit a complete Application Packet to *Planning@newbergoregon.gov*

Tentative plans must substantially conform to all standards, regulations, and procedures officially adopted by the City of Newberg. All owners must sign the application or submit letters of consent. Incomplete or missing information may delay the approval process.

The above statements and information herein contained are in all respects true, complete, and correct to the best of my knowledge and belief.

Masaki Narita Digitally signed by Masaki Narita DN: cn=Masaki Narita, c=US, email=m-narita@ichijousa.com Date: 2024.07.02 18:09:06 -07'00' 7/9/24

Applicant Signature Date

Ross D. Kerr 7/9/24

Owner Signature Date

Masaki Narita

Print Name

Ross D Kerr, Rolland G Kerr Jr

Print Name

NEWBERG PERMIT CENTER FEE SCHEDULE

Effective Date: April 1,2024

5% TECHNOLOGY FEE WILL BE ADDED TO TOTAL FEES *(Resolution No. 2016-3268)*

PRE-APPLICATION REVIEW	**$100**
TYPE I (ADMINISTRATIVE REVIEW)	
OTHER:ANY TYPE I ACTION NOT SPECIFICALLY LISTED IN THIS SECTION	$208
HOME OCCUPATION BUSINESS LICENSE REVIEW	$208
* ADU DESIGN REVIEW	$208
* COTTAGE CLUSTER DESIGN REVIEW	$417
PROPERTY CONSOLIDATION	$208
CODE ADJUSTMENT	$521
* DESIGN REVIEW (DUPLEX OR COM. /IND. MINOR ADDITION REVIEW	0.3% OF PROJECT VALUE, $521 MINIMUM
MINOR MODIFICATION OR EXTENSION OF TYPE I DECISION	$208
MAJOR MODIFICATION OF TYPE I DECISION	50% OF ORIGINAL FEE
* PARTITION FINAL PLAT	$1,048 + $90 PER PARCEL
PROPERTY LINE ADJUSTMENT	$1,048
SIGN REVIEW	$91 + $1.00 PER SQ. FT. OF SIGN FACE
* SUBDIVISION, PUD, OR CONDOMINIUM FINAL PLAT	$2,101 + $90 PER LOT OR UNIT
HISTORIC LANDMARK MINOR ALTERATION/DEMOLITION	$0
TYPE II (LAND USE DECISION)	
OTHER-ANY TYPE II ACTION NOT SPECIFICALLY LISTED IN THIS SECTION	$1,048
MINOR MODIFICATION OR EXTENSION OF TYPE II DECISION	$208
MAJOR MODIFICATION OF TYPE II DECISION	50% OF ORIGINAL FEE
* DESIGN REVIEW (INCLUDING MOBILE/MANUFACTURED HOME PARKS)	0.6% OF TOTAL PROJECT COST, $1,048 MINIMUM
* PARTITION PRELIMINARY PLAT	$1,048 + $90 PER PARCEL
* SUBDIVISION PRELIMINARY PLAT	$2,101 + $90 PER LOT
VARIANCE	$1,048
TYPE III (QUASI-JUDICIAL REVIEW)	
OTHER-ANY TYPE III ACTION NOT SPECIFICALLY LISTED IN THIS SECTION	$2,226
ANNEXATION	$2,926 + $278 PER ACRE
COMPREHENSIVE PLAN AMENDMENT (SITE SPECIFIC)	$2,742
CONDITIONAL USE PERMIT	$2,226
MINOR MODIFICATION OR EXTENSION OF TYPE III DECISION	$208
MAJOR MODIFICATION OF TYPE III DECISION	50% OF ORIGINAL FEE
HISTORIC LANDMARK ESTABLISHMENT OR MODIFICATION	$0
HISTORIC LANDMARK ELIMINATION	$2,552
* SUBDIVISION PRELIMINARY PLAT	$2,101 + $90 PER LOT
* PLANNED UNIT DEVELOPMENT	$4,446 + $90 PER LOT
ZONING AMENDMENT (SITE SPECIFIC)	$2,772
TYPE IV (LEGISLATIVE AMENDMENTS)	
COMPREHENSIVE PLAN TEXT AMENDMENT OR LARGE SCALE MAP REVISION	$3,153
DEVELOPMENT CODE TEXT AMENDMENT OR LARGE SCALE MAP REVISION	$3,153
APPEALS	
TYPE I OR II APPEAL TO PLANNING COMMISSION	$601
TYPE I OR II APPEAL TO CITY COUNCIL	$1,089
TYPE III APPEAL TO CITY COUNCIL	$1,279
TYPE I ADJUSTMENTS OR TYPE II VARIANCES *(That are not designed to reculate the phyusical characteristics ofa use permitted outright)*	$336
EXHIBITOR LICENSE FEE APPPEAL TO THE CITY COUNCIL	50% OF EXIBITOR LICENSE FEE
OTHER FEES	
TECHNOLOGY FEE *(This fee will be added to all Planning, Engineering and Building Fees, does not apply to SDC fees)*	5% OF TOTAL
TREES IN PUBLIC RIGHT-OF-WAY REMOVAL PERMIT	$10.50
EXPEDITED LAND DIVISION	$7,812 + $90 PER LOT OR UNIT
URBAN GROWTH BOUNDARY AMENDMENT	$4,992
VACATION OF PUBLIC RIGHT-OF-WAY	$2,071
FEE-IN-LIEU OF PARKING PROGRAM	$16,295 PER VEHICLE SPACE
VERTICAL HOUSING DEVELOPMENT ZONE FEES	$600 CERTIFICATION & APPLICATION FEE $400 ANNUAL MONITORING FEE
BIKE RACK COST SHARING PROGRAM	$100 PER RACK
LICENSE FEES	
GENERAL BUSINESS	$50
HOME OCCUPATION	$25
PEDDLER/SOLICITOR/STREET VENDOR	NO FEE (*GENERAL BUSINESS LICENSE FEE ONLY*)
EXHIBITOR	$152
TEMPORARY MERCHANT	$123/45 DAYS OR $414/PERPETUAL

***ADDITIONAL LAND USE REVIEW FEES – ENGINEERING DEPARTMENT**	
ALL DESIGN REVIEWS & TYPE II/III PARTITION, SUBDIVISION, PUD'S & MHLD	$340.79 + $15.14 PER LOT OVER 19 LOT'S
FINAL PLAT REVIEW: PARTITION, SUBDIVISION & MHLD	$340.79 + $8.56 PER LOT OR PARCEL
DEVELOPMENT REVIEW FOR PUBLIC IMPROVEMENTS ON COMMERCIAL, INDUSTRIAL, INSTITUTIONAL ZONES, & MULTIFAMILY DEVELOPMENTS	$476.60 1ST ACRE + $272.24 PER ADDITIONAL ACRES

Adoption: Resolution NO: 2024-3920, March 18,2024

EXHIBIT "A"

Legal Description

PARCEL 1:

Beginning at a point 160 rods North and 46 rods West of the Southeast corner of the Solomon Heater and wife Donation Land Claim in Township 3 South, Range 2 West of the Willamette Meridian in Yamhill County, Oregon; thence running West 400 feet; thence South 300 feet to the center of the County Road and 50 feet North of the center of the railroad track of the Southern Pacific Company; and thence in a Northeasterly direction along the center of said County Road to the Point of Beginning.

PARCEL 2:

A tract of land in Section 9, Township 3 South, Range 2 West of the Willamette Meridian in Yamhill County, Oregon, more particularly described as follows:

Being a part of the Solomon Heater Donation Land Claim, Notification No. 1471, Claim No. 48 in Section 9, Township 3 South, Range 2 West of the Willamette Meridian in Yamhill County, Oregon, and beginning at an iron pipe in the County Road at point 45.23 chains North and 10.00 chains West from the Southeast corner of said Heater Claim; thence North 89°24' West 6.105 chains to a set iron pipe for corner; and the True Point of Beginning of the property herein described; thence North 5.705 chains to a set stake at the Northeast corner of a 3 acre tract; thence North 89°24' West along the North line of said 3 acre tract, 15.356 chains to a stake on division line of said Heater Claim; thence South along the division line of said claim, 11.235 chains to the North line of that certain tract conveyed to Florence Rees Baldwin by Deed recorded in Book 85, Page 383, Deed Records; thence North 89°51' East along the North line of said Baldwin tract and the North line of the Mills tract and the same extended Easterly to the Southerly Southwest corner of that certain tract conveyed by Fred Kincaid et ux. to Elvin Mills et ux., by Deed recorded November 16, 1962 in Film Volume 26, Page 656, Deed and Mortgage Records; thence North 55 feet; thence West 14 feet; thence North 240 feet; thence West 130 feet; thence North 64 feet to the Point of Beginning.

EXCEPTING THEREFROM that certain tract conveyed by Emma O. Kincaid to Springbrook Packing Company, by Deed recorded February 21, 1938 in Book 114, Page 1, Deed Records.

CS-13948

Received 6/4/2024
County Surveyor

RECORD OF SURVEY

LOCATED IN THE SW 1/4 SECTION 9, T.3S, R.2E., W.M.
YAMHILL COUNTY, OREGON

MAY 29, 2024 SCALE: 1" = 100'

PREPARED FOR 3J CONSULTING

Survey prepared by:

Compass Land Surveyors
4107 International Way, Suite 705
Milwaukie, Oregon 97222
Phone: 503-653-9093
8776 Bnd.dwg

N
W E
S

100' 0' 100'

SCALE: 1" = 100'

FOUND 5/8" IR/YPC STAMPED "W.L. JONES" (CSP 9693)

FOUND 3/4" IP S22°02'54"W 1.69' (U.O.)

FOUND 5/8" IR/YPC STAMPED "SUMMERS LS 1042" (P1) HELD

N01°23'23"E 113.74' (113.77' P1)

PARCEL 2
PARTITION PLAT 1996-14

BASIS OF BEARINGS:
S87°35'42"E 1012.14' (1012.24' P1)

FOUND 5/8" IR/YPC STAMPED "SUMMERS PLS 1042" (P1) ON LINE

FOUND 5/8" IR/YPC STAMPED "SUMMERS PLS 1042" (P1) HELD

53.90' M (54.00' P1)

INSTR. NO. 2022-04258

N01°23'23"E 595.25'

S01°48'53"W 435.67' (435.75' P1)

PARCEL 1
PARTITION PLAT 1996-14

FOUND 5/8" IR/YPC ILLEGIBLE (P1)

FOUND 5/8" IR/YPC STAMPED "LING PLS 1433" (P3)

30' 30'

N01°47'53"E 794.78' (794.95' P1)

SPRINGBROOK ROAD (CR NO. 55)

258.75' (258.76' P3)

LOT 5

FOUND 5/8" IR, NO CAP, (P3)

213.73' (213.76' P3)

LOT 6

"COUNTRY ESTATES"

FOUND 5/8" IR/YPC STAMPED "LING PLS 1433" (P3)

N01°47'53"E 1038.16' (1038.33' P3)

LOT 7

30' 30'

565.67' (565.81' P3)

LOT 8

FOUND 3/4" IP (CS 2805) ON LINE

FOUND 5/8" IR/YPC STAMPED "SUMMERS PLS 1042" (P1) HELD

FOUND 5/8" IR, BENT, (P1)

S88°09'28"E

129.87'

N89°24'52"E 10.00'

FOUND 5/8" IR/YPC STAMPED "D. COOLEY PLS 1806" (R1) HELD

INSTR. NO. 2012-05337

N01°47'53"E 146.65'

20' 30'

CENTERLINE TRAVELED ROADWAY

L=184.41'
R=250.00'
D=42°15'52"
CH=N22°55'49"E 180.26'

FOUND 5/8" IR/YPC STAMPED "LING PLS 1433" (P3)

S01°46'28"W 240.12' (240.00' R1)

S87°55'36"E 13.96' (14.00' R1)

FOUND 5/8" IR, NO CAP, (R1) HELD

FOUND 5/8" IR/YPC STAMPED "D. COOLEY PLS 1806" (R1) HELD

N44°03'45"E 25.52'

S01°46'28"W 54.05' (54.00' R1)

S88°20'05"E 156.81'

FOUND 5/8" IR, NO CAP, DOWN 0.3', N88°20'05"W 0.33'

NE BENJAMIN RD (CR NO. 54)

S88°20'05"E 659.06' M/M (659.39')
(659.41' P1 & P2)

30' 20'

FOUND 5/8" IR, NO CAP, (U.O.) N01°39'55"E 0.27'

LOT 9
"SPRINGBROOK DISTRICT"

L=214.36'
R=820.00'
D=14°58'40"
CH=S51°33'05"W 213.75'

S44°03'45"W 134.63'

S44°11'52"W 157.65' (157.66' P2)

SOUTHERN PACIFIC RAILROAD

FOUND 5/8" IR/YPC STAMPED "WRG DESIGN INC" (R2)

SPIRAL CHORD S45°53'46"W 122.32'

FOUND 3/4" IP N45°16'02"E 6.71' FROM P.C. (U.O.)

L=81.28' (81.27' P2)
R=793.94'
D=05°51'55"
CH=S51°37'49"W 81.24'

FOUND 5/8" IR/YPC STAMPED "WRG DESIGN INC" (R2)

66.30' (66.32'P2)

56.02' (56.00'P2)

SPIRAL CHORD S57°21'53"W

S36°57'35"E 20.00'

FOUND 1-5/32" BRASS PLUG STAMPED "CARDNO WRG INC" (R2) HELD

N02°14'51"E 330.63' (330.55' P2)

17.92' (17.93' P2)

S59°02'25"W 173.36'

59.71' (59.75' P2)

ON LINE

S59°02'25"W 823.90' (823.95' P2)

FOUND 3/4" IP N02°14'51"E 1.57' (1.67' P2) HELD FOR EAST-WEST LINE

S88°20'05"E 1921.40' M (1921.28' R2)

LOT 10
"SPRINGBROOK DISTRICT"

234.00' (233.97' P2)

ON LINE

240.09' (240.00' R3)

FOUND 1" IP (CSP 2206) ON LINE

FOUND 1-1/2" IP N89°54'54"W 0.10' (U.O.)

N88°16'58"W HELD

HELD

148.05' (148.00' P2)

N01°42'26"E 148.03' M & P2

FOUND 3/4" IP N01°39'55"E 3.60' (CSP 5753)

191.32' (191.47' R3)

529.30' (529.24' P2)

N88°20'05"W 763.30' (763.21' P2)

FOUND 5/8" IR/YPC ILLEGIBLE (P2) HELD

LOT 7
"SPRINGBROOK DISTRICT"

DETAIL

SCALE: 1" = 50'

S88°12'07"E 30.00'

FOUND 5/8" IR/YPC STAMPED "LING PLS 1433" (P3)

30'

MONUMENT FALLS IN A TREE. SET N01°46'28"E 2.00' FROM TRUE CORNER.

MONUMENT FALLS IN A TREE. SET S88°20'05"E 2.00' FROM TRUE CORNER.

S01°46'28"W

S88°20'05"E 156.81'

S44°03'45"W

N01°47'53"E 89.69'

FOUND 5/8" IR N88°20'05"W 0.33'

SOUTHERN PACIFIC RAILROAD

30'

NE BENJAMIN RD

N88°20'05"W 258.96' (259.00' R1, 258.62' R3)

S88°20'05"E 659.06' M/M (659.39', 659.41' P1 & P2)

20'

FOUND 5/8" IR, NO CAP, (CSP 4474)

FOUND 3/4" IP S85°31'43"W 1.65' (1.72' P2)

S88°20'05"E 631.00' (630.91' P2)

30'

S21°23'23"E 21.74'

N44°11'52"E 13.57' M&P2

FOUND 5/8" IR/YPC STAMPED "CARDNO WRG INC"

FOUND 5/8" IR, NO CAP, (U.O.) N01°39'55"E 0.27'

S46°51'57"W 28.00' M/M

REFERENCE SURVEYS

R1 CSP 8558
R2 CS 12375
R3 CSP 9350
CS 2805
CS 5753
CS 12764
CRS 393
CSP 8401
CSP 5760
CSP 7568
CSP 6103
CSP 9693

P1 PARTITION PLAT NO. 1996-14
P2 "SPRINGBROOK DISTRICT", VOL 15, PAGE 2
P3 "COUNTRY ESTATES", VOL 10, PAGE 27
"SANDBAK ACRES", VOL 8, PAGE 28
PARTITION PLAT NO. 2017-16

LEGEND:

- ○ DENOTES 5/8" DIAMETER BY 30 INCH LONG IRON ROD WITH A YELLOW PLASTIC CAP STAMPED "COMPASS LAND SURVEYORS", UNLESS NOTED OTHERWISE, SET ON MAY 29, 2024
- ◔ DENOTES 5/8" DIAMETER IRON ROD WITH A YELLOW PLASTIC CAP STAMPED "CARDNO WRG INC" (P2)
- ● DENOTES MONUMENT FOUND AS NOTED
- IR IRON ROD
- IP IRON PIPE
- P PLAT DIMENSION, SEE REFERENCE SURVEYS
- R RECORD DIMENSION, SEE REFERENCE SURVEYS
- YPC YELLOW PLASTIC CAP
- (O.U.) ORIGIN UNKNOWN
- M/M MONUMENT TO MONUMENT
- INSTR. INSTRUMENT (YAMHILL COUNTY DEED RECORDS)

NARRATIVE:

1. PURPOSE: THE PURPOSE OF THIS SURVEY WAS TO LOCATE PARCELS 1 AND 2 AS DESCRIBED IN INSTRUMENT NO. 2002-06401, YAMHILL COUNTY DEED RECORDS, FOR THE OUTBOUNDS OF A PROPOSED SUBDIVISION.

2. BASIS OF BEARINGS: THE NORTH LINE OF THE SUBJECT PROPERTY, BEING THE SOUTH LINE OF OF PARCEL 2 AND THE WESTERLY REENTRANT LINE OF PARCEL 1, PARTITION PLAT 1996-14, YAMHILL COUNTY PLAT RECORDS, BETWEEN THE 5/8 INCH DIAMETER IRON ROD WITH A YELLOW PLASTIC CAP STAMPED "SUMMERS LS 1042" FOUND AT THE SOUTHWEST CORNER OF SAID PARCEL 2 AND THE 5/8 INCH DIAMETER IRON ROD WITH A YELLOW PLASTIC CAP STAMPED "SUMMERS LS 1042", FOUND AT THE WESTERLY REENTRANT CORNER OF SAID PARCEL 1, WAS HELD TO BE S.87°35'42"E., BEING BASED UPON GPS OBSERVATIONS TIED TO THE OREGON REAL-TIME GNSS NETWORK (ORGN) NAD 83 (2011) EPOCH 2010.00.

3. THE EAST LINE OF THE SUBJECT PROPERTY WAS HELD FROM THE MONUMENT AT THE AFORESAID SOUTHWEST CORNER OF PARCEL 2 TO THE MONUMENT MOST NORTHERLY EAST CORNER OF LOT 7, "SPRINGBROOK DISTRICT", VOL 15, PAGE 2, YAMHILL COUNTY PLAT RECORDS.

4. THE SOUTH LINE OF THE SUBJECT PROPERTY WAS HELD TO THE NORTH LINES OF LOT 7 AND 10, AND THE EAST LINE OF LOT 10, AS MONUMENTED, NOTED AND SHOWN BY SAID PLAT "SPRINGBROOK DISTRICT", TO THE MONUMENTS AND NOTED POSITIONS THEREOF.

5. THE NORTHERLY EAST LINE OF THE SUBJECT PROPERTY WAS HELD TO THE MONUMENTED WEST AND SOUTH LINES OF AFORESAID PARCEL 1, PARTITION PLAT NO 1996-14. THE SOUTHERLY PORTION WAS HELD TO WEST AND SOUTH LINES OF INSTRUMENT NO. 2012-05337, YAMHILL COUNTY DEED RECORDS AS MONUMENTED AND SHOWN IN CSP-8558, YAMHILL COUNTY SURVEY RECORDS, TO THE MONUMENTS AND NOTED POSITIONS THEREOF.

6. THE NORTHWESTERLY RIGHT OF WAY OF SPRINGBROOK ROAD (CR NO. 55, 40.00 FEET WIDE) WAS HELD 20.00 FEET NORTHWESTERLY OF AND PARALLEL WITH THE SURVEYED TRAVELED CENTERLINE AS DESCRIBED IN AFORESAID INSTRUMENT NO. 2002-06401.

REGISTERED PROFESSIONAL LAND SURVEYOR

OREGON
FEBRUARY 8, 2000
JOSEPH C. McALLISTER
49695

DATE OF SIGNATURE: 5/30/24

EXPIRES: 12/31/2024

ANNEXATION CONSENT

TO THE HONORABLE MAYOR AND COUNCIL OF THE CITY OF NEWBERG, OREGON:

The undersigned Ross D Kerr
Rolland G Kerr Jr.

being the sole owner of the real premises described in Exhibit A attached hereto and incorporated by reference herein, and generally known as (address) 3809 NE Springbrook Rd, Newberg and (tax lot) R3209 02300, does hereby consent to the annexation of such territory above described to the City of Newberg, Oregon.

The undersigned does hereby respectfully petition that the real premises described in Exhibit A be annexed to the City of Newberg, Oregon, in the manner provided by the laws of the State of Oregon and the Charter and Ordinances of the City of Newberg, Oregon.

This consent is binding upon the heirs, successors, and assigns of the above listed property.

In construing this consent, the singular includes the plural as circumstances may require.

IN WITNESS WHEREOF, Petitioner has caused these presents to be executed this 9th day of July, 2024.

STATE OF OREGON, County of Yamhill ss July 09th 2024.
Month / day / year

Personally appeared the above named Ross D. Kerr and Rolland G. Kerr Jr

and acknowledged the foregoing instrument to be their voluntary act and deed.

Before me:
Molly Anne McDonnell
Notary Public for Yamhill County, Oregon
My commission expires Feb 21, 2027

OFFICIAL STAMP
MOLLY ANNE MCDONNELL
NOTARY PUBLIC - OREGON
COMMISSION NO. 1033343
MY COMMISSION EXPIRES FEBRUARY 21, 2027

AFTER RECORDING RETURN TO:
City of Newberg
Community Development Department
PO Box 970 – (414 E. First Street)
Newberg, OR 97132

COVENANT OF WAIVER OF RIGHTS AND REMEDIES

Recitals

1) The undersigned, Ross D Kerr and Rolland G Kerr Jr (hereinafter referred to as "Owner" or "Owners") has/have petitioned the City of Newberg (hereinafter referred to as "City") to commence certain proceedings, relating to annexation, for the real property described in **Exhibit A** which is attached hereto and incorporated herein.

2) Pursuant to the enactment of **Ballot Measure 49** (adopted November 6, 2007), if a public entity enacts one or more land use regulations that restrict the residential use of private real property or a farming or forest practice and that reduce the fair market value of the property, then the owner of the property shall be entitled to just compensation from the public entity that enacted the land use regulation or regulations as provided in Measure 49.

3) There is the potential that the Oregon electors or the Oregon Legislature may, in the future, enact further statutory or constitutional amendments relating to compensation for the impact of local regulations upon real property, under certain circumstances.

4) City does not wish to approve the Owner's/Owners' requested proceedings if the result would or could arguably give rise to a later claim by the Owner or Owners, or the Owner's/Owners' successors or assigns for compensation for the land use regulations in effect upon the effective date of the proceedings, or would or could arguably require the City to waive the City's land use regulations in effect upon the effective date of the proceedings, which are being newly imposed upon the property by reason and result of the proceedings.

5) Owner(s) seek(s) to induce the City to proceed with the proceedings and therefore Owner(s) agree(s) to eliminate the potential of claim for compensation or the right to seek waiver from the City's land use regulations existing as of the effective date of the proceedings.

NOW THEREFORE, the undersigned Owner(s) warrant(s) that the Owner(s) executing this covenant hold(s) the full and complete present ownership or any interest therein in the property, and hereby agree(s) and covenant(s) as follows:

1) As inducement to the City to proceed with the following proceeding(s) affecting the subject real property: 3809 NE Springbrook Rd, Newberg, which may include designation of the property as subject to additional applicable overlay zones and districts, e.g., Limited Use Overlay District, (all inclusively referred to herein as "proceedings"), the undersigned Owner(s), on behalf of Owner(s), Owner's/Owners' heirs, devisees, executors, administrators, successors and assigns, agree(s) and covenant(s) to the City of Newberg, its officers, agents, employees and assigns that the undersigned hereby remises, waives, releases and forever discharges, and agrees that Owner(s) shall be estopped from asserting any rights and remedies, actions, causes of action, suits, claims, liabilities, demands, and rights to waivers arising under or granted by any statutory or constitutional regulatory compensation or waiver provisions, including but not limited to Ballot Measure 49 (2007) or otherwise enacted after the date of this proceeding which would create a right of claim for compensation or waiver from City land use regulations that exist upon the effective date of the proceeding and which, by the approval of the proceeding, are then applicable to the property.

2) This waiver and release shall bind the undersigned's heirs, devisees, executors and administrators, successors in interests, and assigns. This covenant, waiver, release and discharge shall run with the land, and this instrument, or a memorandum hereof, may be recorded in the official records of the County in which the subject real property is located. This instrument may be terminated upon the filing of a Notice of Termination of Covenant filed by the City of Newberg.

3) If this instrument is given contemporaneous with a consent to future proceedings to be initiated by the City, Owner(s) acknowledge(s) that the proceedings may be initiated by the City of Newberg at any time in the discretion of the City of Newberg, and that this waiver and release is applicable to any ordinances adopted prior to the effective date of the proceeding.

4) This document is executed of my/our own free will and without duress. I, or if more than one, each of us respectively acknowledge that I/we have been advised to obtain legal advice prior to the execution of this document, and that either I, or each of us respectively, have either obtained legal advice or have independently elected not to seek legal advice prior to the execution of this document, recognizing that this document may affect my/our legal rights and remedies.

OWNER

Ross D. Kerr

OWNER

STATE OF OREGON)
) ss.
County of Yamhill)

This instrument was acknowledged before me on this 9th day of July, 2024, by Ross D. Kerr and Rolland G Kerr Jr..

Molly Anne McDonnell
Notary Public for Oregon
My Commission expires: Feb 21, 2027

OFFICIAL STAMP
MOLLY ANNE MCDONNELL
NOTARY PUBLIC - OREGON
COMMISSION NO. 1033343
MY COMMISSION EXPIRES FEBRUARY 21, 2027

CITY OF NEWBERG

City Recorder

Dated: _____

APPROVED AS TO FORM:

City Attorney

Dated: _____

WAIVER OF EXPIRATION OF ANNEXATION CONSENT

WHEREAS: The undersigned

Ross D Kerr

Rolland G Kerr Jr

as

owner(s) of certain property have signed a consent to annex that property to the City of Newberg, Oregon, which consent is attached; and

WHEREAS: ORS 222.173 provides that "only statements of consent to annexation which are filed within any one-year period shall be effective, unless separate written agreement waiving the one-year period or prescribing some other period of time has been entered into between an owner of land or an elector and the city."; and

WHEREAS: The owner(s) desire that this consent to annex be valid until the property is annexed.

NOW, THEREFORE:

The undersigned do hereby request that the attached consent to annex be valid until the property is annexed to the City of Newberg, Oregon.

In construing this consent, the singular includes the plural as circumstances may require.

IN WITNESS WHEREOF, Petitioner has caused these presents to be executed this 9th day of July, 2024.

STATE OF OREGON, County of Yamhill ss July 09, 2024.
month/day/year

Personally appeared the above named Ross D. Kerr and Rolland G. Kerr Jr

and acknowledged the foregoing instrument to be their voluntary act and deed.

Before me:

Molly Anne McDonnell

Notary Public for:

Yamhill County, Oregon

My commission expires:

Feb 21, 2027

OFFICIAL STAMP
MOLLY ANNE MCDONNELL
NOTARY PUBLIC - OREGON
COMMISSION NO. 1033343
MY COMMISSION EXPIRES FEBRUARY 21, 2027

PRELIMINARY REPORT

In response to the application for a policy of title insurance referenced herein Ticor Title Company of Oregon hereby reports that it is prepared to issue, or cause to be issued, as of the specified date, a policy or policies of title insurance describing the land and the estate or interest hereinafter set forth, insuring against loss which may be sustained by reason of any defect, lien or encumbrance not shown or referred to as an exception herein or not excluded from coverage pursuant to the printed Schedules or Conditions of said policy forms.

The printed Exceptions and Exclusions from the coverage of said policy or policies are set forth in Exhibit One. Copies of the policy forms should be read. They are available from the office which issued this report.

This report (and any supplements or amendments hereto) is issued solely for the purpose of facilitating the issuance of a policy of title insurance and no liability is assumed hereby.

The policy(s) of title insurance to be issued hereunder will be policy(s) of Chicago Title Insurance Company, a/an Florida corporation.

Please read the exceptions shown or referred to herein and the Exceptions and Exclusions set forth in Exhibit One of this report carefully. The Exceptions and Exclusions are meant to provide you with notice of matters which are not covered under the terms of the title insurance policy and should be carefully considered.

It is important to note that this preliminary report is not a written representation as to the condition of title and may not list all liens, defects and encumbrances affecting title to the land.

This preliminary report is for the exclusive use of the parties to the contemplated transaction, and the Company does not have any liability to any third parties nor any liability until the full premium is paid and a policy is issued. Until all necessary documents are placed of record, the Company reserves the right to amend or supplement this preliminary report.

Countersigned

Peter Harris

1455 SW Broadway, Suite 1450, Portland, OR 97201
(503)646-4444 FAX (503)469-4198

PRELIMINARY REPORT

TITLE OFFICER: Deborah Clark
deborah.clark@titlegroup.fntg.com
(503)535-3743

ORDER NO.: 471823128578
CUSTOMER NO.: 262303001
Supplement 1: Eff Date

TO: Lawyers Title
Eden Toothman
825 NE Multnomah Suite 1175
Portland, OR 97232

OWNER/SELLER: Ross D. Kerr and Rolland G. Kerr, Jr.
BUYER/BORROWER: Ichijo USA Co., LTD
PROPERTY ADDRESS: 3809 N Springbrook Road, Newberg, OR 97132

EFFECTIVE DATE: August 9, 2024, 08:00 AM

1. THE POLICY AND ENDORSEMENTS TO BE ISSUED AND THE RELATED CHARGES ARE:

	AMOUNT	PREMIUM
ALTA Owner's Policy 2021	$ 9,800,000.00	$ 24,165.00
Owner's Extended		
OTIRO Endorsement No. 110		$ 0.00

2. THE ESTATE OR INTEREST IN THE LAND HEREINAFTER DESCRIBED OR REFERRED TO COVERED BY THIS REPORT IS:

   A Fee

3. TITLE TO SAID ESTATE OR INTEREST AT THE DATE HEREOF IS VESTED IN:

   Ross D. Kerr, as to an undivided one-half interest and Rolland G. Kerr, Jr., as to an undivided one-half interest, as tenants in common

4. THE LAND REFERRED TO IN THIS REPORT IS SITUATED IN THE COUNTY OF YAMHILL, STATE OF OREGON, AND IS DESCRIBED AS FOLLOWS:

   SEE EXHIBIT "A" ATTACHED HERETO AND MADE A PART HEREOF

EXHIBIT "A"

Legal Description

PARCEL 1:

Beginning at a point 160 rods North and 46 rods West of the Southeast corner of the Solomon Heater and wife Donation Land Claim in Township 3 South, Range 2 West of the Willamette Meridian in Yamhill County, Oregon; thence running West 400 feet; thence South 300 feet to the center of the County Road and 50 feet North of the center of the railroad track of the Southern Pacific Company; and thence in a Northeasterly direction along the center of said County Road to the Point of Beginning.

PARCEL 2:

A tract of land in Section 9, Township 3 South, Range 2 West of the Willamette Meridian in Yamhill County, Oregon, more particularly described as follows:

Being a part of the Solomon Heater Donation Land Claim, Notification No. 1471, Claim No. 48 in Section 9, Township 3 South, Range 2 West of the Willamette Meridian in Yamhill County, Oregon, and beginning at an iron pipe in the County Road at point 45.23 chains North and 10.00 chains West from the Southeast corner of said Heater Claim; thence North 89°24' West 6.105 chains to a set iron pipe for corner; and the True Point of Beginning of the property herein described; thence North 5.705 chains to a set stake at the Northeast corner of a 3 acre tract; thence North 89°24' West along the North line of said 3 acre tract, 15.356 chains to a stake on division line of said Heater Claim; thence South along the division line of said claim, 11.235 chains to the North line of that certain tract conveyed to Florence Rees Baldwin by Deed recorded in Book 85, Page 383, Deed Records; thence North 89°51' East along the North line of said Baldwin tract and the North line of the Mills tract and the same extended Easterly to the Southerly Southwest corner of that certain tract conveyed by Fred Kincaid et ux. to Elvin Mills et ux., by Deed recorded November 16, 1962 in Film Volume 26, Page 656, Deed and Mortgage Records; thence North 55 feet; thence West 14 feet; thence North 240 feet; thence West 130 feet; thence North 64 feet to the Point of Beginning.

EXCEPTING THEREFROM that certain tract conveyed by Emma O. Kincaid to Springbrook Packing Company, by Deed recorded February 21, 1938 in Book 114, Page 1, Deed Records.

AS OF THE DATE OF THIS REPORT, ITEMS TO BE CONSIDERED AND EXCEPTIONS TO COVERAGE IN ADDITION TO THE PRINTED EXCEPTIONS AND EXCLUSIONS IN THE POLICY FORM WOULD BE AS FOLLOWS:

GENERAL EXCEPTIONS:

1. Taxes or assessments which are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the Public Records; proceedings by a public agency which may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the Public Records.

2. Any facts, rights, interests or claims, which are not shown by the Public Records but which could be ascertained by an inspection of the Land or by making inquiry of persons in possession thereof.

3. Easements, or claims of easement, which are not shown by the Public Records; reservations or exceptions in patents or in Acts authorizing the issuance thereof; water rights, claims or title to water.

4. Any encroachment (of existing improvements located on the Land onto adjoining land or of existing improvements located on adjoining land onto the subject Land), encumbrance, violation, variation or adverse circumstance affecting the Title that would be disclosed by an accurate and complete land survey of the subject Land.

5. Any lien or right to a lien for services, labor, material, equipment rental or workers compensation heretofore or hereafter furnished, imposed by law and not shown by the Public Records.

SPECIFIC ITEMS AND EXCEPTIONS:

6. As disclosed by the assessment and tax roll, the premises herein were once specially assessed for farmland, forestland or other special assessment status and later disqualified. Per ORS 308A.700 to 308A.733, additional taxes were imposed and remain as potential additional tax liability for the property. A check with the Assessor's office will be necessary to determine the effect and continuation of the additional tax liability.

   Additional Tax Liability Amount: $2,904.34

7. The Land has been classified as Forest land, as disclosed by the tax roll. If the Land becomes disqualified, said Land may be subject to additional taxes and/or penalties.

8. Rights of the public to any portion of the Land lying within the area commonly known as streets, roads and highways.

9. Any invalidity or defect in the title of the vestees in the event that the trust referred to herein is invalid or fails to grant sufficient powers to the trustee(s) or in the event there is a lack of compliance with the terms and provisions of the trust instrument.

   If title is to be insured in the trustee(s) of a trust (or if their act is to be insured), this Company will require a copy of said Trust Agreement or a Trust Certification pursuant to ORS Chapter 130.860.

   The Company reserves the right to make additional requirements or add additional items or exceptions after review of the requested documentation.

   Affects: The former ownership interest held under the Kerr Living Trust, dated March 27, 2002.

10. Please be advised that our search did not disclose any open Deeds of Trust of record. If you should have knowledge of any outstanding obligation, please contact the Title Department immediately for further review prior to closing.

11. If requested to issue an extended coverage ALTA loan policy, the following matters must be addressed:

    a) The rights of tenants holding under unrecorded leases or tenancies
    b) Matters disclosed by a statement as to parties in possession and as to any construction, alterations or repairs to the Land within the last 75 days. The Company must be notified in the event that any funds are to be used for construction, alterations or repairs.
    c) Any facts which would be disclosed by an accurate survey of the Land

12. Property taxes in an undetermined amount, which are a lien but not yet payable, including any assessments collected with taxes to be levied for the fiscal year 2024-2025.

ADDITIONAL REQUIREMENTS/NOTES:

A. Note: Property taxes for the fiscal year shown below are paid in full.

Fiscal Year:	2023-2024
Amount:	$5,719.65
Levy Code:	29.2
Account No.:	25902
Map No.:	R3209 02300

Prior to close of escrow, please contact the Tax Collector's Office to confirm all amounts owing, including current fiscal year taxes, supplemental taxes, escaped assessments and any delinquencies.

B. In addition to the standard policy exceptions, the exceptions enumerated above shall appear on the final ALTA Policy unless removed prior to issuance.

C. Note: There are NO conveyances affecting said Land recorded within 24 months of the date of this report.

D. The Company will require the following documents for review prior to the issuance of any title insurance predicated upon a conveyance or encumbrance by the corporation named below:

Name of Corporation: Ichijo USA Co., LTD

a) A Copy of the corporation By-laws and Articles of Incorporation

b) An original or certified copy of a resolution authorizing the transaction contemplated herein

c) If the Articles and/or By-laws require approval by a ‘parent’ organization, a copy of the Articles and By-laws of the parent

d) A current dated certificate of good standing from the proper governmental authority of the state in which the entity was created

The Company reserves the right to add additional items or make further requirements after review of the requested documentation.

The Oregon Corporation Commission records were unavailable for search as of the effective date herein. Evidence of the existence of the above referenced entity will be required prior to closing.

E. Note: There are no matters against the party(ies) shown below which would appear as exceptions to coverage in a title insurance product:

Parties: Ichijo USA Co., LTD

F. Note: The State of Oregon requires every ALTA Owner's Policy (07-01-2021) to include the OTIRO 110 Endorsement as a supplement to the definition of Insured in said Owner's Policy's Conditions to confirm coverage is the same for an Oregon Registered Domestic Partner as it is for a Spouse.

G. Note: No utility search has been made or will be made for water, sewer or storm drainage charges unless the City/Service District claims them as liens (i.e. foreclosable) and reflects them on its lien docket as of the date of closing. Buyers should check with the appropriate city bureau or water service district and obtain a billing cutoff. Such charges must be adjusted outside of escrow.

H. Note: Effective January 1, 2008, Oregon law (ORS 314.258) mandates withholding of Oregon income taxes from sellers who do not continue to be Oregon residents or qualify for an exemption. Please contact your Escrow Closer for further information.

I. THE FOLLOWING NOTICE IS REQUIRED BY STATE LAW: YOU WILL BE REVIEWING, APPROVING AND SIGNING IMPORTANT DOCUMENTS AT CLOSING. LEGAL CONSEQUENCES FOLLOW FROM THE SELECTION AND USE OF THESE DOCUMENTS. YOU MAY CONSULT AN ATTORNEY ABOUT THESE DOCUMENTS. YOU SHOULD CONSULT AN ATTORNEY IF YOU HAVE QUESTIONS OR CONCERNS ABOUT THE TRANSACTION OR ABOUT THE DOCUMENTS. IF YOU WISH TO REVIEW TRANSACTION DOCUMENTS THAT YOU HAVE NOT SEEN, PLEASE CONTACT THE ESCROW AGENT.

J. Recording Charge (Per Document) is the following:

County	First Page	Each Additional Page
Yamhill	$81.00	$5.00

Note: When possible the company will record electronically. An additional charge of $5.00 applies to each document that is recorded electronically.

Note: Please send any documents for recording to the following address:
Portland Title Group
Attn: Recorder
1455 SW Broadway, Suite 1450
Portland, OR. 97201

Please email your release to the following email address: or-ttc-yamhillrecording@ticortitle.com

K. Note: This map/plat is being furnished as an aid in locating the herein described Land in relation to adjoining streets, natural boundaries and other land. Except to the extent a policy of title insurance is expressly modified by endorsement, if any, the Company does not insure dimensions, distances or acreage shown thereon.

L. Notice: Please be aware that due to the conflict between federal and state laws concerning the cultivation, distribution, processing, manufacture, sale, dispensing or use of marijuana and psilocybin, the Company is not able to close or insure any transaction involving Land associated with these activities.

M. NOTE: IMPORTANT INFORMATION REGARDING PROPERTY TAX PAYMENTS:
Fiscal Year: July 1st through June 30th
Taxes become a lien on real property, but are not yet payable: July 1st
Taxes become certified and payable (approximately on this date): October 15th
First one third payment of taxes is due: November 15th
Second one third payment of taxes is due: February 15th
Final payment of taxes is due: May 15th

Discounts: If two thirds are paid by November 15th, a 2% discount will apply. If the full amount of the taxes are paid by November 15th, a 3% discount will apply.

Interest: Interest accrues as of the 15th of each month based on any amount that is unpaid by the due date. No interest is charged if the minimum amount is paid according to the above mentioned payment schedule.

EXHIBIT ONE

2021 AMERICAN LAND TITLE ASSOCIATION LOAN POLICY (07-01-2021)
EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy, and the Company will not pay loss or damage, costs, attorneys' fees, or expenses that arise by reason of:

1. a. any law, ordinance, permit, or governmental regulation (including those relating to building and zoning) that restricts, regulates, prohibits, or relates to:
      i. the occupancy, use, or enjoyment of the Land;
      ii. the character, dimensions, or location of any improvement on the Land;
      iii. the subdivision of land; or
      iv. environmental remediation or protection.
   b. any governmental forfeiture, police, regulatory, or national security power.
   c. the effect of a violation or enforcement of any matter excluded under Exclusion 1.a. or 1.b.
2. Any power of eminent domain. Exclusion 2 does not modify or limit the coverage provided under Covered Risk 7.
3. Any defect, lien, encumbrance, adverse claim, or other matter:
   a. created, suffered, assumed, or agreed to by the Insured Claimant;
   b. not Known to the Company, not recorded in the Public Records at the Date of Policy, but Known to the Insured Claimant and not disclosed in writing to the Company by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;
   c. resulting in no loss or damage to the Insured Claimant;
   d. attaching or created subsequent to the Date of Policy (Exclusion 3.d. does not modify or limit the coverage provided under Covered Risk 11, 13, or 14); or
   e. resulting in loss or damage that would not have been sustained if consideration sufficient to qualify the Insured named in Schedule A as a bona fide purchaser or encumbrancer had been given for the Insured Mortgage at the Date of Policy.
4. Unenforceability of the lien of the Insured Mortgage because of the inability or failure of an Insured to comply with applicable doing-business law.
5. Invalidity or unenforceability of the lien of the Insured Mortgage that arises out of the transaction evidenced by the Insured Mortgage and is based upon usury or Consumer Protection Law.
6. Any claim, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights law, that the transaction creating the lien of the Insured Mortgage is a:
   a. fraudulent conveyance or fraudulent transfer;
   b. voidable transfer under the Uniform Voidable Transactions Act; or
   c. preferential transfer:
      i. to the extend the Insured Mortgage is not a transfer made as a contemporaneous exchange for new value; or
      ii. for any reason not stated in the Covered Risk 13.b
7. Any claim of a PACA-PSA Trust. Exclusion 7 does not modify or limit the coverage provided under Covered Risk 8.
8. Any lien on the Title for real estate taxes or assessments imposed by a governmental authority and created or attaching between the Date of Policy and the date of recording of the Insured Mortgage in the Public Records. Exclusion 8 does not modify or limit the coverage provided under Covered Risk 2.b. or 11.b.
9. Any discrepancy in the quantity of the area, square footage, or acreage of the Land or of any improvement to the Land.

The above policy form may be issued to afford either Standard Coverage or Extended Coverage. In addition to the above Exclusions from Coverage, the Exceptions from Coverage in a Standard Coverage policy will also include the following Exceptions from Coverage.

SCHEDULE B - GENERAL EXCEPTIONS FROM COVERAGE

This policy does not insure against loss or damage (and the Company will not pay costs, attorneys' fees or expenses) which arise by reason of:

1. Taxes or assessments which are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the Public Records; proceedings by a public agency which may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the Public Records.
2. Facts, rights, interests or claims which are not shown by the Public Records but which could be ascertained by an inspection of the Land or by making inquiry of persons in possession thereof.
3. Easements, or claims of easement, not shown by the Public Records; reservations or exceptions in patents or in Acts authorizing the issuance thereof, water rights, claims or title to water.
4. Any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the Title that would be disclosed by an accurate and complete land survey of the Land. The term "encroachment" includes encroachments of existing improvements located on the Land onto adjoining land, and encroachments onto the Land of existing improvements located on adjoining land.
5. Any lien for services, labor or material heretofore or hereafter furnished, or for contributions due to the State of Oregon for unemployment compensation or worker's compensation, imposed by law and not shown by the Public Records.

2021 AMERICAN LAND TITLE ASSOCIATION OWNER'S POLICY (07-01-2021)
EXCLUSIONS FROM COVERAGE

The following matters are excluded from the coverage of this policy and the Company will not pay loss or damage, costs, attorneys' fees or expenses that arise by reason of:

1. a. any law, ordinance, permit, or governmental regulation (including those relating to building and zoning) that restricts, regulates, prohibits, or relates to:
      i. the occupancy, use, or enjoyment of the Land;
      ii. the character, dimensions or location of any improvement on the Land;
      iii. the subdivision of land; or
      iv. environmental remediation or protection;
   b. any governmental forfeiture, police, regulatory, or national security power
   c. the effect of a violation or enforcement of any matter excluded under Exclusion 1.a. or 1.b.

   Exclusion 1 does not modify or limit the coverage provided under Covered Risk 5 or 6.
2. Any power of eminent domain. Exclusion 2 does not modify or limit the coverage provided under Covered Risk 7.
3. Any defect, lien, encumbrance, adverse claim, or other matter:
   a. created, suffered, assumed or agreed to by the Insured Claimant;
   b. not known to the Company, not recorded in the Public Records at the Date of Policy, but Known to the Insured Claimant and not disclosed in writing to the Company by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;
   c. resulting in no loss or damage to the Insured Claimant;
   d. attaching or created subsequent to the Date of Policy (Exclusion 3.d. does not modify or limit the coverage provided under Covered Risk 9 or 10); or
   e. resulting in loss or damage that would not have been sustained if consideration sufficient to qualify the Insured named in Schedule A as a bona fide purchaser had been given for the Title at the Date of Policy.
4. Any claim, by reason of the operation of federal bankruptcy, state insolvency or similar creditors' rights law, that the transaction vesting the Title as shown in Schedule A is a:
   a. fraudulent conveyance or fraudulent transfer, or
   b. voidable transfer under the Uniform Voidable Transactions Act; or
   c. preferential transfer:
      i. to the extent the instrument of transfer vesting the Title as shown in Schedule A is not a transfer made as a contemporaneous exchange for new value; or
      ii. for any other reason not stated in Covered Risk 9.b.
5. Any claim of a PACA-PSA Trust. Exclusion 5 does not modify or limit the coverage provided under Covered Risk 8.
6. Any lien on the Title for real estate taxes or assessments imposed or collected by a governmental authority that becomes due and payable after the Date of Policy. Exclusion 6 does not modify or limit the coverage provided under Covered Risk 2.b.
7. Any discrepancy in the quantity of the area, square footage, or acreage of the Land or of any improvement to the Land.

The above policy form may be issued to afford either Standard Coverage or Extended Coverage. In addition to the above Exclusions from Coverage, the Exceptions from Coverage in a Standard Coverage policy will also include the following Exceptions from Coverage.

SCHEDULE B - GENERAL EXCEPTIONS FROM COVERAGE

This policy does not insure against loss or damage (and the Company will not pay costs, attorneys' fees or expenses) which arise by reason of:

1. Taxes or assessments which are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the Public Records; proceedings by a public agency which may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the Public Records.
2. Facts, rights, interests or claims which are not shown by the Public Records but which could be ascertained by an inspection of the Land or by making inquiry of persons in possession thereof.
3. Easements, or claims of easement, not shown by the Public Records; reservations or exceptions in patents or in Acts authorizing the issuance thereof, water rights, claims or
4. Any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the Title that would be disclosed by an accurate and complete land survey of the Land. The term "encroachment" includes encroachments of existing improvements located on the Land onto adjoining land, and encroachments onto the Land of existing improvements located on adjoining land.
5. Any lien for services, labor or material heretofore or hereafter furnished, or for contributions due to the State of Oregon for unemployment compensation or worker's compensation, imposed by law and not shown by the Public Records.

title to water.

EXHIBIT ONE

2006 AMERICAN LAND TITLE ASSOCIATION LOAN POLICY (06-17-06)
EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy and the Company will not pay loss or damage, costs, attorneys' fees or expenses that arise by reason of:

1. (a) Any law, ordinance or governmental regulation (including but not limited to building and zoning) restricting, regulating, prohibiting or relating to
   (i) the occupancy, use, or enjoyment of the Land;
   (ii) the character, dimensions or location of any improvement erected on the land;
   (iii) the subdivision of land; or
   (iv) environmental protection;
   or the effect of any violation of these laws, ordinances or governmental regulations. This Exclusion 1(a) does not modify or limit the coverage provided under Covered Risk 5.
   (b) Any governmental police power. This Exclusion 1(b) does not modify or limit the coverage provided under Covered Risk 6.
2. Rights of eminent domain. This Exclusion does not modify or limit the coverage provided under Covered Risk 7 or 8.
3. Defects, liens, encumbrances, adverse claims, or other matters
   (a) created, suffered, assumed or agreed to by the Insured Claimant;
   (b) not known to the Company, not recorded in the Public Records at Date of Policy, but known to the Insured Claimant and not disclosed in writing to the Company by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;
   (c) resulting in no loss or damage to the Insured Claimant;
   (d) attaching or created subsequent to Date of Policy (however, this does not modify or limit the coverage provided under Covered Risk 11, 13, or 14); or
   (e) resulting in loss or damage that would not have been sustained if the Insured Claimant had paid value for the Insured Mortgage.
4. Unenforceability of the lien of the Insured Mortgage because of the inability or failure of an Insured to comply with the applicable doing-business laws of the state where the Land is situated.
5. Invalidity or unenforceability in whole or in part of the lien of the Insured Mortgage that arises out of the transaction evidenced by the Insured Mortgage and is based upon usury or any consumer credit protection or truth-in-lending law.
6. Any claim, by reason of the operation of federal bankruptcy, state insolvency or similar creditors' rights laws, that the transaction creating the lien of the Insured Mortgage, is
   (a) a fraudulent conveyance or fraudulent transfer, or
   (b) a preferential transfer for any reason not stated in the Covered Risk 13(b) of this policy.
7. Any lien on the Title for real estate taxes or assessments imposed by governmental authority and created or attaching between Date of Policy and the date of recording of the Insured Mortgage in the Public Records. This Exclusion does not modify or limit the coverage provided under Covered Risk 11(b).

The above policy form may be issued to afford either Standard Coverage or Extended Coverage. In addition to the above Exclusions from Coverage, the Exceptions from Coverage in a Standard Coverage policy will also include the following Exceptions from Coverage.

SCHEDULE B - GENERAL EXCEPTIONS FROM COVERAGE

This policy does not insure against loss or damage (and the Company will not pay costs, attorneys' fees or expenses) which arise by reason of:

1. Taxes or assessments which are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the Public Records; proceedings by a public agency which may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the Public Records.
2. Facts, rights, interests or claims which are not shown by the Public Records but which could be ascertained by an inspection of the Land or by making inquiry of persons in possession thereof.
3. Easements, or claims of easement, not shown by the Public Records; reservations or exceptions in patents or in Acts authorizing the issuance thereof, water rights, claims or title to water.
4. Any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the Title that would be disclosed by an accurate and complete land survey of the Land. The term "encroachment" includes encroachments of existing improvements located on the Land onto adjoining land, and encroachments onto the Land of existing improvements located on adjoining land.
5. Any lien for services, labor or material heretofore or hereafter furnished, or for contributions due to the State of Oregon for unemployment compensation or worker's compensation, imposed by law and not shown by the Public Records.

2006 AMERICAN LAND TITLE ASSOCIATION OWNER'S POLICY (06-17-06)
EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy and the Company will not pay loss or damage, costs, attorneys' fees or expenses that arise by reason of:

1. (a) Any law, ordinance or governmental regulation (including but not limited to building and zoning) restricting, regulating, prohibiting or relating to
   (i) the occupancy, use, or enjoyment of the Land;
   (ii) the character, dimensions or location of any improvement erected on the land;
   (iii) the subdivision of land; or
   (iv) environmental protection;
   or the effect of any violation of these laws, ordinances or governmental regulations. This Exclusion 1(a) does not modify or limit the coverage provided under Covered Risk 5.
   (b) Any governmental police power. This Exclusion 1(b) does not modify or limit the coverage provided under Covered Risk 6.
2. Rights of eminent domain. This Exclusion does not modify or limit the coverage provided under Covered Risk 7 or 8.
3. Defects, liens, encumbrances, adverse claims, or other matters
   (a) created, suffered, assumed or agreed to by the Insured Claimant;
   (b) not known to the Company, not recorded in the Public Records at Date of Policy, but known to the Insured Claimant and not disclosed in writing to the Company by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;
   (c) resulting in no loss or damage to the Insured Claimant;
   (d) attaching or created subsequent to Date of Policy (however, this does not modify or limit the coverage provided under Covered Risk 9 and 10); or
   (e) resulting in loss or damage that would not have been sustained if the Insured Claimant had paid value for the Title.
4. Any claim, by reason of the operation of federal bankruptcy, state insolvency or similar creditors' rights laws, that the transaction creating the lien of the Insured Mortgage, is
   (a) a fraudulent conveyance or fraudulent transfer, or
   (b) a preferential transfer for any reason not stated in the Covered Risk 9 of this policy.
7. Any lien on the Title for real estate taxes or assessments imposed by governmental authority and created or attaching between Date of Policy and the date of recording of the deed or other instrument of transfer in the Public Records that vests Title as shown in Schedule A.

The above policy form may be issued to afford either Standard Coverage or Extended Coverage. In addition to the above Exclusions from Coverage, the Exceptions from Coverage in a Standard Coverage policy will also include the following Exceptions from Coverage.

SCHEDULE B - GENERAL EXCEPTIONS FROM COVERAGE

This policy does not insure against loss or damage (and the Company will not pay costs, attorneys' fees or expenses) which arise by reason of:

1. Taxes or assessments which are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the Public Records; proceedings by a public agency which may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the Public Records.
2. Facts, rights, interests or claims which are not shown by the Public Records but which could be ascertained by an inspection of the Land or by making inquiry of persons in possession thereof.
3. Easements, or claims of easement, not shown by the Public Records; reservations or exceptions in patents or in Acts authorizing the issuance thereof, water rights, claims or title to water.
4. Any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the Title that would be disclosed by an accurate and complete land survey of the Land. The term "encroachment" includes encroachments of existing improvements located on the Land onto adjoining land, and encroachments onto the Land of existing improvements located on adjoining land.
5. Any lien for services, labor or material heretofore or hereafter furnished, or for contributions due to the State of Oregon for unemployment compensation or worker's compensation, imposed by law and not shown by the Public Records.

WIRE SAFE™ | Inquire before you wire!

WIRE FRAUD ALERT

This Notice is not intended to provide legal or professional advice.
If you have any questions, please consult with a lawyer.

All parties to a real estate transaction are targets for wire fraud and many have lost hundreds of thousands of dollars because they simply relied on the wire instructions received via email, without further verification. **If funds are to be wired in conjunction with this real estate transaction, we strongly recommend verbal verification of wire instructions through a known, trusted phone number prior to sending funds.**

In addition, the following non-exclusive self-protection strategies are recommended to minimize exposure to possible wire fraud.

- **NEVER RELY** on emails purporting to change wire instructions. Parties to a transaction rarely change wire instructions in the course of a transaction.
- **ALWAYS VERIFY** wire instructions, specifically the ABA routing number and account number, by calling the party who sent the instructions to you. DO NOT use the phone number provided in the email containing the instructions, use phone numbers you have called before or can otherwise verify. **Obtain the number of relevant parties to the transaction as soon as an escrow account is opened.** DO NOT send an email to verify as the email address may be incorrect or the email may be intercepted by the fraudster.
- **USE COMPLEX EMAIL PASSWORDS** that employ a combination of mixed case, numbers, and symbols. Make your passwords greater than eight (8) characters. Also, change your password often and do NOT reuse the same password for other online accounts.
- **USE MULTI-FACTOR AUTHENTICATION** for email accounts. Your email provider or IT staff may have specific instructions on how to implement this feature.

For more information on wire-fraud scams or to report an incident, please refer to the following links:

Federal Bureau of Investigation:
http://www.fbi.gov

Internet Crime Complaint Center:
http://www.ic3.gov

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FIDELITY NATIONAL FINANCIAL
PRIVACY NOTICE

Effective July 1, 2024

Fidelity National Financial, Inc. and its majority-owned subsidiary companies (collectively, "FNF," "our," or "we") respect and are committed to protecting your privacy. This Privacy Notice explains how we collect, use, and protect personal information, when and to whom we disclose such information, and the choices you have about the use and disclosure of that information.

A limited number of FNF subsidiaries have their own privacy notices. If a subsidiary has its own privacy notice, the privacy notice will be available on the subsidiary's website and this Privacy Notice does not apply.

Collection of Personal Information

FNF may collect the following categories of Personal Information:

- contact information (*e.g.*, name, address, phone number, email address);
- demographic information (*e.g.*, date of birth, gender, marital status);
- identity information (*e.g.* Social Security Number, driver's license, passport, or other government ID number);
- financial account information (*e.g.* loan or bank account information);
- biometric data (*e.g.* fingerprints, retina or iris scans, voiceprints, or other unique biological characteristics, and
- other personal information necessary to provide products or services to you.

We may collect Personal Information about you from:

- information we receive from you or your agent;
- information about your transactions with FNF, our affiliates, or others; and
- information we receive from consumer reporting agencies and/or governmental entities, either directly from these entities or through others.

Collection of Browsing Information

FNF automatically collects the following types of Browsing Information when you access an FNF website, online service, or application (each an "FNF Website") from your Internet browser, computer, and/or device:

- Internet Protocol (IP) address and operating system;
- browser version, language, and type;
- domain name system requests; and
- browsing history on the FNF Website, such as date and time of your visit to the FNF Website and visits to the pages within the FNF Website.

Like most websites, our servers automatically log each visitor to the FNF Website and may collect the Browsing Information described above. We use Browsing Information for system administration, troubleshooting, fraud investigation, and to improve our websites. Browsing Information generally does not reveal anything personal about you, though if you have created a user account for an FNF Website and are logged into that account, the FNF Website may be able to link certain browsing activity to your user account.

Other Online Specifics

Cookies. When you visit an FNF Website, a "cookie" may be sent to your computer. A cookie is a small piece of data that is sent to your Internet browser from a web server and stored on your computer's hard drive. Information gathered using cookies helps us improve your user experience. For example, a cookie can help the website load properly or can customize the display page based on your browser type and user preferences. You can choose whether or not to accept cookies by changing your Internet browser settings. Be aware that doing so may impair or limit some functionality of the FNF Website.

Web Beacons. We use web beacons to determine when and how many times a page has been viewed. This information is used to improve our websites.

Do Not Track. Currently our FNF Websites do not respond to "Do Not Track" features enabled through your browser.

Links to Other Sites. FNF Websites may contain links to unaffiliated third-party websites. FNF is not responsible for the privacy practices or content of those websites. We recommend that you read the privacy policy of every website you visit.

Use of Personal Information

FNF uses Personal Information for these main purposes:

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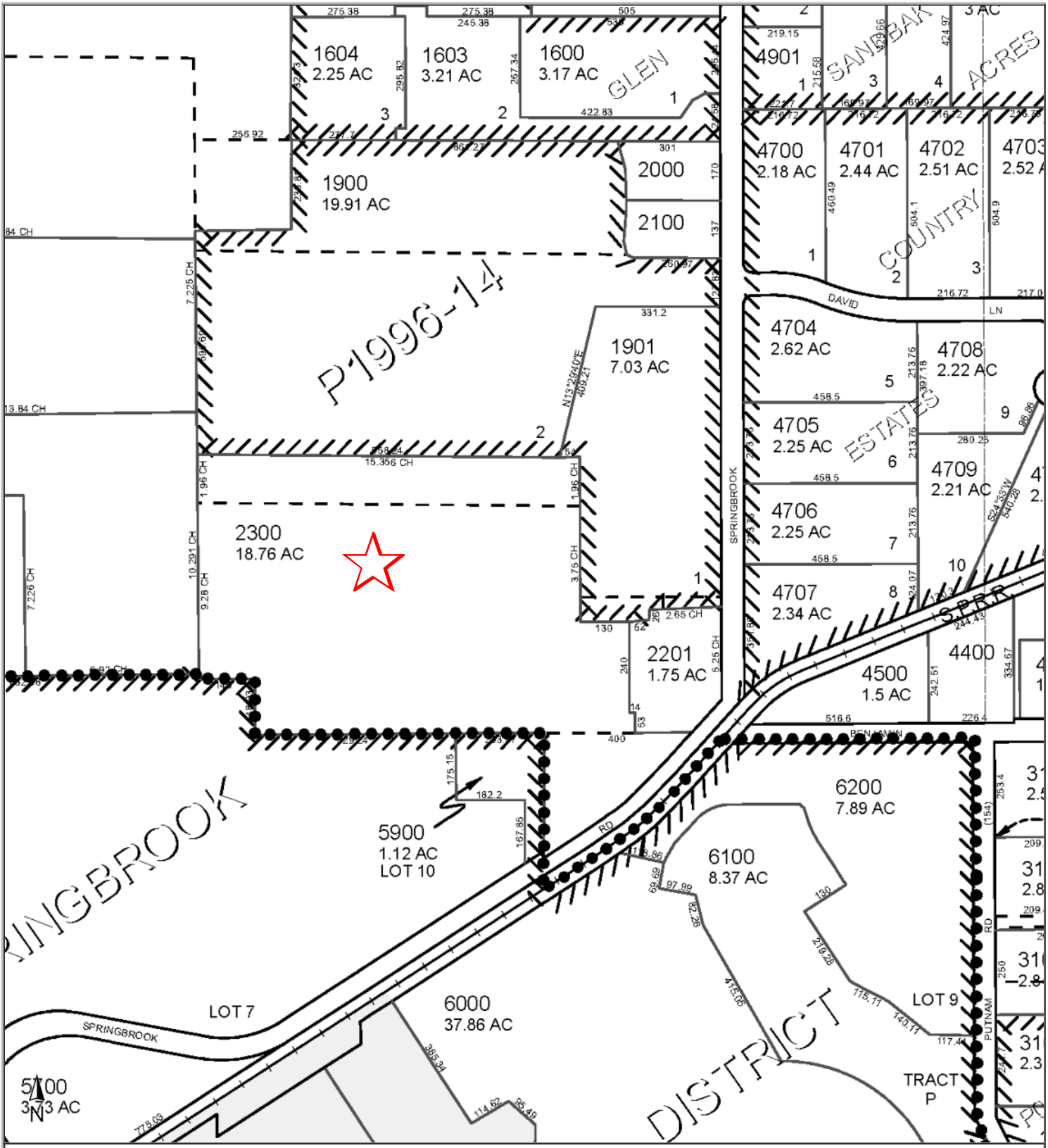
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Fidelity National Financial, Inc.
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Jacksonville, Florida 32204
Attn: Chief Privacy Officer

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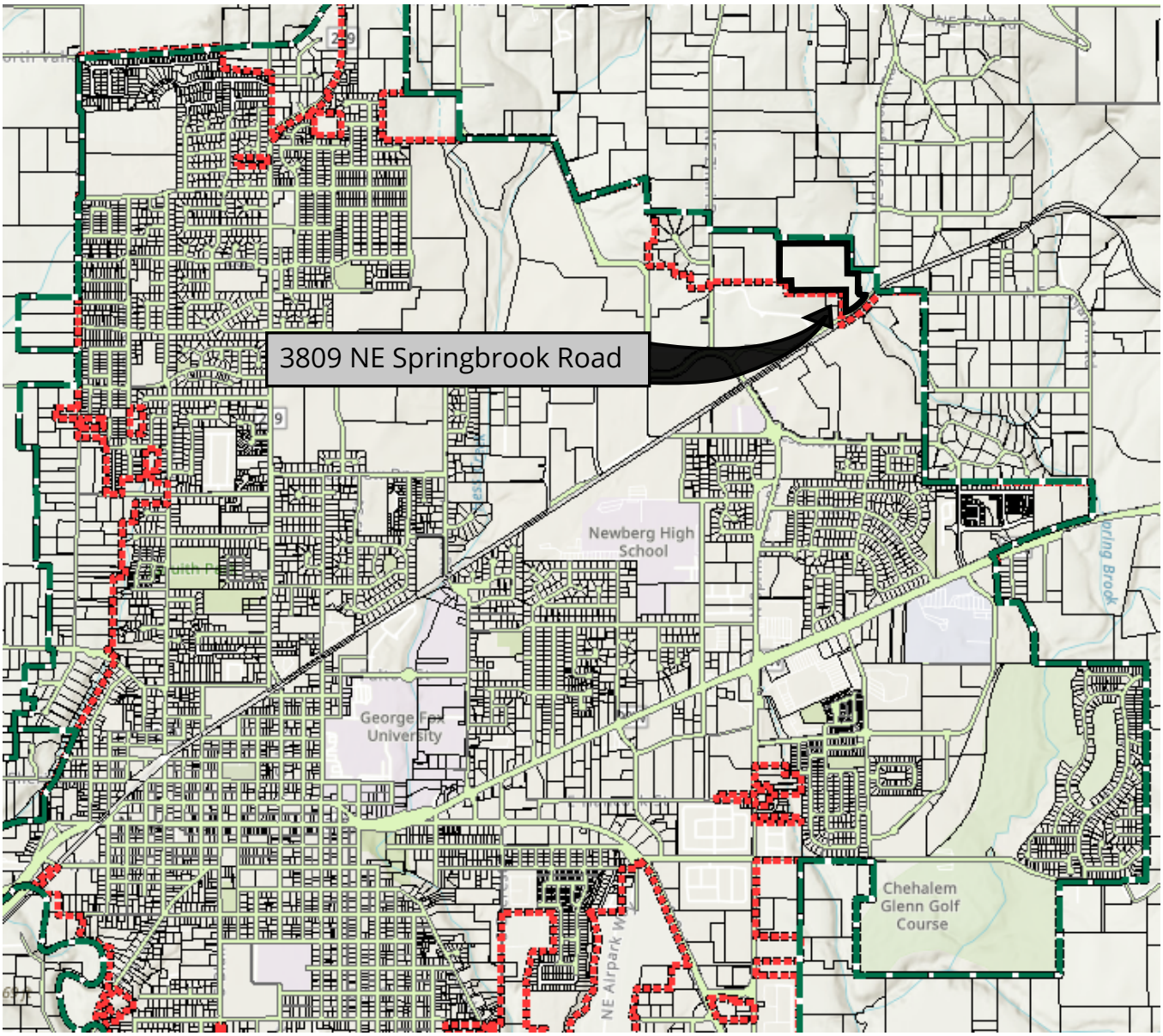
3809 NE Springbrook Rd, Newberg OR 97132

This map/plat is being furnished as an aid in locating the herein described land in relation to adjoining streets, natural boundaries and other land, and is not a survey of the land depicted. Except to the extent a policy of title insurance is expressly modified by endorsement, if any, the company does not insure dimensions, distances, location of easements, acreage or other matters shown thereon.

Appendix B - Vicinity Map

3809 NE Springbrook Road Annexation

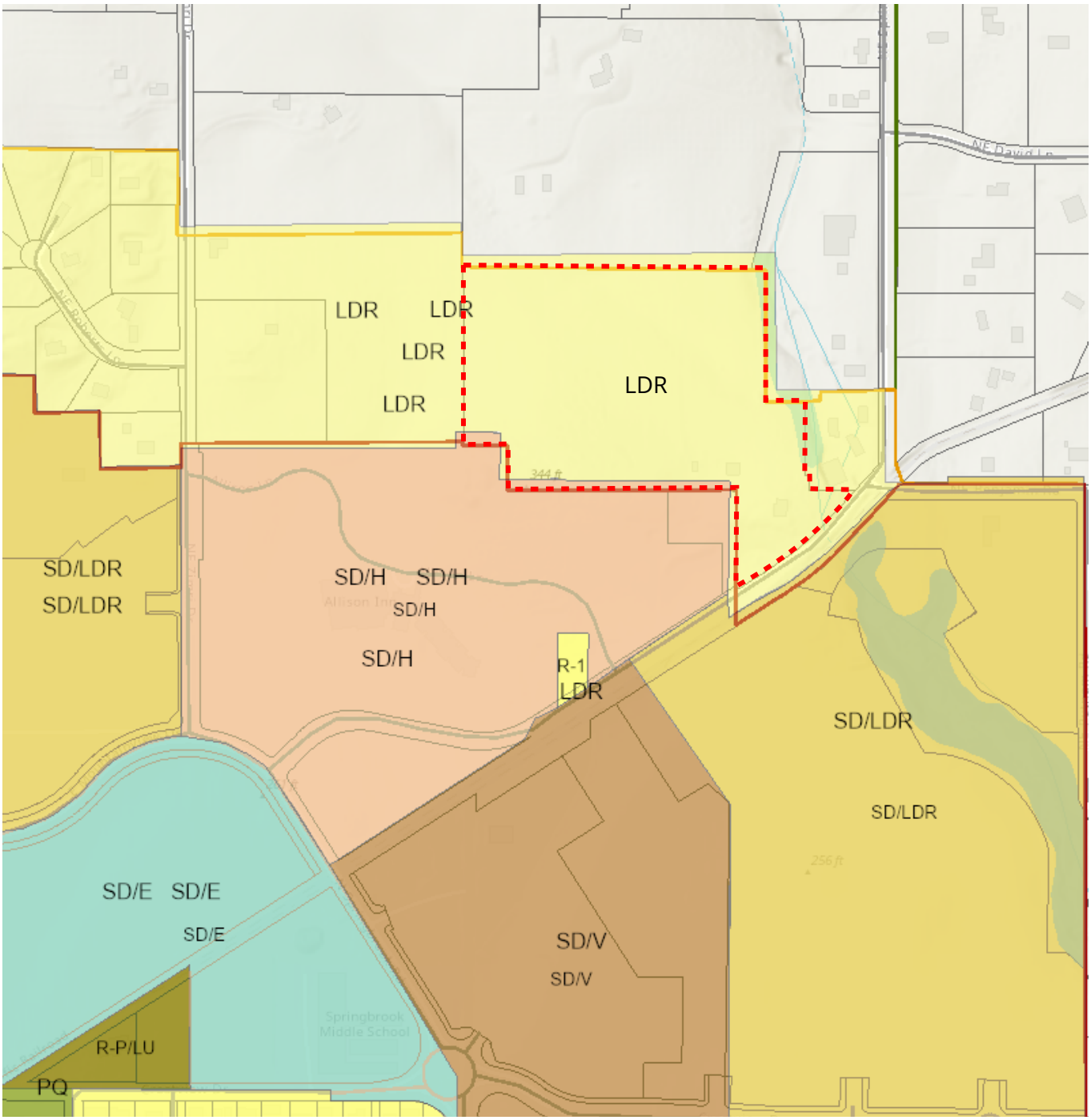
08/16/2024



Appendix B - Current Comprehensive Plan Designation

3809 NE Springbrook Road Annexation

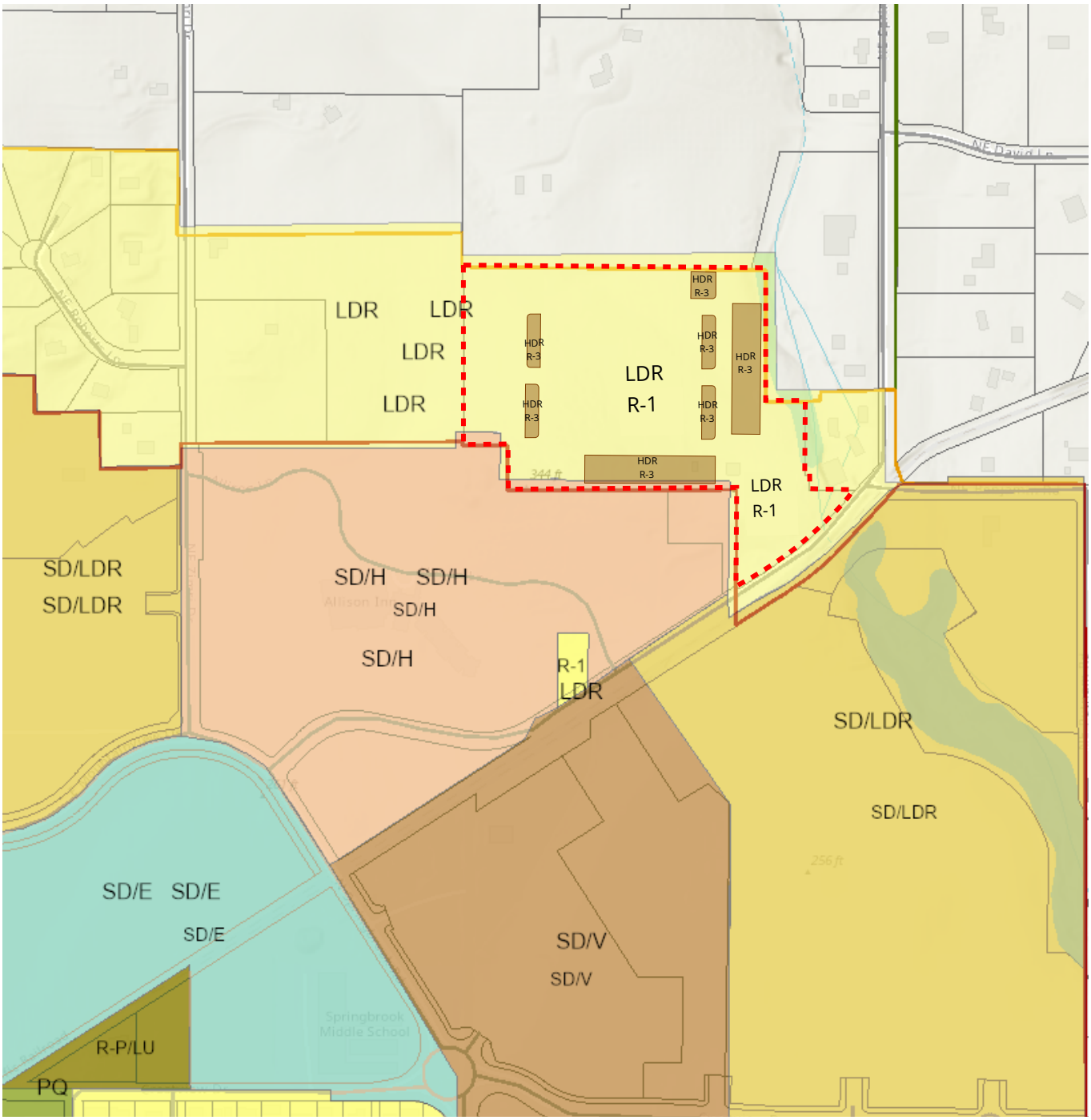
08/16/2024



Appendix B - Proposed Comprehensive and Zoning Designations

3809 NE Springbrook Road Annexation

08/16/2024



Appendix C - Public Notice Materials

3809 NE Springbrook Road Annexation

08/16/2024

- Mailed Notice
- Mailing List
- Posted Notice
- Affidavit of Notice

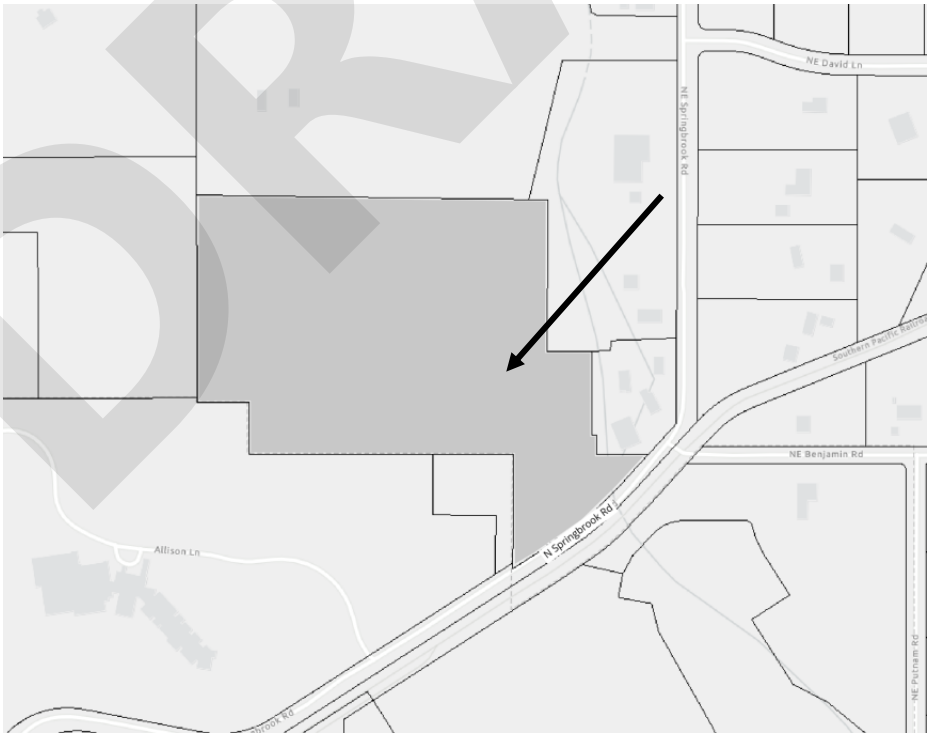
Community Development Department
P.O. Box 970 ▪ 414 E First Street ▪ Newberg, Oregon 97132
503-537-1240. Fax 503-537-1272 www.newbergoregon.gov

NOTICE OF PLANNING COMMISSION HEARING ON A PROPOSED ANNEXATION AND COMPREHENSIVE PLAN AND ZONE CHANGE

A property owner in your neighborhood submitted an application to the City of Newberg to annex approximately 19.16 acres at 3809 NE Springbrook Road, Yamhill County tax lot R3209 02300. The Newberg Planning Commission will hold a hearing on ***Date of Hearing*** at 7pm at the Newberg Public Safety Building, 401 E. Third Street, Newberg, OR, to evaluate the proposal. You are invited to take part in the City's review of this project by sending in your written comments or testifying before the Planning Commission. For more details about giving comments, please see the back of this sheet.

The application would expand the City limits by 19.16 acres of R-1/R-3 zoning designation. Future development of the site of a residential neighborhood is anticipated.

APPLICANT:	***Ichijo USA Co. LTD***
TELEPHONE:	***503-946-9365***
PROPERTY OWNER:	***Ichijo USA Co. LTD***
LOCATION:	***3809 NE Springbrook Road***
TAX LOT NUMBER:	***Yamhill County Tax Map R3209-02300***



DRAFT

We are mailing you information about this project because you own land within 500 feet of the proposed annexation and comprehensive plan zone change. We invite you to participate in the land use hearing scheduled before the Planning Commission. If you wish to participate in the hearing, you may do so in person or be represented by someone else. You also may submit written comments. Oral testimony is typically limited to five minutes per speaker.

If you mail your comments to the City, please put the following information on the outside of the envelope:

Written Comments: File No. ***XX***
City of Newberg
Community Development Department
PO Box 970
Newberg, OR 97132

All written comments must be received by 4:30 p.m. on ***July XX, 2024***. Written information received after this time will be read out loud at the hearing subject to time limits for speakers, and will be included in the record if there are further proceedings.

You can look over all the information about this project or drop comments off at Newberg City Hall, 414 E. First Street. You can also buy copies of the information for a cost of 25 cents a page. A staff report relating to the proposal will be available for inspection at no cost seven days prior to the public hearing. If you have any questions about the project, you can call the Newberg Planning Division at 503-537-1215.

Any issue which might be raised in an appeal of this case to the Land Use Board of Appeals (LUBA) must be submitted to the City in writing before this date. You must include enough detail to enable the decision maker an opportunity to respond. The applicable criteria used to make a decision on this application for annexation are found in Newberg Development Code Section 15.250.030, and for a comprehensive plan map and zone change are found in Newberg Development Code Section 15.302.030(A)(3).

Prior to the conclusion of the initial evidentiary hearing, any participant may request an opportunity to present additional evidence, arguments or testimony regarding the application through a continuance or extension of the record. Failure of an issue to be raised in the hearing, in person or by letter, or failure to provide statements or evidence sufficient to afford the decision maker an opportunity to respond to the issue precludes appeal to the State Land Use Board of Appeals based on that issue.

The Planning Commission will make a recommendation to the City Council at the end of the public hearing process. The Planning Commission's recommendation will be forwarded to the City Council. The City Council will hold a hearing on the application at a later date. If you participate in the public hearing process, either by testifying at the public hearing, or by sending in written comments, we will send you information about any decision made by the City relating to this project.

Date Mailed: ***July XX, 2024***

ACCOMMODATION OF PHYSICAL IMPAIRMENTS:

In order to accommodate persons with physical impairments, please notify the City Recorder's office of any special physical or language accommodations you may need as far in advance of the meeting as possible and no later than 48 hours prior to the meeting. To request these arrangements, please contact the City Recorder at 503- 537-1283. For TRS services please dial 711.

DRAFT

To Our Neighbors at:
2525 ALLISON LN
NEWBERG, OR 97132

To Our Neighbors at:
29105 NE BENJAMIN RD
NEWBERG, OR 97132

To Our Neighbors at:
PO BOX 627
NEWBERG, OR 97132

To Our Neighbors at:
14630 NE SPRINGBROOK RD
NEWBERG, OR 97132

To Our Neighbors at:
14650 NE SPRINGBROOK RD
NEWBERG, OR 97132

To Our Neighbors at:
PO BOX 1060
NEWBERG, OR 97132

To Our Neighbors at:
3809 NE SPRINGBROOK RD
NEWBERG, OR 97132

To Our Neighbors at:
14780 NE SPRINGBROOK RD
NEWBERG, OR 97132

To Our Neighbors at:
PO BOX 1060
NEWBERG, OR 97132

To Our Neighbors at:
14755 NE SPRINGBROOK RD
NEWBERG, OR 97132

To Our Neighbors at:
3220 NE ZIMRI DR
NEWBERG, OR 97132

To Our Neighbors at:
14945 NE SPRINGBROOK RD
NEWBERG, OR 97132

To Our Neighbors at:
3113 CRESTVIEW DR
NEWBERG, OR 97132

DRAFT

Land Use Notice

FILE # ANX24-0001

PROPOSAL: Annexation of 3809 NE Springbrook Rd
Newberg, OR 97132

FOR FURTHER INFORMATION, CONTACT:

City of Newberg
Community Development Department
414 E First Street
Phone: 503-537-1240

DRAFT

PLANNING DIVISION FILE #: _____

CITY OF NEWBERG
AFFIDAVIT OF NOTICING

REFERENCE ATTACHED LIST(S)/NOTICE(S)

I, Sam Huck _____, do hereby certify that the attached Notice of Land Use Action was:

a) mailed to the following list of property owners, by United States mail, postage prepaid on_____;
(date)

b) posted on the site according to standards established in Newberg Development Code §15.100.260 on_____.
(date)

I acknowledge that failure to mail the notice in a timely manner constitutes an agreement by the applicant to defer the 120-day process limit and acknowledge that failure to mail will result in the automatic postponement of a decision on the application *15.100.210.(D)(2)* _____.
(date)

_____
Signature Date

_____
Print name

DRAFT

Appendix D - Traffic Impact Analysis

3809 NE Springbrook Road Annexation

08/16/2024



NEWBERG SPRINGBROOK SUBDIVISION

TRANSPORTATION IMPACT ANALYSIS (TIA)

JUNE 2024

PREPARED FOR

3J CONSULTING

3J CONSULTING

PREPARED BY

DKS

DKS ASSOCIATES

Jenna Bogert, PE

Aidan Flynn, EIT

REGISTERED PROFESSIONAL ENGINEER
97,731
OREGON
MAY 11, 2021
JENNA C. BOGERT

EXPIRES: DEC. 31, 2025

DKS

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INTRODUCTION

This study evaluates the transportation impacts associated with the proposed Springbrook Subdivision development located at 3809 NE N Springbrook Road in Newberg, Oregon. The proposed development consists of 104 single family houses on an approximately 19-acre site.

The proposed site plan proposes one access point onto N Springbrook Road with four additional "stub" roads that would lead into potential future developments. The project site is located immediately outside of the city limits but will be annexed into the City of Newberg.

The purpose of this transportation study is to conduct a traffic impact analysis (TIA), which will identify any potential mitigation measures that might be needed to offset transportation impacts that the proposed development may have on the nearby transportation network in the near-term.

TRAFFIC IMPACT ANALYSIS (TIA)

The TIA is focused on four (4) intersections which were selected for evaluation based on discussion with City staff. Important characteristics of the study area and proposed project are listed in Table 1. The intersections are listed and shown in Figure 1.

- N Springbrook Road and NE Benjamin Road
- N Springbrook Road and E Mountainview Drive
- N Springbrook Road and E Crestview Drive
- N Springbrook Road and Haworth Avenue

TABLE 1: STUDY AREA & DEVELOPMENT CHARACTERISTICS

STUDY AREA	
NUMBER OF STUDY INTERSECTIONS	Four intersections
ANALYSIS PERIODS	Weekday AM peak hour (one hour between 6am – 9am) Weekday PM peak hour (one hour between 3pm – 6pm)
PROPOSED DEVELOPMENT	
PROPOSED LAND USE	Single Family Detached Residential
PROJECT TRIPS	77 (19 in, 58 out) AM peak hour trips 103 (65 in, 38 out) PM peak hour trips
VEHICULAR ACCESS POINTS	One proposed access point from N Springbrook Road



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

Key roadways and their existing characteristics in the study area are summarized in Table 2. The functional classifications for City of Newberg streets are provided in the City of Newberg Transportation System Plan (TSP).[1]

TABLE 2: STUDY AREA ROADWAY CHARACTERISTICS

ROADWAY	JURISDICTION	CLASSIFICATION	NUMBER OF LANES	POSTED SPEED	SIDEWALKS	BIKE LANES
N SPRINGBROOK ROAD	City of Newberg/ Yamhill County	Minor Arterial [a] (City)/ Major Collector (County)	2	35 mph [c]	Partial	Partial
E CRESTVIEW DRIVE	City of Newberg	Major Collector [b]	2	25 mph	Yes	Yes
E MOUNTAINVIEW DRIVE	City of Newberg	Minor Arterial	2	35 mph	Yes	Yes
NE BENJAMIN ROAD	Yamhill County	Local Road	2	40 mph	No	No
HAWORTH AVENUE	City of Newberg	Major Collector	2	25 mph	Yes	No

[a] N Springbrook Road is classified as a Major Collector north of E Mountainview Drive
[b] E Crestview Drive is classified as a Minor Collector east of N Springbrook Road
[c] Within the study area

Bicycle and Pedestrian Facilities

Bike lanes and sidewalks currently exist along N Springbrook Road with the exception of periodic bike lane gaps. Pedestrian and bicycle facilities drop off approximately 500 feet east of the intersection of N Springbrook Road/Allison Lane. Within the study area, both E Crestview Drive and E Mountainview Drive have sidewalks and bike lanes. NE Benjamin Road does not have any pedestrian or bicycle facilities.

The N Springbrook Road/E Crestview Drive roundabout intersection provides marked pedestrian crosswalks at all approaches. The N Springbrook Road/E Mountainview Drive unsignalized intersection includes a marked crosswalk on the north leg and the west leg. The N Springbrook Road/NE Benjamin Road unsignalized intersection does not provide any pedestrian facilities. The N

[1] Newberg Transportation System Plan, City of Newberg, March 2021

Springbrook Road/Haworth Avenue intersection provides pedestrian facilities on all four corners and has a bike lane on N Springbrook Road in the northbound direction.

Public Transit Service

Yamhill County provides weekday public transit service to Newberg. However, there are no transit stops within one mile of the project site.

EXISTING TRAFFIC VOLUMES

New intersection turning movement count data was collected during the weekday AM (6:00am – 9:00am) and PM peak period (3:00pm – 6:00pm) on Wednesday, April 17th, 2024, at the study intersections. No adjustment factors were applied to the peak hour volumes. See Appendix B for the traffic count data.

Figure 2 shows the existing AM and PM peak hour traffic volumes for the study intersections, along with the lane configurations and traffic control.

INTERSECTION PERFORMANCE MEASURES

Agency mobility standards often require intersections to meet level of service (LOS) intersection operation thresholds.

- The intersection LOS is similar to a "report card" rating based upon average vehicle delay. Level of service A, B, and C indicate conditions where traffic moves without significant delays over periods of peak hour travel demand. Level of service D and E are progressively worse operating conditions. Level of service F represents conditions where average vehicle delay has become excessive, and demand has exceeded capacity. This condition is typically evident in long queues and delays.
- The volume-to-capacity (v/c) ratio represents the level of saturation of the intersection or individual movement. It is determined by dividing the peak hour traffic volume by the maximum hourly capacity of an intersection or turn movement. When the V/C ratio approaches 0.95, operations become unstable and small disruptions can cause the traffic flow to break down, resulting in the formation of excessive queues.

The City of Newberg requires study intersections on public streets to meet its minimum acceptable volume to capacity (v/c) standard of v/c < 0.90 and Level of Service threshold D during the peak hours.[2]

[2] Public Works Design and Construction Standards, City of Newberg, August 2015.

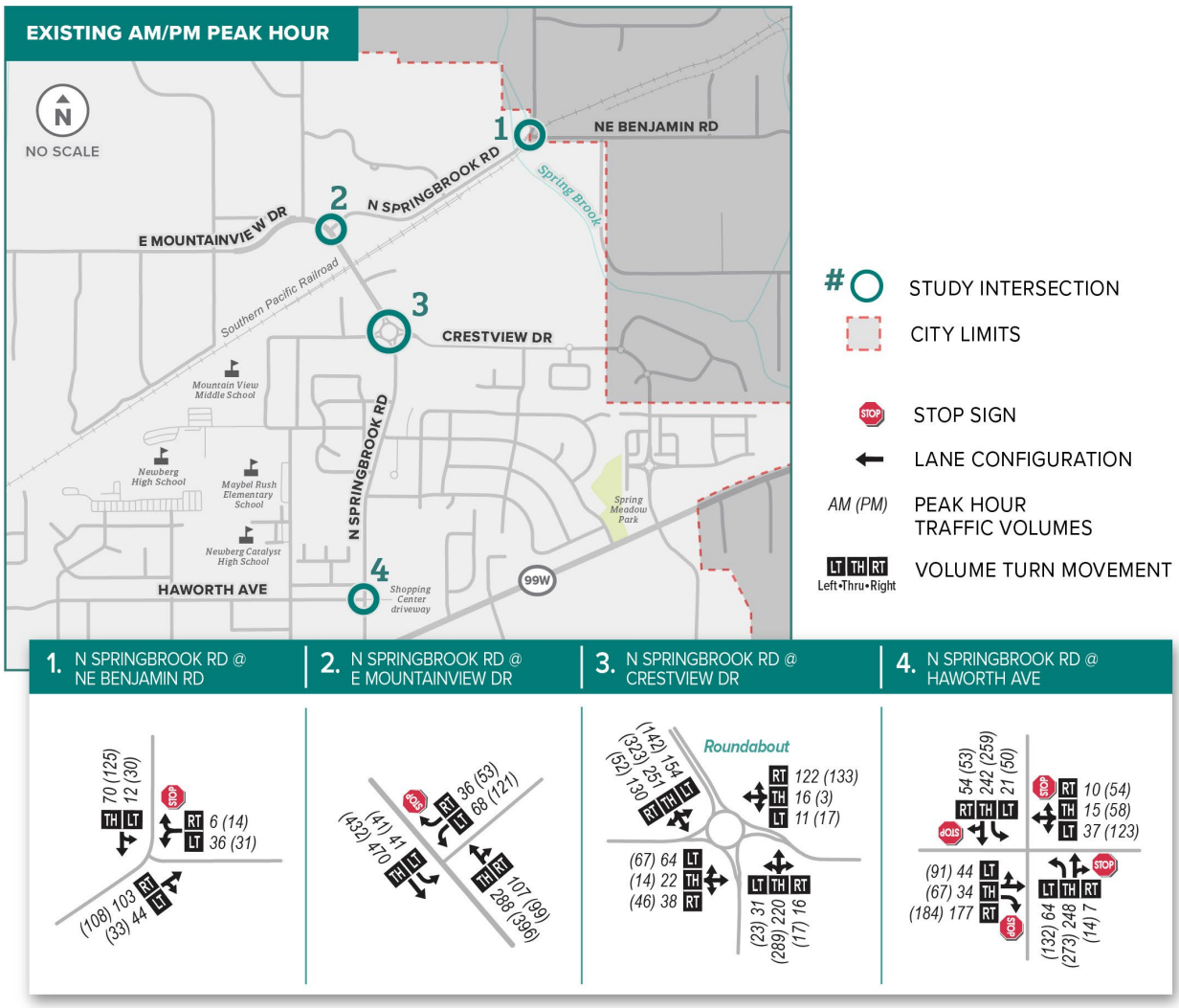


FIGURE 2: EXISTING AM (PM) PEAK HOUR TRAFFIC VOLUMES

EXISTING INTERSECTION OPERATIONS

Intersection operations were analyzed for the AM and PM peak hour at all study intersections for the existing conditions using Highway Capacity Manual (HCM) 6th Edition methodology.[3] The volume to capacity (v/c) ratio, delay, and level of service (LOS) of each study intersection are listed in Table 3: . As shown, the intersection of N Springbrook Road E Mountainview Drive does not meet the operating standard during the PM peak hour under existing conditions. See Appendix C for the Existing HCM Reports.

TABLE 3: EXISTING (2024) INTERSECTION OPERATIONS

[3] Highway Capacity Manual, 6th Edition, Transportation Research Board, 2017.

INTERSECTION	OPERATING STANDARD	AM PEAK HOUR			PM PEAK HOUR		
		V/C	DELAY	LOS	V/C	DELAY	LOS
N SPRINGBROOK ROAD AND NE BENJAMIN ROAD	LOS D, v/c < 0.90	0.07	10.2	B	0.07	10.5	B
N SPRINGBROOK ROAD AND E MOUNTAINVIEW DRIVE	LOS D, v/c < 0.90	0.33	27.1	D	0.61	**42.9**	**E**
N SPRINGBROOK ROAD AND E CRESTVIEW DRIVE	LOS D, v/c < 0.90	0.52	7.4	A	0.46	7.0	A
N SPRINGBROOK ROAD AND HAWORTH AVENUE	LOS D, v/c < 0.90	0.56	16.5	C	0.76	31.9	D

STOP-CONTROLLED OR ROUNDABOUT INTERSECTION:
DELAY = CRITICAL MOVEMENT DELAY (SECS)
V/C = CRITICAL MOVEMENT VOLUME-TO-CAPACITY RATIO
LOS = CRITICAL LEVEL OF SERVICE

BOLD/HIGHLIGHTED = DOES NOT MEET OPERATING STANDARD

CRASH ANALYSIS

Crash data was obtained for the five most recent years of available data (2018-2022) at the study intersections. A total of 19 crashes were reported at the study intersections with 17 occurring at N Springbrook Road and Haworth Avenue and the other 2 occurring at N Springbrook Road and NE Benjamin Road.

Of the 17 crashes at N Springbrook Road and Haworth Avenue, 16 of them were angle or turning crashes and were a result of the driver failing to yield right-of-way or ignoring the stop sign. Of the 17 crashes at this intersection, 9 of them resulted in possible or minor injuries while the other 8 resulted in property damage. One crash involved a pedestrian who was struck in the crosswalk. As discussed later in this report, the City of Newberg plans to signalize this intersection which will significantly reduce turning and angle crashes.

The 2 crashes at N Springbrook Road and NE Benjamin Road were due to speeding and resulted in property damage only. Neither of these crashes involved a train. See Appendix G for the crash data.

PROJECT IMPACTS

This chapter reviews the impacts that the proposed development may have on the transportation system within the study area. This analysis includes trip generation, trip distribution, future traffic volume development, and operations analysis for the study intersections.

PROPOSED DEVELOPMENT

The proposed development would construct 104 single family homes and the site would be accessed via N Springbrook Rd.

FUTURE ANALYSIS SCENARIOS

Vehicle operating conditions were analyzed at the study intersections for the following traffic scenarios in the 2027 AM and PM peak hours. All future analysis scenarios assume the same traffic control as existing conditions.

The comparison of the following scenarios enables the assessment of project impacts:

- Existing + Background (No Build)
- Existing + Background + Project (Build)

TRIP GENERATION

Trip generation is the method used to estimate the number of vehicles added to site driveways and the adjacent roadway network by a development during a specified period (e.g., PM peak hour). The Institute of Transportation Engineers (ITE) publishes trip generation rates for the various land uses that can be applied to determine estimated traffic volumes.[4]

Table 4 shows the total number of trips that this development will produce. ITE code 210 (Single Family Housing) was used for all 104 units. The proposed project is estimated to generate a total of 77 AM peak hour trips (19 in, 58 out) and 103 PM peak hour trips (65 in, 38 out).

TABLE 4: PROJECT VEHICLE TRIP GENERATION

LAND USE (ITE CODE)	SIZE	AM PEAK TRIP			PM PEAK TRIP		
		IN	OUT	TOTAL	IN	OUT	TOTAL
SINGLE FAMILY DETACHED HOUSING (210)	104 UNITS	19	58	77	65	38	103

VEHICLE TRIP DISTRIBUTION

Vehicle trip distribution provides an estimation of where vehicles would be coming from and going to. It is given as a percentage at key gateways to the study area and is used to route project trips through the study intersections. **Figure 3** shows the trip distribution for the proposed site. The trip distribution for the passenger car trips was based on the ODOT Transportation Demand Model and confirmed by City staff.

The vehicle trips generated by the site expansion were distributed as follows:

- 40% south of the project site via N Springbrook Road OR99
- 20% west of the project site via E Crestview Drive

[4] Trip Generation Manual, 11th Edition, Institute of Transportation Engineers, 2021.

- 30% east of the project site via E Mountainview Drive
- 5% east of the project site via NE Benjamin Road
- 5% north of the project site via N Springbrook Road

FUTURE TRAFFIC VOLUMES

Traffic volumes were estimated at the study intersections for the two future analysis scenarios previously listed. A 2027 No Build scenario that does not account for traffic generated by the development, and a 2027 Build scenario that does account for traffic generated by the development.

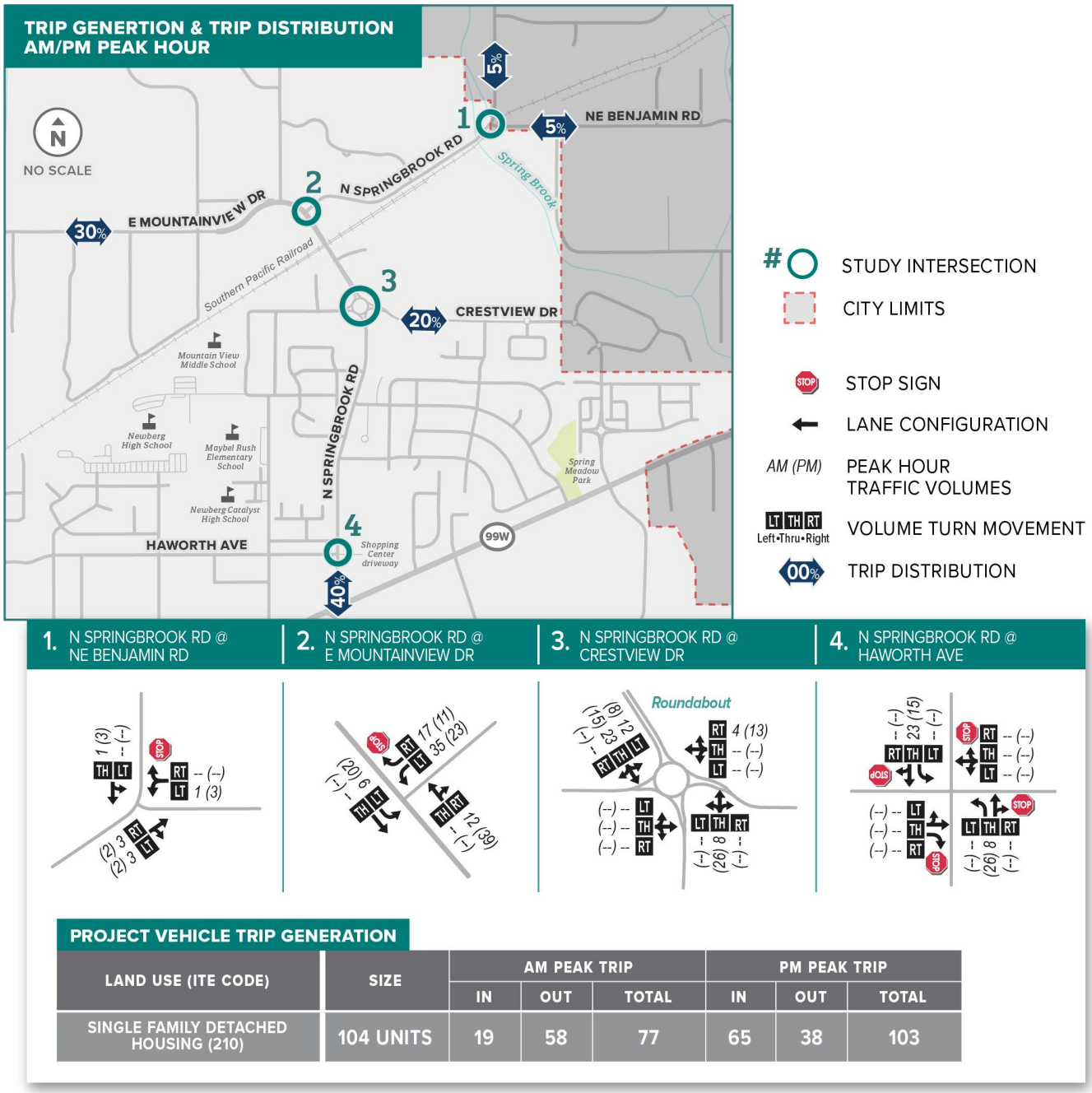
Background Growth Rate

The future 2027 No Build traffic volumes were estimated by applying a growth rate of 3% per year to the existing 2024 traffic volumes. This growth rate was calculated based on growth trends taken from the Newberg Travel Demand model, which is managed by the ODOT Transportation Planning Analysis Unit (TPAU). The background growth rate was also compared to the growth rate assumed in the recently approved Crestview Crossing traffic impact study (see In-Process Developments below) and was found to be higher. The Crestview Crossing traffic analysis assumed a rate of 2% on state highways, but assumed 0% growth on City streets. Because a 3% growth is an above average rate of growth and much higher than the 0% background growth assumed in the Crestview Crossing TIA, the 3% growth rate in this analysis is assumed to include the trips generated by the Collina Subdivision and remainder of the Crestview Crossing development.

Below is a summary of the City's current in-process developments in the vicinity of the Springbrook Subdivision.

- E Crestview Crossing PUD18-0001: This project includes the construction of approximately 248 single family homes, 51 multifamily homes, and commercial space. As of Spring 2024, the majority of the development has been constructed. The remaining construction includes 85 single-family homes. The remaining trips generated by this site were included in the 3% growth rate used to calculate the 2027 No Build traffic volumes.
- Collina at N Springbrook SUB322-002: This project includes the construction of approximately 403 single family homes by 2031 and is to be completed in multiple phases. The trips generated by this site were included in the 3% growth rate used to calculate the 2027 No Build traffic volumes.

Figure 4 shows the 2027 No Build AM and PM peak hour traffic volumes. Figure 5 shows the 2027 Build AM and PM peak hour traffic volumes.



PROJECT VEHICLE TRIP GENERATION

LAND USE (ITE CODE)	SIZE	AM PEAK TRIP			PM PEAK TRIP		
		IN	OUT	TOTAL	IN	OUT	TOTAL
SINGLE FAMILY DETACHED HOUSING (210)	104 UNITS	19	58	77	65	38	103

FIGURE 3: PROJECT TRIPS & TRIP DISTRIBUTION

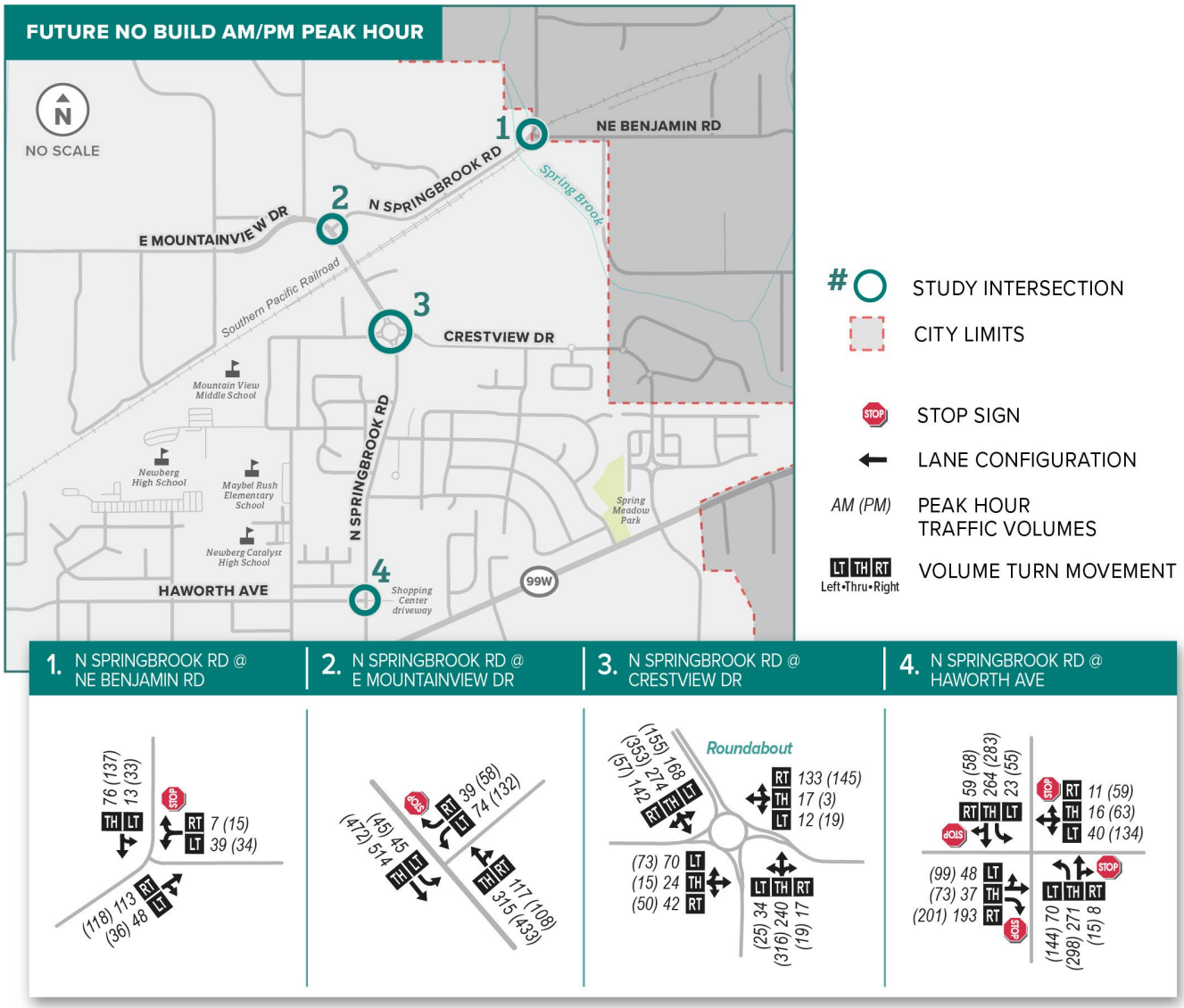


FIGURE 4: FUTURE NO BUILD AM(PM) TRAFFIC VOLUMES

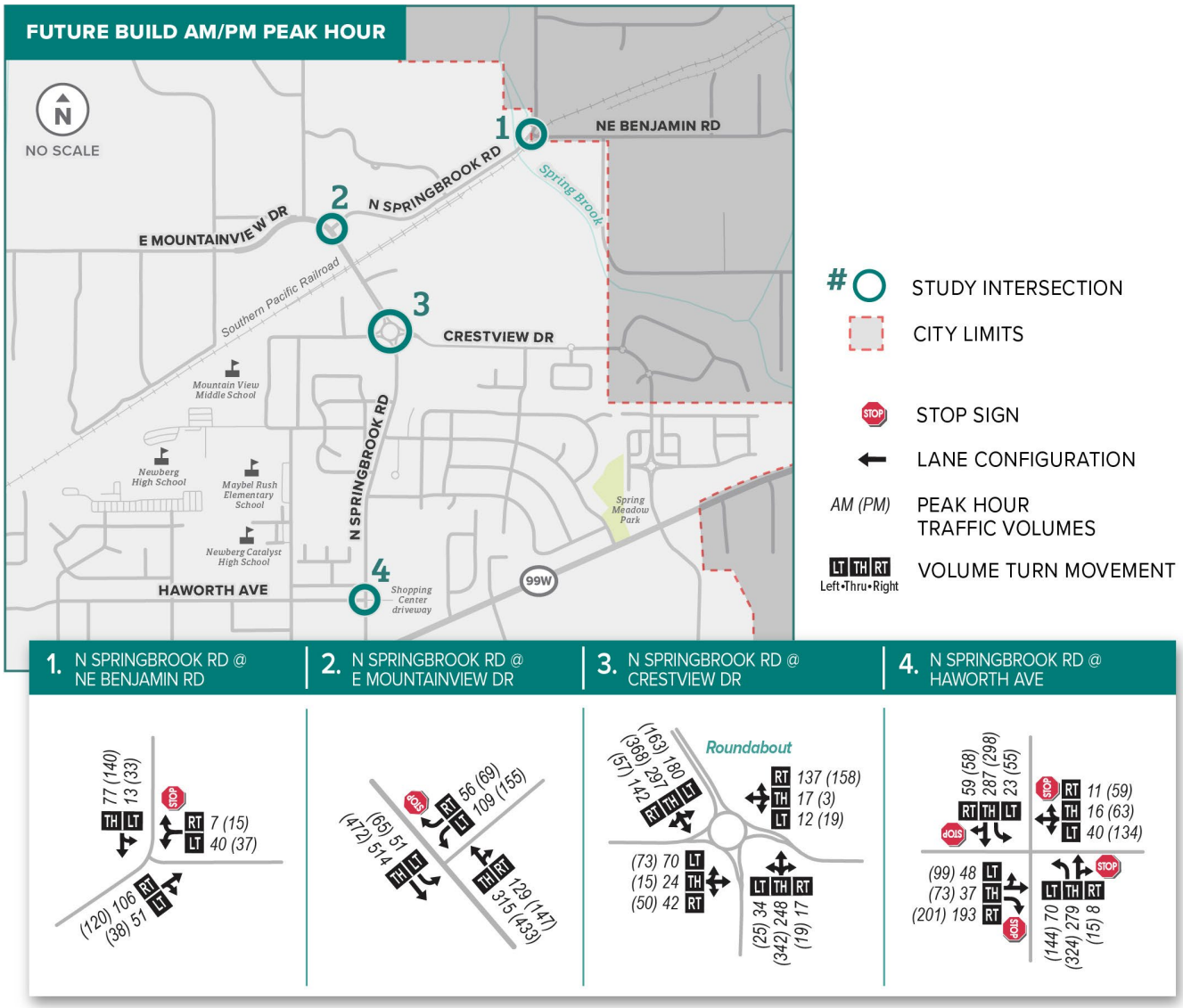


FIGURE 5: FUTURE BUILD AM(PM) TRAFFIC VOLUMES

FUTURE INTERSECTION OPERATIONS

Vehicle operations were analyzed for the AM and PM peak hour at all study intersections for the future scenarios using Highway Capacity Manual (HCM) 6th Edition methodology.[5] The delay, level of service (LOS), and volume to capacity (v/c) ratio of each study intersection are listed in Tables 5 and 6.

As shown, the intersection of N Springbrook Road and E Mountainview Drive continues to fail to meet the City's operating standard. N Springbrook Road and Haworth Road fails to operate at an acceptable LOS for both No Build and Build scenarios, while also exceeding the v/c ratio threshold during the Build scenario during the PM peak hours. See Appendices D and E for the 2027 No Build HCM Reports and the 2027 Build HCM Reports, respectively.

TABLE 5: FUTURE 2027 INTERSECTION OPERATIONS (NO BUILD)

INTERSECTION	OPERATING STANDARD	AM PEAK HOUR			PM PEAK HOUR		
		V/C	DELAY	LOS	V/C	DELAY	LOS
N SPRINGBROOK ROAD AND NE BENJAMIN ROAD	LOS D, v/c < 0.90	0.08	10.4	B	0.08	10.8	B
N SPRINGBROOK ROAD AND E MOUNTAINVIEW DRIVE	LOS D, v/c < 0.90	0.42	33.8	D	0.77	**66.0**	**F**
N SPRINGBROOK ROAD AND E CRESTVIEW DRIVE	LOS D, v/c < 0.90	0.60	8.2	A	0.50	7.6	A
N SPRINGBROOK ROAD AND HAWORTH AVENUE	LOS D, v/c < 0.90	0.63	19.5	C	0.88	**49.3**	**E**

STOP-CONTROLLED OR ROUNDABOUT INTERSECTION:
DELAY = CRITICAL MOVEMENT DELAY (SECS)
V/C = CRITICAL MOVEMENT VOLUME-TO-CAPACITY RATIO
LOS = CRITICAL LEVEL OF SERVICE

BOLD/HIGHLIGHTED = DOES NOT MEET OPERATING STANDARD

[5] Highway Capacity Manual, 6th Edition, Transportation Research Board, 2017.

TABLE 6: FUTURE 2027 INTERSECTION OPERATIONS (BUILD)

INTERSECTION	OPERATING STANDARD	AM PEAK HOUR			PM PEAK HOUR		
		V/C	DELAY	LOS	V/C	DELAY	LOS
N SPRINGBROOK ROAD AND NE BENJAMIN ROAD	LOS D, v/c < 0.90	0.08	10.4	B	0.09	10.9	B
N SPRINGBROOK ROAD AND E MOUNTAINVIEW DRIVE	LOS D, v/c < 0.90	0.63	49.0	E	**1.02**	**127.6**	**F**
N SPRINGBROOK ROAD AND E CRESTVIEW DRIVE	LOS D, v/c < 0.90	0.60	8.6	A	0.52	8.0	A
N SPRINGBROOK ROAD AND HAWORTH AVENUE	LOS D, v/c < 0.90	0.68	21.8	C	**0.93**	**60.7**	**F**

STOP-CONTROLLED OR ROUNDABOUT INTERSECTION:
DELAY = CRITICAL MOVEMENT DELAY (SECS)
V/C = CRITICAL MOVEMENT VOLUME-TO-CAPACITY RATIO
LOS = CRITICAL LEVEL OF SERVICE

BOLD/HIGHLIGHTED = DOES NOT MEET OPERATING STANDARD

IMPACTS TO RAILROAD CROSSING AT BENJAMIN ROAD

Railroad tracks owned by Pacific & Western Railroad (PNWR) intersect Benajmin Road just east of Springbrook Road. Based on data provided by ODOT, an average of two trains per day cross Benjamin Road at a speed of 15 mph and there have been no reported vehicle crashes involving trains at this crossing within the last five years of published crash data. The average daily traffic on Benjamin Road at the crossing is approximately 450 vehicles per day today.

Based on the analysis in this report, the proposed project will not create any safety and operational deficiencies at this railroad crossing. The proposed subdivision is estimated to increase traffic at the railroad crossing by 1 AM peak hour trip and 3 PM peak hour trips.

Additionally, no street improvements related to the subdivision will be constructed within 50' of the railroad crossing and therefore, improvements to the railroad crossing (e.g., railroad crossing panels) are not required based on information provided by ODOT.[6]

[6] Phone call between Colby DeGeros and Kristyn Peterson (ODOT Rail) on April 23, 2024.

RECOMMENDED TRANSPORTATION MITIGATIONS

Based on the intersection operations presented in this traffic study, the intersections of N Springbrook Road/E Mountainview Drive and N Springbrook Road/Haworth Avenue fail to meet City's required operating standards.

The following improvement projects at these two intersections are identified in the City's Transportation System Plan. The planned improvements are described below.

N Springbrook Road/E Mountainview Drive

In the City's Transportation System Plan[7], the intersection is anticipated to fail to meet the City's mobility standard by 2040 and a traffic signal is identified as the planned improvement (Project I08). Based on the analysis results in this TIS, the N Springbrook Road/E Mountainview Drive intersection is anticipated to fail to meet the City's operating standard during the PM peak hour by 2027 without the construction of the proposed subdivision.

Based on a preliminary signal warrant evaluation, the intersection is not anticipated to meet signal warrants by 2027. See Appendix H for the preliminary traffic signal warrant spreadsheet. In order to mitigate the impacts of the proposed subdivision development, the developer should pay their proportionate share cost of the planned traffic signal improvement. The calculated proportionate share percentage is 6.9% based on the calculations shown in Table 8.

N Springbrook Road/Haworth Avenue

In the City's Transportation System Plan[8], the N Springbrook Road/Haworth Avenue intersection was shown to fail to meet the City's mobility standard in 2015. The TSP identified a traffic signal and left turn lanes on Haworth as the planned improvement (Project I09). Based on the analysis results, the N Springbrook Road/Haworth Avenue intersection does currently (2024) fail to meet the City's operating standard during the PM peak hour without the construction of the proposed subdivision.

Based on a preliminary signal warrant evaluation, the intersection is anticipated to meet signal warrants by 2027. See Appendix H for the preliminary traffic signal warrant spreadsheet. In order to mitigate the impacts of the proposed subdivision development, the developer should pay their proportionate share cost of the planned traffic signal improvement. The calculated proportionate share percentage is 2.7% based on the calculations shown in Table 8.

Mitigated Intersection Operations

Table 7 below shows the intersection operations for the two intersections with the identified transportation improvements constructed under project build conditions. As shown, the two intersections will meet the City's operating standard with the planned improvements in place. See Appendix F for Build Mitigation Reports.

[7] Newberg Transportation System Plan, City of Newberg, March 2021

[8] Newberg Transportation System Plan, City of Newberg, March 2021

TABLE 7: FUTURE INTERSECTION OPERATIONS WITH IMPROVMENTS (BUILD)

INTERSECTION	OPERATING STANDARD	MITIGATION	AM PEAK HOUR			PM PEAK HOUR		
			V/C	DELAY	LOS	V/C	DELAY	LOS
N SPRINGBROOK RD/ E MOUNTAINVIEW RD	LOS D, v/c < 0.90	Traffic Signal	0.53	10.5	B	0.66	14.1	B
N SPRINGBROOK RD/ HAWORTH AVE	LOS D, v/c < 0.90	Traffic Signal	0.52	23.7	C	0.73	34.3	C

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

Proportionate Share of Mitigations

The developer's proportionate share of the planned improvements are discussed and calculated in this section. Table 8 shows the number of project vehicle trips as well as the total number of vehicles in 2027 (build year) for both intersections. Proportionate share is calculated based on the total number of project trips entering an intersection and the scenario in which the intersection initially fails to meet operating standards.

TABLE 8: PROPORTIONATE SHARE CALCULATIONS

INTERSECTION	AM PEAK HOUR			PM PEAK HOUR		
	PROJECT TRIPS	2027 VEHICLE VOLUMES	PROPOR-TIONATE SHARE	PROJECT TRIPS	2027 VEHICLE VOLUMES	PROPOR-TIONATE SHARE
SPRINGBROOK RD/ MOUNTAINVIEW RD	70	1,174	6.0%	93	1,341	**6.9%**
SPRINGBROOK RD/ HAWORTH AVE	31	1,071	2.9%	41	1,523	**2.7%**

SITE PLAN REVIEW

This section reviews the project site plan for consistency with the Newberg Transportation System Plan and other applicable transportation standards, including the Newberg Development Code and Newberg Public Works Standards. The purpose of this review is to help identify any major site plan design concerns that could impact the greater project goals and could necessitate overall site plan changes. The site plan is provided in Appendix A.

VEHICULAR SITE ACCESS

There is a new street connection (Street A) that will be the only access road to the proposed subdivision. The new street is shown on the conceptual site plan to connect to N Springbrook Road approximately 250 south of Benjamin Road.

SIGHT DISTANCE

N Springbrook Road at the intersection of the new street experiences significant horizontal and vertical curvature which could hinder sight distance for drivers entering and exiting the project site. Photos were taken near the location of the new street connection on Springbrook Road during a site visit (Figure 6). As shown, there is a hill with horizontal curvature that could potentially block the visibility of southbound traffic. There is no clear posted speed on this road, but a warning sign advising 30 mph is posted at either end of the horizontal curve here.



FIGURE 6: HILL BLOCKING SIGHT DISTANCE LOOKING NORTH ON SPRINGBROOK ROAD

According to Federal Highway Administration, an intersection for a minor road with a major road that has a design speed of 30 mph, a minimum of 335 feet should be visible in both directions.[9]

It is recommended that the new intersection street be located at the top of the hill and as close to the center of the horizontal curve as possible so as to maximize sight distance for both vehicles turning onto Springbrook Road and for vehicles making a northbound left turn off Springbrook Road. A sight distance evaluation should be conducted to verify that no signs, foliage, or other obstructions are hindering the necessary sight distance at the intersection of the new street and N Springbrook Road.

[9] FHWA Intersection Safety and Sight Distance

HALF-STREET IMPROVEMENTS

Because the project site is directly adjacent to N Springbrook Road (550 linear feet approximately), half-street improvements will be required along the site's frontage. The half-street improvements will need to be constructed to City of Newberg's cross section standards. Today, N Springbrook Road fronting the project site has 2 travel lanes and no bicycle or pedestrian facilities. Based on the City's standards, the half-street improvements are to include a bike lane, planting strip, and sidewalk. The sidewalks will provide a continuous pedestrian connection between the new subdivision and the existing pedestrian and bicycle facilities on N Springbrook Road, which end approximately 350 feet south of the new street connection.

ON-SITE CIRCULATION

The City's Developmental Code states that new developments shall be required to provide a circulation system that accommodates expected traffic on the site.[10] There are three east/west roadways within the project site that are connected by two north/south streets. Ingress/egress from the development will be located at the southeast corner of the project site. The proposed roadway network throughout the development is shown in the site plan.

[10] City of Newberg Development Code, Section 3.1.020P

SUMMARY

The key findings of the transportation impact analysis (TIA).

- The proposed project is a single-family residential development consisting of 104 single family detached houses located at 3809 NE N Springbrook Road in Newberg, Oregon.
- The proposed development is expected to generate 77 (19 in, 58 out) AM peak hour vehicle trips and 103 (65 in, 38 out) PM peak hour vehicle trips.
- Under Existing 2024 conditions, the N Springbrook Road and E Mountainview Drive intersection does not operate within the City's LOS standard during the PM peak hour.
- Under the 2027 No Build and Build conditions, the N Springbrook Road and E Mountainview Drive intersection and the N Springbrook Road and Haworth Avenue intersection do not operate within the City's standards during the PM peak hour.
- As a mitigation at the N Springbrook Road and E Mountainview Drive intersection and the N Springbrook Road and Haworth Avenue intersection, the developer should pay the City their proportionate share of cost of the future traffic signals to mitigate impacts from the proposed subdivision.
- There are no operational or safety deficiencies caused by the proposed subdivision to the PNWR railroad crossing on Benjamin Road. Therefore, no improvements to the railroad crossing are required.
- Half-street improvements on N Springbrook Road are required along the project site frontage (approximately 550 feet) consistent with the City's cross section standards for Major Collectors.
- There is significant horizontal and vertical roadway curvature along Springbrook Road near the new street connection, potentially limiting required sight distance (335 feet) for drivers entering and exiting the project site. It is recommended that the new street connection at Springbrook Road be located at the top of the hill and as close to the center of the horizontal curve as possible so as to maximize sight distance.
- A sight distance evaluation should be conducted to verify that no signs, foliage, or other obstructions are hindering sight distance at the intersection of the project site access and N Springbrook Road.

APPENDIX

APPENDIX A: SITE PLAN

APPENDIX B: TRAFFIC COUNT DATA

APPENDIX C: EXISTING HCM REPORTS

APPENDIX D: 2027 NO BUILD HCM REPORTS

APPENDIX E: 2027 BUILD HCM REPORTS

APPENDIX G: CRASH DATA

APPENDIX H: PRELIMINARY SIGNAL WARRANT SPREADSHEETS

APPENDIX A: SITE PLAN

3809 NE SPRINGBROOK ROAD, NEWBERG, OREGON, 97132

COUNTY: YAMHILL
PARCEL: 25902 ACCOUNT: R320902300
PARCEL SIZE: 18.76 ACRES (YAMHILL COUNTY TAX RECORDS)

CURRENT ZONING: AF-10 (YAMHILL COUNTY)

PROPOSED ZONING: R-1 AND R-3 (CITY OF NEWBERG)

REQUIRED SETBACKS:

R-1 ZONE	*R-3 ZONE*
FRONT: 15'	FRONT: 12'
GARAGE: 20'	GARAGE: 20'
SIDE: 5'	SIDE: 5'
REAR: 5'	REAR: 15'
CORNER SIDE: 15'	CORNER SIDE: 12'

DENSITY CALCULATIONS:
GROSS SITE AREA: ±830,311 SF (GIS SOURCE)
GROSS R3 ZONING AREA (10% MINIMUM REQUIRED) = ±83,031 SF
Per Newberg Municipal Code 15.250.030-A.1.

TRACTS A AND C ARE OPEN SPACE TRACTS TO BE OWNED AND MAINTAINED BY THE HOA.

TRACT B IS A STORMWATER FACILITY TRACT TO BE OWNED AND MAINTAINED BY THE CITY OF NEWBERG

PROPOSED R1 ZONE

PROPOSED R3 ZONE
±10,686 SF

THE PURPOSE OF THIS PRELIMINARY LAYOUT IS TO SHOW PLANNED LOT DIMENSIONS AND AREAS FOR PLANNING PURPOSES. THIS IS NOT A FINAL LAYOUT AND NOT TO BE USED FOR SURVEY PURPOSES. ALL DIMENSIONS ARE SUBJECT TO CHANGE.

3J CONSULTING
CIVIL ENGINEERING
WATER RESOURCES
COMMUNITY PLANNING
9600 SW NIMBUS AVE., SUITE 100; BEAVERTON, OR 97008

DRAWING BY:	*SRC/JJS*
PREPARED FOR:	*ICHIJO*
PLAN ISSUE DATE:	*DECEMBER 26, 2023*
PLAN ISSUE PURPOSE:	*SCHEMATIC DESIGN*

N
W E
S

SCALE: 1" = 60'
0 60 120 FT

SPRINGBROOK RESIDENTIAL SUBDIVISION
NEWBERG, OREGON

SITE PLAN OVERVIEW
SCHEMATIC LAYOUT 5

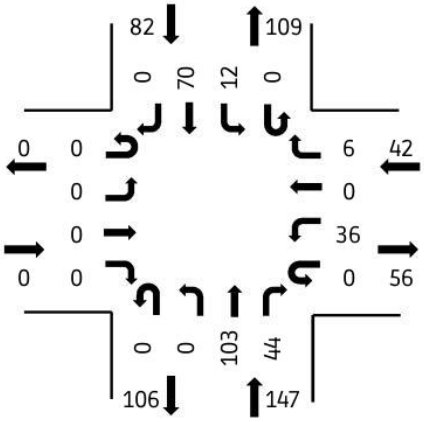
P:\23913-3809 NE SPRINGBROOK RD SUBDIVISION\CAD\EXHIBITS-ANALYSIS_COORDINATION\2023-12-19 SITE OPTIONS\23913-SITE OPTION 5.DWG

APPENDIX B: TRAFFIC COUNT DATA

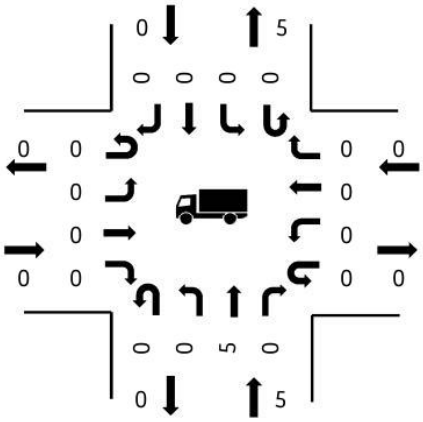
RallyTraffic

Location: N Springbrook Rd & NE Benjamin Rd
Date: 2024-04-18
Peak Hour Start: 07:25 AM
Peak 15 Minute Start: 08:00 AM
Peak Hour Factor: 0.83

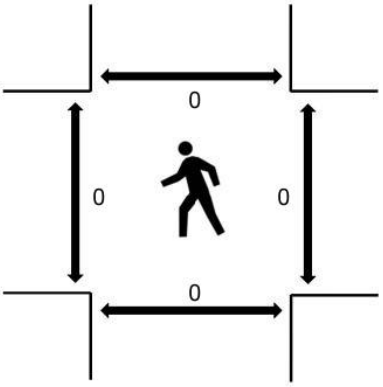
Motorized Vehicles



Heavy Vehicles



Pedestrians



(peak hour)

All Vehicle Volumes

Time	NB (N Springbrook Rd)					SB (N Springbrook Rd)					EB (NE Benjamin Rd)					WB (NE Benjamin 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
06:00:00 AM	0	1	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0		
06:05:00 AM	0	6	5	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0		
06:10:00 AM	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	19	
06:15:00 AM	0	2	0	0	0	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	22	
06:20:00 AM	0	1	2	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	15	
06:25:00 AM	0	2	3	0	0	0	2	0	0	0	0	0	0	0	0	2	0	1	0	0	22	
06:30:00 AM	0	11	3	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	31	
06:35:00 AM	0	4	2	0	0	1	1	0	0	0	0	0	0	0	0	1	0	0	0	0	34	
06:40:00 AM	0	4	3	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	34	
06:45:00 AM	0	8	2	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	32	
06:50:00 AM	0	1	2	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	34	
06:55:00 AM	0	4	2	0	0	2	4	0	0	0	0	0	0	0	0	4	0	1	0	0	41	116
07:00:00 AM	0	5	1	0	0	2	1	0	0	0	0	0	0	0	0	0	0	2	0	0	39	124
07:05:00 AM	0	5	2	0	0	1	2	0	0	0	0	0	0	0	0	1	0	0	0	0	39	122
07:10:00 AM	0	6	1	0	0	1	5	0	0	0	0	0	0	0	0	2	0	0	0	0	37	134
07:15:00 AM	0	6	2	0	0	1	3	0	0	0	0	0	0	0	0	0	0	2	0	0	40	142
07:20:00 AM	0	11	2	0	0	0	3	0	0	0	0	0	0	0	0	0	0	1	0	0	46	153
07:25:00 AM	0	8	1	0	0	0	4	0	0	0	0	0	0	0	0	3	0	0	0	0	47	159
07:30:00 AM	0	8	2	0	0	0	10	0	0	0	0	0	0	0	0	5	0	0	0	0	58	169
07:35:00 AM	0	8	6	0	0	1	5	0	0	0	0	0	0	0	0	1	0	0	0	0	62	181
07:40:00 AM	0	9	7	0	0	1	6	0	0	0	0	0	0	0	0	1	0	0	0	0	70	195
07:45:00 AM	0	5	2	0	0	2	6	0	0	0	0	0	0	0	0	4	0	0	0	0	64	201
07:50:00 AM	0	6	4	0	0	1	7	0	0	0	0	0	0	0	0	3	0	1	0	0	65	212
07:55:00 AM	0	3	2	0	0	1	6	0	0	0	0	0	0	0	0	6	0	1	0	0	60	214
08:00:00 AM	0	9	7	0	0	1	8	0	0	0	0	0	0	0	0	4	0	1	0	0	71	233
08:05:00 AM	0	14	5	0	0	1	5	0	0	0	0	0	0	0	0	1	0	1	0	0	76	249
08:10:00 AM	0	12	5	0	0	1	4	0	0	0	0	0	0	0	0	1	0	2	0	0	82	259
08:15:00 AM	0	12	1	0	0	2	6	0	0	0	0	0	0	0	0	4	0	0	0	0	77	270
08:20:00 AM	0	9	2	0	0	1	3	0	0	0	0	0	0	0	0	3	0	0	0	0	68	271
08:25:00 AM	0	7	2	0	0	2	3	0	0	0	0	0	0	0	0	2	0	0	0	0	59	271
08:30:00 AM	0	4	1	0	0	2	6	0	0	0	0	0	0	0	0	1	0	0	0	0	48	260
08:35:00 AM	0	5	2	0	0	1	6	0	0	0	0	0	0	0	0	1	0	0	0	0	45	254
08:40:00 AM	0	5	4	0	0	3	2	0	0	0	0	0	0	0	0	2	0	0	0	0	45	246
08:45:00 AM	0	2	1	0	0	1	7	0	0	0	0	0	0	0	0	1	0	1	0	0	44	240
08:50:00 AM	0	5	2	0	0	0	9	0	0	0	0	0	0	0	0	4	0	2	0	0	51	240
08:55:00 AM	0	4	2	0	0	0	1	0	0	0	0	0	0	0	0	2	0	0	0	0	44	230

Car Volumes

Time	NB (N Springbrook Rd)					SB (N Springbrook Rd)					EB (NE Benjamin Rd)					WB (NE Benjamin 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
06:00:00 AM	0	1	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0		
06:05:00 AM	0	6	5	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0		
06:10:00 AM	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	18	
06:15:00 AM	0	2	0	0	0	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	21	
06:20:00 AM	0	1	2	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	15	
06:25:00 AM	0	2	3	0	0	0	2	0	0	0	0	0	0	0	0	2	0	0	0	0	21	
06:30:00 AM	0	11	3	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	30	
06:35:00 AM	0	4	2	0	0	1	1	0	0	0	0	0	0	0	0	1	0	0	0	0	33	
06:40:00 AM	0	4	3	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	34	
06:45:00 AM	0	8	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	31	
06:50:00 AM	0	1	2	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	33	
06:55:00 AM	0	4	2	0	0	2	4	0	0	0	0	0	0	0	0	4	0	1	0	0	40	113
07:00:00 AM	0	5	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	0	0	37	119
07:05:00 AM	0	5	2	0	0	1	2	0	0	0	0	0	0	0	0	1	0	0	0	0	37	118
07:10:00 AM	0	6	1	0	0	1	5	0	0	0	0	0	0	0	0	2	0	0	0	0	35	130
07:15:00 AM	0	6	2	0	0	1	3	0	0	0	0	0	0	0	0	0	0	1	0	0	39	137
07:20:00 AM	0	11	2	0	0	0	3	0	0	0	0	0	0	0	0	0	0	1	0	0	45	148
07:25:00 AM	0	8	1	0	0	0	4	0	0	0	0	0	0	0	0	3	0	0	0	0	46	155
07:30:00 AM	0	8	2	0	0	0	10	0	0	0	0	0	0	0	0	5	0	0	0	0	58	165
07:35:00 AM	0	8	6	0	0	1	5	0	0	0	0	0	0	0	0	1	0	0	0	0	62	177
07:40:00 AM	0	9	7	0	0	1	6	0	0	0	0	0	0	0	0	1	0	0	0	0	70	191
07:45:00 AM	0	5	2	0	0	2	6	0	0	0	0	0	0	0	0	4	0	0	0	0	64	198
07:50:00 AM	0	3	4	0	0	1	7	0	0	0	0	0	0	0	0	3	0	1	0	0	62	206
07:55:00 AM	0	2	2	0	0	1	6	0	0	0	0	0	0	0	0	6	0	1	0	0	56	207
08:00:00 AM	0	9	7	0	0	1	8	0	0	0	0	0	0	0	0	4	0	1	0	0	67	228
08:05:00 AM	0	14	5	0	0	1	5	0	0	0	0	0	0	0	0	1	0	1	0	0	75	244
08:10:00 AM	0	12	5	0	0	1	4	0	0	0	0	0	0	0	0	1	0	2	0	0	82	254
08:15:00 AM	0	11	1	0	0	2	6	0	0	0	0	0	0	0	0	4	0	0	0	0	76	265
08:20:00 AM	0	9	2	0	0	1	3	0	0	0	0	0	0	0	0	3	0	0	0	0	67	266
08:25:00 AM	0	7	2	0	0	2	3	0	0	0	0	0	0	0	0	2	0	0	0	0	58	266
08:30:00 AM	0	4	1	0	0	2	6	0	0	0	0	0	0	0	0	1	0	0	0	0	48	255
08:35:00 AM	0	5	2	0	0	1	6	0	0	0	0	0	0	0	0	1	0	0	0	0	45	249
08:40:00 AM	0	5	4	0	0	3	2	0	0	0	0	0	0	0	0	2	0	0	0	0	45	241
08:45:00 AM	0	2	1	0	0	1	7	0	0	0	0	0	0	0	0	1	0	1	0	0	44	235
08:50:00 AM	0	5	2	0	0	0	9	0	0	0	0	0	0	0	0	4	0	2	0	0	51	238
08:55:00 AM	0	4	2	0	0	0	1	0	0	0	0	0	0	0	0	2	0	0	0	0	44	229

Truck Volumes

Time	NB (N Springbrook Rd)					SB (N Springbrook Rd)					EB (NE Benjamin Rd)					WB (NE Benjamin 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
06:00:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
06:05:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0		
06:10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
06:15:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
06:20:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
06:25:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	
06:30:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
06:35:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
06:40:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
06:45:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
06:50:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
06:55:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3
07:00:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2	5
07:05:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	4
07:10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	4
07:15:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	5
07:20:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5
07:25:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4
07:30:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
07:35:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
07:40:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
07:45:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
07:50:00 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	6
07:55:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	7
08:00:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	5
08:05:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5
08:10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
08:15:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5
08:20:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5
08:25:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5
08:30:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
08:35:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
08:40:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
08:45:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
08:50:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
08:55:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1

Bike Volumes

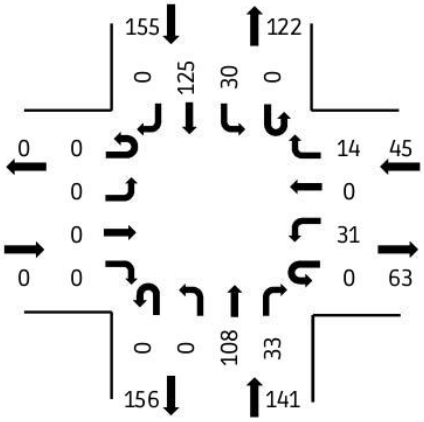
Time	NB (N Springbrook Rd)					SB (N Springbrook Rd)					EB (NE Benjamin Rd)					WB (NE Benjamin Rd)					Totals	
Time	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	15min	1hr
06:00:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
06:05:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
06:10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
06:15:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
06:20:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
06:25:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
06:30:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
06:35:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	
06:40:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
06:45:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
06:50:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
06:55:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07:00:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07:05:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07:10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07:15:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07:20:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07:25:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07:30:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07:35:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:40:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:50:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:55:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:05:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
08:10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
08:15:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
08:20:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
08:25:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
08:30:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
08:35:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
08:40:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	2
08:45:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2
08:50:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2
08:55:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2

Pedestrian Volumes

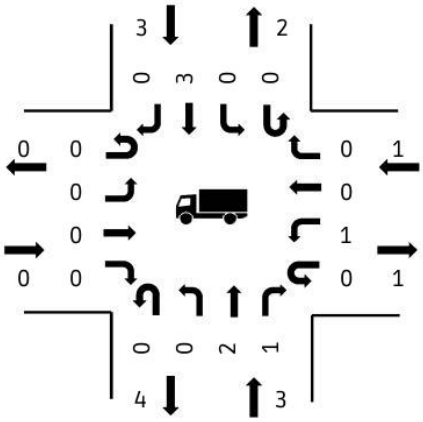
Time	Pedestrians				Totals	
Time	NB	SB	EB	WB	15min	1hr
06:00:00 AM	0	0	0	0		
06:05:00 AM	0	0	0	0		
06:10:00 AM	0	0	0	0	0	
06:15:00 AM	0	0	0	0	0	
06:20:00 AM	0	0	0	0	0	
06:25:00 AM	0	0	0	0	0	
06:30:00 AM	0	0	0	0	0	
06:35:00 AM	0	0	0	0	0	
06:40:00 AM	0	0	0	0	0	
06:45:00 AM	0	0	0	0	0	
06:50:00 AM	0	0	0	0	0	
06:55:00 AM	0	0	0	0	0	0
07:00:00 AM	0	0	0	0	0	0
07:05:00 AM	0	0	0	0	0	0
07:10:00 AM	0	0	0	0	0	0
07:15:00 AM	0	0	0	0	0	0
07:20:00 AM	0	0	0	0	0	0
07:25:00 AM	0	0	0	0	0	0
07:30:00 AM	0	0	0	0	0	0
07:35:00 AM	0	0	0	0	0	0
07:40:00 AM	0	0	0	0	0	0
07:45:00 AM	0	0	0	0	0	0
07:50:00 AM	0	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: N Springbrook Rd & NE Benjamin Rd
Date: 2024-04-17
Peak Hour Start: 03:20 PM
Peak 15 Minute Start: 03:55 PM
Peak Hour Factor: 0.91

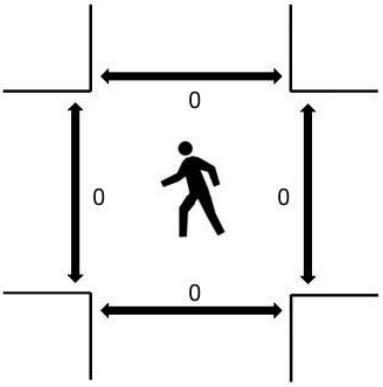
Motorized Vehicles



Heavy Vehicles



Pedestrians



(peak hour)

All Vehicle Volumes

Time	NB (N Springbrook Rd)					SB (N Springbrook Rd)					EB (NE Benjamin Rd)					WB (NE Benjamin 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
03:00:00 PM	0	3	2	0	0	1	24	0	0	0	0	0	0	0	0	1	0	0	0	0		
03:05:00 PM	0	8	0	0	0	3	10	0	0	0	0	0	0	0	0	0	0	2	0	0		
03:10:00 PM	0	9	2	0	0	1	9	0	0	0	0	0	0	0	0	2	0	0	0	0	77	
03:15:00 PM	0	6	1	0	0	0	12	0	0	0	0	0	0	0	0	2	0	1	0	0	68	
03:20:00 PM	0	8	2	0	0	5	11	0	0	0	0	0	0	0	0	4	0	1	0	0	76	
03:25:00 PM	0	16	1	0	0	3	10	0	0	0	0	0	0	0	0	0	0	0	0	0	83	
03:30:00 PM	0	6	2	0	0	2	9	0	0	0	0	0	0	0	0	2	0	0	0	0	82	
03:35:00 PM	0	10	4	0	0	3	10	0	0	0	0	0	0	0	0	2	0	4	0	0	84	
03:40:00 PM	0	7	4	0	0	1	11	0	0	0	0	0	0	0	0	7	0	1	0	0	85	
03:45:00 PM	0	3	3	0	0	3	10	0	0	0	0	0	0	0	0	5	0	0	0	0	88	
03:50:00 PM	0	8	2	0	0	2	7	0	0	0	0	0	0	0	0	2	0	1	0	0	77	
03:55:00 PM	0	9	1	0	0	2	13	0	0	0	0	0	0	0	0	4	0	3	0	0	78	323
04:00:00 PM	0	12	4	0	0	2	7	0	0	0	0	0	0	0	0	2	0	3	0	0	84	322
04:05:00 PM	0	12	2	0	0	5	13	0	0	0	0	0	0	0	0	0	0	0	0	0	94	331
04:10:00 PM	0	9	5	0	0	0	13	0	0	0	0	0	0	0	0	1	0	0	0	0	90	336
04:15:00 PM	0	8	3	0	0	2	11	0	0	0	0	0	0	0	0	2	0	1	0	0	87	341
04:20:00 PM	0	14	1	0	0	0	8	0	0	0	0	0	0	0	0	2	0	2	0	0	82	337
04:25:00 PM	0	9	1	0	0	2	9	0	0	0	0	0	0	0	0	3	0	0	0	0	78	331
04:30:00 PM	0	14	3	0	0	2	5	0	0	0	0	0	0	0	0	4	0	0	0	0	79	338
04:35:00 PM	0	13	1	0	0	1	13	0	0	0	0	0	0	0	0	2	0	1	0	0	83	336
04:40:00 PM	0	6	3	0	0	1	13	0	0	0	0	0	0	0	0	3	0	0	0	0	85	331
04:45:00 PM	0	6	0	0	0	1	17	0	0	0	0	0	0	0	0	0	0	0	0	0	81	331
04:50:00 PM	0	9	3	0	0	0	18	0	0	0	0	0	0	0	0	0	0	0	0	0	80	339
04:55:00 PM	0	12	2	0	0	1	12	0	0	0	0	0	0	0	0	4	0	0	0	0	85	338
05:00:00 PM	0	6	0	0	0	1	7	0	0	0	0	0	0	0	0	2	0	3	0	0	80	327
05:05:00 PM	0	7	5	0	0	2	10	0	0	0	0	0	0	0	0	3	0	2	0	0	79	324
05:10:00 PM	0	8	1	0	0	0	12	0	0	0	0	0	0	0	0	2	0	0	0	0	71	319
05:15:00 PM	0	10	3	0	0	0	12	0	0	0	0	0	0	0	0	2	0	0	0	0	79	319
05:20:00 PM	0	15	2	0	0	0	10	0	0	0	0	0	0	0	0	4	0	2	0	0	83	325
05:25:00 PM	0	11	1	0	0	0	11	0	0	0	0	0	0	0	0	1	0	1	0	0	85	326
05:30:00 PM	0	1	2	0	0	1	10	0	0	0	0	0	0	0	0	1	0	0	0	0	73	313
05:35:00 PM	0	4	2	0	0	1	7	0	0	0	0	0	0	0	0	2	0	0	0	0	56	298
05:40:00 PM	0	7	2	0	0	0	18	0	0	0	0	0	0	0	0	7	0	2	0	0	67	308
05:45:00 PM	0	6	1	0	0	0	10	0	0	0	0	0	0	0	0	2	0	0	0	0	71	303
05:50:00 PM	0	11	0	0	0	1	7	0	0	0	0	0	0	0	0	2	0	1	0	0	77	295
05:55:00 PM	0	11	0	0	0	4	13	0	0	0	0	0	0	0	0	3	0	1	0	0	73	296

Car Volumes

Time	NB (N Springbrook Rd)					SB (N Springbrook Rd)					EB (NE Benjamin Rd)					WB (NE Benjamin 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
03:00:00 PM	0	3	2	0	0	1	22	0	0	0	0	0	0	0	0	1	0	0	0	0		
03:05:00 PM	0	8	0	0	0	3	10	0	0	0	0	0	0	0	0	0	0	2	0	0		
03:10:00 PM	0	9	2	0	0	1	8	0	0	0	0	0	0	0	0	2	0	0	0	0	74	
03:15:00 PM	0	6	1	0	0	0	12	0	0	0	0	0	0	0	0	2	0	1	0	0	67	
03:20:00 PM	0	8	2	0	0	5	11	0	0	0	0	0	0	0	0	4	0	1	0	0	75	
03:25:00 PM	0	16	0	0	0	3	10	0	0	0	0	0	0	0	0	0	0	0	0	0	82	
03:30:00 PM	0	6	2	0	0	2	9	0	0	0	0	0	0	0	0	1	0	0	0	0	80	
03:35:00 PM	0	10	4	0	0	3	10	0	0	0	0	0	0	0	0	2	0	4	0	0	82	
03:40:00 PM	0	7	4	0	0	1	11	0	0	0	0	0	0	0	0	7	0	1	0	0	84	
03:45:00 PM	0	3	3	0	0	3	9	0	0	0	0	0	0	0	0	5	0	0	0	0	87	
03:50:00 PM	0	8	2	0	0	2	7	0	0	0	0	0	0	0	0	2	0	1	0	0	76	
03:55:00 PM	0	9	1	0	0	2	12	0	0	0	0	0	0	0	0	4	0	3	0	0	76	316
04:00:00 PM	0	12	4	0	0	2	7	0	0	0	0	0	0	0	0	2	0	3	0	0	83	317
04:05:00 PM	0	12	2	0	0	5	12	0	0	0	0	0	0	0	0	0	0	0	0	0	92	325
04:10:00 PM	0	8	5	0	0	0	13	0	0	0	0	0	0	0	0	1	0	0	0	0	88	330
04:15:00 PM	0	7	3	0	0	2	11	0	0	0	0	0	0	0	0	2	0	1	0	0	84	334
04:20:00 PM	0	14	1	0	0	0	8	0	0	0	0	0	0	0	0	2	0	2	0	0	80	330
04:25:00 PM	0	9	1	0	0	2	9	0	0	0	0	0	0	0	0	3	0	0	0	0	77	325
04:30:00 PM	0	14	3	0	0	2	5	0	0	0	0	0	0	0	0	4	0	0	0	0	79	333
04:35:00 PM	0	12	1	0	0	1	13	0	0	0	0	0	0	0	0	2	0	1	0	0	82	330
04:40:00 PM	0	6	3	0	0	1	13	0	0	0	0	0	0	0	0	3	0	0	0	0	84	325
04:45:00 PM	0	6	0	0	0	1	17	0	0	0	0	0	0	0	0	0	0	0	0	0	80	326
04:50:00 PM	0	8	3	0	0	0	18	0	0	0	0	0	0	0	0	0	0	0	0	0	79	333
04:55:00 PM	0	11	2	0	0	1	12	0	0	0	0	0	0	0	0	4	0	0	0	0	83	332
05:00:00 PM	0	6	0	0	0	1	7	0	0	0	0	0	0	0	0	2	0	3	0	0	78	321
05:05:00 PM	0	7	5	0	0	2	10	0	0	0	0	0	0	0	0	3	0	2	0	0	78	319
05:10:00 PM	0	8	1	0	0	0	12	0	0	0	0	0	0	0	0	2	0	0	0	0	71	315
05:15:00 PM	0	10	3	0	0	0	12	0	0	0	0	0	0	0	0	2	0	0	0	0	79	316
05:20:00 PM	0	15	2	0	0	0	10	0	0	0	0	0	0	0	0	3	0	2	0	0	82	321
05:25:00 PM	0	11	1	0	0	0	11	0	0	0	0	0	0	0	0	1	0	1	0	0	84	322
05:30:00 PM	0	1	2	0	0	1	10	0	0	0	0	0	0	0	0	1	0	0	0	0	72	309
05:35:00 PM	0	4	2	0	0	1	7	0	0	0	0	0	0	0	0	2	0	0	0	0	56	295
05:40:00 PM	0	7	2	0	0	0	17	0	0	0	0	0	0	0	0	7	0	2	0	0	66	304
05:45:00 PM	0	6	1	0	0	0	10	0	0	0	0	0	0	0	0	2	0	0	0	0	70	299
05:50:00 PM	0	11	0	0	0	1	7	0	0	0	0	0	0	0	0	2	0	1	0	0	76	292
05:55:00 PM	0	11	0	0	0	4	13	0	0	0	0	0	0	0	0	3	0	1	0	0	73	294

Truck Volumes

Time	NB (N Springbrook Rd)					SB (N Springbrook Rd)					EB (NE Benjamin Rd)					WB (NE Benjamin 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
03:00:00 PM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0		
03:05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
03:10:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	3	
03:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
03:20:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
03:25:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
03:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2	
03:35:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
03:40:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
03:45:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
03:50:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
03:55:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	7
04:00:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5
04:05:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	6
04:10:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	6
04:15:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	7
04:20:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	7
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	6
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	5
04:35:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	6
04:40:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	6
04:45:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5
04:50:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	6
04:55:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	6
05:00:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	6
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	5
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	4
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	3
05:20:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	4
05:25:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4
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	4
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	3
05:40:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4
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	4
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	3
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

Bike Volumes

Time	NB (N Springbrook Rd)					SB (N Springbrook Rd)					EB (NE Benjamin Rd)					WB (NE Benjamin 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
03:00:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
03:05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
03:10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
03:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
03:20:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
03:25:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
03:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
03:35:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
03:40:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
03:45:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
03:50:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
03:55:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	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	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	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	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	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	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	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	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	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	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

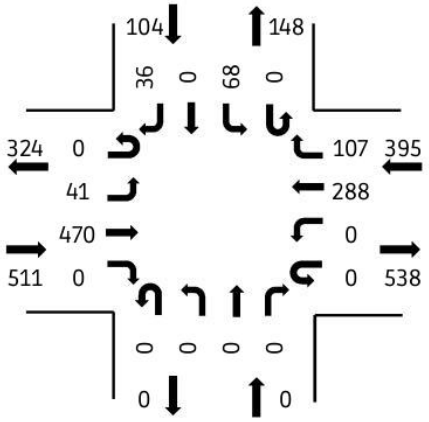
Pedestrian Volumes

Time	Pedestrians				Totals	
Time	NB	SB	EB	WB	15min	1hr
03:00:00 PM	0	0	0	1		
03:05:00 PM	0	0	0	0		
03:10:00 PM	0	0	0	0	1	
03:15:00 PM	0	0	0	0	0	
03:20:00 PM	0	0	0	0	0	
03:25:00 PM	0	0	0	0	0	
03:30:00 PM	0	0	0	0	0	
03:35:00 PM	0	0	0	0	0	
03:40:00 PM	0	0	0	0	0	
03:45:00 PM	0	0	0	0	0	
03:50:00 PM	0	0	0	0	0	
03:55:00 PM	0	0	0	0	0	1
04:00:00 PM	0	0	0	0	0	0
04:05:00 PM	0	0	0	0	0	0
04:10:00 PM	0	0	0	0	0	0
04:15:00 PM	0	0	0	0	0	0
04:20:00 PM	0	0	0	0	0	0
04:25:00 PM	0	0	0	0	0	0
04:30:00 PM	0	0	0	0	0	0
04:35:00 PM	0	0	0	0	0	0
04:40:00 PM	0	0	0	0	0	0
04:45:00 PM	0	0	0	0	0	0
04:50:00 PM	0	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

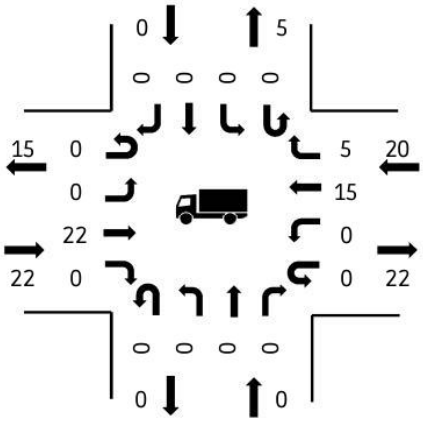
RallyTraffic

Location: N Springbrook Rd & E Mountain View
Date: 2024-04-18
Peak Hour Start: 07:25 AM
Peak 15 Minute Start: 07:55 AM
Peak Hour Factor: 0.85

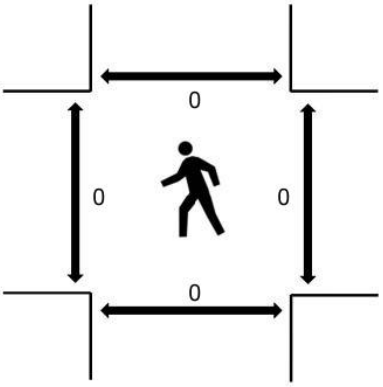
Motorized Vehicles



Heavy Vehicles



Pedestrians



(peak hour)

All Vehicle Volumes

Time	NB (N Springbrook Rd)					SB (N Springbrook Rd)					EB (E Mountain View)					WB (E Mountain View)					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
06:00:00 AM	0	0	0	0	0	2	0	0	0	0	0	10	0	0	0	0	3	1	0	0		
06:05:00 AM	0	0	0	0	0	1	0	1	0	0	5	21	0	0	0	0	5	6	0	0		
06:10:00 AM	0	0	0	0	0	1	0	0	0	0	1	12	0	0	0	0	5	1	0	0	75	
06:15:00 AM	0	0	0	0	0	2	0	0	0	0	1	20	0	0	0	0	8	2	0	0	92	
06:20:00 AM	0	0	0	0	0	0	0	2	0	0	1	11	0	0	0	0	8	2	0	0	77	
06:25:00 AM	0	0	0	0	0	3	0	1	0	0	3	17	0	0	0	0	12	5	0	0	98	
06:30:00 AM	0	0	0	0	0	1	0	0	0	0	3	18	0	0	0	0	10	7	0	0	104	
06:35:00 AM	0	0	0	0	0	1	0	1	0	0	3	13	0	0	0	0	13	5	0	0	116	
06:40:00 AM	0	0	0	0	0	1	0	0	0	0	3	26	0	0	0	0	12	7	0	0	124	
06:45:00 AM	0	0	0	0	0	1	0	1	0	0	1	20	0	0	0	0	10	7	0	0	125	
06:50:00 AM	0	0	0	0	0	6	0	2	0	0	1	24	0	0	0	0	20	1	0	0	143	
06:55:00 AM	0	0	0	0	0	4	0	5	0	0	3	26	0	0	0	0	13	4	0	0	149	446
07:00:00 AM	0	0	0	0	0	1	0	0	0	0	2	19	0	0	0	0	18	3	0	0	152	473
07:05:00 AM	0	0	0	0	0	2	0	1	0	0	2	26	0	0	0	0	17	8	0	0	154	490
07:10:00 AM	0	0	0	0	0	3	0	2	0	0	1	36	0	0	0	0	15	4	0	0	160	531
07:15:00 AM	0	0	0	0	0	5	0	0	0	0	3	25	0	0	0	0	14	8	0	0	172	553
07:20:00 AM	0	0	0	0	0	1	0	2	0	0	2	27	0	0	0	0	20	9	0	0	177	590
07:25:00 AM	0	0	0	0	0	4	0	0	0	0	1	35	0	0	0	0	14	7	0	0	177	610
07:30:00 AM	0	0	0	0	0	11	0	2	0	0	4	41	0	0	0	0	14	9	0	0	203	652
07:35:00 AM	0	0	0	0	0	8	0	1	0	0	5	41	0	0	0	0	17	8	0	0	222	696
07:40:00 AM	0	0	0	0	0	3	0	4	0	0	4	35	0	0	0	0	30	12	0	0	249	735
07:45:00 AM	0	0	0	0	0	6	0	4	0	0	4	29	0	0	0	0	22	5	0	0	238	765
07:50:00 AM	0	0	0	0	0	6	0	4	0	0	2	51	0	0	0	0	27	4	0	0	252	805
07:55:00 AM	0	0	0	0	0	8	0	5	0	0	2	44	0	0	0	0	27	5	0	0	255	841
08:00:00 AM	0	0	0	0	0	6	0	4	0	0	4	46	0	0	0	0	28	14	0	0	287	900
08:05:00 AM	0	0	0	0	0	2	0	3	0	0	8	43	0	0	0	0	35	13	0	0	297	948
08:10:00 AM	0	0	0	0	0	5	0	2	0	0	4	31	0	0	0	0	32	14	0	0	294	975
08:15:00 AM	0	0	0	0	0	6	0	3	0	0	2	37	0	0	0	0	22	7	0	0	269	997
08:20:00 AM	0	0	0	0	0	3	0	4	0	0	1	37	0	0	0	0	20	9	0	0	239	1010
08:25:00 AM	0	0	0	0	0	3	0	2	0	0	2	25	0	0	0	0	19	6	0	0	208	1006
08:30:00 AM	0	0	0	0	0	4	0	2	0	0	2	21	0	0	0	0	12	3	0	0	175	969
08:35:00 AM	0	0	0	0	0	6	0	1	0	0	1	18	0	0	0	0	15	7	0	0	149	937
08:40:00 AM	0	0	0	0	0	2	0	3	0	0	4	19	0	0	0	0	11	6	0	0	137	894
08:45:00 AM	0	0	0	0	0	7	0	2	0	0	2	28	0	0	0	0	15	3	0	0	150	881
08:50:00 AM	0	0	0	0	0	6	0	3	0	0	1	24	0	0	0	0	18	4	0	0	158	843
08:55:00 AM	0	0	0	0	0	3	0	2	0	0	4	22	0	0	0	0	17	3	0	0	164	803

Car Volumes

Time	NB (N Springbrook Rd)					SB (N Springbrook Rd)					EB (E Mountain View)					WB (E Mountain View)					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
06:00:00 AM	0	0	0	0	0	2	0	0	0	0	0	9	0	0	0	0	3	1	0	0		
06:05:00 AM	0	0	0	0	0	1	0	1	0	0	5	21	0	0	0	0	5	6	0	0		
06:10:00 AM	0	0	0	0	0	1	0	0	0	0	1	12	0	0	0	0	5	1	0	0	74	
06:15:00 AM	0	0	0	0	0	2	0	0	0	0	1	20	0	0	0	0	7	2	0	0	91	
06:20:00 AM	0	0	0	0	0	0	0	2	0	0	1	11	0	0	0	0	8	2	0	0	76	
06:25:00 AM	0	0	0	0	0	3	0	1	0	0	3	17	0	0	0	0	11	5	0	0	96	
06:30:00 AM	0	0	0	0	0	1	0	0	0	0	3	18	0	0	0	0	9	7	0	0	102	
06:35:00 AM	0	0	0	0	0	1	0	1	0	0	3	13	0	0	0	0	11	5	0	0	112	
06:40:00 AM	0	0	0	0	0	1	0	0	0	0	3	26	0	0	0	0	11	7	0	0	120	
06:45:00 AM	0	0	0	0	0	1	0	1	0	0	1	20	0	0	0	0	10	7	0	0	122	
06:50:00 AM	0	0	0	0	0	5	0	2	0	0	1	24	0	0	0	0	19	1	0	0	140	
06:55:00 AM	0	0	0	0	0	4	0	5	0	0	3	26	0	0	0	0	13	4	0	0	147	437
07:00:00 AM	0	0	0	0	0	1	0	0	0	0	2	19	0	0	0	0	16	3	0	0	148	463
07:05:00 AM	0	0	0	0	0	2	0	1	0	0	2	26	0	0	0	0	16	8	0	0	151	479
07:10:00 AM	0	0	0	0	0	3	0	2	0	0	1	35	0	0	0	0	15	4	0	0	156	519
07:15:00 AM	0	0	0	0	0	5	0	0	0	0	3	25	0	0	0	0	13	8	0	0	169	541
07:20:00 AM	0	0	0	0	0	1	0	2	0	0	2	27	0	0	0	0	19	9	0	0	174	577
07:25:00 AM	0	0	0	0	0	4	0	0	0	0	1	34	0	0	0	0	13	7	0	0	173	596
07:30:00 AM	0	0	0	0	0	11	0	2	0	0	4	40	0	0	0	0	14	9	0	0	199	638
07:35:00 AM	0	0	0	0	0	8	0	1	0	0	5	39	0	0	0	0	17	8	0	0	217	682
07:40:00 AM	0	0	0	0	0	3	0	4	0	0	4	31	0	0	0	0	30	12	0	0	242	718
07:45:00 AM	0	0	0	0	0	6	0	4	0	0	4	26	0	0	0	0	22	3	0	0	227	743
07:50:00 AM	0	0	0	0	0	6	0	4	0	0	2	45	0	0	0	0	24	3	0	0	233	775
07:55:00 AM	0	0	0	0	0	8	0	5	0	0	2	40	0	0	0	0	24	4	0	0	232	803
08:00:00 AM	0	0	0	0	0	6	0	4	0	0	4	46	0	0	0	0	25	14	0	0	266	861
08:05:00 AM	0	0	0	0	0	2	0	3	0	0	8	43	0	0	0	0	34	13	0	0	285	909
08:10:00 AM	0	0	0	0	0	5	0	2	0	0	4	31	0	0	0	0	30	14	0	0	288	935
08:15:00 AM	0	0	0	0	0	6	0	3	0	0	2	37	0	0	0	0	22	6	0	0	265	957
08:20:00 AM	0	0	0	0	0	3	0	4	0	0	1	36	0	0	0	0	18	9	0	0	233	968
08:25:00 AM	0	0	0	0	0	3	0	2	0	0	2	21	0	0	0	0	18	6	0	0	199	961
08:30:00 AM	0	0	0	0	0	4	0	2	0	0	2	21	0	0	0	0	9	3	0	0	164	922
08:35:00 AM	0	0	0	0	0	6	0	1	0	0	1	18	0	0	0	0	14	7	0	0	140	891
08:40:00 AM	0	0	0	0	0	2	0	3	0	0	4	18	0	0	0	0	11	6	0	0	132	851
08:45:00 AM	0	0	0	0	0	7	0	1	0	0	2	25	0	0	0	0	15	3	0	0	144	839
08:50:00 AM	0	0	0	0	0	6	0	3	0	0	1	24	0	0	0	0	17	4	0	0	152	810
08:55:00 AM	0	0	0	0	0	3	0	2	0	0	4	22	0	0	0	0	17	3	0	0	159	778

Truck Volumes

Time	NB (N Springbrook Rd)					SB (N Springbrook Rd)					EB (E Mountain View)					WB (E Mountain View)					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
06:00:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0		
06:05:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
06:10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
06:15:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	
06:20:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
06:25:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	
06:30:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	
06:35:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	4	
06:40:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	4	
06:45:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	
06:50:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	3	
06:55:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	9
07:00:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	4	10
07:05:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	3	11
07:10:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	4	12
07:15:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	3	12
07:20:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	3	13
07:25:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	4	14
07:30:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	4	14
07:35:00 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	5	14
07:40:00 AM	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	7	17
07:45:00 AM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	2	0	0	11	22
07:50:00 AM	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	3	1	0	0	19	30
07:55:00 AM	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	3	1	0	0	23	38
08:00:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	21	39
08:05:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	12	39
08:10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	6	40
08:15:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	4	40
08:20:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2	0	0	0	6	42
08:25:00 AM	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	1	0	0	0	9	45
08:30:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	11	47
08:35:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	9	46
08:40:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	5	43
08:45:00 AM	0	0	0	0	0	0	0	1	0	0	0	3	0	0	0	0	0	0	0	0	6	42
08:50:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	6	33
08:55:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	25

Bike Volumes

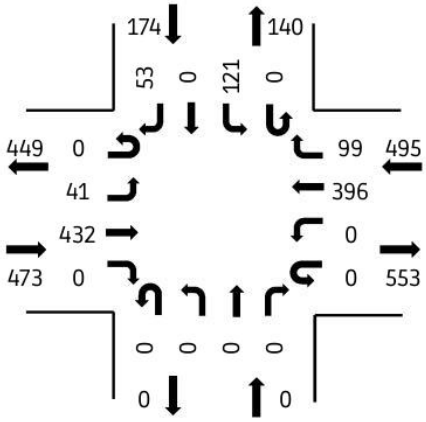
Time	NB (N Springbrook Rd)					SB (N Springbrook Rd)					EB (E Mountain View)					WB (E Mountain View)					Totals	
Time	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	15min	1hr
06:00:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
06:05:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
06:10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
06:15:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
06:20:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
06:25:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
06:30:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
06:35:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
06:40:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
06:45:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
06:50:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
06:55:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07:00:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07:05:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07:10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07:15:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07:20:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07:25:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07:30:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07:35:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07:40:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:50:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:55:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:05:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
08:10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
08:15:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
08:20:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2
08:25:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2
08:30:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2
08:35:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
08:40:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
08:45:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3
08:50:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3
08:55:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3

Pedestrian Volumes

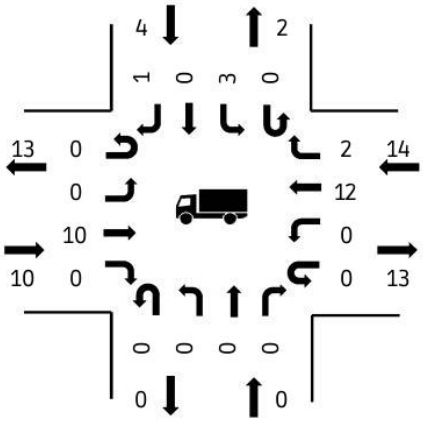
Time	Pedestrians				Totals	
Time	NB	SB	EB	WB	15min	1hr
06:00:00 AM	0	0	1	0		
06:05:00 AM	0	0	0	0		
06:10:00 AM	0	0	0	0	1	
06:15:00 AM	0	0	0	0	0	
06:20:00 AM	0	0	0	0	0	
06:25:00 AM	0	0	0	0	0	
06:30:00 AM	0	0	0	0	0	
06:35:00 AM	0	0	0	0	0	
06:40:00 AM	0	0	1	0	1	
06:45:00 AM	0	0	0	0	1	
06:50:00 AM	0	0	0	0	1	
06:55:00 AM	0	0	0	0	0	2
07:00:00 AM	0	0	0	0	0	1
07:05:00 AM	0	0	0	0	0	1
07:10:00 AM	0	0	0	0	0	1
07:15:00 AM	0	0	0	0	0	1
07:20:00 AM	0	0	0	0	0	1
07:25:00 AM	0	0	0	0	0	1
07:30:00 AM	0	0	0	0	0	1
07:35:00 AM	0	0	0	0	0	1
07:40:00 AM	0	0	0	0	0	0
07:45:00 AM	0	0	0	0	0	0
07:50:00 AM	0	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	1	0	1	1
08:50:00 AM	0	0	0	0	1	1
08:55:00 AM	0	0	0	0	1	1

Location: N Springbrook Rd & E Mountain View
Date: 2024-04-17
Peak Hour Start: 03:10 PM
Peak 15 Minute Start: 03:25 PM
Peak Hour Factor: 0.88

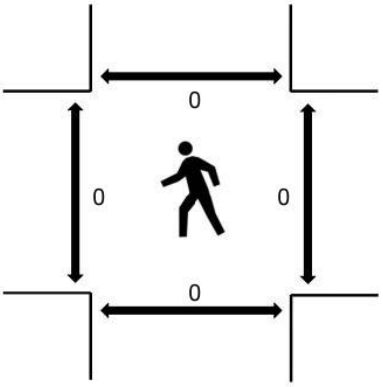
Motorized Vehicles



Heavy Vehicles



Pedestrians



(peak hour)

All Vehicle Volumes

Time	NB (N Springbrook Rd)					SB (N Springbrook Rd)					EB (E Mountain View)					WB (E Mountain View)					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
03:00:00 PM	0	0	0	0	0	24	0	3	0	0	2	25	0	0	0	0	33	3	0	0		
03:05:00 PM	0	0	0	0	0	8	0	3	0	0	4	39	0	0	0	0	27	6	0	0		
03:10:00 PM	0	0	0	0	0	12	0	2	0	0	1	28	0	0	0	0	45	9	0	0	274	
03:15:00 PM	0	0	0	0	0	5	0	2	0	0	3	30	0	0	0	0	38	4	0	0	266	
03:20:00 PM	0	0	0	0	0	12	0	8	0	0	1	34	0	0	0	0	36	14	0	0	284	
03:25:00 PM	0	0	0	0	0	17	0	2	0	0	2	31	0	0	0	0	43	12	0	0	294	
03:30:00 PM	0	0	0	0	0	8	0	3	0	0	4	60	0	0	0	0	28	4	0	0	319	
03:35:00 PM	0	0	0	0	0	20	0	4	0	0	8	45	0	0	0	0	23	9	0	0	323	
03:40:00 PM	0	0	0	0	0	11	0	7	0	0	4	23	0	0	0	0	25	7	0	0	293	
03:45:00 PM	0	0	0	0	0	5	0	7	0	0	4	21	0	0	0	0	27	5	0	0	255	
03:50:00 PM	0	0	0	0	0	9	0	3	0	0	0	34	0	0	0	0	29	8	0	0	229	
03:55:00 PM	0	0	0	0	0	12	0	5	0	0	5	29	0	0	0	0	31	6	0	0	240	1101
04:00:00 PM	0	0	0	0	0	2	0	8	0	0	4	49	0	0	0	0	29	12	0	0	275	1115
04:05:00 PM	0	0	0	0	0	8	0	2	0	0	5	48	0	0	0	0	42	9	0	0	306	1142
04:10:00 PM	0	0	0	0	0	11	0	1	0	0	5	32	0	0	0	0	27	11	0	0	305	1132
04:15:00 PM	0	0	0	0	0	12	0	3	0	0	3	28	0	0	0	0	32	7	0	0	286	1135
04:20:00 PM	0	0	0	0	0	9	0	4	0	0	3	23	0	0	0	0	37	12	0	0	260	1118
04:25:00 PM	0	0	0	0	0	8	0	2	0	0	2	27	0	0	0	0	35	10	0	0	257	1095
04:30:00 PM	0	0	0	0	0	6	0	2	0	0	6	33	0	0	0	0	27	13	0	0	259	1075
04:35:00 PM	0	0	0	0	0	14	0	4	0	0	5	41	0	0	0	0	44	9	0	0	288	1083
04:40:00 PM	0	0	0	0	0	10	0	2	0	0	4	32	0	0	0	0	24	5	0	0	281	1083
04:45:00 PM	0	0	0	0	0	15	0	3	0	0	3	29	0	0	0	0	31	2	0	0	277	1097
04:50:00 PM	0	0	0	0	0	19	0	2	0	0	6	39	0	0	0	0	35	8	0	0	269	1123
04:55:00 PM	0	0	0	0	0	8	0	7	0	0	2	31	0	0	0	0	40	8	0	0	288	1131
05:00:00 PM	0	0	0	0	0	5	0	4	0	0	1	27	0	0	0	0	38	8	0	0	288	1110
05:05:00 PM	0	0	0	0	0	10	0	4	0	0	4	32	0	0	0	0	37	8	0	0	274	1091
05:10:00 PM	0	0	0	0	0	11	0	4	0	0	5	33	0	0	0	0	37	5	0	0	273	1099
05:15:00 PM	0	0	0	0	0	10	0	4	0	0	5	40	0	0	0	0	35	11	0	0	295	1119
05:20:00 PM	0	0	0	0	0	9	0	4	0	0	1	17	0	0	0	0	37	13	0	0	281	1112
05:25:00 PM	0	0	0	0	0	10	0	2	0	0	9	27	0	0	0	0	31	4	0	0	269	1111
05:30:00 PM	0	0	0	0	0	7	0	4	0	0	1	25	0	0	0	0	31	6	0	0	238	1098
05:35:00 PM	0	0	0	0	0	4	0	3	0	0	1	23	0	0	0	0	24	4	0	0	216	1040
05:40:00 PM	0	0	0	0	0	13	0	8	0	0	2	24	0	0	0	0	26	6	0	0	212	1042
05:45:00 PM	0	0	0	0	0	10	0	5	0	0	2	30	0	0	0	0	36	7	0	0	228	1049
05:50:00 PM	0	0	0	0	0	11	0	2	0	0	1	24	0	0	0	0	34	8	0	0	249	1020
05:55:00 PM	0	0	0	0	0	9	0	4	0	0	5	18	0	0	0	0	35	8	0	0	249	1003

Car Volumes

Time	NB (N Springbrook Rd)					SB (N Springbrook Rd)					EB (E Mountain View)					WB (E Mountain View)					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
03:00:00 PM	0	0	0	0	0	23	0	3	0	0	2	24	0	0	0	0	31	3	0	0		
03:05:00 PM	0	0	0	0	0	6	0	3	0	0	4	39	0	0	0	0	27	6	0	0		
03:10:00 PM	0	0	0	0	0	11	0	2	0	0	1	27	0	0	0	0	45	9	0	0	266	
03:15:00 PM	0	0	0	0	0	5	0	2	0	0	3	29	0	0	0	0	38	4	0	0	261	
03:20:00 PM	0	0	0	0	0	12	0	8	0	0	1	31	0	0	0	0	33	14	0	0	275	
03:25:00 PM	0	0	0	0	0	17	0	2	0	0	2	30	0	0	0	0	38	11	0	0	280	
03:30:00 PM	0	0	0	0	0	8	0	2	0	0	4	59	0	0	0	0	26	4	0	0	302	
03:35:00 PM	0	0	0	0	0	20	0	4	0	0	8	45	0	0	0	0	23	9	0	0	312	
03:40:00 PM	0	0	0	0	0	11	0	7	0	0	4	23	0	0	0	0	25	6	0	0	288	
03:45:00 PM	0	0	0	0	0	4	0	7	0	0	4	21	0	0	0	0	27	5	0	0	253	
03:50:00 PM	0	0	0	0	0	9	0	3	0	0	0	32	0	0	0	0	27	8	0	0	223	
03:55:00 PM	0	0	0	0	0	11	0	5	0	0	5	29	0	0	0	0	31	6	0	0	234	1068
04:00:00 PM	0	0	0	0	0	2	0	8	0	0	4	48	0	0	0	0	29	12	0	0	269	1085
04:05:00 PM	0	0	0	0	0	8	0	2	0	0	5	48	0	0	0	0	42	9	0	0	304	1114
04:10:00 PM	0	0	0	0	0	10	0	1	0	0	5	32	0	0	0	0	27	10	0	0	302	1104
04:15:00 PM	0	0	0	0	0	12	0	3	0	0	2	26	0	0	0	0	31	7	0	0	280	1104
04:20:00 PM	0	0	0	0	0	9	0	4	0	0	3	23	0	0	0	0	34	11	0	0	250	1089
04:25:00 PM	0	0	0	0	0	8	0	2	0	0	2	27	0	0	0	0	34	10	0	0	248	1072
04:30:00 PM	0	0	0	0	0	6	0	2	0	0	6	33	0	0	0	0	27	13	0	0	254	1056
04:35:00 PM	0	0	0	0	0	14	0	4	0	0	5	40	0	0	0	0	44	8	0	0	285	1062
04:40:00 PM	0	0	0	0	0	10	0	2	0	0	4	31	0	0	0	0	23	5	0	0	277	1061
04:45:00 PM	0	0	0	0	0	15	0	3	0	0	3	29	0	0	0	0	31	2	0	0	273	1076
04:50:00 PM	0	0	0	0	0	19	0	2	0	0	6	39	0	0	0	0	35	6	0	0	265	1104
04:55:00 PM	0	0	0	0	0	8	0	7	0	0	2	30	0	0	0	0	40	8	0	0	285	1112
05:00:00 PM	0	0	0	0	0	5	0	4	0	0	1	25	0	0	0	0	38	8	0	0	283	1090
05:05:00 PM	0	0	0	0	0	10	0	4	0	0	4	31	0	0	0	0	37	8	0	0	270	1070
05:10:00 PM	0	0	0	0	0	11	0	4	0	0	5	33	0	0	0	0	36	5	0	0	269	1079
05:15:00 PM	0	0	0	0	0	10	0	4	0	0	5	39	0	0	0	0	34	11	0	0	291	1101
05:20:00 PM	0	0	0	0	0	9	0	4	0	0	1	17	0	0	0	0	37	13	0	0	278	1098
05:25:00 PM	0	0	0	0	0	10	0	2	0	0	9	27	0	0	0	0	31	4	0	0	267	1098
05:30:00 PM	0	0	0	0	0	7	0	4	0	0	1	25	0	0	0	0	31	6	0	0	238	1085
05:35:00 PM	0	0	0	0	0	4	0	3	0	0	1	23	0	0	0	0	24	4	0	0	216	1029
05:40:00 PM	0	0	0	0	0	12	0	8	0	0	2	24	0	0	0	0	26	6	0	0	211	1032
05:45:00 PM	0	0	0	0	0	10	0	5	0	0	2	29	0	0	0	0	36	7	0	0	226	1038
05:50:00 PM	0	0	0	0	0	11	0	2	0	0	1	24	0	0	0	0	34	8	0	0	247	1011
05:55:00 PM	0	0	0	0	0	9	0	4	0	0	5	18	0	0	0	0	33	8	0	0	246	993

Truck Volumes

Time	NB (N Springbrook Rd)					SB (N Springbrook Rd)					EB (E Mountain View)					WB (E Mountain View)					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
03:00:00 PM	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	2	0	0	0		
03:05:00 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
03:10:00 PM	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	8	
03:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	5	
03:20:00 PM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	0	0	0	9	
03:25:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	5	1	0	0	14	
03:30:00 PM	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	2	0	0	0	17	
03:35:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	
03:40:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	5	
03:45:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
03:50:00 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	6	
03:55:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	33
04:00:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	6	30
04:05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	28
04:10:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	3	28
04:15:00 PM	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	1	0	0	0	6	31
04:20:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	0	0	10	29
04:25:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	9	23
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	19
04:35:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	3	21
04:40:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	4	22
04:45:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	21
04:50:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	4	19
04:55:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	3	19
05:00:00 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	5	20
05:05:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	4	21
05:10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	4	20
05:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	4	18
05:20:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	14
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	13
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	13
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	11
05:40:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	10
05:45:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	2	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	9
05:55:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	3	10

Bike Volumes

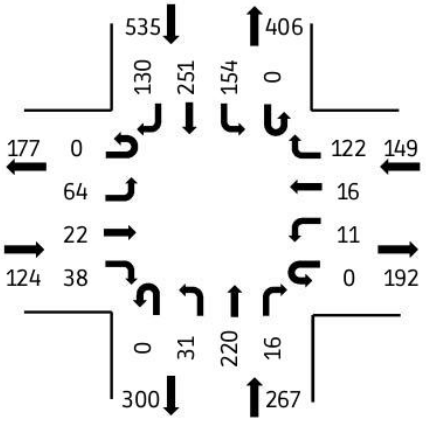
Time	NB (N Springbrook Rd)					SB (N Springbrook Rd)					EB (E Mountain View)					WB (E Mountain View)					Totals	
Time	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	15min	1hr
03:00:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
03:05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
03:10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
03:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
03:20:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
03:25:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
03:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
03:35:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
03:40:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
03:45:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
03:50:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
03:55:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	1
04:05:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	2	2
04:10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	3	3
04:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3
04:20:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3
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	3
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	3
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	3
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	3
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	3
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	3
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	3
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	2
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	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	1	0	0	0	1	1
05:25:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
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	1
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	1
05:40:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	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	1	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	1	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

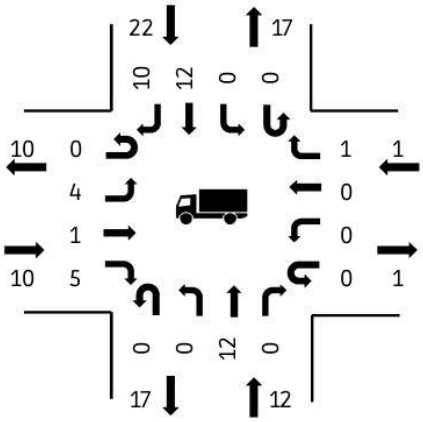
Time	Pedestrians				Totals	
Time	NB	SB	EB	WB	15min	1hr
03:00:00 PM	0	0	0	0		
03:05:00 PM	0	0	0	0		
03:10:00 PM	0	0	0	0	0	
03:15:00 PM	0	0	0	0	0	
03:20:00 PM	0	0	0	0	0	
03:25:00 PM	0	0	0	0	0	
03:30:00 PM	0	0	0	0	0	
03:35:00 PM	0	0	0	0	0	
03:40:00 PM	0	0	0	0	0	
03:45:00 PM	0	0	0	0	0	
03:50:00 PM	0	0	0	0	0	
03:55:00 PM	0	0	0	0	0	0
04:00:00 PM	0	0	0	0	0	0
04:05:00 PM	0	0	0	0	0	0
04:10:00 PM	0	0	0	0	0	0
04:15:00 PM	0	0	0	0	0	0
04:20:00 PM	0	0	0	0	0	0
04:25:00 PM	0	0	0	0	0	0
04:30:00 PM	0	0	0	0	0	0
04:35:00 PM	0	0	1	0	1	1
04:40:00 PM	0	0	0	0	1	1
04:45:00 PM	0	0	0	0	1	1
04:50:00 PM	0	0	0	0	0	1
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	1
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: N Springbrook Rd & E Crestview Dr
Date: 2024-04-18
Peak Hour Start: 07:25 AM
Peak 15 Minute Start: 08:00 AM
Peak Hour Factor: 0.83

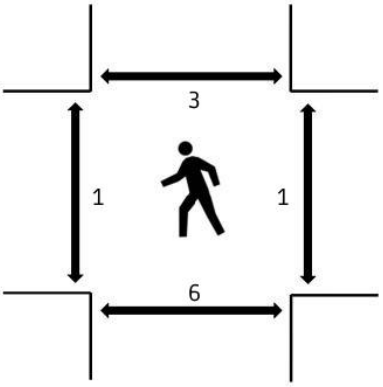
Motorized Vehicles



Heavy Vehicles



Pedestrians



(peak hour)

All Vehicle Volumes

Time	NB (N Springbrook Rd)					SB (N Springbrook Rd)					EB (E Crestview Dr)					WB (E Crestview Dr)					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
06:00:00 AM	0	5	1	0	0	5	5	0	0	0	0	0	0	0	0	0	0	1	0	0		
06:05:00 AM	0	7	0	0	0	9	11	0	0	0	0	0	0	0	0	0	0	2	0	0		
06:10:00 AM	0	4	1	0	0	5	7	0	0	0	0	0	0	0	0	0	0	2	0	0	65	
06:15:00 AM	0	6	0	0	0	9	11	0	0	0	0	0	0	0	0	0	0	5	0	0	79	
06:20:00 AM	1	6	0	0	0	8	6	0	0	0	0	0	0	0	0	0	0	5	0	0	76	
06:25:00 AM	0	12	0	0	0	9	8	1	0	0	0	0	1	0	0	0	1	3	0	0	92	
06:30:00 AM	0	14	0	0	0	13	8	1	0	0	1	0	0	0	0	0	0	3	0	0	101	
06:35:00 AM	1	15	2	0	0	6	4	2	0	0	1	0	1	0	0	0	0	3	0	0	110	
06:40:00 AM	0	16	0	0	0	14	12	1	0	0	0	0	2	0	0	0	0	2	0	0	122	
06:45:00 AM	1	14	0	0	0	10	12	1	0	0	1	0	0	0	0	0	2	3	0	0	126	
06:50:00 AM	0	13	1	0	0	9	17	2	0	0	0	0	1	0	0	1	1	10	0	0	146	
06:55:00 AM	0	12	3	0	0	9	20	3	0	0	0	0	0	0	0	1	0	7	0	0	154	433
07:00:00 AM	0	10	0	0	0	5	12	4	0	0	1	0	1	0	0	2	1	6	0	0	152	458
07:05:00 AM	0	15	0	0	0	11	16	1	0	0	1	1	0	0	0	1	1	8	0	0	152	484
07:10:00 AM	2	13	0	0	0	12	19	7	0	0	0	0	2	0	0	0	0	6	0	0	158	526
07:15:00 AM	0	14	0	0	0	16	14	1	0	0	2	0	0	0	0	1	0	8	0	0	172	551
07:20:00 AM	1	16	1	0	0	12	12	2	0	0	1	0	1	0	0	1	0	17	0	0	181	589
07:25:00 AM	2	9	3	0	0	11	15	14	0	0	0	2	1	0	0	1	1	10	0	0	189	623
07:30:00 AM	3	18	1	0	0	20	23	7	0	0	2	0	0	0	0	0	0	8	0	0	215	665
07:35:00 AM	1	15	1	0	0	15	26	7	0	0	5	3	3	0	0	0	3	6	0	0	236	715
07:40:00 AM	2	23	2	0	0	15	21	6	0	0	1	0	1	0	0	2	2	15	0	0	257	758
07:45:00 AM	1	17	0	0	0	10	17	7	0	0	3	0	1	0	0	1	2	8	0	0	242	781
07:50:00 AM	3	17	2	0	0	16	25	13	0	0	5	0	3	0	0	1	1	11	0	0	254	823
07:55:00 AM	0	16	1	0	0	10	28	21	0	0	4	2	3	0	0	0	2	14	0	0	265	869
08:00:00 AM	4	24	2	0	0	18	20	11	0	0	7	4	5	0	0	1	1	15	0	0	310	939
08:05:00 AM	6	20	0	0	0	8	10	20	0	0	15	2	9	0	0	2	3	11	0	0	319	990
08:10:00 AM	4	25	2	0	0	10	21	10	0	0	9	5	5	0	0	1	1	13	0	0	324	1035
08:15:00 AM	3	18	2	0	0	10	24	10	0	0	8	3	6	0	0	2	0	7	0	0	305	1072
08:20:00 AM	2	18	0	0	0	11	21	4	0	0	5	1	1	0	0	0	0	4	0	0	266	1075
08:25:00 AM	0	18	1	0	0	10	24	1	0	0	1	0	1	0	0	1	0	6	0	0	223	1069
08:30:00 AM	0	12	2	0	0	7	17	2	0	0	0	0	1	0	0	0	0	3	0	0	174	1031
08:35:00 AM	1	17	0	0	0	8	16	1	0	0	0	0	1	0	0	1	0	5	0	0	157	996
08:40:00 AM	2	12	1	0	0	7	14	0	0	0	0	0	0	0	0	0	0	5	0	0	135	947
08:45:00 AM	2	10	0	0	0	7	24	1	0	0	0	1	1	0	0	1	1	6	0	0	145	934
08:50:00 AM	2	15	1	0	0	9	21	2	0	0	1	0	3	0	0	0	1	5	0	0	155	897
08:55:00 AM	0	18	0	0	0	8	15	2	0	0	1	1	0	0	0	0	0	4	0	0	163	845

Car Volumes

Time	NB (N Springbrook Rd)					SB (N Springbrook Rd)					EB (E Crestview Dr)					WB (E Crestview Dr)					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
06:00:00 AM	0	5	1	0	0	5	4	0	0	0	0	0	0	0	0	0	0	1	0	0		
06:05:00 AM	0	7	0	0	0	9	11	0	0	0	0	0	0	0	0	0	0	2	0	0		
06:10:00 AM	0	4	1	0	0	5	7	0	0	0	0	0	0	0	0	0	0	2	0	0	64	
06:15:00 AM	0	6	0	0	0	9	11	0	0	0	0	0	0	0	0	0	0	4	0	0	78	
06:20:00 AM	1	6	0	0	0	8	6	0	0	0	0	0	0	0	0	0	0	5	0	0	75	
06:25:00 AM	0	11	0	0	0	9	8	1	0	0	0	0	1	0	0	0	1	3	0	0	90	
06:30:00 AM	0	13	0	0	0	13	8	1	0	0	1	0	0	0	0	0	0	3	0	0	99	
06:35:00 AM	1	13	2	0	0	6	4	2	0	0	1	0	1	0	0	0	0	3	0	0	106	
06:40:00 AM	0	15	0	0	0	14	12	1	0	0	0	0	2	0	0	0	0	2	0	0	118	
06:45:00 AM	1	14	0	0	0	10	12	1	0	0	1	0	0	0	0	0	2	3	0	0	123	
06:50:00 AM	0	12	1	0	0	9	16	2	0	0	0	0	1	0	0	1	0	10	0	0	142	
06:55:00 AM	0	11	2	0	0	9	20	3	0	0	0	0	0	0	0	1	0	7	0	0	149	421
07:00:00 AM	0	9	0	0	0	5	12	4	0	0	1	0	1	0	0	2	1	6	0	0	146	446
07:05:00 AM	0	14	0	0	0	11	16	1	0	0	1	1	0	0	0	1	1	8	0	0	148	471
07:10:00 AM	2	13	0	0	0	12	19	6	0	0	0	0	2	0	0	0	0	6	0	0	155	512
07:15:00 AM	0	13	0	0	0	16	14	1	0	0	2	0	0	0	0	1	0	8	0	0	169	537
07:20:00 AM	1	15	1	0	0	12	12	2	0	0	1	0	1	0	0	1	0	17	0	0	178	574
07:25:00 AM	2	8	3	0	0	11	14	14	0	0	0	2	1	0	0	1	1	10	0	0	185	607
07:30:00 AM	3	18	1	0	0	20	22	7	0	0	2	0	0	0	0	0	0	8	0	0	211	649
07:35:00 AM	1	15	1	0	0	15	25	6	0	0	5	3	3	0	0	0	3	6	0	0	231	699
07:40:00 AM	2	23	2	0	0	15	20	4	0	0	1	0	1	0	0	2	2	15	0	0	251	740
07:45:00 AM	1	16	0	0	0	10	15	6	0	0	3	0	1	0	0	1	2	8	0	0	233	759
07:50:00 AM	3	15	2	0	0	16	23	10	0	0	4	0	3	0	0	1	1	11	0	0	239	796
07:55:00 AM	0	14	1	0	0	10	25	18	0	0	3	2	3	0	0	0	2	14	0	0	244	835
08:00:00 AM	4	22	2	0	0	18	20	11	0	0	7	4	3	0	0	1	1	14	0	0	288	901
08:05:00 AM	6	20	0	0	0	8	10	20	0	0	14	2	7	0	0	2	3	11	0	0	302	950
08:10:00 AM	4	24	2	0	0	10	21	10	0	0	8	4	4	0	0	1	1	13	0	0	312	992
08:15:00 AM	3	17	2	0	0	10	24	10	0	0	8	3	6	0	0	2	0	7	0	0	297	1029
08:20:00 AM	2	16	0	0	0	11	20	4	0	0	5	1	1	0	0	0	0	4	0	0	258	1030
08:25:00 AM	0	17	1	0	0	10	21	0	0	0	1	0	1	0	0	1	0	5	0	0	213	1020
08:30:00 AM	0	10	2	0	0	7	17	2	0	0	0	0	1	0	0	0	0	3	0	0	163	981
08:35:00 AM	1	16	0	0	0	8	16	1	0	0	0	0	1	0	0	1	0	5	0	0	148	947
08:40:00 AM	2	12	1	0	0	7	13	0	0	0	0	0	0	0	0	0	0	5	0	0	131	900
08:45:00 AM	2	10	0	0	0	7	22	1	0	0	0	1	1	0	0	1	1	6	0	0	141	889
08:50:00 AM	2	14	1	0	0	9	21	1	0	0	1	0	3	0	0	0	1	5	0	0	150	858
08:55:00 AM	0	18	0	0	0	8	15	2	0	0	1	1	0	0	0	0	0	4	0	0	159	815

Truck Volumes

Time	NB (N Springbrook Rd)					SB (N Springbrook Rd)					EB (E Crestview Dr)					WB (E Crestview Dr)					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
06:00:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0		
06:05:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
06:10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
06:15:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	
06:20:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
06:25:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
06:30:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
06:35:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	
06:40:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	
06:45:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	
06:50:00 AM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	4	
06:55:00 AM	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	12
07:00:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	12
07:05:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	13
07:10:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	3	14
07:15:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	14
07:20:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	15
07:25:00 AM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	4	16
07:30:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	4	16
07:35:00 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	5	16
07:40:00 AM	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	6	18
07:45:00 AM	0	1	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	9	22
07:50:00 AM	0	2	0	0	0	0	2	3	0	0	1	0	0	0	0	0	0	0	0	0	15	27
07:55:00 AM	0	2	0	0	0	0	3	3	0	0	1	0	0	0	0	0	0	0	0	0	21	34
08:00:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	1	0	0	22	38
08:05:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	2	0	0	0	0	0	0	0	17	40
08:10:00 AM	0	1	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	12	43
08:15:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	43
08:20:00 AM	0	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	8	45
08:25:00 AM	0	1	0	0	0	0	3	1	0	0	0	0	0	0	0	0	0	1	0	0	10	49
08:30:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	50
08:35:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	49
08:40:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	4	47
08:45:00 AM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	4	45
08:50:00 AM	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	5	39
08:55:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	30

Bike Volumes

Time	NB (N Springbrook Rd)					SB (N Springbrook Rd)					EB (E Crestview Dr)					WB (E Crestview Dr)					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
06:00:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
06:05:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
06:10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
06:15:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
06:20:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
06:25:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
06:30:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
06:35:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
06:40:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
06:45:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
06:50:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
06:55:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07:00:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07:05:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07:10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07:15:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07:20:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07:25:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07:30:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07:35:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07:40:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:50:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:55:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1
08:05:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
08:10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
08:15:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
08:20:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
08:25:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
08:30:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
08:35:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
08:40:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
08:45:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	2
08:50:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2
08:55:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2

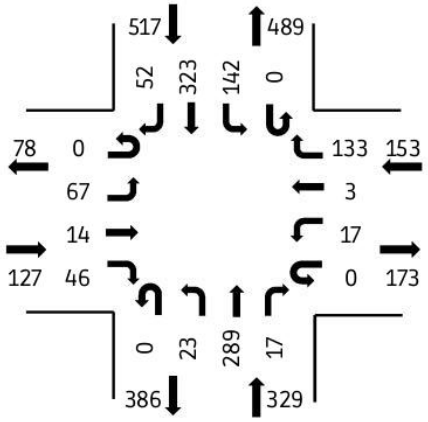
Pedestrian Volumes

Time	Pedestrians				Totals	
Time	NB	SB	EB	WB	15min	1hr
06:00:00 AM	0	1	0	0		
06:05:00 AM	0	0	0	0		
06:10:00 AM	1	1	0	1	4	
06:15:00 AM	0	0	0	0	3	
06:20:00 AM	0	0	0	0	3	
06:25:00 AM	0	1	0	0	1	
06:30:00 AM	0	0	0	0	1	
06:35:00 AM	0	0	1	0	2	
06:40:00 AM	0	0	0	0	1	
06:45:00 AM	0	0	0	0	1	
06:50:00 AM	0	0	0	0	0	
06:55:00 AM	0	0	0	0	0	6
07:00:00 AM	0	0	0	0	0	5
07:05:00 AM	0	0	0	0	0	5
07:10:00 AM	0	0	0	0	0	2
07:15:00 AM	0	0	0	0	0	2
07:20:00 AM	0	0	0	0	0	2
07:25:00 AM	3	1	1	0	5	6
07:30:00 AM	0	0	0	0	5	6
07:35:00 AM	0	0	0	0	5	5
07:40:00 AM	0	0	0	0	0	5
07:45:00 AM	0	1	0	0	1	6
07:50:00 AM	0	0	0	0	1	6
07:55:00 AM	1	0	0	1	3	8
08:00:00 AM	1	0	0	0	3	9
08:05:00 AM	0	0	0	0	3	9
08:10:00 AM	1	1	0	0	3	11
08:15:00 AM	0	0	0	0	2	11
08:20:00 AM	0	0	0	0	2	11
08:25:00 AM	0	0	0	0	0	6
08:30:00 AM	0	0	0	0	0	6
08:35:00 AM	0	0	0	0	0	6
08:40:00 AM	0	0	1	0	1	7
08:45:00 AM	0	0	0	0	1	6
08:50:00 AM	0	0	0	0	1	6
08:55:00 AM	0	0	1	0	1	5

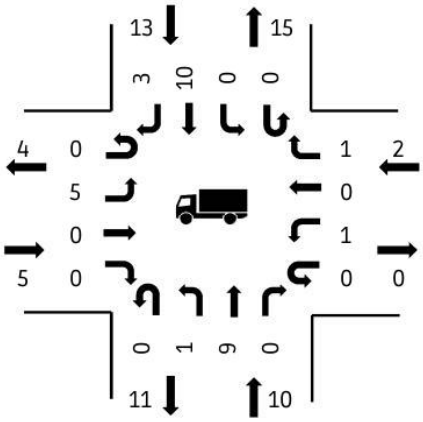
RallyTraffic

Location: N Springbrook Rd & E Crestview Dr
Date: 2024-04-17
Peak Hour Start: 03:10 PM
Peak 15 Minute Start: 03:20 PM
Peak Hour Factor: 0.89

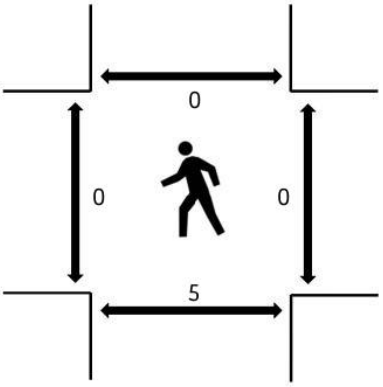
Motorized Vehicles



Heavy Vehicles



Pedestrians



(peak hour)

All Vehicle Volumes

Time	NB (N Springbrook Rd)					SB (N Springbrook Rd)					EB (E Crestview Dr)					WB (E Crestview Dr)					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
03:00:00 PM	1	18	0	0	0	7	35	7	0	0	2	0	0	0	0	1	0	10	0	0		
03:05:00 PM	2	21	1	0	0	14	34	6	0	0	4	0	0	0	0	0	2	3	0	0		
03:10:00 PM	1	37	0	0	0	8	27	8	0	0	12	2	3	0	0	2	0	9	0	0	277	
03:15:00 PM	4	26	2	0	0	8	21	8	0	0	6	0	1	0	0	1	0	9	0	0	282	
03:20:00 PM	5	38	1	0	0	8	31	6	0	0	10	0	3	0	0	1	1	7	0	0	306	
03:25:00 PM	3	22	1	0	0	13	19	3	0	0	17	1	19	0	0	1	0	7	0	0	303	
03:30:00 PM	2	12	0	0	0	22	23	7	0	0	10	2	8	0	0	0	0	13	0	0	316	
03:35:00 PM	1	20	2	0	0	16	37	1	0	0	1	0	4	0	0	1	0	9	0	0	297	
03:40:00 PM	1	23	2	0	0	11	21	2	0	0	2	1	2	0	0	1	1	9	0	0	267	
03:45:00 PM	1	14	1	0	0	9	17	3	0	0	2	2	3	0	0	2	0	15	0	0	237	
03:50:00 PM	2	24	3	0	0	16	19	2	0	0	2	3	0	0	0	5	0	9	0	0	230	
03:55:00 PM	2	24	0	0	0	6	39	0	0	0	1	2	0	0	0	2	1	15	0	0	246	1093
04:00:00 PM	0	26	0	0	0	11	35	4	0	0	0	1	0	0	0	0	0	13	0	0	267	1102
04:05:00 PM	1	23	5	0	0	14	34	8	0	0	4	0	3	0	0	1	0	18	0	0	293	1126
04:10:00 PM	2	26	2	0	0	15	25	2	0	0	1	0	2	0	0	1	1	12	0	0	290	1106
04:15:00 PM	1	25	1	0	0	10	30	1	0	0	2	0	0	0	0	3	0	10	0	0	283	1103
04:20:00 PM	2	27	0	0	0	6	24	1	0	0	1	0	0	0	0	2	1	16	0	0	252	1072
04:25:00 PM	2	27	1	0	0	8	24	3	0	0	4	1	4	0	0	4	1	18	0	0	260	1063
04:30:00 PM	1	24	1	0	0	11	27	3	0	0	1	3	1	0	0	2	0	11	0	0	262	1049
04:35:00 PM	3	29	2	0	0	11	39	2	0	0	2	0	3	0	0	0	0	19	0	0	292	1067
04:40:00 PM	2	18	0	0	0	13	26	5	0	0	0	1	1	0	0	2	0	10	0	0	273	1069
04:45:00 PM	0	24	0	0	0	10	29	6	0	0	2	2	2	0	0	1	1	10	0	0	275	1087
04:50:00 PM	0	33	2	0	0	11	35	2	0	0	2	0	1	0	0	3	0	8	0	0	262	1099
04:55:00 PM	1	24	1	0	0	12	32	6	0	0	4	0	4	0	0	2	0	18	0	0	288	1111
05:00:00 PM	1	29	0	0	0	8	20	2	0	0	4	0	1	0	0	0	0	9	0	0	275	1095
05:05:00 PM	0	25	1	0	0	13	26	2	0	0	1	1	0	0	0	2	0	20	0	0	269	1075
05:10:00 PM	1	25	3	0	0	7	30	3	0	0	5	0	0	0	0	0	1	11	0	0	251	1072
05:15:00 PM	0	24	2	0	0	16	28	5	0	0	3	0	1	0	0	3	0	19	0	0	278	1090
05:20:00 PM	1	32	2	0	0	4	20	5	0	0	2	0	1	0	0	1	1	13	0	0	269	1092
05:25:00 PM	1	18	1	0	0	6	22	5	0	0	0	0	0	0	0	0	1	19	0	0	256	1068
05:30:00 PM	1	18	2	0	0	9	25	7	0	0	4	0	1	0	0	1	1	14	0	0	238	1066
05:35:00 PM	1	15	1	0	0	7	18	0	0	0	2	0	0	0	0	0	2	14	0	0	216	1016
05:40:00 PM	0	16	1	0	0	8	26	2	0	0	2	0	1	0	0	2	0	11	0	0	212	1007
05:45:00 PM	1	27	3	0	0	10	25	5	0	0	0	0	1	0	0	2	0	17	0	0	220	1011
05:50:00 PM	1	19	0	0	0	7	24	8	0	0	3	0	0	0	0	0	0	22	0	0	244	998
05:55:00 PM	2	22	0	0	0	6	18	3	0	0	1	0	0	0	0	2	0	21	0	0	250	969

Car Volumes

Time	NB (N Springbrook Rd)					SB (N Springbrook Rd)					EB (E Crestview Dr)					WB (E Crestview Dr)					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
03:00:00 PM	1	17	0	0	0	7	33	6	0	0	2	0	0	0	0	1	0	10	0	0		
03:05:00 PM	2	21	1	0	0	13	33	5	0	0	4	0	0	0	0	0	2	3	0	0		
03:10:00 PM	1	37	0	0	0	8	26	7	0	0	12	2	3	0	0	1	0	9	0	0	267	
03:15:00 PM	4	26	2	0	0	8	20	8	0	0	6	0	1	0	0	1	0	9	0	0	275	
03:20:00 PM	5	37	1	0	0	8	28	6	0	0	8	0	3	0	0	1	1	7	0	0	296	
03:25:00 PM	3	17	1	0	0	13	18	3	0	0	16	1	19	0	0	1	0	6	0	0	288	
03:30:00 PM	2	12	0	0	0	22	23	6	0	0	8	2	8	0	0	0	0	13	0	0	299	
03:35:00 PM	1	20	2	0	0	16	37	1	0	0	1	0	4	0	0	1	0	9	0	0	286	
03:40:00 PM	1	22	2	0	0	11	21	2	0	0	2	1	2	0	0	1	1	9	0	0	263	
03:45:00 PM	1	14	1	0	0	9	16	3	0	0	2	2	3	0	0	2	0	15	0	0	235	
03:50:00 PM	2	22	3	0	0	16	18	2	0	0	2	3	0	0	0	5	0	9	0	0	225	
03:55:00 PM	2	24	0	0	0	6	37	0	0	0	1	2	0	0	0	2	1	15	0	0	240	1058
04:00:00 PM	0	26	0	0	0	11	35	4	0	0	0	1	0	0	0	0	0	13	0	0	262	1071
04:05:00 PM	1	23	5	0	0	14	34	7	0	0	4	0	3	0	0	1	0	18	0	0	290	1097
04:10:00 PM	2	24	2	0	0	15	25	1	0	0	1	0	2	0	0	1	1	12	0	0	286	1077
04:15:00 PM	1	25	1	0	0	10	29	1	0	0	2	0	0	0	0	3	0	10	0	0	278	1074
04:20:00 PM	2	25	0	0	0	6	24	1	0	0	0	0	0	0	0	2	1	15	0	0	244	1045
04:25:00 PM	2	27	1	0	0	8	24	3	0	0	3	1	4	0	0	4	1	18	0	0	254	1043
04:30:00 PM	1	24	1	0	0	11	27	3	0	0	1	3	1	0	0	2	0	11	0	0	257	1032
04:35:00 PM	3	28	2	0	0	10	39	2	0	0	2	0	3	0	0	0	0	19	0	0	289	1048
04:40:00 PM	2	17	0	0	0	13	25	5	0	0	0	1	1	0	0	2	0	10	0	0	269	1049
04:45:00 PM	0	24	0	0	0	10	29	6	0	0	2	2	2	0	0	1	1	10	0	0	271	1068
04:50:00 PM	0	31	2	0	0	11	35	2	0	0	2	0	1	0	0	3	0	8	0	0	258	1081
04:55:00 PM	1	24	1	0	0	12	31	6	0	0	4	0	4	0	0	2	0	18	0	0	285	1094
05:00:00 PM	1	29	0	0	0	7	19	2	0	0	4	0	1	0	0	0	0	9	0	0	270	1076
05:05:00 PM	0	24	1	0	0	13	25	2	0	0	1	1	0	0	0	2	0	20	0	0	264	1055
05:10:00 PM	1	24	3	0	0	7	30	3	0	0	5	0	0	0	0	0	1	11	0	0	246	1054
05:15:00 PM	0	24	2	0	0	16	28	4	0	0	3	0	1	0	0	3	0	19	0	0	274	1072
05:20:00 PM	1	32	2	0	0	4	20	5	0	0	2	0	1	0	0	1	1	13	0	0	267	1078
05:25:00 PM	1	18	1	0	0	6	22	5	0	0	0	0	0	0	0	0	1	19	0	0	255	1055
05:30:00 PM	1	18	2	0	0	9	25	7	0	0	4	0	1	0	0	1	1	14	0	0	238	1053
05:35:00 PM	1	15	1	0	0	7	18	0	0	0	2	0	0	0	0	0	2	14	0	0	216	1005
05:40:00 PM	0	16	1	0	0	8	25	2	0	0	2	0	1	0	0	2	0	11	0	0	211	997
05:45:00 PM	1	27	3	0	0	10	24	5	0	0	0	0	1	0	0	2	0	17	0	0	218	1000
05:50:00 PM	1	18	0	0	0	7	24	8	0	0	3	0	0	0	0	0	0	22	0	0	241	988
05:55:00 PM	2	21	0	0	0	6	18	3	0	0	1	0	0	0	0	2	0	21	0	0	247	959

Truck Volumes

Time	NB (N Springbrook Rd)					SB (N Springbrook Rd)					EB (E Crestview Dr)					WB (E Crestview Dr)					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
03:00:00 PM	0	1	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0		
03:05:00 PM	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0		
03:10:00 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	0	0	0	0	10	
03:15:00 PM	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	8	
03:20:00 PM	0	1	0	0	0	0	3	0	0	0	2	0	0	0	0	0	0	0	0	0	11	
03:25:00 PM	0	5	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1	0	0	16	
03:30:00 PM	0	0	0	0	0	0	0	1	0	0	2	0	0	0	0	0	0	0	0	0	17	
03:35:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	
03:40:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	
03:45:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
03:50:00 PM	0	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	5	
03:55:00 PM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	6	36
04:00:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	32
04:05:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	3	30
04:10:00 PM	0	2	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	4	30
04:15:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	5	29
04:20:00 PM	0	2	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	8	27
04:25:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	6	20
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	17
04:35:00 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	19
04:40:00 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	4	20
04:45:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	19
04:50:00 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	18
04:55:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	3	17
05:00:00 PM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	5	19
05:05:00 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	5	20
05:10:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	18
05:15:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	4	18
05:20:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	14
05:25:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	13
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	13
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	11
05:40:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	10
05:45:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	11
05:50:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	10
05:55:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	10

Bike Volumes

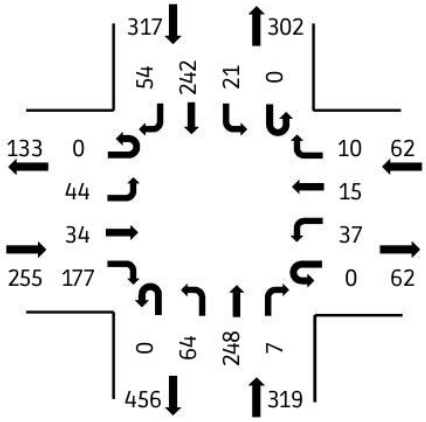
Time	NB (N Springbrook Rd)					SB (N Springbrook Rd)					EB (E Crestview Dr)					WB (E Crestview Dr)					Totals	
Time	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	15min	1hr
03:00:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
03:05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
03:10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
03:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
03:20:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
03:25:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
03:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
03:35:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
03:40:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
03:45:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
03:50:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
03:55:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
04:05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
04:10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2	2
04:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2
04:20:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2
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	2
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	2
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	2
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	2
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	2
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	2
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	2
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	0
05:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	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	1	1
05:25:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
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	1
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	1
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	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	1	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	1	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

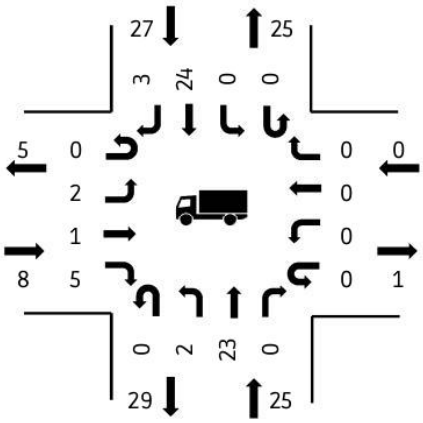
Time	Pedestrians				Totals	
Time	NB	SB	EB	WB	15min	1hr
03:00:00 PM	0	0	0	0		
03:05:00 PM	0	0	0	0		
03:10:00 PM	0	0	0	0	0	
03:15:00 PM	0	0	0	0	0	
03:20:00 PM	0	0	0	0	0	
03:25:00 PM	0	0	0	0	0	
03:30:00 PM	3	0	0	0	3	
03:35:00 PM	1	0	0	0	4	
03:40:00 PM	0	0	0	0	4	
03:45:00 PM	1	0	0	0	2	
03:50:00 PM	0	0	0	0	1	
03:55:00 PM	0	0	0	0	1	5
04:00:00 PM	0	0	0	0	0	5
04:05:00 PM	0	0	0	0	0	5
04:10:00 PM	0	0	0	0	0	5
04:15:00 PM	0	0	0	0	0	5
04:20:00 PM	0	0	0	0	0	5
04:25:00 PM	0	0	0	0	0	5
04:30:00 PM	0	0	0	0	0	2
04:35:00 PM	0	0	0	0	0	1
04:40:00 PM	0	0	0	0	0	1
04:45:00 PM	1	0	0	0	1	1
04:50:00 PM	2	0	0	0	3	3
04:55:00 PM	1	0	0	0	4	4
05:00:00 PM	0	0	0	0	3	4
05:05:00 PM	2	0	0	0	3	6
05:10:00 PM	2	0	0	0	4	8
05:15:00 PM	0	0	0	0	4	8
05:20:00 PM	0	0	0	0	2	8
05:25:00 PM	0	0	0	0	0	8
05:30:00 PM	0	0	0	0	0	8
05:35:00 PM	0	0	0	0	0	8
05:40:00 PM	0	0	0	0	0	8
05:45:00 PM	2	0	0	0	2	9
05:50:00 PM	1	0	0	0	3	8
05:55:00 PM	0	0	0	0	3	7

Location: N Springbrook Rd & Haworth Ave
Date: 2024-05-21
Peak Hour Start: 07:25 AM
Peak 15 Minute Start: 07:30 AM
Peak Hour Factor: 0.91

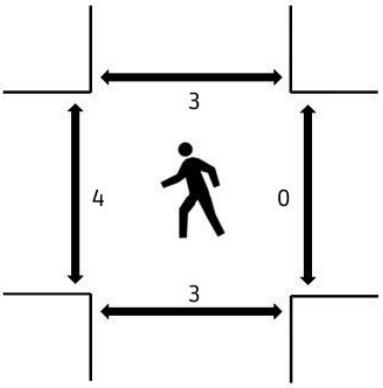
Motorized Vehicles



Heavy Vehicles



Pedestrians



(peak hour)

All Vehicle Volumes

Time	NB (N Springbrook Rd)					SB (N Springbrook Rd)					EB (Haworth Ave)					WB (Haworth Ave)					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	20	1	0	0	2	17	4	0	0	3	1	12	0	0	1	0	1	0	0		
07:05:00 AM	3	20	1	0	0	1	17	3	0	0	3	0	7	0	0	4	1	1	0	0		
07:10:00 AM	1	17	2	0	0	0	11	7	0	0	1	0	9	0	0	3	1	0	0	0	177	
07:15:00 AM	6	22	2	0	0	2	12	2	0	0	2	1	15	0	0	1	0	0	0	0	178	
07:20:00 AM	8	13	1	0	0	3	17	4	0	0	2	0	16	0	0	3	4	0	0	0	188	
07:25:00 AM	9	20	0	0	0	0	13	4	0	0	3	1	14	0	0	4	2	1	0	0	207	
07:30:00 AM	6	24	1	0	0	3	24	2	0	0	3	4	20	0	0	2	2	1	0	0	234	
07:35:00 AM	7	16	0	0	0	2	20	9	0	0	5	1	25	0	0	3	1	1	0	0	253	
07:40:00 AM	7	21	0	0	0	1	24	3	0	0	5	2	13	0	0	3	0	1	0	0	262	
07:45:00 AM	1	20	1	0	0	2	18	4	0	0	5	2	14	0	0	2	3	0	0	0	242	
07:50:00 AM	3	21	1	0	0	4	21	7	0	0	2	3	14	0	0	4	2	2	0	0	236	
07:55:00 AM	4	19	2	0	0	1	15	6	0	0	10	4	12	0	0	2	0	0	0	0	231	877
08:00:00 AM	2	26	1	0	0	1	28	4	0	0	2	3	5	0	0	6	2	0	0	0	239	893
08:05:00 AM	7	22	1	0	0	0	20	4	0	0	0	4	18	0	0	2	1	0	0	0	234	911
08:10:00 AM	3	22	0	0	0	2	22	3	0	0	5	3	12	0	0	3	1	1	0	0	236	936
08:15:00 AM	11	18	0	0	0	3	18	5	0	0	2	2	14	0	0	4	1	0	0	0	234	949
08:20:00 AM	4	19	0	0	0	2	19	3	0	0	2	5	16	0	0	2	0	3	0	0	230	953
08:25:00 AM	3	14	1	0	0	2	18	3	0	0	2	3	14	0	0	4	3	0	0	0	220	949
08:30:00 AM	2	13	0	0	0	3	15	0	0	0	3	1	7	0	0	7	1	0	0	0	194	909
08:35:00 AM	3	20	0	0	0	1	8	2	0	0	5	1	10	0	0	5	2	0	0	0	176	876
08:40:00 AM	4	12	1	0	0	0	19	0	0	0	0	1	13	0	0	4	4	2	0	0	169	856
08:45:00 AM	2	21	2	0	0	0	20	4	0	0	0	1	10	0	0	1	0	2	0	0	180	847
08:50:00 AM	4	6	1	0	0	1	20	4	0	0	4	7	10	0	0	3	0	0	0	0	183	823
08:55:00 AM	5	15	1	0	0	3	18	4	0	0	3	1	7	0	0	3	2	1	0	0	186	811

Car Volumes

Time	NB (N Springbrook Rd)					SB (N Springbrook Rd)					EB (Haworth Ave)					WB (Haworth Ave)					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	19	1	0	0	2	17	4	0	0	3	1	12	0	0	1	0	1	0	0		
07:05:00 AM	3	19	1	0	0	1	16	3	0	0	3	0	7	0	0	4	1	1	0	0		
07:10:00 AM	1	14	2	0	0	0	11	7	0	0	1	0	9	0	0	3	1	0	0	0	171	
07:15:00 AM	6	20	2	0	0	2	12	2	0	0	2	1	15	0	0	1	0	0	0	0	171	
07:20:00 AM	8	11	1	0	0	3	17	4	0	0	2	0	14	0	0	3	4	0	0	0	179	
07:25:00 AM	9	19	0	0	0	0	11	4	0	0	3	1	14	0	0	4	2	1	0	0	198	
07:30:00 AM	6	22	1	0	0	3	24	2	0	0	3	4	20	0	0	2	2	1	0	0	225	
07:35:00 AM	7	14	0	0	0	2	19	9	0	0	5	1	24	0	0	3	1	1	0	0	244	
07:40:00 AM	7	20	0	0	0	1	22	3	0	0	5	2	13	0	0	3	0	1	0	0	253	
07:45:00 AM	1	20	1	0	0	2	18	4	0	0	5	2	14	0	0	2	3	0	0	0	235	
07:50:00 AM	3	16	1	0	0	4	20	7	0	0	2	3	14	0	0	4	2	2	0	0	227	
07:55:00 AM	4	15	2	0	0	1	15	4	0	0	9	4	11	0	0	2	0	0	0	0	217	839
08:00:00 AM	2	24	1	0	0	1	21	3	0	0	1	3	5	0	0	6	2	0	0	0	214	845
08:05:00 AM	7	20	1	0	0	0	13	4	0	0	0	4	17	0	0	2	1	0	0	0	205	855
08:10:00 AM	3	21	0	0	0	2	19	3	0	0	5	2	12	0	0	3	1	1	0	0	210	878
08:15:00 AM	11	17	0	0	0	3	18	5	0	0	2	2	14	0	0	4	1	0	0	0	218	892
08:20:00 AM	4	17	0	0	0	2	18	3	0	0	2	5	14	0	0	2	0	3	0	0	219	895
08:25:00 AM	3	12	1	0	0	2	16	3	0	0	2	3	12	0	0	3	3	0	0	0	207	887
08:30:00 AM	2	12	0	0	0	3	12	0	0	0	3	1	7	0	0	7	1	0	0	0	178	845
08:35:00 AM	3	17	0	0	0	1	7	2	0	0	5	1	10	0	0	5	2	0	0	0	161	812
08:40:00 AM	4	11	1	0	0	0	18	0	0	0	0	1	13	0	0	4	4	2	0	0	159	793
08:45:00 AM	2	19	2	0	0	0	20	3	0	0	0	1	9	0	0	1	0	2	0	0	170	780
08:50:00 AM	4	6	1	0	0	1	20	4	0	0	4	7	9	0	0	3	0	0	0	0	176	761
08:55:00 AM	5	13	1	0	0	3	15	4	0	0	3	1	6	0	0	3	2	1	0	0	175	751

Truck Volumes

Time	NB (N Springbrook Rd)					SB (N Springbrook Rd)					EB (Haworth Ave)					WB (Haworth Ave)					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	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
07:05:00 AM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0		
07:10:00 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	
07:15:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	
07:20:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	9	
07:25:00 AM	1	1	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	10	
07:30:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	
07:35:00 AM	0	2	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	10	
07:40:00 AM	0	1	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	9	
07:45:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	
07:50:00 AM	0	5	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	9	
07:55:00 AM	0	4	0	0	0	0	0	2	0	0	1	0	1	0	0	0	0	0	0	0	14	39
08:00:00 AM	0	2	0	0	0	0	7	1	0	0	1	0	0	0	0	0	0	0	0	0	25	49
08:05:00 AM	0	2	0	0	0	0	7	0	0	0	0	0	1	0	0	0	0	0	0	0	29	57
08:10:00 AM	1	1	0	0	0	0	3	0	0	0	0	1	0	0	0	0	0	0	0	0	27	60
08:15:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17	59
08:20:00 AM	0	2	0	0	0	0	1	0	0	0	0	0	2	0	0	0	0	0	0	0	12	60
08:25:00 AM	0	2	0	0	0	0	2	0	0	0	0	0	2	0	0	1	0	0	0	0	13	63
08:30:00 AM	1	1	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	17	66
08:35:00 AM	0	3	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	16	66
08:40:00 AM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	11	65
08:45:00 AM	0	2	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	10	69
08:50:00 AM	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	8	65
08:55:00 AM	0	2	0	0	0	0	3	0	0	0	0	0	1	0	0	0	0	0	0	0	12	63

Bike Volumes

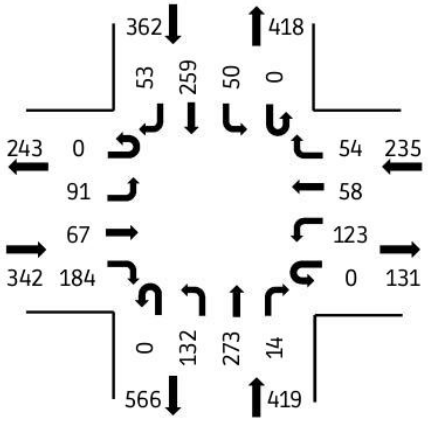
Time	NB (N Springbrook Rd)					SB (N Springbrook Rd)					EB (Haworth Ave)					WB (Haworth Ave)					Totals	
Time	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	15min	1hr
07:00:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
07:05:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
07:10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
07:15:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
07:20:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
07:25:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
07:30:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
07:35:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
07:40:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
07:45:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
07:50:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
07:55:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
08:00:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
08:05:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
08:10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
08:15:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
08:20:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
08:25:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
08:30:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
08:35:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
08:40:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
08:45:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
08:50:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
08:55:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Pedestrian Volumes

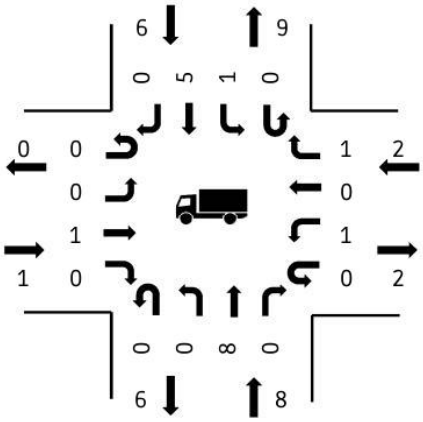
Time	Pedestrians				Totals	
Time	NB	SB	EB	WB	15min	1hr
07:00:00 AM	0	0	1	0		
07:05:00 AM	0	0	0	0		
07:10:00 AM	0	1	1	1	4	
07:15:00 AM	0	0	1	0	4	
07:20:00 AM	0	0	0	0	4	
07:25:00 AM	0	0	0	0	1	
07:30:00 AM	0	0	0	0	0	
07:35:00 AM	0	0	0	0	0	
07:40:00 AM	0	1	0	0	1	
07:45:00 AM	1	0	0	0	2	
07:50:00 AM	0	2	0	0	4	
07:55:00 AM	0	0	1	0	4	10
08:00:00 AM	0	0	1	0	4	10
08:05:00 AM	0	0	0	0	2	10
08:10:00 AM	0	0	0	0	1	7
08:15:00 AM	2	0	2	0	4	10
08:20:00 AM	0	0	0	0	4	10
08:25:00 AM	0	0	0	0	4	10
08:30:00 AM	2	0	0	0	2	12
08:35:00 AM	0	0	0	0	2	12
08:40:00 AM	0	0	0	0	2	11
08:45:00 AM	0	0	0	0	0	10
08:50:00 AM	0	0	0	0	0	8
08:55:00 AM	0	0	0	0	0	7

Location: N Springbrook Rd & Haworth Ave
Date: 2024-05-21
Peak Hour Start: 04:05 PM
Peak 15 Minute Start: 04:25 PM
Peak Hour Factor: 0.91

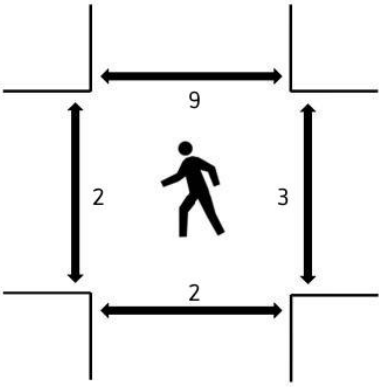
Motorized Vehicles



Heavy Vehicles



Pedestrians



(peak hour)

All Vehicle Volumes

Time	NB (N Springbrook Rd)					SB (N Springbrook Rd)					EB (Haworth Ave)					WB (Haworth Ave)					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	11	13	1	0	0	1	23	2	0	0	6	7	10	0	0	10	6	6	0	0		
04:05:00 PM	9	21	0	0	0	3	30	5	0	0	4	6	18	0	0	10	4	4	0	0		
04:10:00 PM	7	27	2	0	0	2	21	4	0	0	5	5	11	0	0	6	4	2	0	0	306	
04:15:00 PM	10	17	2	0	0	5	23	3	0	0	8	5	10	0	0	10	2	5	0	0	310	
04:20:00 PM	12	20	1	0	0	4	15	3	0	0	8	8	15	0	0	13	6	2	0	0	303	
04:25:00 PM	18	20	1	0	0	3	24	3	0	0	8	3	24	0	0	10	9	2	0	0	332	
04:30:00 PM	10	18	0	0	0	6	22	9	0	0	9	5	15	0	0	17	6	5	0	0	354	
04:35:00 PM	13	27	2	0	0	5	25	4	0	0	6	7	16	0	0	9	7	6	0	0	374	
04:40:00 PM	8	20	2	0	0	5	9	1	0	0	13	4	18	0	0	10	6	6	0	0	351	
04:45:00 PM	12	28	1	0	0	1	19	7	0	0	8	11	15	0	0	9	5	4	0	0	349	
04:50:00 PM	13	32	0	0	0	9	20	7	0	0	11	6	17	0	0	10	4	8	0	0	359	
04:55:00 PM	10	25	1	0	0	4	23	3	0	0	6	5	15	0	0	6	1	5	0	0	361	1350
05:00:00 PM	10	18	2	0	0	3	28	4	0	0	5	2	10	0	0	13	4	5	0	0	345	1358
05:05:00 PM	8	19	1	0	0	2	20	7	0	0	5	5	10	0	0	6	5	4	0	0	300	1336
05:10:00 PM	8	25	0	0	0	5	27	3	0	0	5	6	11	0	0	10	4	5	0	0	305	1349
05:15:00 PM	12	28	0	0	0	2	27	1	0	0	6	4	13	0	0	3	3	1	0	0	301	1349
05:20:00 PM	14	22	1	0	0	4	20	5	0	0	3	8	11	0	0	5	2	5	0	0	309	1342
05:25:00 PM	10	21	0	0	0	3	20	2	0	0	9	12	12	0	0	7	5	3	0	0	304	1321
05:30:00 PM	15	18	2	0	0	6	24	4	0	0	12	6	12	0	0	11	3	4	0	0	321	1316
05:35:00 PM	14	22	1	0	0	2	17	2	0	0	6	6	13	0	0	8	6	7	0	0	325	1293
05:40:00 PM	14	27	3	0	0	2	25	3	0	0	4	7	12	0	0	6	4	5	0	0	333	1303
05:45:00 PM	6	24	2	0	0	2	23	2	0	0	9	3	16	0	0	8	7	4	0	0	322	1289
05:50:00 PM	16	28	1	0	0	3	17	4	0	0	6	1	24	0	0	6	8	7	0	0	339	1273
05:55:00 PM	8	20	2	0	0	3	21	0	0	0	6	2	6	0	0	7	11	5	0	0	318	1260

Car Volumes

Time	NB (N Springbrook Rd)					SB (N Springbrook Rd)					EB (Haworth Ave)					WB (Haworth Ave)					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	11	13	1	0	0	1	21	2	0	0	6	7	10	0	0	10	6	6	0	0		
04:05:00 PM	9	20	0	0	0	3	30	5	0	0	4	6	18	0	0	10	4	4	0	0		
04:10:00 PM	7	24	2	0	0	2	21	4	0	0	5	5	11	0	0	6	4	2	0	0	300	
04:15:00 PM	10	17	2	0	0	5	20	3	0	0	8	5	10	0	0	10	2	5	0	0	303	
04:20:00 PM	12	20	1	0	0	3	15	3	0	0	8	8	15	0	0	13	6	2	0	0	296	
04:25:00 PM	18	20	1	0	0	3	24	3	0	0	8	3	24	0	0	10	9	2	0	0	328	
04:30:00 PM	10	18	0	0	0	6	21	9	0	0	9	5	15	0	0	17	6	5	0	0	352	
04:35:00 PM	13	25	2	0	0	5	25	4	0	0	6	6	16	0	0	9	7	6	0	0	370	
04:40:00 PM	8	19	2	0	0	5	9	1	0	0	13	4	18	0	0	9	6	6	0	0	345	
04:45:00 PM	12	28	1	0	0	1	19	7	0	0	8	11	15	0	0	9	5	4	0	0	344	
04:50:00 PM	13	32	0	0	0	9	20	7	0	0	11	6	17	0	0	10	4	7	0	0	356	
04:55:00 PM	10	24	1	0	0	4	23	3	0	0	6	5	15	0	0	6	1	5	0	0	359	1332
05:00:00 PM	10	18	2	0	0	3	27	4	0	0	5	2	10	0	0	13	4	5	0	0	342	1341
05:05:00 PM	8	19	1	0	0	2	19	7	0	0	5	5	10	0	0	6	5	4	0	0	297	1319
05:10:00 PM	8	25	0	0	0	5	24	3	0	0	5	6	11	0	0	10	4	5	0	0	300	1332
05:15:00 PM	12	28	0	0	0	2	27	1	0	0	6	4	13	0	0	3	3	1	0	0	297	1335
05:20:00 PM	14	22	1	0	0	4	20	5	0	0	3	8	11	0	0	5	2	5	0	0	306	1329
05:25:00 PM	10	21	0	0	0	3	20	2	0	0	9	12	12	0	0	7	5	3	0	0	304	1308
05:30:00 PM	15	17	2	0	0	6	24	4	0	0	12	6	12	0	0	11	3	4	0	0	320	1303
05:35:00 PM	14	22	1	0	0	2	17	2	0	0	6	6	13	0	0	8	6	7	0	0	324	1283
05:40:00 PM	14	27	3	0	0	2	25	3	0	0	4	7	12	0	0	6	4	5	0	0	332	1295
05:45:00 PM	6	24	2	0	0	2	23	2	0	0	9	3	16	0	0	8	7	4	0	0	322	1281
05:50:00 PM	16	28	1	0	0	3	17	4	0	0	6	1	24	0	0	6	8	7	0	0	339	1266
05:55:00 PM	8	20	2	0	0	3	20	0	0	0	6	2	6	0	0	7	11	5	0	0	317	1253

Truck Volumes

Time	NB (N Springbrook Rd)					SB (N Springbrook Rd)					EB (Haworth Ave)					WB (Haworth Ave)					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	2	0	0	0	0	0	0	0	0	0	0	0	0	0		
04:05:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
04:10:00 PM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	
04:15:00 PM	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	7	
04:20:00 PM	0	0	0	0	0	1	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	
04:30:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
04:35:00 PM	0	2	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	4	
04:40:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	6	
04:45:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	
04:50:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	3	
04:55:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	18
05:00:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	3	17
05:05:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	3	17
05:10:00 PM	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	5	17
05:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	14
05:20:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	13
05:25:00 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	14
05:30:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	14
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	11
05:40:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	9
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	9
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	8
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	8

Bike Volumes

Time	NB (N Springbrook Rd)					SB (N Springbrook Rd)					EB (Haworth Ave)					WB (Haworth Ave)					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	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	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	2	
04:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
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	2
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	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	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	1	0	1	
04:20:00 PM	0	0	0	1	2	
04:25:00 PM	0	1	0	0	3	
04:30:00 PM	0	2	0	0	4	
04:35:00 PM	0	0	0	0	3	
04:40:00 PM	0	2	0	0	4	
04:45:00 PM	1	3	1	0	7	
04:50:00 PM	0	0	0	0	7	
04:55:00 PM	1	1	0	2	9	16
05:00:00 PM	0	0	0	0	4	16
05:05:00 PM	0	0	1	0	5	17
05:10:00 PM	0	0	0	0	1	17
05:15:00 PM	0	0	0	0	1	16
05:20:00 PM	0	0	0	0	0	15
05:25:00 PM	0	0	0	0	0	14
05:30:00 PM	0	0	0	0	0	12
05:35:00 PM	1	0	1	1	3	15
05:40:00 PM	0	0	0	0	3	13
05:45:00 PM	0	0	0	0	3	8
05:50:00 PM	0	0	0	0	0	8
05:55:00 PM	1	0	0	0	1	5

APPENDIX C: EXISTING HCM REPORTS

Intersection	
Int Delay, s/veh	1.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	36	6	103	44	12	70
Future Vol, veh/h	36	6	103	44	12	70
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	5	0	0	0
Mvmt Flow	43	7	124	53	14	84

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	263	151	0	0	177	0
Stage 1	151	-	-	-	-	-
Stage 2	112	-	-	-	-	-
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	730	901	-	-	1411	-
Stage 1	882	-	-	-	-	-
Stage 2	918	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	723	901	-	-	1411	-
Mov Cap-2 Maneuver	723	-	-	-	-	-
Stage 1	882	-	-	-	-	-
Stage 2	909	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.2	0	1.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	744	1411	-
HCM Lane V/C Ratio	-	-	0.068	0.01	-
HCM Control Delay (s)	-	-	10.2	7.6	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0	-

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	41	470	288	107	68	36
Future Vol, veh/h	41	470	288	107	68	36
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	80	-	-	-	125	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	0	5	5	5	0	0
Mvmt Flow	48	553	339	126	80	42

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	465	0	-	0	1051	402
Stage 1	-	-	-	-	402	-
Stage 2	-	-	-	-	649	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1107	-	-	-	253	653
Stage 1	-	-	-	-	680	-
Stage 2	-	-	-	-	524	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1107	-	-	-	242	653
Mov Cap-2 Maneuver	-	-	-	-	242	-
Stage 1	-	-	-	-	651	-
Stage 2	-	-	-	-	524	-

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	21.5
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1107	-	-	-	242	653
HCM Lane V/C Ratio	0.044	-	-	-	0.331	0.065
HCM Control Delay (s)	8.4	-	-	-	27.1	10.9
HCM Lane LOS	A	-	-	-	D	B
HCM 95th %tile Q(veh)	0.1	-	-	-	1.4	0.2

MOVEMENT SUMMARY

Site: 101 [EX AM Springbrook @ Crestview (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

Newberg Springbrook Subdivision
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: Springbrook															
3	L2	All MCs	37	3.0	37	3.0	0.328	7.0	LOS A	1.7	42.8	0.52	0.35	0.52	30.1
8	T1	All MCs	265	3.0	265	3.0	0.328	7.0	LOS A	1.7	42.8	0.52	0.35	0.52	30.6
18	R2	All MCs	19	3.0	19	3.0	0.328	7.0	LOS A	1.7	42.8	0.52	0.35	0.52	30.4
Approach			322	3.0	322	3.0	0.328	7.0	LOS A	1.7	42.8	0.52	0.35	0.52	30.5
East: Crestview															
1	L2	All MCs	13	3.0	13	3.0	0.202	6.0	LOS A	0.9	22.7	0.52	0.38	0.52	30.2
6	T1	All MCs	19	3.0	19	3.0	0.202	6.0	LOS A	0.9	22.7	0.52	0.38	0.52	30.7
16	R2	All MCs	147	3.0	147	3.0	0.202	6.0	LOS A	0.9	22.7	0.52	0.38	0.52	30.5
Approach			180	3.0	180	3.0	0.202	6.0	LOS A	0.9	22.7	0.52	0.38	0.52	30.5
North: Springbrook															
7	L2	All MCs	186	3.0	186	3.0	0.518	8.1	LOS A	4.0	103.0	0.35	0.14	0.35	29.1
4	T1	All MCs	302	3.0	302	3.0	0.518	8.1	LOS A	4.0	103.0	0.35	0.14	0.35	29.6
14	R2	All MCs	157	3.0	157	3.0	0.518	8.1	LOS A	4.0	103.0	0.35	0.14	0.35	29.4
Approach			645	3.0	645	3.0	0.518	8.1	LOS A	4.0	103.0	0.35	0.14	0.35	29.4
West: Crestview															
5	L2	All MCs	77	3.0	77	3.0	0.192	6.6	LOS A	0.8	20.5	0.57	0.46	0.57	29.1
2	T1	All MCs	27	3.0	27	3.0	0.192	6.6	LOS A	0.8	20.5	0.57	0.46	0.57	29.6
12	R2	All MCs	46	3.0	46	3.0	0.192	6.6	LOS A	0.8	20.5	0.57	0.46	0.57	29.4
Approach			149	3.0	149	3.0	0.192	6.6	LOS A	0.8	20.5	0.57	0.46	0.57	29.3
All Vehicles			1295	3.0	1295	3.0	0.518	7.4	LOS A	4.0	103.0	0.44	0.26	0.44	29.8

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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Intersection	
Intersection Delay, s/veh	13.8
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	44	34	177	37	15	10	64	248	7	21	242	54
Future Vol, veh/h	44	34	177	37	15	10	64	248	7	21	242	54
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	4	3	3	0	0	0	3	9	0	0	10	6
Mvmt Flow	48	37	195	41	16	11	70	273	8	23	266	59
Number of Lanes	0	1	1	0	1	0	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	2
HCM Control Delay	11.5	11.3	14	16
HCM LOS	B	B	B	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	56%	0%	60%	100%	0%
Vol Thru, %	0%	97%	44%	0%	24%	0%	82%
Vol Right, %	0%	3%	0%	100%	16%	0%	18%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	64	255	78	177	62	21	296
LT Vol	64	0	44	0	37	21	0
Through Vol	0	248	34	0	15	0	242
RT Vol	0	7	0	177	10	0	54
Lane Flow Rate	70	280	86	195	68	23	325
Geometry Grp	7	7	7	7	6	7	7
Degree of Util (X)	0.13	0.487	0.167	0.323	0.135	0.043	0.557
Departure Headway (Hd)	6.678	6.254	6.993	5.978	7.134	6.635	6.17
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	535	574	511	599	499	538	582
Service Time	4.438	4.014	4.76	3.744	5.223	4.393	3.928
HCM Lane V/C Ratio	0.131	0.488	0.168	0.326	0.136	0.043	0.558
HCM Control Delay	10.4	14.9	11.2	11.6	11.3	9.7	16.5
HCM Lane LOS	B	B	B	B	B	A	C
HCM 95th-tile Q	0.4	2.7	0.6	1.4	0.5	0.1	3.4

Intersection	
Int Delay, s/veh	2.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	31	14	108	33	30	125
Future Vol, veh/h	31	14	108	33	30	125
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	91	91	91	91	91	91
Heavy Vehicles, %	3	0	5	0	0	0
Mvmt Flow	34	15	119	36	33	137

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	340	137	0	0	155	0
Stage 1	137	-	-	-	-	-
Stage 2	203	-	-	-	-	-
Critical Hdwy	6.43	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	654	917	-	-	1438	-
Stage 1	887	-	-	-	-	-
Stage 2	829	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	638	917	-	-	1438	-
Mov Cap-2 Maneuver	638	-	-	-	-	-
Stage 1	887	-	-	-	-	-
Stage 2	808	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.5	0	1.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	705	1438	-
HCM Lane V/C Ratio	-	-	0.07	0.023	-
HCM Control Delay (s)	-	-	10.5	7.6	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0.1	-

Intersection	
Int Delay, s/veh	5.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	41	432	396	99	121	53
Future Vol, veh/h	41	432	396	99	121	53
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	80	-	-	-	125	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	0	2	3	2	2	2
Mvmt Flow	47	491	450	113	138	60

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	563	0	-	0	1092	507
Stage 1	-	-	-	-	507	-
Stage 2	-	-	-	-	585	-
Critical Hdwy	4.1	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.2	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1019	-	-	-	237	566
Stage 1	-	-	-	-	605	-
Stage 2	-	-	-	-	557	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1019	-	-	-	226	566
Mov Cap-2 Maneuver	-	-	-	-	226	-
Stage 1	-	-	-	-	577	-
Stage 2	-	-	-	-	557	-

Approach	EB	WB	SB
HCM Control Delay, s	0.8	0	33.5
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1019	-	-	-	226	566
HCM Lane V/C Ratio	0.046	-	-	-	0.608	0.106
HCM Control Delay (s)	8.7	-	-	-	42.9	12.1
HCM Lane LOS	A	-	-	-	E	B
HCM 95th %tile Q(veh)	0.1	-	-	-	3.5	0.4

MOVEMENT SUMMARY

Site: 101 [EX PM Springbrook @ Crestview (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

Newberg Springbrook Subdivision
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: Springbrook															
3	L2	All MCs	26	3.0	26	3.0	0.361	7.2	LOS A	1.9	49.8	0.51	0.32	0.51	30.1
8	T1	All MCs	325	3.0	325	3.0	0.361	7.2	LOS A	1.9	49.8	0.51	0.32	0.51	30.7
18	R2	All MCs	19	3.0	19	3.0	0.361	7.2	LOS A	1.9	49.8	0.51	0.32	0.51	30.5
Approach			370	3.0	370	3.0	0.361	7.2	LOS A	1.9	49.8	0.51	0.32	0.51	30.6
East: Crestview															
1	L2	All MCs	19	3.0	19	3.0	0.203	6.3	LOS A	0.9	22.5	0.54	0.41	0.54	30.0
6	T1	All MCs	3	3.0	3	3.0	0.203	6.3	LOS A	0.9	22.5	0.54	0.41	0.54	30.5
16	R2	All MCs	149	3.0	149	3.0	0.203	6.3	LOS A	0.9	22.5	0.54	0.41	0.54	30.3
Approach			172	3.0	172	3.0	0.203	6.3	LOS A	0.9	22.5	0.54	0.41	0.54	30.3
North: Springbrook															
7	L2	All MCs	160	3.0	160	3.0	0.456	7.0	LOS A	3.3	83.4	0.26	0.09	0.26	29.7
4	T1	All MCs	363	3.0	363	3.0	0.456	7.0	LOS A	3.3	83.4	0.26	0.09	0.26	30.2
14	R2	All MCs	58	3.0	58	3.0	0.456	7.0	LOS A	3.3	83.4	0.26	0.09	0.26	30.0
Approach			581	3.0	581	3.0	0.456	7.0	LOS A	3.3	83.4	0.26	0.09	0.26	30.0
West: Crestview															
5	L2	All MCs	75	3.0	75	3.0	0.191	6.9	LOS A	0.8	20.2	0.59	0.49	0.59	28.9
2	T1	All MCs	16	3.0	16	3.0	0.191	6.9	LOS A	0.8	20.2	0.59	0.49	0.59	29.4
12	R2	All MCs	52	3.0	52	3.0	0.191	6.9	LOS A	0.8	20.2	0.59	0.49	0.59	29.2
Approach			143	3.0	143	3.0	0.191	6.9	LOS A	0.8	20.2	0.59	0.49	0.59	29.1
All Vehicles			1265	3.0	1265	3.0	0.456	7.0	LOS A	3.3	83.4	0.41	0.24	0.41	30.1

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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Intersection	
Intersection Delay, s/veh	23.6
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	91	67	184	123	58	54	132	273	14	50	259	53
Future Vol, veh/h	91	67	184	123	58	54	132	273	14	50	259	53
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	0	2	0	1	0	2	0	3	0	2	2	0
Mvmt Flow	100	74	202	135	64	59	145	300	15	55	285	58
Number of Lanes	0	1	1	0	1	0	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	2
HCM Control Delay	16.6	24.4	23.9	29.2
HCM LOS	C	C	C	D

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	58%	0%	52%	100%	0%
Vol Thru, %	0%	95%	42%	0%	25%	0%	83%
Vol Right, %	0%	5%	0%	100%	23%	0%	17%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	132	287	158	184	235	50	312
LT Vol	132	0	91	0	123	50	0
Through Vol	0	273	67	0	58	0	259
RT Vol	0	14	0	184	54	0	53
Lane Flow Rate	145	315	174	202	258	55	343
Geometry Grp	7	7	7	7	6	7	7
Degree of Util (X)	0.343	0.701	0.416	0.429	0.614	0.131	0.759
Departure Headway (Hd)	8.508	8.007	8.622	7.635	8.553	8.613	7.972
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	422	451	418	471	421	416	453
Service Time	6.259	5.758	6.371	5.384	6.606	6.363	5.721
HCM Lane V/C Ratio	0.344	0.698	0.416	0.429	0.613	0.132	0.757
HCM Control Delay	15.7	27.6	17.4	16	24.4	12.7	31.9
HCM Lane LOS	C	D	C	C	C	B	D
HCM 95th-tile Q	1.5	5.3	2	2.1	4	0.4	6.4

APPENDIX D: 2027 NO BUILD HCM REPORTS

Intersection	
Int Delay, s/veh	1.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	39	7	113	48	13	76
Future Vol, veh/h	39	7	113	48	13	76
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	5	0	0	0
Mvmt Flow	47	8	136	58	16	92

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	289	165	0	0	194	0
Stage 1	165	-	-	-	-	-
Stage 2	124	-	-	-	-	-
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	706	885	-	-	1391	-
Stage 1	869	-	-	-	-	-
Stage 2	907	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	698	885	-	-	1391	-
Mov Cap-2 Maneuver	698	-	-	-	-	-
Stage 1	869	-	-	-	-	-
Stage 2	896	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.4	0	1.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	721	1391	-
HCM Lane V/C Ratio	-	-	0.077	0.011	-
HCM Control Delay (s)	-	-	10.4	7.6	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0	-

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	45	514	315	117	74	39
Future Vol, veh/h	45	514	315	117	74	39
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	80	-	-	-	125	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	0	5	5	5	0	0
Mvmt Flow	53	605	371	138	87	46

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	509	0	-	0	1151	440
Stage 1	-	-	-	-	440	-
Stage 2	-	-	-	-	711	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1066	-	-	-	221	621
Stage 1	-	-	-	-	653	-
Stage 2	-	-	-	-	490	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1066	-	-	-	210	621
Mov Cap-2 Maneuver	-	-	-	-	210	-
Stage 1	-	-	-	-	620	-
Stage 2	-	-	-	-	490	-

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	26
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1066	-	-	-	210	621
HCM Lane V/C Ratio	0.05	-	-	-	0.415	0.074
HCM Control Delay (s)	8.6	-	-	-	33.8	11.3
HCM Lane LOS	A	-	-	-	D	B
HCM 95th %tile Q(veh)	0.2	-	-	-	1.9	0.2

MOVEMENT SUMMARY

Site: 101 [FY AM Springbrook @ Crestview (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

Newberg Springbrook Subdivision
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: Springbrook															
3	L2	All MCs	41	3.0	41	3.0	0.367	7.7	LOS A	1.9	49.2	0.56	0.38	0.56	29.8
8	T1	All MCs	289	3.0	289	3.0	0.367	7.7	LOS A	1.9	49.2	0.56	0.38	0.56	30.3
18	R2	All MCs	20	3.0	20	3.0	0.367	7.7	LOS A	1.9	49.2	0.56	0.38	0.56	30.1
Approach			351	3.0	351	3.0	0.367	7.7	LOS A	1.9	49.2	0.56	0.38	0.56	30.3
East: Crestview															
1	L2	All MCs	14	3.0	14	3.0	0.228	6.5	LOS A	1.0	25.8	0.55	0.41	0.55	30.0
6	T1	All MCs	20	3.0	20	3.0	0.228	6.5	LOS A	1.0	25.8	0.55	0.41	0.55	30.5
16	R2	All MCs	160	3.0	160	3.0	0.228	6.5	LOS A	1.0	25.8	0.55	0.41	0.55	30.3
Approach			195	3.0	195	3.0	0.228	6.5	LOS A	1.0	25.8	0.55	0.41	0.55	30.3
North: Springbrook															
7	L2	All MCs	202	3.0	202	3.0	0.569	9.0	LOS A	4.8	123.5	0.40	0.16	0.40	28.8
4	T1	All MCs	330	3.0	330	3.0	0.569	9.0	LOS A	4.8	123.5	0.40	0.16	0.40	29.3
14	R2	All MCs	171	3.0	171	3.0	0.569	9.0	LOS A	4.8	123.5	0.40	0.16	0.40	29.1
Approach			704	3.0	704	3.0	0.569	9.0	LOS A	4.8	123.5	0.40	0.16	0.40	29.1
West: Crestview															
5	L2	All MCs	84	3.0	84	3.0	0.221	7.3	LOS A	0.9	23.7	0.60	0.50	0.60	28.9
2	T1	All MCs	29	3.0	29	3.0	0.221	7.3	LOS A	0.9	23.7	0.60	0.50	0.60	29.3
12	R2	All MCs	51	3.0	51	3.0	0.221	7.3	LOS A	0.9	23.7	0.60	0.50	0.60	29.1
Approach			164	3.0	164	3.0	0.221	7.3	LOS A	0.9	23.7	0.60	0.50	0.60	29.0
All Vehicles			1413	3.0	1413	3.0	0.569	8.2	LOS A	4.8	123.5	0.48	0.29	0.48	29.5

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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Intersection	
Intersection Delay, s/veh	15.7
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	48	37	193	40	16	11	70	271	8	23	264	59
Future Vol, veh/h	48	37	193	40	16	11	70	271	8	23	264	59
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	4	3	3	0	0	0	3	9	0	0	10	6
Mvmt Flow	53	41	212	44	18	12	77	298	9	25	290	65
Number of Lanes	0	1	1	0	1	0	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	2
HCM Control Delay	12.3	12	15.8	18.9
HCM LOS	B	B	C	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	56%	0%	60%	100%	0%
Vol Thru, %	0%	97%	44%	0%	24%	0%	82%
Vol Right, %	0%	3%	0%	100%	16%	0%	18%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	70	279	85	193	67	23	323
LT Vol	70	0	48	0	40	23	0
Through Vol	0	271	37	0	16	0	264
RT Vol	0	8	0	193	11	0	59
Lane Flow Rate	77	307	93	212	74	25	355
Geometry Grp	7	7	7	7	6	7	7
Degree of Util (X)	0.147	0.55	0.188	0.366	0.155	0.048	0.629
Departure Headway (Hd)	6.886	6.46	7.228	6.21	7.577	6.841	6.375
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	517	555	493	575	476	520	564
Service Time	4.675	4.249	5.021	4.002	5.577	4.627	4.16
HCM Lane V/C Ratio	0.149	0.553	0.189	0.369	0.155	0.048	0.629
HCM Control Delay	10.9	17	11.7	12.6	12	10	19.5
HCM Lane LOS	B	C	B	B	B	A	C
HCM 95th-tile Q	0.5	3.3	0.7	1.7	0.5	0.2	4.4

Intersection	
Int Delay, s/veh	2.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	34	15	118	36	33	137
Future Vol, veh/h	34	15	118	36	33	137
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	91	91	91	91	91	91
Heavy Vehicles, %	3	0	5	0	0	0
Mvmt Flow	37	16	130	40	36	151

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	373	150	0	0	170	0
Stage 1	150	-	-	-	-	-
Stage 2	223	-	-	-	-	-
Critical Hdwy	6.43	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	626	902	-	-	1420	-
Stage 1	875	-	-	-	-	-
Stage 2	812	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	608	902	-	-	1420	-
Mov Cap-2 Maneuver	608	-	-	-	-	-
Stage 1	875	-	-	-	-	-
Stage 2	789	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.8	0	1.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	675	1420	-
HCM Lane V/C Ratio	-	-	0.08	0.026	-
HCM Control Delay (s)	-	-	10.8	7.6	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0.1	-

Intersection	
Int Delay, s/veh	7.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	45	472	433	108	132	58
Future Vol, veh/h	45	472	433	108	132	58
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	80	-	-	-	125	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	0	2	3	2	2	2
Mvmt Flow	51	536	492	123	150	66

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	615	0	-	0	1192	554
Stage 1	-	-	-	-	554	-
Stage 2	-	-	-	-	638	-
Critical Hdwy	4.1	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.2	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	974	-	-	-	207	532
Stage 1	-	-	-	-	575	-
Stage 2	-	-	-	-	526	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	974	-	-	-	196	532
Mov Cap-2 Maneuver	-	-	-	-	196	-
Stage 1	-	-	-	-	545	-
Stage 2	-	-	-	-	526	-

Approach	EB	WB	SB
HCM Control Delay, s	0.8	0	49.7
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	974	-	-	-	196	532
HCM Lane V/C Ratio	0.053	-	-	-	0.765	0.124
HCM Control Delay (s)	8.9	-	-	-	66	12.7
HCM Lane LOS	A	-	-	-	F	B
HCM 95th %tile Q(veh)	0.2	-	-	-	5.2	0.4

MOVEMENT SUMMARY

Site: 101 [FY PM Springbrook @ Crestview (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

Newberg Springbrook Subdivision
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: Springbrook															
3	L2	All MCs	28	3.0	28	3.0	0.405	8.0	LOS A	2.3	57.7	0.55	0.36	0.55	29.9
8	T1	All MCs	355	3.0	355	3.0	0.405	8.0	LOS A	2.3	57.7	0.55	0.36	0.55	30.4
18	R2	All MCs	21	3.0	21	3.0	0.405	8.0	LOS A	2.3	57.7	0.55	0.36	0.55	30.2
Approach			404	3.0	404	3.0	0.405	8.0	LOS A	2.3	57.7	0.55	0.36	0.55	30.3
East: Crestview															
1	L2	All MCs	21	3.0	21	3.0	0.231	6.9	LOS A	1.0	25.8	0.57	0.45	0.57	29.7
6	T1	All MCs	3	3.0	3	3.0	0.231	6.9	LOS A	1.0	25.8	0.57	0.45	0.57	30.3
16	R2	All MCs	163	3.0	163	3.0	0.231	6.9	LOS A	1.0	25.8	0.57	0.45	0.57	30.1
Approach			188	3.0	188	3.0	0.231	6.9	LOS A	1.0	25.8	0.57	0.45	0.57	30.0
North: Springbrook															
7	L2	All MCs	174	3.0	174	3.0	0.500	7.6	LOS A	3.8	98.5	0.29	0.10	0.29	29.4
4	T1	All MCs	397	3.0	397	3.0	0.500	7.6	LOS A	3.8	98.5	0.29	0.10	0.29	29.9
14	R2	All MCs	64	3.0	64	3.0	0.500	7.6	LOS A	3.8	98.5	0.29	0.10	0.29	29.7
Approach			635	3.0	635	3.0	0.500	7.6	LOS A	3.8	98.5	0.29	0.10	0.29	29.8
West: Crestview															
5	L2	All MCs	82	3.0	82	3.0	0.220	7.6	LOS A	0.9	23.2	0.61	0.53	0.61	28.7
2	T1	All MCs	17	3.0	17	3.0	0.220	7.6	LOS A	0.9	23.2	0.61	0.53	0.61	29.2
12	R2	All MCs	56	3.0	56	3.0	0.220	7.6	LOS A	0.9	23.2	0.61	0.53	0.61	29.0
Approach			155	3.0	155	3.0	0.220	7.6	LOS A	0.9	23.2	0.61	0.53	0.61	28.8
All Vehicles			1382	3.0	1382	3.0	0.500	7.6	LOS A	3.8	98.5	0.44	0.27	0.44	29.9

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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Intersection	
Intersection Delay, s/veh	32.6
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	99	73	201	134	63	59	144	298	15	55	283	58
Future Vol, veh/h	99	73	201	134	63	59	144	298	15	55	283	58
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	0	2	0	1	0	2	0	3	0	2	2	0
Mvmt Flow	109	80	221	147	69	65	158	327	16	60	311	64
Number of Lanes	0	1	1	0	1	0	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	2
HCM Control Delay	19.7	32.4	33.1	44.3
HCM LOS	C	D	D	E

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	58%	0%	52%	100%	0%
Vol Thru, %	0%	95%	42%	0%	25%	0%	83%
Vol Right, %	0%	5%	0%	100%	23%	0%	17%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	144	313	172	201	256	55	341
LT Vol	144	0	99	0	134	55	0
Through Vol	0	298	73	0	63	0	283
RT Vol	0	15	0	201	59	0	58
Lane Flow Rate	158	344	189	221	281	60	375
Geometry Grp	7	7	7	7	6	7	7
Degree of Util (X)	0.399	0.819	0.483	0.503	0.716	0.154	0.885
Departure Headway (Hd)	9.072	8.57	9.194	8.202	9.161	9.147	8.503
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	396	423	391	437	394	392	427
Service Time	6.846	6.343	6.967	5.974	7.239	6.917	6.272
HCM Lane V/C Ratio	0.399	0.813	0.483	0.506	0.713	0.153	0.878
HCM Control Delay	17.8	40.2	20.3	19.1	32.4	13.6	49.3
HCM Lane LOS	C	E	C	C	D	B	E
HCM 95th-tile Q	1.9	7.5	2.5	2.8	5.4	0.5	9.2

APPENDIX E: 2027 BUILD HCM REPORTS

Intersection	
Int Delay, s/veh	2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	40	7	106	51	13	77
Future Vol, veh/h	40	7	106	51	13	77
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	5	0	0	0
Mvmt Flow	48	8	128	61	16	93

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	284	159	0	0	189	0
Stage 1	159	-	-	-	-	-
Stage 2	125	-	-	-	-	-
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	710	892	-	-	1397	-
Stage 1	875	-	-	-	-	-
Stage 2	906	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	701	892	-	-	1397	-
Mov Cap-2 Maneuver	701	-	-	-	-	-
Stage 1	875	-	-	-	-	-
Stage 2	895	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.4	0	1.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	724	1397	-
HCM Lane V/C Ratio	-	-	0.078	0.011	-
HCM Control Delay (s)	-	-	10.4	7.6	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0	-

Intersection	
Int Delay, s/veh	5.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	51	514	315	129	109	56
Future Vol, veh/h	51	514	315	129	109	56
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	80	-	-	-	125	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	0	5	5	5	0	0
Mvmt Flow	60	605	371	152	128	66

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	523	0	-	0	1172	447
Stage 1	-	-	-	-	447	-
Stage 2	-	-	-	-	725	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1054	-	-	-	215	616
Stage 1	-	-	-	-	649	-
Stage 2	-	-	-	-	483	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1054	-	-	-	203	616
Mov Cap-2 Maneuver	-	-	-	-	203	-
Stage 1	-	-	-	-	612	-
Stage 2	-	-	-	-	483	-

Approach	EB	WB	SB
HCM Control Delay, s	0.8	0	36.3
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1054	-	-	-	203	616
HCM Lane V/C Ratio	0.057	-	-	-	0.632	0.107
HCM Control Delay (s)	8.6	-	-	-	49	11.5
HCM Lane LOS	A	-	-	-	E	B
HCM 95th %tile Q(veh)	0.2	-	-	-	3.7	0.4

MOVEMENT SUMMARY

Site: 101 [FY PP AM Springbrook @ Crestview (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

Newberg Springbrook Subdivision
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: Springbrook															
3	L2	All MCs	41	3.0	41	3.0	0.383	8.0	LOS A	2.0	51.7	0.58	0.40	0.58	29.7
8	T1	All MCs	299	3.0	299	3.0	0.383	8.0	LOS A	2.0	51.7	0.58	0.40	0.58	30.2
18	R2	All MCs	20	3.0	20	3.0	0.383	8.0	LOS A	2.0	51.7	0.58	0.40	0.58	30.0
Approach			360	3.0	360	3.0	0.383	8.0	LOS A	2.0	51.7	0.58	0.40	0.58	30.1
East: Crestview															
1	L2	All MCs	14	3.0	14	3.0	0.236	6.7	LOS A	1.0	26.8	0.56	0.42	0.56	29.9
6	T1	All MCs	20	3.0	20	3.0	0.236	6.7	LOS A	1.0	26.8	0.56	0.42	0.56	30.5
16	R2	All MCs	165	3.0	165	3.0	0.236	6.7	LOS A	1.0	26.8	0.56	0.42	0.56	30.3
Approach			200	3.0	200	3.0	0.236	6.7	LOS A	1.0	26.8	0.56	0.42	0.56	30.3
North: Springbrook															
7	L2	All MCs	217	3.0	217	3.0	0.603	9.6	LOS A	5.5	140.2	0.43	0.17	0.43	28.6
4	T1	All MCs	358	3.0	358	3.0	0.603	9.6	LOS A	5.5	140.2	0.43	0.17	0.43	29.1
14	R2	All MCs	171	3.0	171	3.0	0.603	9.6	LOS A	5.5	140.2	0.43	0.17	0.43	28.9
Approach			746	3.0	746	3.0	0.603	9.6	LOS A	5.5	140.2	0.43	0.17	0.43	28.9
West: Crestview															
5	L2	All MCs	84	3.0	84	3.0	0.231	7.7	LOS A	1.0	24.6	0.62	0.53	0.62	28.7
2	T1	All MCs	29	3.0	29	3.0	0.231	7.7	LOS A	1.0	24.6	0.62	0.53	0.62	29.2
12	R2	All MCs	51	3.0	51	3.0	0.231	7.7	LOS A	1.0	24.6	0.62	0.53	0.62	29.0
Approach			164	3.0	164	3.0	0.231	7.7	LOS A	1.0	24.6	0.62	0.53	0.62	28.9
All Vehicles			1470	3.0	1470	3.0	0.603	8.6	LOS A	5.5	140.2	0.50	0.30	0.50	29.4

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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Intersection	
Intersection Delay, s/veh	16.8
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	48	37	193	40	16	11	70	279	8	23	287	59
Future Vol, veh/h	48	37	193	40	16	11	70	279	8	23	287	59
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	4	3	3	0	0	0	3	9	0	0	10	6
Mvmt Flow	53	41	212	44	18	12	77	307	9	25	315	65
Number of Lanes	0	1	1	0	1	0	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	2
HCM Control Delay	12.6	12.2	16.5	21.1
HCM LOS	B	B	C	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	56%	0%	60%	100%	0%
Vol Thru, %	0%	97%	44%	0%	24%	0%	83%
Vol Right, %	0%	3%	0%	100%	16%	0%	17%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	70	287	85	193	67	23	346
LT Vol	70	0	48	0	40	23	0
Through Vol	0	279	37	0	16	0	287
RT Vol	0	8	0	193	11	0	59
Lane Flow Rate	77	315	93	212	74	25	380
Geometry Grp	7	7	7	7	6	7	7
Degree of Util (X)	0.149	0.572	0.19	0.372	0.158	0.048	0.678
Departure Headway (Hd)	6.952	6.526	7.336	6.317	7.724	6.879	6.422
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	512	549	486	564	468	517	559
Service Time	4.745	4.319	5.136	4.116	5.724	4.671	4.213
HCM Lane V/C Ratio	0.15	0.574	0.191	0.376	0.158	0.048	0.68
HCM Control Delay	11	17.8	11.9	12.9	12.2	10	21.8
HCM Lane LOS	B	C	B	B	B	A	C
HCM 95th-tile Q	0.5	3.6	0.7	1.7	0.6	0.2	5.1

Intersection	
Int Delay, s/veh	2.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	37	15	120	38	33	140
Future Vol, veh/h	37	15	120	38	33	140
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	91	91	91	91	91	91
Heavy Vehicles, %	3	0	2	3	0	2
Mvmt Flow	41	16	132	42	36	154

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	379	153	0	0	174	0
Stage 1	153	-	-	-	-	-
Stage 2	226	-	-	-	-	-
Critical Hdwy	6.43	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	621	898	-	-	1415	-
Stage 1	873	-	-	-	-	-
Stage 2	809	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	604	898	-	-	1415	-
Mov Cap-2 Maneuver	604	-	-	-	-	-
Stage 1	873	-	-	-	-	-
Stage 2	786	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.9	0	1.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	667	1415	-
HCM Lane V/C Ratio	-	-	0.086	0.026	-
HCM Control Delay (s)	-	-	10.9	7.6	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0.1	-

Intersection	
Int Delay, s/veh	15.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	65	472	433	147	155	69
Future Vol, veh/h	65	472	433	147	155	69
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	80	-	-	-	125	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	0	2	3	2	2	2
Mvmt Flow	74	536	492	167	176	78

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	659	0	-	0	1260	576
Stage 1	-	-	-	-	576	-
Stage 2	-	-	-	-	684	-
Critical Hdwy	4.1	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.2	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	939	-	-	-	188	517
Stage 1	-	-	-	-	562	-
Stage 2	-	-	-	-	501	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	939	-	-	-	~ 173	517
Mov Cap-2 Maneuver	-	-	-	-	~ 173	-
Stage 1	-	-	-	-	518	-
Stage 2	-	-	-	-	501	-

Approach	EB	WB	SB
HCM Control Delay, s	1.1	0	92.4
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	939	-	-	-	173	517
HCM Lane V/C Ratio	0.079	-	-	-	1.018	0.152
HCM Control Delay (s)	9.2	-	-	-	127.6	13.2
HCM Lane LOS	A	-	-	-	F	B
HCM 95th %tile Q(veh)	0.3	-	-	-	8.3	0.5

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

MOVEMENT SUMMARY

Site: 101 [FY PP PM Springbrook @ Crestview (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

Newberg Springbrook Subdivision
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: Springbrook															
3	L2	All MCs	28	3.0	28	3.0	0.438	8.5	LOS A	2.5	64.5	0.58	0.38	0.58	29.7
8	T1	All MCs	384	3.0	384	3.0	0.438	8.5	LOS A	2.5	64.5	0.58	0.38	0.58	30.2
18	R2	All MCs	21	3.0	21	3.0	0.438	8.5	LOS A	2.5	64.5	0.58	0.38	0.58	30.0
Approach			434	3.0	434	3.0	0.438	8.5	LOS A	2.5	64.5	0.58	0.38	0.58	30.1
East: Crestview															
1	L2	All MCs	21	3.0	21	3.0	0.257	7.4	LOS A	1.1	28.9	0.59	0.48	0.59	29.5
6	T1	All MCs	3	3.0	3	3.0	0.257	7.4	LOS A	1.1	28.9	0.59	0.48	0.59	30.1
16	R2	All MCs	178	3.0	178	3.0	0.257	7.4	LOS A	1.1	28.9	0.59	0.48	0.59	29.9
Approach			202	3.0	202	3.0	0.257	7.4	LOS A	1.1	28.9	0.59	0.48	0.59	29.8
North: Springbrook															
7	L2	All MCs	183	3.0	183	3.0	0.521	7.9	LOS A	4.2	106.4	0.30	0.11	0.30	29.3
4	T1	All MCs	413	3.0	413	3.0	0.521	7.9	LOS A	4.2	106.4	0.30	0.11	0.30	29.8
14	R2	All MCs	64	3.0	64	3.0	0.521	7.9	LOS A	4.2	106.4	0.30	0.11	0.30	29.6
Approach			661	3.0	661	3.0	0.521	7.9	LOS A	4.2	106.4	0.30	0.11	0.30	29.6
West: Crestview															
5	L2	All MCs	82	3.0	82	3.0	0.226	7.9	LOS A	0.9	23.7	0.63	0.54	0.63	28.6
2	T1	All MCs	17	3.0	17	3.0	0.226	7.9	LOS A	0.9	23.7	0.63	0.54	0.63	29.1
12	R2	All MCs	56	3.0	56	3.0	0.226	7.9	LOS A	0.9	23.7	0.63	0.54	0.63	28.9
Approach			155	3.0	155	3.0	0.226	7.9	LOS A	0.9	23.7	0.63	0.54	0.63	28.7
All Vehicles			1452	3.0	1452	3.0	0.521	8.0	LOS A	4.2	106.4	0.46	0.29	0.46	29.7

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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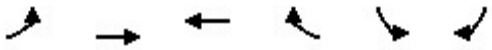
Intersection	
Intersection Delay, s/veh	39.1
Intersection LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	99	73	201	134	63	59	144	324	15	55	298	58
Future Vol, veh/h	99	73	201	134	63	59	144	324	15	55	298	58
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	0	2	0	1	0	2	0	3	0	2	2	0
Mvmt Flow	109	80	221	147	69	65	158	356	16	60	327	64
Number of Lanes	0	1	1	0	1	0	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	2
HCM Control Delay	20.6	34.8	42.8	54.4
HCM LOS	C	D	E	F

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	58%	0%	52%	100%	0%
Vol Thru, %	0%	96%	42%	0%	25%	0%	84%
Vol Right, %	0%	4%	0%	100%	23%	0%	16%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	144	339	172	201	256	55	356
LT Vol	144	0	99	0	134	55	0
Through Vol	0	324	73	0	63	0	298
RT Vol	0	15	0	201	59	0	58
Lane Flow Rate	158	373	189	221	281	60	391
Geometry Grp	7	7	7	7	6	7	7
Degree of Util (X)	0.405	0.902	0.495	0.517	0.736	0.156	0.942
Departure Headway (Hd)	9.219	8.719	9.421	8.426	9.414	9.306	8.665
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	389	414	382	426	383	384	419
Service Time	7.005	6.503	7.206	6.21	7.504	7.085	6.444
HCM Lane V/C Ratio	0.406	0.901	0.495	0.519	0.734	0.156	0.933
HCM Control Delay	18.2	53.2	21.2	20	34.8	13.8	60.7
HCM Lane LOS	C	F	C	C	D	B	F
HCM 95th-tile Q	1.9	9.5	2.6	2.9	5.7	0.5	10.7

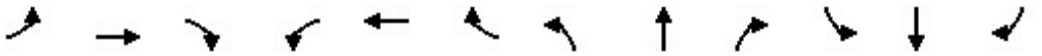
APPENDIX F: 2027 BUILD MITIGATION HCM REPORT



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	51	514	315	129	109	56
Future Volume (vph)	51	514	315	129	109	56
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5		4.5	4.5
Lane Util. Factor	1.00	1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00	1.00		1.00	0.97
Flpb, ped/bikes	1.00	1.00	1.00		1.00	1.00
Frt	1.00	1.00	0.96		1.00	0.85
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1805	1810	1739		1805	1574
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1805	1810	1739		1805	1574
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	60	605	371	152	128	66
RTOR Reduction (vph)	0	0	17	0	0	57
Lane Group Flow (vph)	60	605	506	0	128	9
Confl. Bikes (#/hr)						2
Heavy Vehicles (%)	0%	5%	5%	5%	0%	0%
Turn Type	Prot	NA	NA		Prot	Perm
Protected Phases	1	6	2		8	
Permitted Phases						8
Actuated Green, G (s)	3.1	39.0	31.4		7.8	7.8
Effective Green, g (s)	3.1	39.0	31.4		7.8	7.8
Actuated g/C Ratio	0.06	0.70	0.56		0.14	0.14
Clearance Time (s)	4.5	4.5	4.5		4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	100	1265	978		252	220
v/s Ratio Prot	0.03	c0.33	c0.29		c0.07	
v/s Ratio Perm						0.01
v/c Ratio	0.60	0.48	0.52		0.51	0.04
Uniform Delay, d1	25.7	3.8	7.5		22.2	20.8
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	9.3	1.3	2.0		1.6	0.1
Delay (s)	35.1	5.1	9.5		23.8	20.8
Level of Service	D	A	A		C	C
Approach Delay (s)		7.8	9.5		22.8	
Approach LOS		A	A		C	

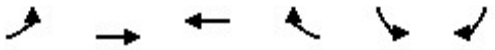
Intersection Summary			
HCM 2000 Control Delay	10.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	55.8	Sum of lost time (s)	13.5
Intersection Capacity Utilization	45.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



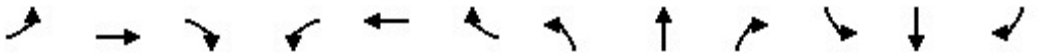
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	48	37	193	40	16	11	70	279	8	23	287	59
Future Volume (vph)	48	37	193	40	16	11	70	279	8	23	287	59
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5		4.5		4.5	4.5		4.5	4.5	
Lane Util. Factor		1.00	1.00		1.00		1.00	1.00		1.00	1.00	
Frpb, ped/bikes		1.00	0.97		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	
Frt		1.00	0.85		0.98		1.00	1.00		1.00	0.97	
Flt Protected		0.97	1.00		0.97		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1784	1514		1798		1752	1738		1798	1693	
Flt Permitted		0.97	1.00		0.97		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1784	1514		1798		1752	1738		1798	1693	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	53	41	212	44	18	12	77	307	9	25	315	65
RTOR Reduction (vph)	0	0	190	0	11	0	0	1	0	0	9	0
Lane Group Flow (vph)	0	94	22	0	63	0	77	315	0	25	371	0
Confl. Peds. (#/hr)	3		3	3		3			4	4		
Confl. Bikes (#/hr)									1			
Heavy Vehicles (%)	4%	3%	3%	0%	0%	0%	3%	9%	0%	0%	10%	6%
Turn Type	Split	NA	Perm	Split	NA		Prot	NA		Prot	NA	
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4									
Actuated Green, G (s)		5.7	5.7		4.5		2.7	25.8		0.9	24.0	
Effective Green, g (s)		5.7	5.7		4.5		2.7	25.8		0.9	24.0	
Actuated g/C Ratio		0.10	0.10		0.08		0.05	0.47		0.02	0.44	
Clearance Time (s)		4.5	4.5		4.5		4.5	4.5		4.5	4.5	
Vehicle Extension (s)		3.0	3.0		3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		185	157		147		86	816		29	740	
v/s Ratio Prot		c0.05			c0.04		c0.04	0.18		0.01	c0.22	
v/s Ratio Perm			0.01									
v/c Ratio		0.51	0.14		0.43		0.90	0.39		0.86	0.50	
Uniform Delay, d1		23.3	22.4		24.0		26.0	9.4		26.9	11.1	
Progression Factor		1.00	1.00		1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		2.2	0.4		2.0		63.1	1.4		109.1	2.4	
Delay (s)		25.5	22.8		26.0		89.0	10.8		136.1	13.6	
Level of Service		C	C		C		F	B		F	B	
Approach Delay (s)		23.6			26.0			26.1			21.1	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM 2000 Control Delay	23.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	54.9	Sum of lost time (s)	18.0
Intersection Capacity Utilization	47.4%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	65	472	433	147	155	69
Future Volume (vph)	65	472	433	147	155	69
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5		4.5	4.5
Lane Util. Factor	1.00	1.00	1.00		1.00	1.00
Frt	1.00	1.00	0.97		1.00	0.85
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1805	1863	1786		1770	1583
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1805	1863	1786		1770	1583
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	74	536	492	167	176	78
RTOR Reduction (vph)	0	0	15	0	0	65
Lane Group Flow (vph)	74	536	644	0	176	13
Heavy Vehicles (%)	0%	2%	3%	2%	2%	2%
Turn Type	Prot	NA	NA		Prot	Perm
Protected Phases	1	6	2		8	
Permitted Phases						8
Actuated Green, G (s)	3.0	38.1	30.6		9.1	9.1
Effective Green, g (s)	3.0	38.1	30.6		9.1	9.1
Actuated g/C Ratio	0.05	0.68	0.54		0.16	0.16
Clearance Time (s)	4.5	4.5	4.5		4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	96	1262	972		286	256
v/s Ratio Prot	c0.04	0.29	c0.36		c0.10	
v/s Ratio Perm						0.01
v/c Ratio	0.77	0.42	0.66		0.62	0.05
Uniform Delay, d1	26.3	4.1	9.1		21.9	19.9
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	30.9	1.0	3.6		3.9	0.1
Delay (s)	57.2	5.1	12.7		25.8	20.0
Level of Service	E	A	B		C	B
Approach Delay (s)		11.5	12.7		24.0	
Approach LOS		B	B		C	

Intersection Summary			
HCM 2000 Control Delay	14.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	56.2	Sum of lost time (s)	13.5
Intersection Capacity Utilization	55.7%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	99	73	201	134	63	59	144	324	15	55	298	58
Future Volume (vph)	99	73	201	134	63	59	144	324	15	55	298	58
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5		4.5		4.5	4.5		4.5	4.5	
Lane Util. Factor		1.00	1.00		1.00		1.00	1.00		1.00	1.00	
Frpb, ped/bikes		1.00	0.95		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	
Frt		1.00	0.85		0.97		1.00	0.99		1.00	0.98	
Flt Protected		0.97	1.00		0.97		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1831	1527		1766		1805	1833		1770	1815	
Flt Permitted		0.97	1.00		0.97		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1831	1527		1766		1805	1833		1770	1815	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	109	80	221	147	69	65	158	356	16	60	327	64
RTOR Reduction (vph)	0	0	193	0	15	0	0	2	0	0	9	0
Lane Group Flow (vph)	0	189	28	0	266	0	158	370	0	60	382	0
Confl. Peds. (#/hr)	2		9	9		2	3		2	2		3
Confl. Bikes (#/hr)									1			
Heavy Vehicles (%)	0%	2%	0%	1%	0%	2%	0%	3%	0%	2%	2%	0%
Turn Type	Split	NA	Perm	Split	NA		Prot	NA		Prot	NA	
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4									
Actuated Green, G (s)		9.4	9.4		14.8		8.4	28.4		3.0	23.0	
Effective Green, g (s)		9.4	9.4		14.8		8.4	28.4		3.0	23.0	
Actuated g/C Ratio		0.13	0.13		0.20		0.11	0.39		0.04	0.31	
Clearance Time (s)		4.5	4.5		4.5		4.5	4.5		4.5	4.5	
Vehicle Extension (s)		3.0	3.0		3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		233	195		355		206	707		72	567	
v/s Ratio Prot		c0.10			c0.15		c0.09	0.20		0.03	c0.21	
v/s Ratio Perm			0.02									
v/c Ratio		0.81	0.14		0.75		0.77	0.52		0.83	0.67	
Uniform Delay, d1		31.2	28.5		27.7		31.6	17.4		35.1	22.0	
Progression Factor		1.00	1.00		1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		18.9	0.3		8.4		15.6	2.8		53.2	6.3	
Delay (s)		50.1	28.9		36.0		47.3	20.2		88.3	28.3	
Level of Service		D	C		D		D	C		F	C	
Approach Delay (s)		38.7			36.0			28.2			36.3	
Approach LOS		D			D			C			D	

Intersection Summary			
HCM 2000 Control Delay	34.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	73.6	Sum of lost time (s)	18.0
Intersection Capacity Utilization	59.5%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

APPENDIX G: CRASH DATA

Springbrook and Benjamin

013 Lat	014 Long	117 Severity	000 Crash Id	002 Year	005 Region	007 County1	008 Jurisdiction	015 Street Name	021 Road Characteristics	022 Off Roadway Flag	036 Crash Cause 1
45.32083611	-122.9404111	PDO	1821127	2018	2	Yamhill		SPRINGBROOK RD	CURVE	TRUE	TOO-FAST
45.32069796	-122.9405309	PDO	1991444	2022	2	Yamhill		SPRINGBROOK RD A	INTER	FALSE	TOO-FAST

Springbrook and Haworth

013 Lat	014 Long	117 Severity	000 Crash Id	002 Year	005 Region	007 County1	008 Jurisdiction	015 Street Name	021 Road Characteristics	022 Off Roadway Flag	036 Crash Cause 1
45.30798031	-122.9469402	Possible Injury (C)	1962105	2022	2	Yamhill	Newberg	HAWORTH AVE	INTER	FALSE	NO-YIELD
45.30797406	-122.9469379	Possible Injury (C)	2005264	2022	2	Yamhill	Newberg	HAWORTH AVE	INTER	FALSE	NO-YIELD
45.30798031	-122.9469442	PDO	1869465	2019	2	Yamhill	Newberg	HAWORTH AVE	INTER	FALSE	NO-YIELD
45.30798219	-122.9469442	PDO	1867861	2019	2	Yamhill	Newberg	HAWORTH AVE	INTER	FALSE	NO-YIELD
45.30798136	-122.9469453	PDO	1869300	2019	2	Yamhill	Newberg	HAWORTH AVE	INTER	FALSE	PAS-STOP
45.30798031	-122.9469402	Minor Injury (B)	1964936	2022	2	Yamhill	Newberg	HAWORTH AVE	INTER	FALSE	NO-YIELD
45.30799167	-122.9469444	PDO	1820826	2018	2	Yamhill	Newberg	HAWORTH AVE	INTER	FALSE	PAS-STOP
45.30798889	-122.9469333	PDO	1821040	2018	2	Yamhill	Newberg	HAWORTH AVE	INTER	FALSE	NO-YIELD
45.30798056	-122.9469389	PDO	1821107	2018	2	Yamhill	Newberg	HAWORTH AVE	INTER	FALSE	NO-YIELD
45.30798056	-122.9469389	Minor Injury (B)	1782766	2018	2	Yamhill	Newberg	HAWORTH AVE	INTER	FALSE	RECKLESS
45.308	-122.9469444	PDO	1819916	2018	2	Yamhill	Newberg	SPRINGBROOK RD	INTER	FALSE	NO-YIELD
45.30798031	-122.9469402	Possible Injury (C)	1829551	2019	2	Yamhill	Newberg	HAWORTH AVE	INTER	FALSE	NO-YIELD
45.30798031	-122.9469415	Possible Injury (C)	1886370	2020	2	Yamhill	Newberg	HAWORTH AVE	INTER	FALSE	PAS-STOP
45.30798056	-122.9469389	Possible Injury (C)	1782794	2018	2	Yamhill	Newberg	HAWORTH AVE	INTER	FALSE	NO-YIELD
45.30798056	-122.9469389	Possible Injury (C)	1787844	2018	2	Yamhill	Newberg	HAWORTH AVE	INTER	FALSE	NO-YIELD
45.30798031	-122.9469415	Possible Injury (C)	1889321	2020	2	Yamhill	Newberg	HAWORTH AVE	INTER	FALSE	NO-YIELD
45.30797406	-122.9469379	PDO	1989603	2022	2	Yamhill	Newberg	HAWORTH AVE	INTER	FALSE	NO-YIELD

Springbrook and Benjamin

114 Road Departure Flag	118 Intersection Flag	119 State Highway Flag1	126 Bike / Ped Related	127 Driveway Flag	128 Jurisdiction Complete	011 Hwy No	001 CRASH Date
Yes	No	No	Neither	No	Yamhill County		12/28/2018
No	Yes	No	Neither	No	Yamhill County		10/13/2022

Springbrook and Haworth

114 Road Departure Flag	119 State Highway Flag1	126 Bike / Ped Related	127 Driveway Flag	128 Jurisdiction Complete	011 Hwy No	001 CRASH Date	016 Intersecting Street Name
No	No	Neither	Yes	Newberg		2/11/2022	SPRINGBROOK RD
No	No	Neither	Yes	Newberg		12/18/2022	SPRINGBROOK RD
No	No	Neither	No	Newberg		8/13/2019	SPRINGBROOK RD
No	No	Neither	No	Newberg		4/5/2019	SPRINGBROOK RD
No	No	Neither	No	Newberg		8/7/2019	SPRINGBROOK RD
No	No	Pedestrian	No	Newberg		4/27/2022	SPRINGBROOK RD
No	No	Neither	No	Newberg		11/20/2018	SPRINGBROOK RD
No	No	Neither	No	Newberg		12/6/2018	SPRINGBROOK RD
No	No	Neither	No	Newberg		12/25/2018	SPRINGBROOK RD
No	No	Neither	No	Newberg		1/19/2018	SPRINGBROOK RD
No	No	Neither	Yes	Newberg		8/17/2018	HAWORTH AVE
No	No	Neither	No	Newberg		5/2/2019	SPRINGBROOK RD
No	No	Neither	Yes	Newberg		9/22/2020	SPRINGBROOK RD
No	No	Neither	No	Newberg		2/3/2018	SPRINGBROOK RD
No	No	Neither	Yes	Newberg		5/30/2018	SPRINGBROOK RD
No	No	Neither	Yes	Newberg		12/20/2020	SPRINGBROOK RD
No	No	Neither	No	Newberg		9/8/2022	SPRINGBROOK RD

Springbrook and Benjamin

016 Intersecting Street Name	028 Crash Type	029 Collision Type	031 Weather Conditions	032 Road Surface Conditions	033 Lighting Conditions	034 Traffic Control	019 Mp No	003 Crash Day No
BENJAMIN RD	FIX OBJ	FIX	CLR	DRY	DAY	UNKNOWN		28
	O-STRGHT	SS-M	CLR	DRY	DARK	STOP SIGN	0.310000002	13

Springbrook and Haworth

028 Crash Type	029 Collision Type	031 Weather Conditions	032 Road Surface Conditions	033 Lighting Conditions	034 Traffic Control	118 Intersection Flag	019 Mp No	003 Crash Day No
ANGL-OTH	TURN	CLR	DRY	DAY	STOP SIGN	Yes		11
ANGL-OTH	ANGL	CLR	DRY	DLIT	STOP SIGN	Yes		18
ANGL-OTH	TURN	CLR	DRY	DAY	STOP SIGN	Yes		13
O-1 L-TURN	TURN	RAIN	WET	DAY	STOP SIGN	Yes		5
ANGL-OTH	ANGL	CLR	DRY	DAY	STOP SIGN	Yes		7
PED	PED	CLR	DRY	DAY	STOP SIGN	Yes		27
ANGL-OTH	ANGL	CLR	DRY	DLIT	STOP SIGN	Yes		20
ANGL-OTH	ANGL	CLR	DRY	DLIT	STOP SIGN	Yes		6
ANGL-OTH	ANGL	RAIN	WET	DLIT	STOP SIGN	Yes		25
O-1 L-TURN	TURN	CLD	WET	DLIT	STOP SIGN	Yes		19
ANGL-OTH	ANGL	CLR	DRY	DAY	STOP SIGN	Yes		17
ANGL-OTH	ANGL	CLR	DRY	DAY	STOP SIGN	Yes		2
ANGL-OTH	ANGL	CLR	DRY	DAY	STOP SIGN	Yes		22
ANGL-OTH	ANGL	CLR	DRY	DLIT	STOP SIGN	Yes		3
ANGL-OTH	ANGL	CLR	DRY	DAY	STOP SIGN	Yes		30
ANGL-OTH	ANGL	RAIN	WET	DAY	STOP SIGN	Yes		20
ANGL-OTH	TURN	CLR	DRY	DLIT	STOP SIGN	Yes		8

APPENDIX H: PRELIMINARY SIGNAL WARRANT SPREADSHEETS

Oregon Department of Transportation
Transportation Development Branch
Transportation Planning Analysis Unit

Preliminary Traffic Signal Warrant Analysis[1]

Major Street:	Springbrook Road	**Minor Street:**	Mountainview Drive
Project:	Springbrook Subdivision	**City/County:**	Newberg
Year:	2027	**Alternative:**	0

Preliminary Signal Warrant Volumes

Number of Approach lanes		ADT on major street approaching from both directions		ADT on minor street, highest approaching volume	
Major Street	Minor Street	Percent of standard warrants 100	70	Percent of standard warrants 100	70
Case A: Minimum Vehicular Traffic					
1	1	8850	6200	2650	1850
2 or more	1	10600	7400	2650	1850
2 or more	2 or more	10600	7400	3550	2500
1	2 or more	8850	6200	3550	2500
Case B: Interruption of Continuous Traffic					
1	1	13300	9300	1350	950
2 or more	1	15900	11100	1350	950
2 or more	2 or more	15900	11100	1750	1250
1	2 or more	13300	9300	1750	1250
X	100 percent of standard warrants				
	70 percent of standard warrants[2]				

Preliminary Signal Warrant Calculation

	Street	Number of Lanes	Warrant Volumes	Approach Volumes	Warrant Met
Case A	Major	1	8850	11170	N
	Minor	1	2650	1550	
Case B	Major	1	13300	11170	N
	Minor	1	1350	1550	

Analyst and Date: Reviewer and Date:

[1] Meeting preliminary signal warrants does **not** guarantee that a signal will be installed. When preliminary signal warrants are met, project analysts need to coordinate with Region Traffic to initiate the traffic signal engineering investigation as outlined in the Traffic Manual. Before a signal can be installed, the engineering investigation must be conducted or reviewed by the Region Traffic Manager who will forward signal recommendations to headquarters. Traffic signal warrants must be met and the State Traffic Engineer's approval obtained before a traffic signal can be installed on a state highway.

[2] Used due to 85th percentile speed in excess of 40 mph or isolated community with population of less than 10,000.

Analysis Procedures Manual

Oregon Department of Transportation
Transportation Development Branch
Transportation Planning Analysis Unit

Preliminary Traffic Signal Warrant Analysis[1]

Major Street:	Springbrook Road	**Minor Street:**	Haworth Avenue
Project:	Springbrook Subdivision	**City/County:**	Newberg
Year:	2027	**Alternative:**	0

Preliminary Signal Warrant Volumes

Number of Approach lanes		ADT on major street approaching from both directions		ADT on minor street, highest approaching volume	
Major Street	Minor Street	Percent of standard warrants 100	70	Percent of standard warrants 100	70
Case A: Minimum Vehicular Traffic					
1	1	8850	6200	2650	1850
2 or more	1	10600	7400	2650	1850
2 or more	2 or more	10600	7400	3550	2500
1	2 or more	8850	6200	3550	2500
Case B: Interruption of Continuous Traffic					
1	1	13300	9300	1350	950
2 or more	1	15900	11100	1350	950
2 or more	2 or more	15900	11100	1750	1250
1	2 or more	13300	9300	1750	1250
X	100 percent of standard warrants				
	70 percent of standard warrants[2]				

Preliminary Signal Warrant Calculation

	Street	Number of Lanes	Warrant Volumes	Approach Volumes	Warrant Met
Case A	Major	1	8850	8940	Y
	Minor	1	2650	2710	
Case B	Major	1	13300	8940	N
	Minor	1	1350	2710	

Analyst and Date: Reviewer and Date:

[1] Meeting preliminary signal warrants does **not** guarantee that a signal will be installed. When preliminary signal warrants are met, project analysts need to coordinate with Region Traffic to initiate the traffic signal engineering investigation as outlined in the Traffic Manual. Before a signal can be installed, the engineering investigation must be conducted or reviewed by the Region Traffic Manager who will forward signal recommendations to headquarters. Traffic signal warrants must be met and the State Traffic Engineer's approval obtained before a traffic signal can be installed on a state highway.

[2] Used due to 85th percentile speed in excess of 40 mph or isolated community with population of less than 10,000.

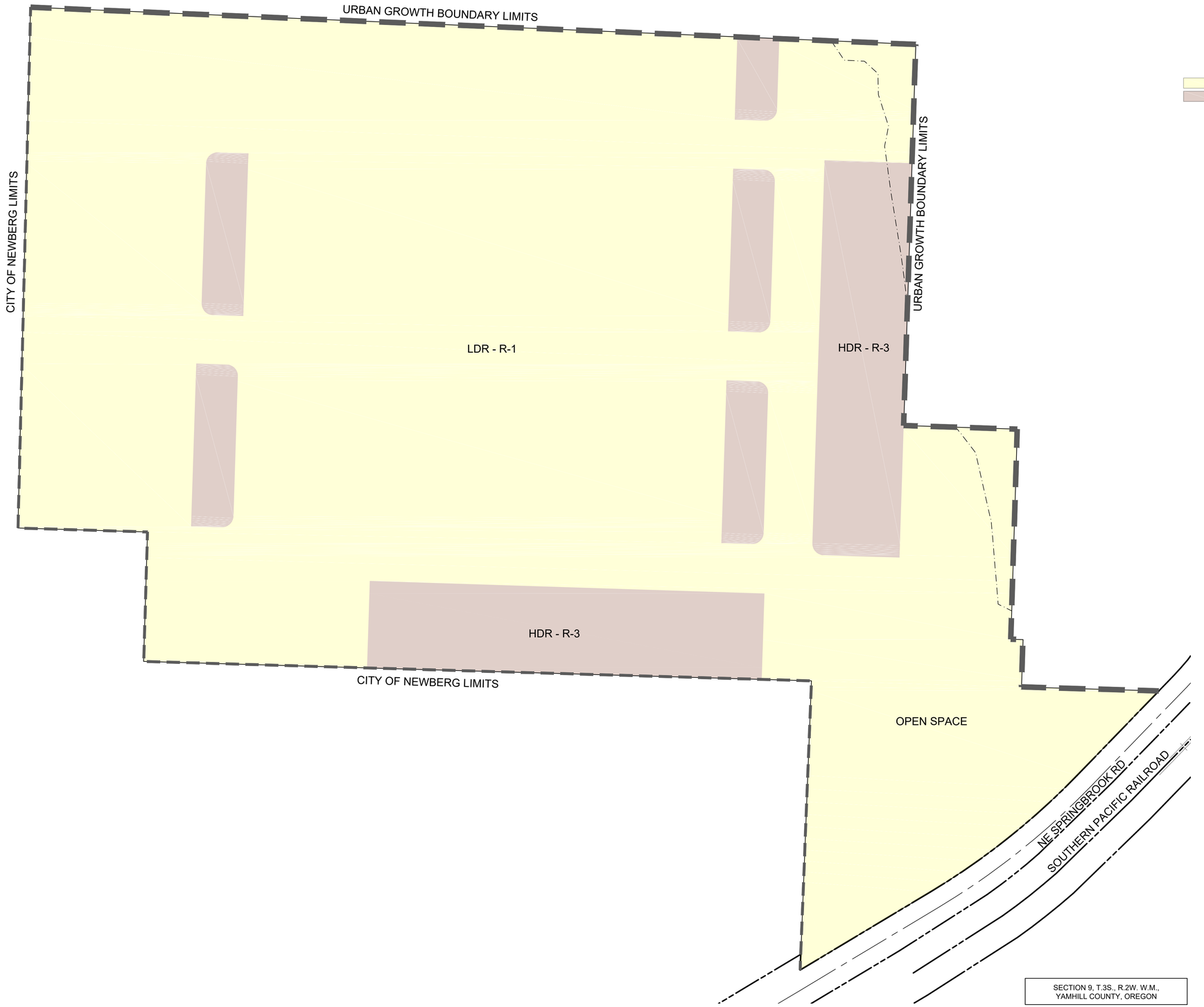
Analysis Procedures Manual

Appendix E - General Land Use Plans: Preliminary Drawings

3809 NE Springbrook Road Annexation

08/16/2024

- Sheet C201: General Land Use Plan



LEGEND

- PROPOSED RIGHT OF WAY
- PROPOSED CENTERLINE
- EXISTING STREAM CORRIDOR
- CITY OF NEWBERG LIMITS
- URBAN GROWTH BOUNDARY LIMITS

ZONE	GROSS SIZE (ACRE)	NET SIZE (ACRE)
R-1	16.19	15.9
R-3	2.97	2.92
TOTAL	19.16	18.82

SECTION 9, T.3S., R.2W. W.M.,
YAMHILL COUNTY, OREGON

N
W E
S

SCALE: 1" = 60'
0 60 120 FT

811 Know what's below. Call before you dig.

REGISTERED PROFESSIONAL ENGINEER
92408
OREGON
JULY 11, 2017
JAMES J. SCHMITT
EXPIRES: 06/30/24
PRELIMINARY

PUBLISH DATE
6/26/2024
ISSUED FOR
LAND USE DOCUMENTS
REVISIONS

GENERAL LAND USE PLAN
NE SPRINGBROOK RD ANNEXATION

ICHIJO USA CO., LTD.
NEWBERG, OR

3J CONSULTING
CIVIL ENGINEERING
WATER RESOURCES
COMMUNITY PLANNING
9600 SW NIMBUS AVE., SUITE 100; BEAVERTON, OR 97008

PROJECT INFORMATION
3J PROJECT # | 23913
TAX LOT(S) | 3S2W9 2300
LAND USE # | TBD
DESIGNED BY | SRC
CHECKED BY | JJS

SHEET NUMBER
C201

P:\23913-3809 NE SPRINGBROOK RD SUBDIVISION\CAD\EXHIBITS-ANALYSIS\GENERAL USE PLAN\2024-06-25 GENERAL USE PLAN\23913 - PROPOSED ZONING MAP.DWG

Appendix F - Wastewater Capacity Analysis

3809 NE Springbrook Road Annexation

08/16/2024



3J CONSULTING
9600 SW NIMBUS AVENUE, SUITE 100
BEAVERTON, OREGON 97008
PH: (503) 946.9365
WWW.3JCONSULTING.COM

TECHNICAL MEMORANDUM

To: Brett Musick, PE
Senior Engineer
City of Newberg

From: Kathleen Freeman, PE, CFM
Water Resources Project Manager

Cc: Chase Welborn, PE and Aaron Murphy, PE

Date: June 20, 2024



Project: **Springbrook Subdivision**
Project No: **23913**
RE: **Wastewater Downstream Analysis**

The proposed Springbrook Subdivision will be located northwest of the N Springbrook Road and NE Benjamin Road intersection. The site encompasses approximately 18.76 acres and is proposed to consist of 77 R-1 and 27 R-3 zoned lots. To develop the parcel, the City of Newberg requires a downstream analysis of the wastewater system to ensure the added flows will be accommodated. The City's Wastewater Master Plan (WWMP), written in March 2018 with a 2021 addendum, has been utilized to develop an existing wastewater hydraulic model for the conveyance from N Springbrook Road to E 9th Street, utilizing the software program XPSTORM. The existing model was used to add calculated flows from the proposed development. The proposed flow rates were calculated using Table 4-2 of the WWMP. The analysis shows the added flows from the proposed development on the downstream wastewater system will have a negligible effect.

Existing Wastewater Conveyance System

Per the WWMP, the following are evaluation thresholds used to identify deficiencies in infrastructure:

- Minimum 2.0-ft depth between rim elevation and Hydraulic Grade Line (HGL),
- Maximum 85% full depth of pipe, and
- Maximum 1.0-ft depth between HGL and top of pipe (top of pipe = Invert Elevation + Pipe Diameter).
    - In all cases where the HGL is below the top of pipe, surcharge conditions do not exist.
    - When the HGL is above the top of pipe, surcharge conditions exist.

The WWMP shows there are several locations in the system that are outside of these thresholds. Additionally, there are locations where modeling shows out of system flooding.

Model Calibration

The data presented in the WWMP was utilized to create an existing conditions model with the software XPSTORM (see Attached: Figure 5 – Updated System Evaluation). All rim elevations, pipe invert

elevations, pipe diameters and lengths and flow rates were input into the model using data from Appendix D1: Existing System Model Data. The flow rates were input into the XPSTORM model as constant flow at each manhole. We calibrated the model to match the WWMP model by adding known flow depths (See Attached: XPSTORM Wastewater Conveyance Data – Existing and Proposed Conditions to E Fernhill Road). The downstream analysis extended approximately 2.62 miles downstream of the proposed subdivision.

To model proposed flows from the Springbrook Subdivision, Table 4-2 of the WWMP was referenced, which are based on proposed zoning. Additionally, per section 2.3.4 of the City's Public Works Design and Construction Standards, an allowance of 1,000 gpad for inflow and infiltration was added to each calculated flow. Table 1 shows the calculated flow rates for each zone within the proposed Springbrook Subdivision.

Zoning	Flow (gpd)	Flow (cfs)	Add to MH
R-1	27,379	0.0424	wwml92161
R-3	13,168	0.0204	wwml92161
Increase in Flow at wwml92161	**40,546**	**0.0627**	N/A

Table 1 - Wastewater Flows

The flow rate of 0.063 cfs was added to the Avg DWF flow at manhole wwml92161 in the WWMP for proposed conditions. No other adjustments were made to the model.

Conveyance Output

Tables 2 and 3 show the existing and proposed conveyance output for the first seven manholes in the downstream system, regarding the evaluation thresholds (See Attached for entire modeled conveyance output).

From	To	Existing US Freeboard (ft)	Existing DS Freeboard (ft)	Existing [1]y/d0	[3]Existing HGL - Top of Pipe US (ft)	[3]Existing HGL - Top of Pipe DS (ft)
wwml92161	wwml92159	6.23	5.27	0.09	-1.14	-1.13
wwml92159	wwml92158	5.27	7.99	0.10	-1.13	-1.14
wwml92158	wwml92157	7.99	15.25	0.09	-1.14	-1.12
wwml92157	wwml92156	15.25	18.81	0.10	-1.12	-1.16
wwml92156	wwml92147	18.81	18.32	0.16	-1.16	-0.91
wwml92147	wwml92148	18.32	9.96	0.22	-1.16	-1.27
[2]wwml92148	wwml92149	9.96	7.96	0.15	-1.27	-1.26

[1]y/d0 = depth of flow/pipe diameter; Multiply by 100 to get %
[2]Approximately 2,014 ft downstream of project site
[3]Calculation = HGL - Pipe Invert + Pipe Diameter. Negative number signifies the HGL is below top of pipe and surcharge conditions do not exist.

Table 2 – Existing Conveyance Downstream Output

From	To	Proposed US Freeboard (ft)	Proposed DS Freeboard (ft)	Proposed [1]y/d0	[3]Proposed HGL - Top of Pipe US (ft)	[3]Proposed HGL - Top of Pipe DS (ft)
wwml92161	wwml92159	6.18	5.22	0.13	-1.09	-1.07
wwml92159	wwml92158	5.22	7.94	0.14	-1.07	-1.09
wwml92158	wwml92157	7.94	15.20	0.13	-1.09	-1.07
wwml92157	wwml92156	15.20	18.77	0.15	-1.07	-1.12
wwml92156	wwml92147	18.77	18.30	0.17	-1.12	-0.90
wwml92147	wwml92148	18.30	9.95	0.23	-1.15	-1.26
[2]wwml92148	wwml92149	9.95	7.95	0.16	-1.26	-1.25

[1]y/d0 = depth of flow/pipe diameter; Multiply by 100 to get %
[2]Approximately 2,014 ft downstream of project site
[3]Calculation = HGL - Pipe Invert + Pipe Diameter. Negative number signifies the HGL is below top of pipe and surcharge conditions do not exist.

Table 3 – Proposed Conveyance Downstream Output

Evaluation Thresholds

Minimum 2.0-ft Depth Between Rim Elevation and Hydraulic Grade Line (HGL)

The added flow to the existing downstream system has very little change in depth between the rim elevations and HGL. In all cases for the first 2,014 ft of the system, there is a least 2.0-ft.

Maximum 85% Full Depth of Pipe

In all cases, the full depth of pipe is less than 85% full.

Maximum 1.0-ft Depth Between HGL and Top of Pipe

There is very little change between existing and proposed conditions for this threshold. Within the first 2,014 ft, the HGL is below the top of pipe.

Figure 5 WWMP Surcharging Analysis

Figure 5 from the WWMP shows evaluation threshold output at each node with differing colors depending on the hydraulic condition at each manhole (e.g., red manhole signifies potential flooding, etc). An analysis was completed using the output data from Appendix D1 to explain why our model showed no surcharging at manholes while Figure 5 shows surcharging. It was determined that while Figure 5 shows surcharging starting at manhole wwml92150, the output data from Appendix D1, as well as our modeling, did not indicate surcharging. The analysis is represented in the attached Figure 5 WWMP Surcharging Analysis. No assumptions are being made as to why the discrepancy between Figure 5 and the output data from D1 exists.

City's Request to Investigate Flooding at Manhole WWML121103

Per the City' observations, flooding occurs at WWML121103, which combines flows north on Springbrook Road and Fernwood Road to the east. The City requested 3J to investigate whether a change in deflection angle from the force main in Fernwood Road to manhole WWML121103 (at the intersection of Springbrook Road and Fernwood Road) would lessen the head loss enough to result in no flooding at the manhole. We analyzed the system using 0 to 30 degree deflection angles (currently it is at 90 degrees). Additionally, we determined that to decrease the deflection angle, a new

manhole would need to be installed between WWML121027 and WWML121026. There was not a deflection angle that would eliminate the flooding.

It should be noted that the Wastewater Master Plan, dated May 2018 and updated May 2021, showed a negative slope between WWML121103 and WWML121027; however as-builts provided from the City shows this does not occur. The system should be surveyed to determine if a negative slope occurs. Additionally, all pipes downstream of WWML121103 are 15" diameter pipes but the force main entering WWML121103 are dual pipes with diameters of 12" and 6". The added flow from the Fernwood force main contributes to the existing pipe system that is over capacity.

The Wastewater Master Plan identified two alternatives to rectify the flooding, depicted in Table 5-2. It is our opinion that these alternatives are the best solutions for flooding.

Summary
The added flows from the proposed Springbrook Subdivision of 0.063 cfs will have a negligible effect on the downstream system, analyzed approximately 1.76 miles from the project location.

Attachments:

- Springbrook Residential Subdivision
- Figure 5 – Updated System Evaluation (Excerpt from WWMP)
- XPSTORM Wastewater Conveyance Data – Existing Conditions to E 9th Street
- Onsite Wastewater Flow Calculations
- XPSTORM Wastewater Conveyance Data – Proposed Conditions to E 9th Street
- Figure 5 WWMP Surcharging Analysis
- Table 5-2 WWMP: Springbrook Road Alternatives Estimated Costs

- - - - END OF DOCUMENT - - -



3809 NE SPRINGBROOK ROAD, NEWBERG, OREGON, 97132

COUNTY: YAMHILL
PARCEL: 25902 ACCOUNT: R320902300
PARCEL SIZE: 18.76 ACRES (YAMHILL COUNTY TAX RECORDS)

CURRENT ZONING: AF-10 (YAMHILL COUNTY)

PROPOSED ZONING: R-1 AND R-3 (CITY OF NEWBERG)

REQUIRED SETBACKS:

R-1 ZONE	*R-3 ZONE*
FRONT: 15'	FRONT: 12'
GARAGE: 20'	GARAGE: 20'
SIDE: 5'	SIDE: 5'
REAR: 5'	REAR: 15'
CORNER SIDE: 15'	CORNER SIDE: 12'

DENSITY CALCULATIONS:
GROSS SITE AREA: ±830,311 SF (GIS SOURCE)
GROSS R3 ZONING AREA (10% MINIMUM REQUIRED) = ±83,031 SF
Per Newberg Municipal Code 15.250.030-A.1.

TRACTS A AND C ARE OPEN SPACE TRACTS TO BE OWNED AND MAINTAINED BY THE HOA.

TRACT B IS A STORMWATER FACILITY TRACT TO BE OWNED AND MAINTAINED BY THE CITY OF NEWBERG

PROPOSED R1 ZONE

PROPOSED R3 ZONE
±10,686 SF

THE PURPOSE OF THIS PRELIMINARY LAYOUT IS TO SHOW PLANNED LOT DIMENSIONS AND AREAS FOR PLANNING PURPOSES. THIS IS NOT A FINAL LAYOUT AND NOT TO BE USED FOR SURVEY PURPOSES. ALL DIMENSIONS ARE SUBJECT TO CHANGE.

SITE PLAN OVERVIEW
SCHEMATIC LAYOUT 5

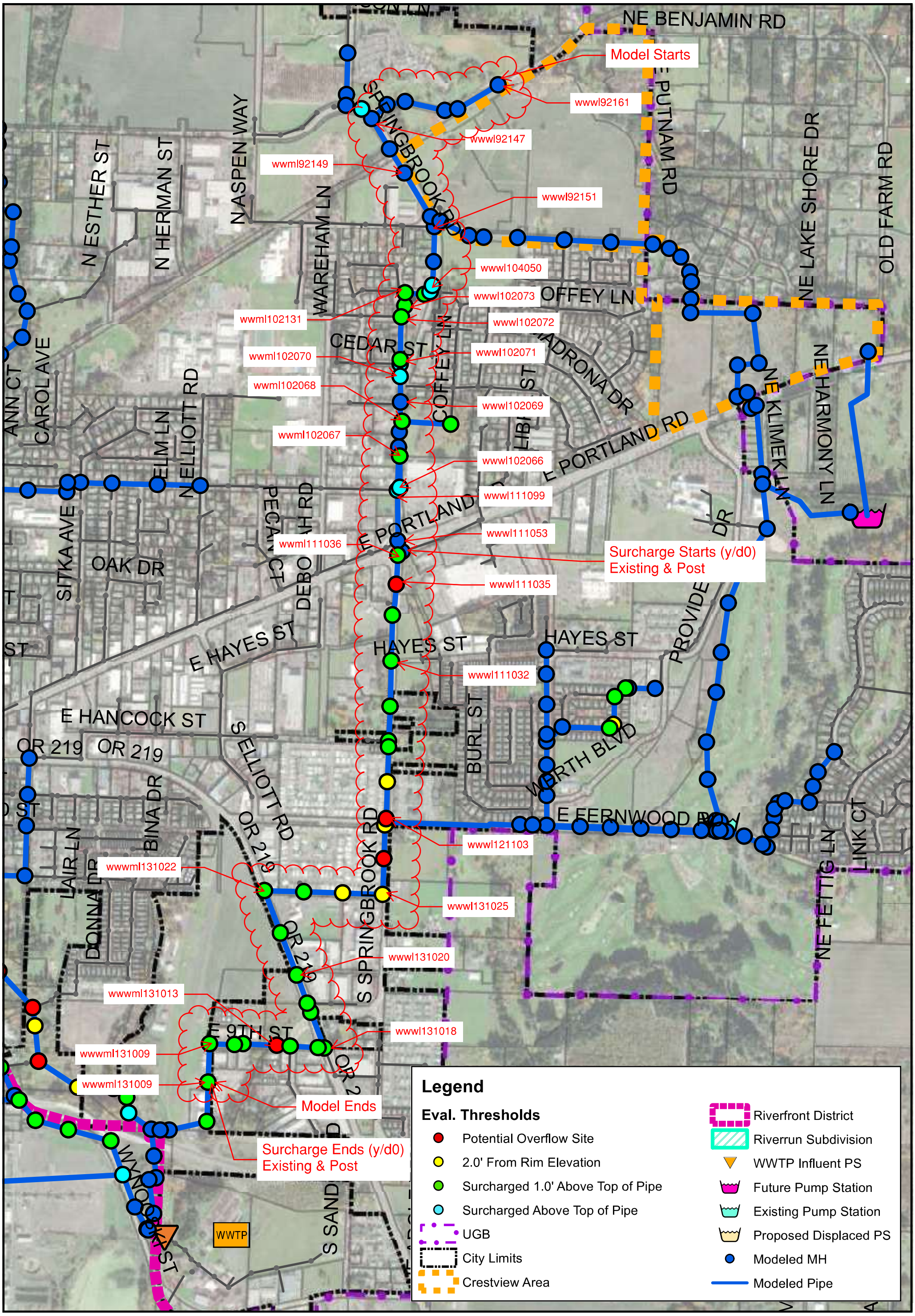
3J CONSULTING
CIVIL ENGINEERING
WATER RESOURCES
COMMUNITY PLANNING
9600 SW NIMBUS AVE., SUITE 100; BEAVERTON, OR 97008

DRAWING BY:	*SRC/JJS*
PREPARED FOR:	*ICHIJO*
PLAN ISSUE DATE:	*DECEMBER 26, 2023*
PLAN ISSUE PURPOSE:	*SCHEMATIC DESIGN*

N W E S
SCALE: 1" = 60'
0 60 120 FT

SPRINGBROOK RESIDENTIAL SUBDIVISION
NEWBERG, OREGON

P:\23913-3809 NE SPRINGBROOK RD SUBDIVISION\CAD\EXHIBITS-ANALYSIS_COORDINATION\2023-12-19 SITE OPTIONS\23913-SITE OPTION 5.DWG



KELLER ASSOCIATES

Updated System Evaluation

Wastewater Master Plan Update

City of Newberg OREGON

Figure 5

City of Newberg, OR

XPSTORM WASTEWATER CONVEYANCE DATA - PROPOSED CONDITIONS TO E 9TH STREET

SPRINGBROOK SUBDIVISION DOWNSTREAM ANALYSIS

Location			Conduit Properties			Conduit Results						Conduit Profile									
Link	Station From	Station To	Diameter	Length	Slope	Design Capacity	Qmax/ Qdesign	Max Flow	Max Velocity	Max Flow Depth	y/d0	US Ground Elev.	DS Ground Elev.	US IE	DS IE	US Freeboard	DS Freeboard	US HGL	DS HGL	[1]HGL -Top of Pipe US	[1]HGL - Top of Pipe US
			ft	ft	%	cfs		cfs	ft/s	ft		ft	ft	ft	ft	ft	ft	ft	ft	ft	ft
wwgm1107	wwml92161	wwml92159	1.25	465.0	0.29	3.48	0.01	0.04	0.93	0.11	0.09	255.92	253.49	249.58	248.10	6.23	5.27	249.7	248.2	-1.14	-1.13
wwgm1108	wwml92159	wwml92158	1.25	128.4	0.27	3.32	0.02	0.05	1.00	0.12	0.10	253.49	255.21	248.10	247.11	5.27	7.99	248.2	247.2	-1.13	-1.14
wwgm1109	wwml92158	wwml92157	1.25	403.4	0.34	3.75	0.01	0.05	1.07	0.11	0.09	255.21	260.95	247.11	245.57	7.99	15.25	247.2	245.7	-1.14	-1.12
wwgm1110	wwml92157	wwml92156	1.25	182.5	0.24	3.17	0.02	0.05	0.97	0.13	0.10	260.95	263.55	245.57	244.65	15.25	18.81	245.7	244.7	-1.12	-1.16
wwgm1111	wwml92156	wwml92147	1.25	203.0	0.51	4.62	0.01	0.05	0.65	0.20	0.16	263.55	262.12	244.65	243.47	18.81	18.32	244.7	243.8	-1.16	-0.91
wwgm1104	wwml92147	wwml92148	1.50	349.7	0.40	6.65	0.10	0.67	2.41	0.34	0.22	262.12	251.71	243.47	241.52	18.32	9.96	243.8	241.8	-1.16	-1.27
wwgm1105	wwml92148	wwml92149	1.50	281.5	1.55	13.06	0.05	0.67	3.88	0.23	0.15	251.71	245.17	241.52	236.97	9.96	7.96	241.8	237.2	-1.27	-1.26
wwgm1106	wwml92149	wwml92150	1.50	500.5	1.41	12.49	0.05	0.67	3.76	0.24	0.16	245.17	241.50	236.97	229.75	7.96	11.55	237.2	229.9	-1.26	-1.30
wwgm1091	wwml92150	wwml92151	1.50	107.8	2.99	18.16	0.04	0.67	4.88	0.20	0.13	241.50	239.75	229.75	225.75	11.55	13.63	229.9	226.1	-1.30	-1.13
wwgm1090	wwml92151	wwml92152	1.50	344.6	0.32	5.94	0.12	0.69	2.26	0.37	0.25	239.75	234.71	225.75	223.96	13.63	10.45	226.1	224.3	-1.13	-1.20
wwgm1131	wwml92152	wwml104050	1.50	237.8	0.56	7.83	0.09	0.69	2.73	0.30	0.20	234.71	232.35	223.96	222.32	10.45	9.61	224.3	222.7	-1.20	-1.08
wwgm1132	wwml104050	wwml104051	1.50	65.3	0.12	3.68	0.19	0.69	2.03	0.42	0.28	232.35	229.69	222.32	222.06	9.61	7.39	222.7	222.3	-1.08	-1.26
wwgm1071	wwml102132	wwml102131	0.83	195.8	0.75	1.87	0.37	0.69	2.74	0.45	0.54	227.75	225.87	220.88	219.28	6.52	6.00	221.2	219.9	-0.48	-0.24
wwgm1070	wwml102131	wwml102073	0.83	126.5	0.58	1.65	0.81	1.33	3.46	0.59	0.71	225.87	225.66	219.28	218.21	6.00	7.00	219.9	218.7	-0.24	-0.38
wwgm1069	wwml102073	wwml102072	0.83	115.9	1.18	2.36	0.57	1.34	4.49	0.45	0.54	225.66	223.35	218.21	216.64	7.00	6.20	218.7	217.2	-0.38	-0.32
wwgm1072	wwml104051	wwml102132	1.50	58.5	1.44	12.59	0.06	0.69	3.82	0.24	0.16	229.69	227.75	222.06	220.88	7.39	6.52	222.3	221.2	-1.26	-1.15
wwgm1129	wwml102072	wwml102071	1.00	423.4	0.52	2.58	0.52	1.35	3.06	0.59	0.59	223.35	220.03	216.64	214.40	6.20	5.02	217.2	215.0	-0.49	-0.39
wwgm1062	wwml102071	wwml102070	1.00	42.2	0.21	1.65	0.82	1.35	3.01	0.61	0.61	220.03	219.80	214.40	214.21	5.02	5.02	215.0	214.8	-0.39	-0.43
wwgm1061	wwml102070	wwml102069	1.00	123.0	0.39	2.23	0.62	1.37	2.61	0.74	0.74	219.80	221.49	214.21	213.72	5.02	7.02	214.8	214.5	-0.43	-0.25
wwgm1060	wwml102069	wwml102068	1.00	254.8	0.21	1.64	0.83	1.37	2.62	0.75	0.75	221.49	219.20	213.72	212.88	7.02	5.94	214.5	213.3	-0.25	-0.62
wwgm1056	wwml102068	wwml102067	1.00	295.6	1.56	4.45	0.31	1.40	5.01	0.39	0.39	219.20	214.51	212.88	208.13	5.94	5.99	213.3	208.5	-0.62	-0.61
wwgm1055	wwml102067	wwml102066	1.00	153.3	1.56	4.45	0.32	1.40	5.01	0.39	0.39	214.51	210.77	208.13	203.23	5.99	7.16	208.5	203.6	-0.61	-0.62
wwgm1054	wwml102066	wwml111099	1.00	425.2	1.66	4.59	0.31	1.40	3.21	0.76	0.76	210.77	202.79	203.23	195.95	7.16	5.86	203.6	196.9	-0.62	-0.02
wwgm1709	wwml111099	wwml111053	1.25	500.2	0.41	4.12	0.86	3.52	3.85	0.98	0.78	202.79	203.84	195.95	193.35	5.86	9.92	196.9	193.9	-0.27	-0.68
wwgm1739	wwml111053	wwml111037	1.25	117.3	2.67	9.80	0.43	4.20	7.67	0.57	0.46	203.84	205.03	193.35	189.43	9.92	15.13	193.9	189.9	-0.68	-0.78
wwgm1740	wwml111037	wwml111036	1.25	53.5	11.56	21.96	0.19	4.22	12.92	6.02	4.82	205.03	203.57	189.43	182.78	15.13	14.19	189.9	189.4	-0.78	5.35
wwgm1710	wwml111036	wwml111035	1.25	289.1	0.48	4.48	0.96	4.22	3.67	6.71	5.37	203.57	188.10	182.78	181.39	14.19	0.00	189.4	188.1	5.35	5.46
wwgm1802	wwml111035	wwml111040	1.25	306.3	0.28	3.40	1.21	4.11	3.26	6.71	5.37	188.10	193.00	181.39	180.54	0.00	5.96	188.1	187.0	5.46	5.25
wwgm1800	wwml111040	wwml111032	1.25	452.8	0.28	3.42	1.20	4.08	3.25	6.42	5.14	193.00	193.30	180.54	179.27	5.96	7.83	187.0	185.5	5.25	4.95
wwgm1799	wwml111032	wwml121031	1.25	450.4	0.28	3.42	1.19	4.06	3.24	6.23	4.98	193.30	190.60	179.27	178.01	7.83	6.69	185.5	183.9	4.95	4.65
wwgm1798	wwml121031	wwml121100	1.25	342.8	0.28	3.35	1.21	4.05	3.23	5.93	4.74	190.60	186.60	178.01	177.06	6.69	3.84	183.9	182.8	4.65	4.45
wwgm1796	wwml121100	wwml121030	1.25	59.7	0.29	3.45	1.20	4.11	3.28	5.68	4.54	186.60	185.90	177.06	176.89	3.84	3.41	182.8	182.5	4.45	4.35
wwgm1795	wwml121030	wwml121029	1.25	347.9	0.60	5.02	0.95	4.62	3.69	6.31	5.05	185.90	182.20	176.89	174.79	3.41	1.11	182.5	181.1	4.35	5.05
wwgm1794	wwml121029	wwml121028	1.25	365.6	0.58	4.93	1.00	4.74	3.78	6.94	5.55	182.20	179.60	174.79	172.66	1.11	0.04	181.1	179.6	5.05	5.65
wwgm1793	wwml121028	wwml121103	1.25	38.1	0.79	5.74	2.22	11.32	9.06	7.38	5.90	179.60	179.74	172.66	172.36	0.04	-0.02	179.6	179.8	5.65	6.15
wwgm1792	wwml121103	wwml121027	1.25	23.1	-0.04	1.34	11.41	4.39	3.51	7.37	5.90	179.74	179.87	172.36	172.17	-0.02	0.10	179.8	179.8	6.15	6.35
wwgm1791	wwml121027	wwml121026	1.25	336.7	0.33	3.73	1.25	4.54	3.63	6.92	5.53	179.87	177.80	172.17	171.05	0.10	0.00	179.8	177.8	6.35	5.50
wwgm1790	wwml121026	wwml131025	1.25	351.3	0.27	3.36	1.39	4.60	3.68	6.80	5.44	177.80	177.79	171.05	169.55	0.00	0.64	177.8	177.2	5.50	6.35
wwgm0580	wwml131025	wwml131024	1.25	397.1	0.35	3.55	1.29	4.58	3.68	7.57	6.05	177.79	178.04	169.55	168.13	0.64	1.71	177.2	176.3	6.35	6.95
wwgm0533	wwml131024	wwml131023	1.25	384.7	0.36	3.56	1.30	4.50	3.62	7.82	6.26	178.04	177.45	168.13	166.71	1.71	2.74	176.3	174.7	6.95	6.75
wwgm0558	wwml131023	wwml131022	1.25	389.7	0.15	2.51	2.57	5.94	5.17	7.85	6.28	177.45	176.99	166.71	165.43	2.74	4.03	174.7	173.0	6.75	6.28
wwgm0520	wwml131022	wwml131021	1.25	449.4	0.36	3.89	1.29	5.01	4.19	7.53	6.03	176.99	174.05	165.43	163.74	4.03	2.93	173.0	171.1	6.28	6.13
wwgm0559	wwml131021	wwml131020	1.25	444.1	0.38	3.87	1.18	4.56	3.66	7.38	5.91	174.05	171.74	163.74	161.93	2.93	2.55	171.1	169.2	6.13	6.01
wwgm0583	wwml131020	wwml131111	1.25	300.8	0.30	3.40	1.30	4.37	3.65	7.26	5.81	171.74	172.52	161.93	160.90	2.55	4.66	169.2	167.9	6.01	5.71
wwgm2119	wwml131111	wwml131019	1.25	95.9	0.28	3.18	1.34	4.26	3.60	6.96	5.57	172.52	173.04	160.90	160.63	4.66	5.51	167.9	167.5	5.71	5.65
wwgm0468	wwml131019	wwml131018	1.25	377.8	0.01	3.72	1.15	4.26	3.45	6.77	5.41	173.04	174.47	160.63	158.73	5.51	8.54	167.5	165.9	5.65	5.95
wwgm1206	wwml131018	wwml131017	1.25	61.3	1.11	6.80	1.48	4.99	4.06	7.51	6.01	174.47	173.93	158.73	157.55	8.54	8.37	165.9	165.6	5.95	6.76
wwgm0479	wwml131017	wwml131014	1.25	277.3	0.27	3.38	1.41	4.60	3.73	8.01	6.41	173.93	167.17	157.55	156.45	8.37	2.75	165.6	164.4	6.76	6.72
wwgm0507	wwml131014	wwml131013	1.25	132.0	0.07	1.65	3.48	5.73	4.52	7.97	6.38	167.17	163.40	156.45	156.32	2.75	0.00	164.4	163.4	6.72	5.83
wwgm0540	wwml131013	wwml131012	1.25	332.9	0.41	3.93	1.37	5.38	4.27	7.08	5.66	163.40	164.21	156.32	154.97	0.00	3.14	163.4	161.1	5.83	4.85
wwgm0482	wwml131012	wwml131011	1.25	85.1	0.44	4.07	1.32	5.38	4.28	5.96	4.77	164.21	165.59	154.97	154.68	3.14	5.20	161.1	160.4	4.85	4.46
wwgm0604	wwml131011	wwml131010	1.25	248.7	0.41	4.01	1.34	5.38	4.29	5.71	4.57	165.59	167.11	154.68	153.52	5.20	8.48	160.4	158.6	4.46	3.86
wwgm0555	wwml131010	wwml131009	1.25	382.6	0.31	3.47	1.55	5.38	4.31	5.11	4.09	167.11	165.55	153.52	152.25	8.48	9.65	158.6	155.9	3.86	2.40

[1]Calculation = HGL - Pipe Invert + Pipe Diameter. Negative number signifies the HGL is below top of pipe and surcharge conditions do not exist.

ONSITE WASTEWATER FLOW CALCULATIONS

BASIN	Zoning	[1]Average Lot Size (ac)	DU/Average Lot Size (DU/ac)	[1]People/ DU	[2]ADWF (gpcd)	Flow (gpad)	[3]I/I (gpad)	Flow + I/I (gpad)	[4]Net Area (ac)	Flow (gpd)	Conversion to cfs	[5]Flow (cfs)	Drains to Node
1	R-1	0.227	4.405	2.69	74.25	880	1,000	1,880	14.564	27,379	1.547E-06	0.0424	wwml92161
3	R-3	0.061	16.393	2.69	99	4,366	1,000	5,366	2.454	13,168	1.547E-06	0.0204	wwml92161
											Total anticipated flow from Springbrook Subdivision	**0.0627**	

[1]See Page 4-6, Table 4-2 of WWMP

[2]Residential flows based on design ADWF per capita value of 99 gpcd & reduced by 25% for R1 Zoning Only: See Page 4-6, Table 4-2 of WWMP

[3]Inflow/Infiltration per City of Newberg's 2015 Design Manual

[4]Allocates 25% of area for roads and other public dedication: See Page 4-6, Table 4-2 of WWMP

[5]Total WW Flow used as constant flow in XPSTORM model

XPSTORM WASTEWATER CONVEYANCE DATA - PROPOSED CONDITIONS TO E 9TH STREET

SPRINGBROOK SUBDIVISION DOWNSTREAM ANALYSIS

Location			Conduit Properties			Conduit Results						Conduit Profile									
Link	Station																			[1]HGL -Top of Pipe US	[1]HGL - Top of Pipe US
	From	To	Diameter	Length	Slope	Design Capacity	Qmax/ Qdesign	Max Flow	Max Velocity	Max Flow Depth	y/d0	US Ground Elev.	DS Ground Elev.	US IE	DS IE	US Freeboard	DS Freeboard	US HGL	DS HGL		
			ft	ft	%	cfs		cfs	ft/s	ft		ft	ft	ft	ft	ft	ft	ft	ft	ft	ft
wwgm1107	wwml92161	wwml92159	1.25	465.0	0.29	3.48	0.03	0.10	1.26	0.17	0.13	255.92	253.49	249.58	248.10	6.18	5.22	249.7	248.3	-1.09	-1.07
wwgm1108	wwml92159	wwml92158	1.25	128.4	0.27	3.32	0.03	0.11	1.29	0.18	0.14	253.49	255.21	248.10	247.11	5.22	7.94	248.3	247.3	-1.07	-1.09
wwgm1109	wwml92158	wwml92157	1.25	403.4	0.34	3.75	0.03	0.11	1.37	0.16	0.13	255.21	260.95	247.11	245.57	7.94	15.20	247.3	245.8	-1.09	-1.07
wwgm1110	wwml92157	wwml92156	1.25	182.5	0.24	3.17	0.04	0.11	1.25	0.18	0.15	260.95	263.55	245.57	244.65	15.20	18.77	245.8	244.8	-1.07	-1.12
wwgm1111	wwml92156	wwml92147	1.25	203.0	0.51	4.62	0.02	0.11	1.12	0.21	0.17	263.55	262.12	244.65	243.47	18.77	18.30	244.8	243.8	-1.12	-0.90
wwgm1104	wwml92147	wwml92148	1.50	349.7	0.40	6.65	0.11	0.73	2.48	0.35	0.23	262.12	251.71	243.47	241.52	18.30	9.95	243.8	241.8	-1.15	-1.26
wwgm1105	wwml92148	wwml92149	1.50	281.5	1.55	13.06	0.06	0.73	3.99	0.24	0.16	251.71	245.17	241.52	236.97	9.95	7.95	241.8	237.2	-1.26	-1.25
wwgm1106	wwml92149	wwml92150	1.50	500.5	1.41	12.49	0.06	0.73	3.86	0.25	0.17	245.17	241.50	236.97	229.75	7.95	11.54	237.2	230.0	-1.25	-1.29
wwgm1091	wwml92150	wwml92151	1.50	107.8	2.99	18.16	0.04	0.73	5.01	0.21	0.14	241.50	239.75	229.75	225.75	11.54	13.61	230.0	226.1	-1.29	-1.11
wwgm1090	wwml92151	wwml92152	1.50	344.6	0.32	5.94	0.13	0.75	2.32	0.39	0.26	239.75	234.71	225.75	223.96	13.61	10.44	226.1	224.3	-1.11	-1.19
wwgm1131	wwml92152	wwml104050	1.50	237.8	0.56	7.83	0.10	0.75	2.80	0.32	0.21	234.71	232.35	223.96	222.32	10.44	9.59	224.3	222.8	-1.19	-1.06
wwgm1132	wwml104050	wwml104051	1.50	65.3	0.12	3.68	0.21	0.76	2.09	0.44	0.29	232.35	229.69	222.32	222.06	9.59	7.38	222.8	222.3	-1.06	-1.25
wwgm1071	wwml102132	wwml102131	0.83	195.8	0.75	1.87	0.40	0.76	2.81	0.47	0.57	227.75	225.87	220.88	219.28	6.50	5.98	221.2	219.9	-0.46	-0.22
wwgm1070	wwml102131	wwml102073	0.83	126.5	0.58	1.65	0.85	1.39	3.50	0.61	0.73	225.87	225.66	219.28	218.21	5.98	6.99	219.9	218.7	-0.22	-0.37
wwgm1069	wwml102073	wwml102072	0.83	115.9	1.18	2.36	0.60	1.40	4.54	0.46	0.56	225.66	223.35	218.21	216.64	6.99	6.18	218.7	217.2	-0.37	-0.30
wwgm1072	wwml104051	wwml102132	1.50	58.5	1.44	12.59	0.06	0.76	3.92	0.25	0.17	229.69	227.75	222.06	220.88	7.38	6.50	222.3	221.2	-1.25	-1.13
wwgm1129	wwml102072	wwml102071	1.00	423.4	0.52	2.58	0.55	1.42	3.10	0.61	0.61	223.35	220.03	216.64	214.40	6.18	5.00	217.2	215.0	-0.47	-0.37
wwgm1062	wwml102071	wwml102070	1.00	42.2	0.21	1.65	0.86	1.42	3.06	0.63	0.63	220.03	219.80	214.40	214.21	5.00	5.01	215.0	214.8	-0.37	-0.42
wwgm1061	wwml102070	wwml102069	1.00	123.0	0.39	2.23	0.64	1.43	2.61	0.77	0.77	219.80	221.49	214.21	213.72	5.01	6.99	214.8	214.5	-0.42	-0.22
wwgm1060	wwml102069	wwml102068	1.00	254.8	0.21	1.64	0.87	1.43	2.65	0.78	0.78	221.49	219.20	213.72	212.88	6.99	5.93	214.5	213.3	-0.22	-0.61
wwgm1056	wwml102068	wwml102067	1.00	295.6	1.56	4.45	0.33	1.46	5.07	0.39	0.39	219.20	214.51	212.88	208.13	5.93	5.99	213.3	208.5	-0.61	-0.60
wwgm1055	wwml102067	wwml102066	1.00	153.3	1.56	4.45	0.33	1.46	5.08	0.40	0.40	214.51	210.77	208.13	203.23	5.99	7.15	208.5	203.6	-0.60	-0.61
wwgm1054	wwml102066	wwml111099	1.00	425.2	1.66	4.59	0.32	1.47	3.27	0.77	0.77	210.77	202.79	203.23	195.95	7.15	5.85	203.6	196.9	-0.61	-0.01
wwgm1709	wwml111099	wwml111053	1.25	500.2	0.41	4.12	0.87	3.59	3.86	0.99	0.80	202.79	203.84	195.95	193.35	5.85	9.91	196.9	193.9	-0.26	-0.67
wwgm1739	wwml111053	wwml111037	1.25	117.3	2.67	9.80	0.44	4.26	7.70	0.58	0.46	203.84	205.03	193.35	189.43	9.91	15.11	193.9	189.9	-0.67	-0.76
wwgm1740	wwml111037	wwml111036	1.25	53.5	11.56	21.96	0.20	4.28	12.92	6.05	4.84	205.03	203.57	189.43	182.78	15.11	14.19	189.9	189.4	-0.76	5.35
wwgm1710	wwml111036	wwml111035	1.25	289.1	0.48	4.48	0.96	4.28	3.67	6.71	5.37	203.57	188.10	182.78	181.39	14.19	0.00	189.4	188.1	5.35	5.46
wwgm1802	wwml111035	wwml111040	1.25	306.3	0.28	3.40	1.22	4.14	3.28	6.71	5.37	188.10	193.00	181.39	180.54	0.00	5.96	188.1	187.0	5.46	5.25
wwgm1800	wwml111040	wwml111032	1.25	452.8	0.28	3.42	1.20	4.10	3.26	6.42	5.14	193.00	193.30	180.54	179.27	5.96	7.83	187.0	185.5	5.25	4.95
wwgm1799	wwml111032	wwml121031	1.25	450.4	0.28	3.42	1.19	4.07	3.25	6.23	4.98	193.30	190.60	179.27	178.01	7.83	6.69	185.5	183.9	4.95	4.65
wwgm1798	wwml121031	wwml121100	1.25	342.8	0.28	3.35	1.21	4.05	3.23	5.93	4.74	190.60	186.60	178.01	177.06	6.69	3.84	183.9	182.8	4.65	4.45
wwgm1796	wwml121100	wwml121030	1.25	59.7	0.29	3.45	1.20	4.11	3.28	5.68	4.54	186.60	185.90	177.06	176.89	3.84	3.41	182.8	182.5	4.45	4.35
wwgm1795	wwml121030	wwml121029	1.25	347.9	0.60	5.02	0.95	4.62	3.69	6.31	5.05	185.90	182.20	176.89	174.79	3.41	1.11	182.5	181.1	4.35	5.05
wwgm1794	wwml121029	wwml121028	1.25	365.6	0.58	4.93	1.00	4.74	3.78	6.94	5.55	182.20	179.60	174.79	172.66	1.11	0.04	181.1	179.6	5.05	5.65
wwgm1793	wwml121028	wwml121103	1.25	38.1	0.79	5.74	2.22	11.32	9.06	7.38	5.90	179.60	179.74	172.66	172.36	0.04	-0.02	179.6	179.8	5.65	6.15
wwgm1792	wwml121103	wwml121027	1.25	23.1	-0.04	1.34	11.41	4.39	3.51	7.37	5.90	179.74	179.87	172.36	172.17	-0.02	0.10	179.8	179.8	6.15	6.35
wwgm1791	wwml121027	wwml121026	1.25	336.7	0.33	3.73	1.25	4.54	3.63	6.92	5.53	179.87	177.80	172.17	171.05	0.10	0.00	179.8	177.8	6.35	5.50
wwgm1790	wwml121026	wwml131025	1.25	351.3	0.27	3.36	1.39	4.60	3.68	6.80	5.44	177.80	177.79	171.05	169.55	0.00	0.64	177.8	177.2	5.50	6.35
wwgm0580	wwml131025	wwml131024	1.25	397.1	0.35	3.55	1.29	4.58	3.68	7.57	6.05	177.79	178.04	169.55	168.13	0.64	1.71	177.2	176.3	6.35	6.95
wwgm0533	wwml131024	wwml131023	1.25	384.7	0.36	3.56	1.30	4.50	3.62	7.82	6.26	178.04	177.45	168.13	166.71	1.71	2.74	176.3	174.7	6.95	6.75
wwgm0558	wwml131023	wwml131022	1.25	389.7	0.15	2.51	2.57	5.94	5.17	7.85	6.28	177.45	176.99	166.71	165.43	2.74	4.03	174.7	173.0	6.75	6.28
wwgm0520	wwml131022	wwml131021	1.25	449.4	0.36	3.89	1.29	5.01	4.19	7.53	6.03	176.99	174.05	165.43	163.74	4.03	2.93	173.0	171.1	6.28	6.13
wwgm0559	wwml131021	wwml131020	1.25	444.1	0.38	3.87	1.18	4.56	3.66	7.38	5.91	174.05	171.74	163.74	161.93	2.93	2.55	171.1	169.2	6.13	6.01
wwgm0583	wwml131020	wwml131111	1.25	300.8	0.30	3.40	1.30	4.37	3.65	7.26	5.81	171.74	172.52	161.93	160.90	2.55	4.66	169.2	167.9	6.01	5.71
wwgm2119	wwml131111	wwml131019	1.25	95.9	0.28	3.18	1.34	4.26	3.60	6.96	5.57	172.52	173.04	160.90	160.63	4.66	5.51	167.9	167.5	5.71	5.65
wwgm0468	wwml131019	wwml131018	1.25	377.8	0.01	3.72	1.15	4.26	3.45	6.77	5.41	173.04	174.47	160.63	158.73	5.51	8.54	167.5	165.9	5.65	5.95
wwgm1206	wwml131018	wwml131017	1.25	61.3	1.11	6.80	1.48	4.99	4.06	7.51	6.01	174.47	173.93	158.73	157.55	8.54	8.37	165.9	165.6	5.95	6.76
wwgm0479	wwml131017	wwml131014	1.25	277.3	0.27	3.38	1.41	4.60	3.73	8.01	6.41	173.93	167.17	157.55	156.45	8.37	2.75	165.6	164.4	6.76	6.72
wwgm0507	wwml131014	wwml131013	1.25	132.0	0.07	1.65	3.48	5.73	4.52	7.97	6.38	167.17	163.40	156.45	156.32	2.75	0.00	164.4	163.4	6.72	5.83
wwgm0540	wwml131013	wwml131012	1.25	332.9	0.41	3.93	1.37	5.38	4.27	7.08	5.66	163.40	164.21	156.32	154.97	0.00	3.14	163.4	161.1	5.83	4.85
wwgm0482	wwml131012	wwml131011	1.25	85.1	0.44	4.07	1.32	5.38	4.28	5.96	4.77	164.21	165.59	154.97	154.68	3.14	5.20	161.1	160.4	4.85	4.46
wwgm0604	wwml131011	wwml131010	1.25	248.7	0.41	4.01	1.34	5.38	4.29	5.71	4.57	165.59	167.11	154.68	153.52	5.20	8.48	160.4	158.6	4.46	3.86
wwgm0555	wwml131010	wwml131009	1.25	382.6	0.31	3.47	1.55	5.38	4.31	5.11	4.09	167.11	165.55	153.52	152.25	8.48	9.65	158.6	155.9	3.86	2.40

[1]Calculation = HGL - Pipe Invert + Pipe Diameter. Negative number signifies the HGL is below top of pipe and surcharge conditions do not exist.

Figure 5 WWMP Surcharging Analysis			
Node	**[1]Surcharging According to Color**	**[2]Surcharging According WWMP Data Output**	**[3]Surcharging According to 3J Modeling**
wwml92161	No	No	No
wwml92159	No	No	No
wwml92158	No	No	No
wwml92157	No	No	No
wwml92156	No	No	No
wwml92147	No	No	No
wwml92148	No	No	No
wwml92149	No	No	No
wwml92150	Yes	No	No
wwml92151	Yes	No	No
wwml92152	Yes	No	No
wwml104050	Yes	No	No
wwml102132	Yes	No	No
wwml102131	Yes	No	No
wwml102073	Yes	No	No
wwml104051	Yes	No	No
wwml102072	Yes	No	No
wwml102071	Yes	No	No
wwml102070	Yes	No	No
wwml102069	No	No	No
wwml102068	Yes	No	No
wwml102067	Yes	No	No
wwml102066	Yes	No	No
wwml111099	No	No	No
wwml111053	No	No	No
wwml111037	No	No	Yes
wwml111036	Yes	Yes	Yes
wwml111035	Yes	Yes	Yes
wwml111040	Yes	Yes	Yes
wwml111032	Yes	Yes	Yes
wwml121031	Yes	Yes	Yes
wwml121100	Yes	Yes	Yes
wwml121030	Yes	Yes	Yes
wwml121029	Yes	Yes	Yes
wwml121028	Yes	Yes	Yes
wwml121103	Yes	Yes	Yes
wwml121027	Yes	Yes	Yes
wwml121026	Yes	Yes	Yes
wwml131025	Yes	Yes	Yes
wwml131024	Yes	Yes	Yes
wwml131023	Yes	Yes	Yes
wwml131022	Yes	Yes	Yes
wwml131021	Yes	Yes	Yes
wwml131020	Yes	Yes	Yes
wwml131111	Yes	Yes	Yes
wwml131019	Yes	Yes	Yes
wwml131018	Yes	Yes	Yes
wwml131017	Yes	Yes	Yes
wwml131014	Yes	Yes	Yes
wwml131013	Yes	Yes	Yes
wwml131012	Yes	Yes	Yes
wwml131011	Yes	Yes	Yes
wwml131010	Yes	Yes	Yes
[1]Figure 5: Updated System Evaluation from WWMP Update			
[2]WWMP Update: Appendix D1 - Existing System Flow			
[3]XPSTORM Wastewater Conveyance Data: Springbrook Subdivision Downstream Analysis (Existing & Proposed Conditions			

Table 5-2: Springbrook Road Alternatives Estimated Costs

Alternative	Item	Unit	Unit Price	Quantity	Cost
A	Upsize existing pipeline				$ 3,176,000
	Mobilization	%	5	-	$ 158,800
	Subtotal (rounded)				$ 3,335,000
	Contingency	%	30	-	$ 1,000,500
	Subtotal (rounded)				$ 4,336,000
	Engineering and CMS	%	25	-	$ 1,084,000
	Project Total Cost (rounded):				**$5,420,000**
B	Parallel gravity main				$ 1,282,500
	Upsize existing pipeline				$ 915,000
	Subtotal (rounded)				$ 2,198,000
	Mobilization	%	5	-	$ 109,900
	Subtotal (rounded)				$ 2,308,000
	Contingency	%	30	-	$ 692,400
	Subtotal (rounded)				$ 3,001,000
	Engineering (25%) and Soft Costs				$ 810,250
	Project Total Cost (rounded):				**$3,812,000**

Excerpt from WWMP, page 5-7

3J CONSULTING
9600 SW NIMBUS AVENUE, SUITE 100
BEAVERTON, OREGON 97008
PH: (503) 946.9365
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TECHNICAL MEMORANDUM

To: Brett Musick, PE
Senior Engineer
City of Newberg

From: Kathleen Freeman, PE, CFM
Water Resources Project Manager

Cc: Chase Welborn, PE and Aaron Murphy, PE

Date: June 20, 2024



Project: **Springbrook Subdivision**
Project No: **23913**
RE: **Wastewater Downstream Analysis**

The proposed Springbrook Subdivision will be located northwest of the N Springbrook Road and NE Benjamin Road intersection. The site encompasses approximately 18.76 acres and is proposed to consist of 77 R-1 and 27 R-3 zoned lots. To develop the parcel, the City of Newberg requires a downstream analysis of the wastewater system to ensure the added flows will be accommodated. The City's Wastewater Master Plan (WWMP), written in March 2018 with a 2021 addendum, has been utilized to develop an existing wastewater hydraulic model for the conveyance from N Springbrook Road to E 9th Street, utilizing the software program XPSTORM. The existing model was used to add calculated flows from the proposed development. The proposed flow rates were calculated using Table 4-2 of the WWMP. The analysis shows the added flows from the proposed development on the downstream wastewater system will have a negligible effect.

Existing Wastewater Conveyance System

Per the WWMP, the following are evaluation thresholds used to identify deficiencies in infrastructure:

- Minimum 2.0-ft depth between rim elevation and Hydraulic Grade Line (HGL),
- Maximum 85% full depth of pipe, and
- Maximum 1.0-ft depth between HGL and top of pipe (top of pipe = Invert Elevation + Pipe Diameter).
    - In all cases where the HGL is below the top of pipe, surcharge conditions do not exist.
    - When the HGL is above the top of pipe, surcharge conditions exist.

The WWMP shows there are several locations in the system that are outside of these thresholds. Additionally, there are locations where modeling shows out of system flooding.

Model Calibration

The data presented in the WWMP was utilized to create an existing conditions model with the software XPSTORM (see Attached: Figure 5 – Updated System Evaluation). All rim elevations, pipe invert

elevations, pipe diameters and lengths and flow rates were input into the model using data from Appendix D1: Existing System Model Data. The flow rates were input into the XPSTORM model as constant flow at each manhole. We calibrated the model to match the WWMP model by adding known flow depths (See Attached: XPSTORM Wastewater Conveyance Data – Existing and Proposed Conditions to E Fernhill Road). The downstream analysis extended approximately 2.62 miles downstream of the proposed subdivision.

To model proposed flows from the Springbrook Subdivision, Table 4-2 of the WWMP was referenced, which are based on proposed zoning. Additionally, per section 2.3.4 of the City's Public Works Design and Construction Standards, an allowance of 1,000 gpad for inflow and infiltration was added to each calculated flow. Table 1 shows the calculated flow rates for each zone within the proposed Springbrook Subdivision.

Zoning	Flow (gpd)	Flow (cfs)	Add to MH
R-1	27,379	0.0424	wwml92161
R-3	13,168	0.0204	wwml92161
Increase in Flow at wwml92161	**40,546**	**0.0627**	N/A

Table 1 - Wastewater Flows

The flow rate of 0.063 cfs was added to the Avg DWF flow at manhole wwml92161 in the WWMP for proposed conditions. No other adjustments were made to the model.

Conveyance Output

Tables 2 and 3 show the existing and proposed conveyance output for the first seven manholes in the downstream system, regarding the evaluation thresholds (See Attached for entire modeled conveyance output).

From	To	Existing US Freeboard (ft)	Existing DS Freeboard (ft)	Existing [1]y/d0	[3]Existing HGL - Top of Pipe US (ft)	[3]Existing HGL - Top of Pipe DS (ft)
wwml92161	wwml92159	6.23	5.27	0.09	-1.14	-1.13
wwml92159	wwml92158	5.27	7.99	0.10	-1.13	-1.14
wwml92158	wwml92157	7.99	15.25	0.09	-1.14	-1.12
wwml92157	wwml92156	15.25	18.81	0.10	-1.12	-1.16
wwml92156	wwml92147	18.81	18.32	0.16	-1.16	-0.91
wwml92147	wwml92148	18.32	9.96	0.22	-1.16	-1.27
[2]wwml92148	wwml92149	9.96	7.96	0.15	-1.27	-1.26

[1]y/d0 = depth of flow/pipe diameter; Multiply by 100 to get %
[2]Approximately 2,014 ft downstream of project site
[3]Calculation = HGL - Pipe Invert + Pipe Diameter. Negative number signifies the HGL is below top of pipe and surcharge conditions do not exist.

Table 2 – Existing Conveyance Downstream Output

From	To	Proposed US Freeboard (ft)	Proposed DS Freeboard (ft)	Proposed [1]y/d0	[3]Proposed HGL - Top of Pipe US (ft)	[3]Proposed HGL - Top of Pipe DS (ft)
wwml92161	wwml92159	6.18	5.22	0.13	-1.09	-1.07
wwml92159	wwml92158	5.22	7.94	0.14	-1.07	-1.09
wwml92158	wwml92157	7.94	15.20	0.13	-1.09	-1.07
wwml92157	wwml92156	15.20	18.77	0.15	-1.07	-1.12
wwml92156	wwml92147	18.77	18.30	0.17	-1.12	-0.90
wwml92147	wwml92148	18.30	9.95	0.23	-1.15	-1.26
[2]wwml92148	wwml92149	9.95	7.95	0.16	-1.26	-1.25

[1]y/d0 = depth of flow/pipe diameter; Multiply by 100 to get %
[2]Approximately 2,014 ft downstream of project site
[3]Calculation = HGL - Pipe Invert + Pipe Diameter. Negative number signifies the HGL is below top of pipe and surcharge conditions do not exist.

Table 3 – Proposed Conveyance Downstream Output

Evaluation Thresholds

Minimum 2.0-ft Depth Between Rim Elevation and Hydraulic Grade Line (HGL)

The added flow to the existing downstream system has very little change in depth between the rim elevations and HGL. In all cases for the first 2,014 ft of the system, there is a least 2.0-ft.

Maximum 85% Full Depth of Pipe

In all cases, the full depth of pipe is less than 85% full.

Maximum 1.0-ft Depth Between HGL and Top of Pipe

There is very little change between existing and proposed conditions for this threshold. Within the first 2,014 ft, the HGL is below the top of pipe.

Figure 5 WWMP Surcharging Analysis

Figure 5 from the WWMP shows evaluation threshold output at each node with differing colors depending on the hydraulic condition at each manhole (e.g., red manhole signifies potential flooding, etc). An analysis was completed using the output data from Appendix D1 to explain why our model showed no surcharging at manholes while Figure 5 shows surcharging. It was determined that while Figure 5 shows surcharging starting at manhole wwml92150, the output data from Appendix D1, as well as our modeling, did not indicate surcharging. The analysis is represented in the attached Figure 5 WWMP Surcharging Analysis. No assumptions are being made as to why the discrepancy between Figure 5 and the output data from D1 exists.

City's Request to Investigate Flooding at Manhole WWML121103

Per the City' observations, flooding occurs at WWML121103, which combines flows north on Springbrook Road and Fernwood Road to the east. The City requested 3J to investigate whether a change in deflection angle from the force main in Fernwood Road to manhole WWML121103 (at the intersection of Springbrook Road and Fernwood Road) would lessen the head loss enough to result in no flooding at the manhole. We analyzed the system using 0 to 30 degree deflection angles (currently it is at 90 degrees). Additionally, we determined that to decrease the deflection angle, a new

manhole would need to be installed between WWML121027 and WWML121026. There was not a deflection angle that would eliminate the flooding.

It should be noted that the Wastewater Master Plan, dated May 2018 and updated May 2021, showed a negative slope between WWML121103 and WWML121027; however as-builts provided from the City shows this does not occur. The system should be surveyed to determine if a negative slope occurs. Additionally, all pipes downstream of WWML121103 are 15" diameter pipes but the force main entering WWML121103 are dual pipes with diameters of 12" and 6". The added flow from the Fernwood force main contributes to the existing pipe system that is over capacity.

The Wastewater Master Plan identified two alternatives to rectify the flooding, depicted in Table 5-2. It is our opinion that these alternatives are the best solutions for flooding.

Summary
The added flows from the proposed Springbrook Subdivision of 0.063 cfs will have a negligible effect on the downstream system, analyzed approximately 1.76 miles from the project location.

Attachments:

- Springbrook Residential Subdivision
- Figure 5 – Updated System Evaluation (Excerpt from WWMP)
- XPSTORM Wastewater Conveyance Data – Existing Conditions to E 9th Street
- Onsite Wastewater Flow Calculations
- XPSTORM Wastewater Conveyance Data – Proposed Conditions to E 9th Street
- Figure 5 WWMP Surcharging Analysis
- Table 5-2 WWMP: Springbrook Road Alternatives Estimated Costs

- - - - END OF DOCUMENT - - -



3809 NE SPRINGBROOK ROAD, NEWBERG, OREGON, 97132

COUNTY: YAMHILL
PARCEL: 25902 ACCOUNT: R320902300
PARCEL SIZE: 18.76 ACRES (YAMHILL COUNTY TAX RECORDS)

CURRENT ZONING: AF-10 (YAMHILL COUNTY)

PROPOSED ZONING: R-1 AND R-3 (CITY OF NEWBERG)

REQUIRED SETBACKS:

R-1 ZONE	*R-3 ZONE*
FRONT: 15'	FRONT: 12'
GARAGE: 20'	GARAGE: 20'
SIDE: 5'	SIDE: 5'
REAR: 5'	REAR: 15'
CORNER SIDE: 15'	CORNER SIDE: 12'

DENSITY CALCULATIONS:
GROSS SITE AREA: ±830,311 SF (GIS SOURCE)
GROSS R3 ZONING AREA (10% MINIMUM REQUIRED) = ±83,031 SF
Per Newberg Municipal Code 15.250.030-A.1.

TRACTS A AND C ARE OPEN SPACE TRACTS TO BE OWNED AND MAINTAINED BY THE HOA.

TRACT B IS A STORMWATER FACILITY TRACT TO BE OWNED AND MAINTAINED BY THE CITY OF NEWBERG

PROPOSED R1 ZONE

PROPOSED R3 ZONE
±10,686 SF

THE PURPOSE OF THIS PRELIMINARY LAYOUT IS TO SHOW PLANNED LOT DIMENSIONS AND AREAS FOR PLANNING PURPOSES. THIS IS NOT A FINAL LAYOUT AND NOT TO BE USED FOR SURVEY PURPOSES. ALL DIMENSIONS ARE SUBJECT TO CHANGE.

SITE PLAN OVERVIEW
SCHEMATIC LAYOUT 5

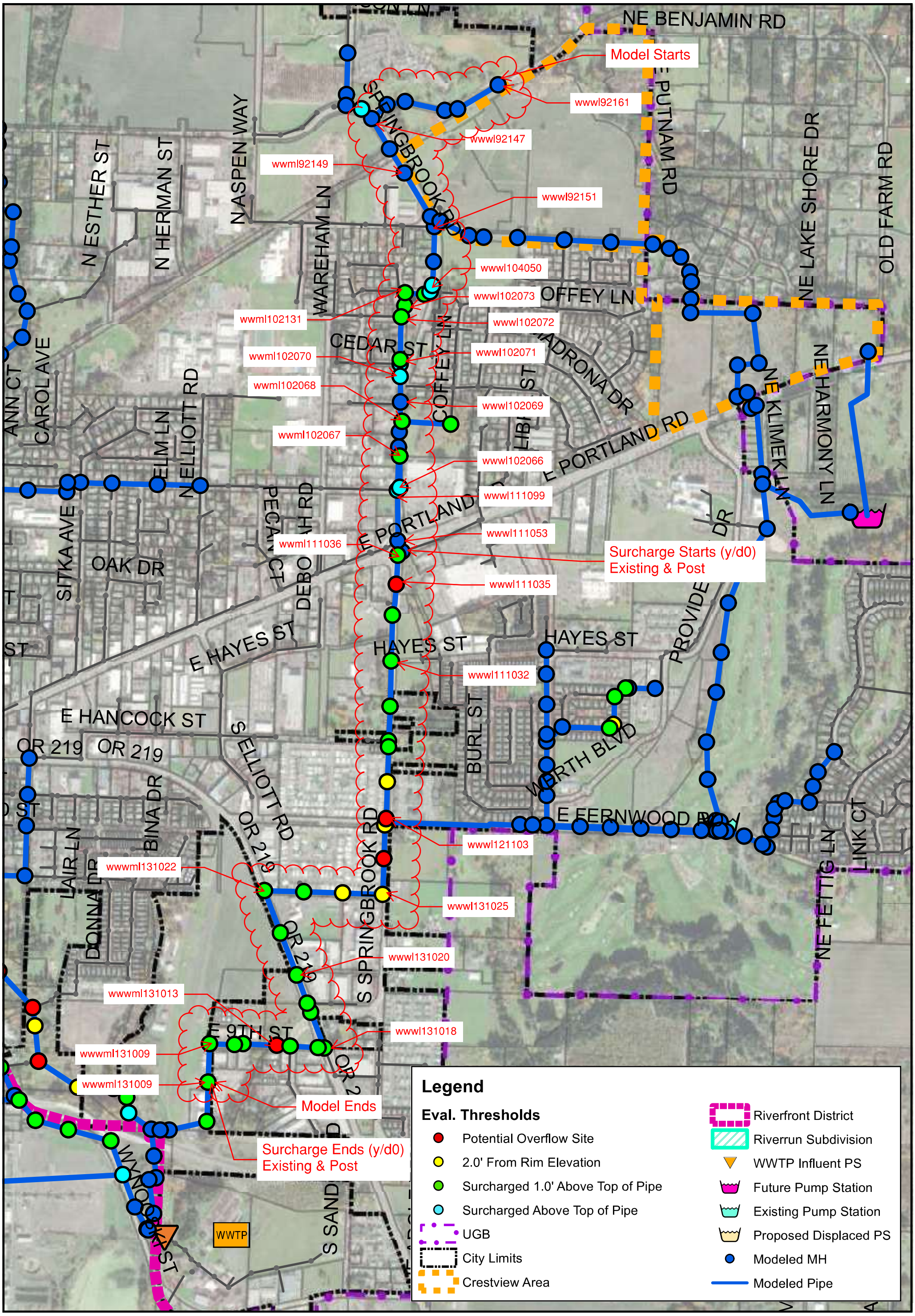
3J CONSULTING
CIVIL ENGINEERING
WATER RESOURCES
COMMUNITY PLANNING
9600 SW NIMBUS AVE., SUITE 100; BEAVERTON, OR 97008

DRAWING BY:	*SRC/JJS*
PREPARED FOR:	*ICHIJO*
PLAN ISSUE DATE:	*DECEMBER 26, 2023*
PLAN ISSUE PURPOSE:	*SCHEMATIC DESIGN*

N W E S
SCALE: 1" = 60'
0 60 120 FT

SPRINGBROOK RESIDENTIAL SUBDIVISION
NEWBERG, OREGON

P:\23913-3809 NE SPRINGBROOK RD SUBDIVISION\CAD\EXHIBITS-ANALYSIS_COORDINATION\2023-12-19 SITE OPTIONS\23913-SITE OPTION 5.DWG



KELLER ASSOCIATES

Updated System Evaluation

Wastewater Master Plan Update

City of Newberg OREGON

Figure 5

City of Newberg, OR

XPSTORM WASTEWATER CONVEYANCE DATA - PROPOSED CONDITIONS TO E 9TH STREET

SPRINGBROOK SUBDIVISION DOWNSTREAM ANALYSIS

Location			Conduit Properties			Conduit Results						Conduit Profile									
Link	Station From	Station To	Diameter	Length	Slope	Design Capacity	Qmax/ Qdesign	Max Flow	Max Velocity	Max Flow Depth	y/d0	US Ground Elev.	DS Ground Elev.	US IE	DS IE	US Freeboard	DS Freeboard	US HGL	DS HGL	[1]HGL -Top of Pipe US	[1]HGL - Top of Pipe US
			ft	ft	%	cfs		cfs	ft/s	ft		ft	ft	ft	ft	ft	ft	ft	ft	ft	ft
wwgm1107	wwml92161	wwml92159	1.25	465.0	0.29	3.48	0.01	0.04	0.93	0.11	0.09	255.92	253.49	249.58	248.10	6.23	5.27	249.7	248.2	-1.14	-1.13
wwgm1108	wwml92159	wwml92158	1.25	128.4	0.27	3.32	0.02	0.05	1.00	0.12	0.10	253.49	255.21	248.10	247.11	5.27	7.99	248.2	247.2	-1.13	-1.14
wwgm1109	wwml92158	wwml92157	1.25	403.4	0.34	3.75	0.01	0.05	1.07	0.11	0.09	255.21	260.95	247.11	245.57	7.99	15.25	247.2	245.7	-1.14	-1.12
wwgm1110	wwml92157	wwml92156	1.25	182.5	0.24	3.17	0.02	0.05	0.97	0.13	0.10	260.95	263.55	245.57	244.65	15.25	18.81	245.7	244.7	-1.12	-1.16
wwgm1111	wwml92156	wwml92147	1.25	203.0	0.51	4.62	0.01	0.05	0.65	0.20	0.16	263.55	262.12	244.65	243.47	18.81	18.32	244.7	243.8	-1.16	-0.91
wwgm1104	wwml92147	wwml92148	1.50	349.7	0.40	6.65	0.10	0.67	2.41	0.34	0.22	262.12	251.71	243.47	241.52	18.32	9.96	243.8	241.8	-1.16	-1.27
wwgm1105	wwml92148	wwml92149	1.50	281.5	1.55	13.06	0.05	0.67	3.88	0.23	0.15	251.71	245.17	241.52	236.97	9.96	7.96	241.8	237.2	-1.27	-1.26
wwgm1106	wwml92149	wwml92150	1.50	500.5	1.41	12.49	0.05	0.67	3.76	0.24	0.16	245.17	241.50	236.97	229.75	7.96	11.55	237.2	229.9	-1.26	-1.30
wwgm1091	wwml92150	wwml92151	1.50	107.8	2.99	18.16	0.04	0.67	4.88	0.20	0.13	241.50	239.75	229.75	225.75	11.55	13.63	229.9	226.1	-1.30	-1.13
wwgm1090	wwml92151	wwml92152	1.50	344.6	0.32	5.94	0.12	0.69	2.26	0.37	0.25	239.75	234.71	225.75	223.96	13.63	10.45	226.1	224.3	-1.13	-1.20
wwgm1131	wwml92152	wwml104050	1.50	237.8	0.56	7.83	0.09	0.69	2.73	0.30	0.20	234.71	232.35	223.96	222.32	10.45	9.61	224.3	222.7	-1.20	-1.08
wwgm1132	wwml104050	wwml104051	1.50	65.3	0.12	3.68	0.19	0.69	2.03	0.42	0.28	232.35	229.69	222.32	222.06	9.61	7.39	222.7	222.3	-1.08	-1.26
wwgm1071	wwml102132	wwml102131	0.83	195.8	0.75	1.87	0.37	0.69	2.74	0.45	0.54	227.75	225.87	220.88	219.28	6.52	6.00	221.2	219.9	-0.48	-0.24
wwgm1070	wwml102131	wwml102073	0.83	126.5	0.58	1.65	0.81	1.33	3.46	0.59	0.71	225.87	225.66	219.28	218.21	6.00	7.00	219.9	218.7	-0.24	-0.38
wwgm1069	wwml102073	wwml102072	0.83	115.9	1.18	2.36	0.57	1.34	4.49	0.45	0.54	225.66	223.35	218.21	216.64	7.00	6.20	218.7	217.2	-0.38	-0.32
wwgm1072	wwml104051	wwml102132	1.50	58.5	1.44	12.59	0.06	0.69	3.82	0.24	0.16	229.69	227.75	222.06	220.88	7.39	6.52	222.3	221.2	-1.26	-1.15
wwgm1129	wwml102072	wwml102071	1.00	423.4	0.52	2.58	0.52	1.35	3.06	0.59	0.59	223.35	220.03	216.64	214.40	6.20	5.02	217.2	215.0	-0.49	-0.39
wwgm1062	wwml102071	wwml102070	1.00	42.2	0.21	1.65	0.82	1.35	3.01	0.61	0.61	220.03	219.80	214.40	214.21	5.02	5.02	215.0	214.8	-0.39	-0.43
wwgm1061	wwml102070	wwml102069	1.00	123.0	0.39	2.23	0.62	1.37	2.61	0.74	0.74	219.80	221.49	214.21	213.72	5.02	7.02	214.8	214.5	-0.43	-0.25
wwgm1060	wwml102069	wwml102068	1.00	254.8	0.21	1.64	0.83	1.37	2.62	0.75	0.75	221.49	219.20	213.72	212.88	7.02	5.94	214.5	213.3	-0.25	-0.62
wwgm1056	wwml102068	wwml102067	1.00	295.6	1.56	4.45	0.31	1.40	5.01	0.39	0.39	219.20	214.51	212.88	208.13	5.94	5.99	213.3	208.5	-0.62	-0.61
wwgm1055	wwml102067	wwml102066	1.00	153.3	1.56	4.45	0.32	1.40	5.01	0.39	0.39	214.51	210.77	208.13	203.23	5.99	7.16	208.5	203.6	-0.61	-0.62
wwgm1054	wwml102066	wwml111099	1.00	425.2	1.66	4.59	0.31	1.40	3.21	0.76	0.76	210.77	202.79	203.23	195.95	7.16	5.86	203.6	196.9	-0.62	-0.02
wwgm1709	wwml111099	wwml111053	1.25	500.2	0.41	4.12	0.86	3.52	3.85	0.98	0.78	202.79	203.84	195.95	193.35	5.86	9.92	196.9	193.9	-0.27	-0.68
wwgm1739	wwml111053	wwml111037	1.25	117.3	2.67	9.80	0.43	4.20	7.67	0.57	0.46	203.84	205.03	193.35	189.43	9.92	15.13	193.9	189.9	-0.68	-0.78
wwgm1740	wwml111037	wwml111036	1.25	53.5	11.56	21.96	0.19	4.22	12.92	6.02	4.82	205.03	203.57	189.43	182.78	15.13	14.19	189.9	189.4	-0.78	5.35
wwgm1710	wwml111036	wwml111035	1.25	289.1	0.48	4.48	0.96	4.22	3.67	6.71	5.37	203.57	188.10	182.78	181.39	14.19	0.00	189.4	188.1	5.35	5.46
wwgm1802	wwml111035	wwml111040	1.25	306.3	0.28	3.40	1.21	4.11	3.26	6.71	5.37	188.10	193.00	181.39	180.54	0.00	5.96	188.1	187.0	5.46	5.25
wwgm1800	wwml111040	wwml111032	1.25	452.8	0.28	3.42	1.20	4.08	3.25	6.42	5.14	193.00	193.30	180.54	179.27	5.96	7.83	187.0	185.5	5.25	4.95
wwgm1799	wwml111032	wwml121031	1.25	450.4	0.28	3.42	1.19	4.06	3.24	6.23	4.98	193.30	190.60	179.27	178.01	7.83	6.69	185.5	183.9	4.95	4.65
wwgm1798	wwml121031	wwml121100	1.25	342.8	0.28	3.35	1.21	4.05	3.23	5.93	4.74	190.60	186.60	178.01	177.06	6.69	3.84	183.9	182.8	4.65	4.45
wwgm1796	wwml121100	wwml121030	1.25	59.7	0.29	3.45	1.20	4.11	3.28	5.68	4.54	186.60	185.90	177.06	176.89	3.84	3.41	182.8	182.5	4.45	4.35
wwgm1795	wwml121030	wwml121029	1.25	347.9	0.60	5.02	0.95	4.62	3.69	6.31	5.05	185.90	182.20	176.89	174.79	3.41	1.11	182.5	181.1	4.35	5.05
wwgm1794	wwml121029	wwml121028	1.25	365.6	0.58	4.93	1.00	4.74	3.78	6.94	5.55	182.20	179.60	174.79	172.66	1.11	0.04	181.1	179.6	5.05	5.65
wwgm1793	wwml121028	wwml121103	1.25	38.1	0.79	5.74	2.22	11.32	9.06	7.38	5.90	179.60	179.74	172.66	172.36	0.04	-0.02	179.6	179.8	5.65	6.15
wwgm1792	wwml121103	wwml121027	1.25	23.1	-0.04	1.34	11.41	4.39	3.51	7.37	5.90	179.74	179.87	172.36	172.17	-0.02	0.10	179.8	179.8	6.15	6.35
wwgm1791	wwml121027	wwml121026	1.25	336.7	0.33	3.73	1.25	4.54	3.63	6.92	5.53	179.87	177.80	172.17	171.05	0.10	0.00	179.8	177.8	6.35	5.50
wwgm1790	wwml121026	wwml131025	1.25	351.3	0.27	3.36	1.39	4.60	3.68	6.80	5.44	177.80	177.79	171.05	169.55	0.00	0.64	177.8	177.2	5.50	6.35
wwgm0580	wwml131025	wwml131024	1.25	397.1	0.35	3.55	1.29	4.58	3.68	7.57	6.05	177.79	178.04	169.55	168.13	0.64	1.71	177.2	176.3	6.35	6.95
wwgm0533	wwml131024	wwml131023	1.25	384.7	0.36	3.56	1.30	4.50	3.62	7.82	6.26	178.04	177.45	168.13	166.71	1.71	2.74	176.3	174.7	6.95	6.75
wwgm0558	wwml131023	wwml131022	1.25	389.7	0.15	2.51	2.57	5.94	5.17	7.85	6.28	177.45	176.99	166.71	165.43	2.74	4.03	174.7	173.0	6.75	6.28
wwgm0520	wwml131022	wwml131021	1.25	449.4	0.36	3.89	1.29	5.01	4.19	7.53	6.03	176.99	174.05	165.43	163.74	4.03	2.93	173.0	171.1	6.28	6.13
wwgm0559	wwml131021	wwml131020	1.25	444.1	0.38	3.87	1.18	4.56	3.66	7.38	5.91	174.05	171.74	163.74	161.93	2.93	2.55	171.1	169.2	6.13	6.01
wwgm0583	wwml131020	wwml131111	1.25	300.8	0.30	3.40	1.30	4.37	3.65	7.26	5.81	171.74	172.52	161.93	160.90	2.55	4.66	169.2	167.9	6.01	5.71
wwgm2119	wwml131111	wwml131019	1.25	95.9	0.28	3.18	1.34	4.26	3.60	6.96	5.57	172.52	173.04	160.90	160.63	4.66	5.51	167.9	167.5	5.71	5.65
wwgm0468	wwml131019	wwml131018	1.25	377.8	0.01	3.72	1.15	4.26	3.45	6.77	5.41	173.04	174.47	160.63	158.73	5.51	8.54	167.5	165.9	5.65	5.95
wwgm1206	wwml131018	wwml131017	1.25	61.3	1.11	6.80	1.48	4.99	4.06	7.51	6.01	174.47	173.93	158.73	157.55	8.54	8.37	165.9	165.6	5.95	6.76
wwgm0479	wwml131017	wwml131014	1.25	277.3	0.27	3.38	1.41	4.60	3.73	8.01	6.41	173.93	167.17	157.55	156.45	8.37	2.75	165.6	164.4	6.76	6.72
wwgm0507	wwml131014	wwml131013	1.25	132.0	0.07	1.65	3.48	5.73	4.52	7.97	6.38	167.17	163.40	156.45	156.32	2.75	0.00	164.4	163.4	6.72	5.83
wwgm0540	wwml131013	wwml131012	1.25	332.9	0.41	3.93	1.37	5.38	4.27	7.08	5.66	163.40	164.21	156.32	154.97	0.00	3.14	163.4	161.1	5.83	4.85
wwgm0482	wwml131012	wwml131011	1.25	85.1	0.44	4.07	1.32	5.38	4.28	5.96	4.77	164.21	165.59	154.97	154.68	3.14	5.20	161.1	160.4	4.85	4.46
wwgm0604	wwml131011	wwml131010	1.25	248.7	0.41	4.01	1.34	5.38	4.29	5.71	4.57	165.59	167.11	154.68	153.52	5.20	8.48	160.4	158.6	4.46	3.86
wwgm0555	wwml131010	wwml131009	1.25	382.6	0.31	3.47	1.55	5.38	4.31	5.11	4.09	167.11	165.55	153.52	152.25	8.48	9.65	158.6	155.9	3.86	2.40

[1]Calculation = HGL - Pipe Invert + Pipe Diameter. Negative number signifies the HGL is below top of pipe and surcharge conditions do not exist.

ONSITE WASTEWATER FLOW CALCULATIONS

BASIN	Zoning	[1]Average Lot Size (ac)	DU/Average Lot Size (DU/ac)	[1]People/ DU	[2]ADWF (gpcd)	Flow (gpad)	[3]I/I (gpad)	Flow + I/I (gpad)	[4]Net Area (ac)	Flow (gpd)	Conversion to cfs	[5]Flow (cfs)	Drains to Node
1	R-1	0.227	4.405	2.69	74.25	880	1,000	1,880	14.564	27,379	1.547E-06	0.0424	wwml92161
3	R-3	0.061	16.393	2.69	99	4,366	1,000	5,366	2.454	13,168	1.547E-06	0.0204	wwml92161
											Total anticipated flow from Springbrook Subdivision	**0.0627**	

[1]See Page 4-6, Table 4-2 of WWMP

[2]Residential flows based on design ADWF per capita value of 99 gpcd & reduced by 25% for R1 Zoning Only: See Page 4-6, Table 4-2 of WWMP

[3]Inflow/Infiltration per City of Newberg's 2015 Design Manual

[4]Allocates 25% of area for roads and other public dedication: See Page 4-6, Table 4-2 of WWMP

[5]Total WW Flow used as constant flow in XPSTORM model

XPSTORM WASTEWATER CONVEYANCE DATA - PROPOSED CONDITIONS TO E 9TH STREET

SPRINGBROOK SUBDIVISION DOWNSTREAM ANALYSIS

Location			Conduit Properties			Conduit Results						Conduit Profile									
Link	Station																			[1]HGL -Top of Pipe US	[1]HGL - Top of Pipe US
	From	To	Diameter	Length	Slope	Design Capacity	Qmax/ Qdesign	Max Flow	Max Velocity	Max Flow Depth	y/d0	US Ground Elev.	DS Ground Elev.	US IE	DS IE	US Freeboard	DS Freeboard	US HGL	DS HGL		
			ft	ft	%	cfs		cfs	ft/s	ft		ft	ft	ft	ft	ft	ft	ft	ft	ft	ft
wwgm1107	wwml92161	wwml92159	1.25	465.0	0.29	3.48	0.03	0.10	1.26	0.17	0.13	255.92	253.49	249.58	248.10	6.18	5.22	249.7	248.3	-1.09	-1.07
wwgm1108	wwml92159	wwml92158	1.25	128.4	0.27	3.32	0.03	0.11	1.29	0.18	0.14	253.49	255.21	248.10	247.11	5.22	7.94	248.3	247.3	-1.07	-1.09
wwgm1109	wwml92158	wwml92157	1.25	403.4	0.34	3.75	0.03	0.11	1.37	0.16	0.13	255.21	260.95	247.11	245.57	7.94	15.20	247.3	245.8	-1.09	-1.07
wwgm1110	wwml92157	wwml92156	1.25	182.5	0.24	3.17	0.04	0.11	1.25	0.18	0.15	260.95	263.55	245.57	244.65	15.20	18.77	245.8	244.8	-1.07	-1.12
wwgm1111	wwml92156	wwml92147	1.25	203.0	0.51	4.62	0.02	0.11	1.12	0.21	0.17	263.55	262.12	244.65	243.47	18.77	18.30	244.8	243.8	-1.12	-0.90
wwgm1104	wwml92147	wwml92148	1.50	349.7	0.40	6.65	0.11	0.73	2.48	0.35	0.23	262.12	251.71	243.47	241.52	18.30	9.95	243.8	241.8	-1.15	-1.26
wwgm1105	wwml92148	wwml92149	1.50	281.5	1.55	13.06	0.06	0.73	3.99	0.24	0.16	251.71	245.17	241.52	236.97	9.95	7.95	241.8	237.2	-1.26	-1.25
wwgm1106	wwml92149	wwml92150	1.50	500.5	1.41	12.49	0.06	0.73	3.86	0.25	0.17	245.17	241.50	236.97	229.75	7.95	11.54	237.2	230.0	-1.25	-1.29
wwgm1091	wwml92150	wwml92151	1.50	107.8	2.99	18.16	0.04	0.73	5.01	0.21	0.14	241.50	239.75	229.75	225.75	11.54	13.61	230.0	226.1	-1.29	-1.11
wwgm1090	wwml92151	wwml92152	1.50	344.6	0.32	5.94	0.13	0.75	2.32	0.39	0.26	239.75	234.71	225.75	223.96	13.61	10.44	226.1	224.3	-1.11	-1.19
wwgm1131	wwml92152	wwml104050	1.50	237.8	0.56	7.83	0.10	0.75	2.80	0.32	0.21	234.71	232.35	223.96	222.32	10.44	9.59	224.3	222.8	-1.19	-1.06
wwgm1132	wwml104050	wwml104051	1.50	65.3	0.12	3.68	0.21	0.76	2.09	0.44	0.29	232.35	229.69	222.32	222.06	9.59	7.38	222.8	222.3	-1.06	-1.25
wwgm1071	wwml102132	wwml102131	0.83	195.8	0.75	1.87	0.40	0.76	2.81	0.47	0.57	227.75	225.87	220.88	219.28	6.50	5.98	221.2	219.9	-0.46	-0.22
wwgm1070	wwml102131	wwml102073	0.83	126.5	0.58	1.65	0.85	1.39	3.50	0.61	0.73	225.87	225.66	219.28	218.21	5.98	6.99	219.9	218.7	-0.22	-0.37
wwgm1069	wwml102073	wwml102072	0.83	115.9	1.18	2.36	0.60	1.40	4.54	0.46	0.56	225.66	223.35	218.21	216.64	6.99	6.18	218.7	217.2	-0.37	-0.30
wwgm1072	wwml104051	wwml102132	1.50	58.5	1.44	12.59	0.06	0.76	3.92	0.25	0.17	229.69	227.75	222.06	220.88	7.38	6.50	222.3	221.2	-1.25	-1.13
wwgm1129	wwml102072	wwml102071	1.00	423.4	0.52	2.58	0.55	1.42	3.10	0.61	0.61	223.35	220.03	216.64	214.40	6.18	5.00	217.2	215.0	-0.47	-0.37
wwgm1062	wwml102071	wwml102070	1.00	42.2	0.21	1.65	0.86	1.42	3.06	0.63	0.63	220.03	219.80	214.40	214.21	5.00	5.01	215.0	214.8	-0.37	-0.42
wwgm1061	wwml102070	wwml102069	1.00	123.0	0.39	2.23	0.64	1.43	2.61	0.77	0.77	219.80	221.49	214.21	213.72	5.01	6.99	214.8	214.5	-0.42	-0.22
wwgm1060	wwml102069	wwml102068	1.00	254.8	0.21	1.64	0.87	1.43	2.65	0.78	0.78	221.49	219.20	213.72	212.88	6.99	5.93	214.5	213.3	-0.22	-0.61
wwgm1056	wwml102068	wwml102067	1.00	295.6	1.56	4.45	0.33	1.46	5.07	0.39	0.39	219.20	214.51	212.88	208.13	5.93	5.99	213.3	208.5	-0.61	-0.60
wwgm1055	wwml102067	wwml102066	1.00	153.3	1.56	4.45	0.33	1.46	5.08	0.40	0.40	214.51	210.77	208.13	203.23	5.99	7.15	208.5	203.6	-0.60	-0.61
wwgm1054	wwml102066	wwml111099	1.00	425.2	1.66	4.59	0.32	1.47	3.27	0.77	0.77	210.77	202.79	203.23	195.95	7.15	5.85	203.6	196.9	-0.61	-0.01
wwgm1709	wwml111099	wwml111053	1.25	500.2	0.41	4.12	0.87	3.59	3.86	0.99	0.80	202.79	203.84	195.95	193.35	5.85	9.91	196.9	193.9	-0.26	-0.67
wwgm1739	wwml111053	wwml111037	1.25	117.3	2.67	9.80	0.44	4.26	7.70	0.58	0.46	203.84	205.03	193.35	189.43	9.91	15.11	193.9	189.9	-0.67	-0.76
wwgm1740	wwml111037	wwml111036	1.25	53.5	11.56	21.96	0.20	4.28	12.92	6.05	4.84	205.03	203.57	189.43	182.78	15.11	14.19	189.9	189.4	-0.76	5.35
wwgm1710	wwml111036	wwml111035	1.25	289.1	0.48	4.48	0.96	4.28	3.67	6.71	5.37	203.57	188.10	182.78	181.39	14.19	0.00	189.4	188.1	5.35	5.46
wwgm1802	wwml111035	wwml111040	1.25	306.3	0.28	3.40	1.22	4.14	3.28	6.71	5.37	188.10	193.00	181.39	180.54	0.00	5.96	188.1	187.0	5.46	5.25
wwgm1800	wwml111040	wwml111032	1.25	452.8	0.28	3.42	1.20	4.10	3.26	6.42	5.14	193.00	193.30	180.54	179.27	5.96	7.83	187.0	185.5	5.25	4.95
wwgm1799	wwml111032	wwml121031	1.25	450.4	0.28	3.42	1.19	4.07	3.25	6.23	4.98	193.30	190.60	179.27	178.01	7.83	6.69	185.5	183.9	4.95	4.65
wwgm1798	wwml121031	wwml121100	1.25	342.8	0.28	3.35	1.21	4.05	3.23	5.93	4.74	190.60	186.60	178.01	177.06	6.69	3.84	183.9	182.8	4.65	4.45
wwgm1796	wwml121100	wwml121030	1.25	59.7	0.29	3.45	1.20	4.11	3.28	5.68	4.54	186.60	185.90	177.06	176.89	3.84	3.41	182.8	182.5	4.45	4.35
wwgm1795	wwml121030	wwml121029	1.25	347.9	0.60	5.02	0.95	4.62	3.69	6.31	5.05	185.90	182.20	176.89	174.79	3.41	1.11	182.5	181.1	4.35	5.05
wwgm1794	wwml121029	wwml121028	1.25	365.6	0.58	4.93	1.00	4.74	3.78	6.94	5.55	182.20	179.60	174.79	172.66	1.11	0.04	181.1	179.6	5.05	5.65
wwgm1793	wwml121028	wwml121103	1.25	38.1	0.79	5.74	2.22	11.32	9.06	7.38	5.90	179.60	179.74	172.66	172.36	0.04	-0.02	179.6	179.8	5.65	6.15
wwgm1792	wwml121103	wwml121027	1.25	23.1	-0.04	1.34	11.41	4.39	3.51	7.37	5.90	179.74	179.87	172.36	172.17	-0.02	0.10	179.8	179.8	6.15	6.35
wwgm1791	wwml121027	wwml121026	1.25	336.7	0.33	3.73	1.25	4.54	3.63	6.92	5.53	179.87	177.80	172.17	171.05	0.10	0.00	179.8	177.8	6.35	5.50
wwgm1790	wwml121026	wwml131025	1.25	351.3	0.27	3.36	1.39	4.60	3.68	6.80	5.44	177.80	177.79	171.05	169.55	0.00	0.64	177.8	177.2	5.50	6.35
wwgm0580	wwml131025	wwml131024	1.25	397.1	0.35	3.55	1.29	4.58	3.68	7.57	6.05	177.79	178.04	169.55	168.13	0.64	1.71	177.2	176.3	6.35	6.95
wwgm0533	wwml131024	wwml131023	1.25	384.7	0.36	3.56	1.30	4.50	3.62	7.82	6.26	178.04	177.45	168.13	166.71	1.71	2.74	176.3	174.7	6.95	6.75
wwgm0558	wwml131023	wwml131022	1.25	389.7	0.15	2.51	2.57	5.94	5.17	7.85	6.28	177.45	176.99	166.71	165.43	2.74	4.03	174.7	173.0	6.75	6.28
wwgm0520	wwml131022	wwml131021	1.25	449.4	0.36	3.89	1.29	5.01	4.19	7.53	6.03	176.99	174.05	165.43	163.74	4.03	2.93	173.0	171.1	6.28	6.13
wwgm0559	wwml131021	wwml131020	1.25	444.1	0.38	3.87	1.18	4.56	3.66	7.38	5.91	174.05	171.74	163.74	161.93	2.93	2.55	171.1	169.2	6.13	6.01
wwgm0583	wwml131020	wwml131111	1.25	300.8	0.30	3.40	1.30	4.37	3.65	7.26	5.81	171.74	172.52	161.93	160.90	2.55	4.66	169.2	167.9	6.01	5.71
wwgm2119	wwml131111	wwml131019	1.25	95.9	0.28	3.18	1.34	4.26	3.60	6.96	5.57	172.52	173.04	160.90	160.63	4.66	5.51	167.9	167.5	5.71	5.65
wwgm0468	wwml131019	wwml131018	1.25	377.8	0.01	3.72	1.15	4.26	3.45	6.77	5.41	173.04	174.47	160.63	158.73	5.51	8.54	167.5	165.9	5.65	5.95
wwgm1206	wwml131018	wwml131017	1.25	61.3	1.11	6.80	1.48	4.99	4.06	7.51	6.01	174.47	173.93	158.73	157.55	8.54	8.37	165.9	165.6	5.95	6.76
wwgm0479	wwml131017	wwml131014	1.25	277.3	0.27	3.38	1.41	4.60	3.73	8.01	6.41	173.93	167.17	157.55	156.45	8.37	2.75	165.6	164.4	6.76	6.72
wwgm0507	wwml131014	wwml131013	1.25	132.0	0.07	1.65	3.48	5.73	4.52	7.97	6.38	167.17	163.40	156.45	156.32	2.75	0.00	164.4	163.4	6.72	5.83
wwgm0540	wwml131013	wwml131012	1.25	332.9	0.41	3.93	1.37	5.38	4.27	7.08	5.66	163.40	164.21	156.32	154.97	0.00	3.14	163.4	161.1	5.83	4.85
wwgm0482	wwml131012	wwml131011	1.25	85.1	0.44	4.07	1.32	5.38	4.28	5.96	4.77	164.21	165.59	154.97	154.68	3.14	5.20	161.1	160.4	4.85	4.46
wwgm0604	wwml131011	wwml131010	1.25	248.7	0.41	4.01	1.34	5.38	4.29	5.71	4.57	165.59	167.11	154.68	153.52	5.20	8.48	160.4	158.6	4.46	3.86
wwgm0555	wwml131010	wwml131009	1.25	382.6	0.31	3.47	1.55	5.38	4.31	5.11	4.09	167.11	165.55	153.52	152.25	8.48	9.65	158.6	155.9	3.86	2.40

[1]Calculation = HGL - Pipe Invert + Pipe Diameter. Negative number signifies the HGL is below top of pipe and surcharge conditions do not exist.

Figure 5 WWMP Surcharging Analysis			
Node	**[1]Surcharging According to Color**	**[2]Surcharging According WWMP Data Output**	**[3]Surcharging According to 3J Modeling**
wwml92161	No	No	No
wwml92159	No	No	No
wwml92158	No	No	No
wwml92157	No	No	No
wwml92156	No	No	No
wwml92147	No	No	No
wwml92148	No	No	No
wwml92149	No	No	No
wwml92150	Yes	No	No
wwml92151	Yes	No	No
wwml92152	Yes	No	No
wwml104050	Yes	No	No
wwml102132	Yes	No	No
wwml102131	Yes	No	No
wwml102073	Yes	No	No
wwml104051	Yes	No	No
wwml102072	Yes	No	No
wwml102071	Yes	No	No
wwml102070	Yes	No	No
wwml102069	No	No	No
wwml102068	Yes	No	No
wwml102067	Yes	No	No
wwml102066	Yes	No	No
wwml111099	No	No	No
wwml111053	No	No	No
wwml111037	No	No	Yes
wwml111036	Yes	Yes	Yes
wwml111035	Yes	Yes	Yes
wwml111040	Yes	Yes	Yes
wwml111032	Yes	Yes	Yes
wwml121031	Yes	Yes	Yes
wwml121100	Yes	Yes	Yes
wwml121030	Yes	Yes	Yes
wwml121029	Yes	Yes	Yes
wwml121028	Yes	Yes	Yes
wwml121103	Yes	Yes	Yes
wwml121027	Yes	Yes	Yes
wwml121026	Yes	Yes	Yes
wwml131025	Yes	Yes	Yes
wwml131024	Yes	Yes	Yes
wwml131023	Yes	Yes	Yes
wwml131022	Yes	Yes	Yes
wwml131021	Yes	Yes	Yes
wwml131020	Yes	Yes	Yes
wwml131111	Yes	Yes	Yes
wwml131019	Yes	Yes	Yes
wwml131018	Yes	Yes	Yes
wwml131017	Yes	Yes	Yes
wwml131014	Yes	Yes	Yes
wwml131013	Yes	Yes	Yes
wwml131012	Yes	Yes	Yes
wwml131011	Yes	Yes	Yes
wwml131010	Yes	Yes	Yes
[1]Figure 5: Updated System Evaluation from WWMP Update			
[2]WWMP Update: Appendix D1 - Existing System Flow			
[3]XPSTORM Wastewater Conveyance Data: Springbrook Subdivision Downstream Analysis (Existing & Proposed Conditions			

Table 5-2: Springbrook Road Alternatives Estimated Costs

Alternative	Item	Unit	Unit Price	Quantity	Cost
A	Upsize existing pipeline				$ 3,176,000
	Mobilization	%	5	-	$ 158,800
	Subtotal (rounded)				$ 3,335,000
	Contingency	%	30	-	$ 1,000,500
	Subtotal (rounded)				$ 4,336,000
	Engineering and CMS	%	25	-	$ 1,084,000
	Project Total Cost (rounded):				**$5,420,000**
B	Parallel gravity main				$ 1,282,500
	Upsize existing pipeline				$ 915,000
	Subtotal (rounded)				$ 2,198,000
	Mobilization	%	5	-	$ 109,900
	Subtotal (rounded)				$ 2,308,000
	Contingency	%	30	-	$ 692,400
	Subtotal (rounded)				$ 3,001,000
	Engineering (25%) and Soft Costs				$ 810,250
	Project Total Cost (rounded):				**$3,812,000**

Excerpt from WWMP, page 5-7

Appendix G - TVF&R Permit

3809 NE Springbrook Road Annexation

08/16/2024



FIRE CODE / LAND USE / BUILDING REVIEW APPLICATION

Tualatin Valley Fire & Rescue

North Operating Center
11945 SW 70th Avenue
Tigard, OR 97223
Phone: 503-649-8577

South Operating Center
8445 SW Elligsen Rd
Wilsonville, OR 97070
Phone: 503-649-8577

REV 6-30-20

Project Information

Applicant Name: Maski Narita – Springbrook Subdivision

Address: 3800 SW Cedar Hills Blvd, Suite 131

Phone: 503-430-7413

Email: M-narita@ichijouse.com

Site Address: 3809 N Springbrook Rd

City: Newberg, OR 97132

Map & Tax Lot #: 3S2W9 2300

Business Name: Ichijo USA CO

Land Use/Building Jurisdiction: Newberg

Land Use/ Building Permit # N/A

Choose from: Beaverton, Tigard, **Newberg**, Tualatin, North Plains, West Linn, Wilsonville, Sherwood, Rivergrove, Durham, King City, Washington County, Clackamas County, Multnomah County, Yamhill County

Project Description

A 100 lot subdivision located in Newberg Oregon near the intersection of Springbrook Road and Benjamin Road

Permit/Review Type (check one):

- ☒ Land Use / Building Review - Service Provider Permit
- ☐ Emergency Radio Responder Coverage Install/Test
- ☐ LPG Tank (Greater than 2,000 gallons)
- ☐ Flammable or Combustible Liquid Tank Installation (Greater than 1,000 gallons)
  - * Exception: Underground Storage Tanks (UST) are deferred to DEQ for regulation.
- ☐ Explosives Blasting (Blasting plan is required)
- ☐ Exterior Toxic, Pyrophoric or Corrosive Gas Installation (in excess of 810 cu.ft.)
- ☐ Tents or Temporary Membrane Structures (in excess of 10,000 square feet)
- ☐ Temporary Haunted House or similar
- ☐ OLCC Cannabis Extraction License Review
- ☐ Ceremonial Fire or Bonfire (For gathering, ceremony or other assembly)

For Fire Marshal's Office Use Only

TVFR Permit # 2024-0095

Permit Type: SPP-Newberg

Submittal Date: 7-15-24

Assigned To: DPM Arn

Due Date: NA

Fees Due: Ø

Fees Paid: Ø

Approval/Inspection Conditions

(For Fire Marshal's Office Use Only)

This section is for application approval only

[signature] 0450 7-15-24

Fire Marshal or Designee Date

Conditions: 100-lot development to have one point of fire access all homes to be voluntarily sprinklered.

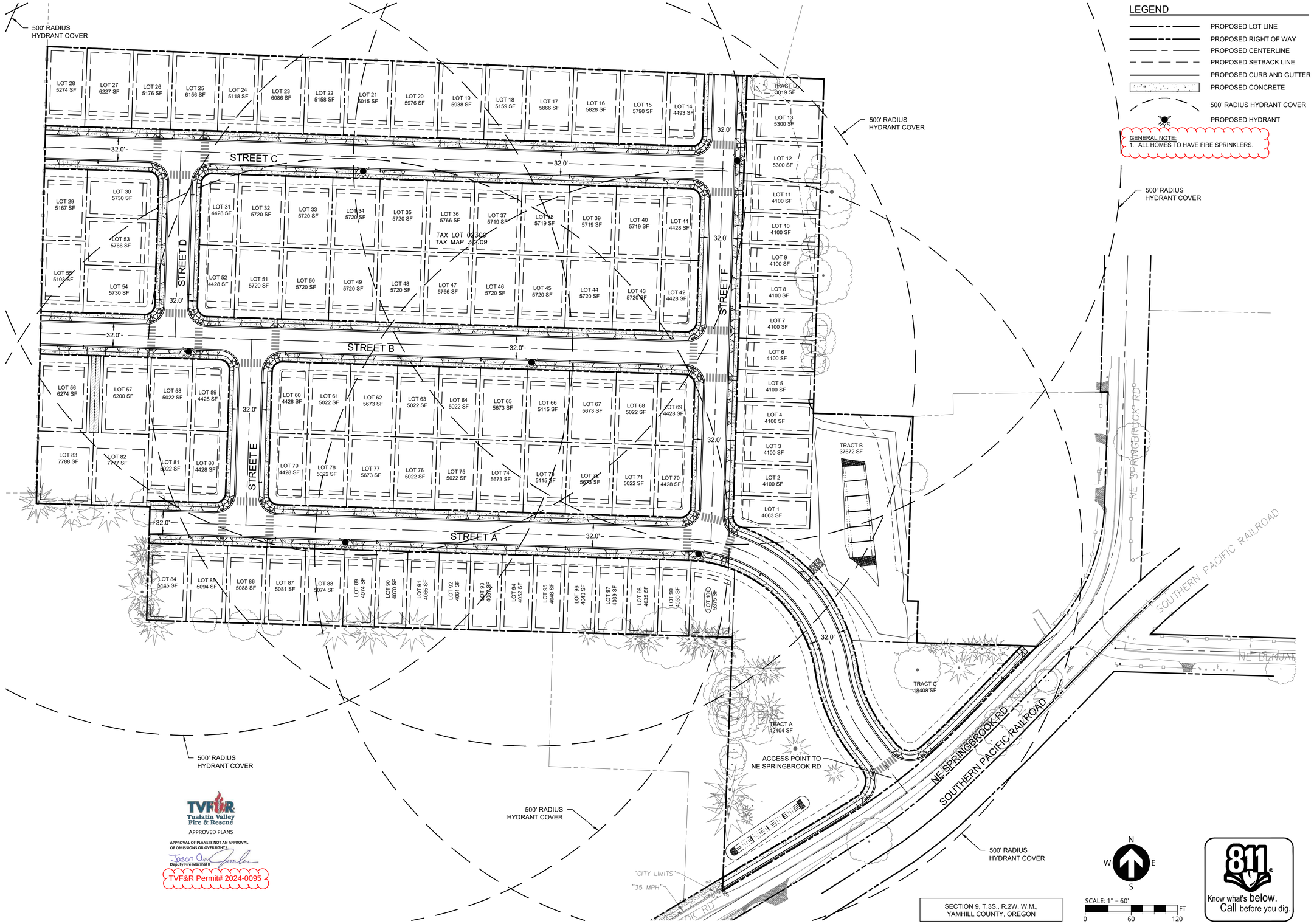
See Attached Conditions: ☒ Yes ☐ No attachedemail

Site Inspection Required: ☒ Yes ☐ No

This section used when site inspection is required

Inspection Comments:

Final TVFR Approval Signature & Emp ID Date



LEGEND

- PROPOSED LOT LINE
- PROPOSED RIGHT OF WAY
- PROPOSED CENTERLINE
- PROPOSED SETBACK LINE
- PROPOSED CURB AND GUTTER
- PROPOSED CONCRETE
- 500' RADIUS HYDRANT COVER
- PROPOSED HYDRANT

GENERAL NOTE:
1. ALL HOMES TO HAVE FIRE SPRINKLERS.

TVF&R
Tualatin Valley Fire & Rescue
APPROVED PLANS
APPROVAL OF PLANS IS NOT AN APPROVAL OF OMISSIONS OR OVERSIGHTS.
Deputy Fire Marshal II
TVF&R Permit# 2024-0095

Know what's below. Call before you dig. 811

REGISTERED PROFESSIONAL ENGINEER
92408
OREGON
JULY 11, 2017
JAMES J. SCHMITT
EXPIRES: 06/30/24
PRELIMINARY

PUBLISH DATE
6/25/2024
ISSUED FOR
LAND USE DOCUMENTS
REVISIONS

FIRE ACCESS EXHIBIT
NE SPRINGBROOK RD
PLANNED UNIT DEVELOPMENT

ICHIJO USA CO., LTD.
NEWBERG, OR

3J CONSULTING
CIVIL ENGINEERING
WATER RESOURCES
COMMUNITY PLANNING
9600 SW NIMBUS AVE., SUITE 100; BEAVERTON, OR 97008

PROJECT INFORMATION
3J PROJECT # | 23913
TAX LOT(S) | 3S2W9 2300
LAND USE # | TBD
DESIGNED BY | SRC
CHECKED BY | JJS

SHEET NUMBER
C200

P:\23913-3809 NE SPRINGBROOK RD SUBDIVISION\CAD\EXHIBITS-ANALYSIS\GENERAL USE PLAN\2024-06-25 GENERAL USE PLAN\23913 - FIRE ACCESS EXHIBIT.DWG

Appendix H - Water System Analysis Report

3809 NE Springbrook Road Annexation

08/16/2024



GRAYLING ENGINEERS

Technical Memorandum DRAFT

Project: Springbrook Subdivision Booster Pump Station [2409A]

Date: August 14th, 2024

To: Brett Musick, PE
City of Newberg

From: Haillee Nunn, EIT (Grayling)
Kyle Thompson, PE (Grayling)
Jeff Howard, PE (R&W)

Re: Basis of Design

Att: A. Precision Pumping System Enclosure and Building Options
B. Hydrant Test Data

Background, Purpose, and Authorization

The City of Newberg owns and operates the public drinking water system that serves the proposed Springbrook subdivision. The Springbrook subdivision is located at the upper end of the system's highest pressure zone, known as Pressure Zone 1. The 2017 Water Master Plan states that pressure Zone 1 can provide adequate water pressure up to an elevation of 310 feet. The proposed subdivision will have services ranging from 300 feet to 350 feet at the highest elevation. A booster pump station is needed to provide adequate water pressure under normal conditions and fire flow under emergency conditions.

3J Consulting (3J) has requested assistance from Grayling Engineers (Grayling) with developing a pre-design for the booster pump station to serve the subdivision. Grayling has enlisted the help from R&W Engineering (R&W) to determine the power requirements for the pump station. The results and conclusions presented herein will be used in the subsequent final design phase of the project.

Preliminary Reviews

Water Quality

The proposed pump station is not anticipated to have an effect on water quality. However, because the subdivision is on the fringe of the City's water system, a chlorination station could be added in case chlorine residuals are low in the area.

Geotechnical

A preliminary geotechnical review has not been conducted but will be completed during the second phase of work (final design). This review will assess soil conditions to ensure a stable foundation for the pump station and identify any potential challenges such as high water tables or soil instability.

Permitting

The City is the permitting agency for this project. The proposed pump station will require a final plan review and approval by the Oregon Health Authority (OHA). In addition, the following permits are anticipated:

- Trade permits for electrical and mechanical; these will be led by the contractor.

Pump Station Capacity Evaluation

To develop the system design conditions, a hydraulic analysis was completed using WaterCAD by Bentley. The pump station is assumed to be supplied by a 12-inch distribution main from N. Springbrook Road, which currently dead-ends at a fire hydrant near 3898 N. Springbrook Road. A flow test was performed on two hydrants: one at the current dead-end of the main, and another approximately 370 feet to the south, near the intersection of N. Springbrook Road and Allison Lane. The test data, provided by AFP Systems, was utilized to model the existing distribution system supplying the proposed pump station. A system curve was developed for both 20 psi and 50 psi operating pressures for the subdivision; 20 psi is the minimum operating pressure under fire flow conditions, while 50 psi is an assumed operating pressure under normal conditions. [CITY, CONFIRM DISTRIBUTION PRESSURE.]

The evaluation is based on the following design criteria:

- The station must supply 2,000 gpm of fire flow, considering the R-3 zoning for some of the lots, while simultaneously delivering maximum day demand (MDD) and maintaining a minimum pressure of 20 psi in the distribution system,
- 12-inch diameter supply and discharge line,
- 8-inch diameter distribution piping,
- The station must meet peak hour demand (PHD), calculated using Equation 3-1 from the Washington State Department of Health (DOH) Water System Design Manual (WSDM), resulting in a PHD of 134 gpm.

Table 1 lists the design points developed from the hydraulic model. Further evaluation of system head requirements will be performed during the final design phase when more detailed information is available on the layout and size of piping, control valves, and meters within the pump station. All of these contribute to system head losses and the final sizing and selection of pumps for the pump station. To accommodate these losses, a safety factor of 20 feet has been incorporated into the system curves, as illustrated in **Figure 1**.

Table 1. Initial Design Points

Design Point	Flow (gpm)	Head (ft)
1	160	80
2	2,000	85

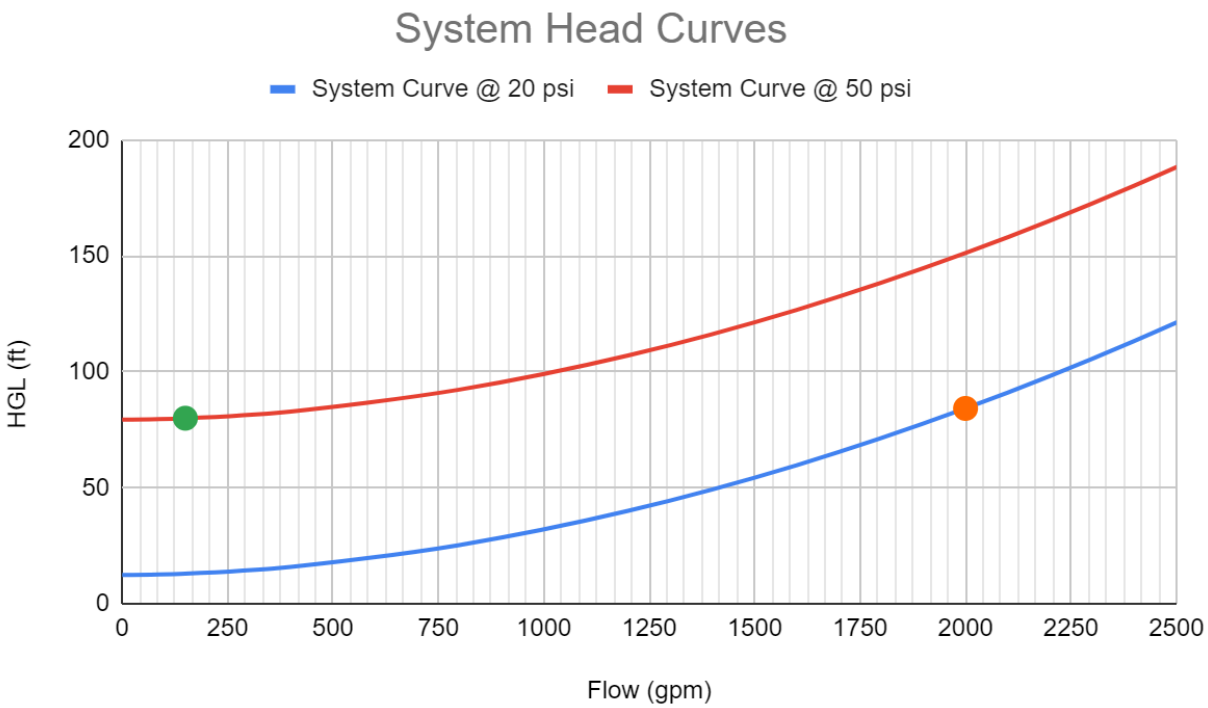


Figure 1. System Head Curves at 20 psi and 50 psi

Configuration Alternatives

Building

There are a variety of alternatives when it comes to housing the pumps and controls, each with its own set of advantages and considerations. Three alternatives, ranging from compact to custom enclosures, are presented below. While these are not the only options for a booster pump station, these are suitable options for this application.

- **Small Enclosure:** This option is cost-effective and quick to install but has limited space for maintenance and future upgrades. The control panel may be mounted inside the enclosure or in a separate enclosure or on a kiosk.



Figure 2. Aluminum Enclosure *(Image from Precision Pumping Systems)*

- **Pre-fabricated Building:** Offers a balance between cost and functionality, providing adequate space and flexibility for internal layouts while being relatively quick to construct. For this system, a building would be approximately 20 feet x 10 feet.



Figure 3. Pre-fabricated building *(Image from Precision Pumping Systems)*

- **Custom Building:** This option allows for the most flexibility in design and space but is the most expensive and time-consuming to construct.



Figure 4. Customized building with generator inside

Attachment A includes additional information regarding the aluminum enclosures and prefabricated buildings as supplied by Precision Pumping Systems.

[CITY, LET'S REVIEW]

Upon review, the City prefers a [TO FOLLOW] building/ enclosure for this application.

Pumps

Selecting the right type of pump is crucial for the efficiency and reliability of the booster pump station. Each type of pump offers different benefits and drawbacks, which must be considered based on the specific requirements of the project. The three pump types most commonly used in drinking water applications are listed below.

- **End Suction Pumps:** End suction pumps are robust and cost-effective but may have lower efficiency compared to other types.



Figure 5. End Suction Pumps ***(Image from Precision Pumping Systems)***

- **Vertical Multistage Pumps:** These offer better efficiency and require less space, making them suitable for compact installations. However, they are more expensive than end suction pumps and more susceptible to damage from debris.



Figure 6. Vertical Multistage Pumps (Image from Precision Pumping Systems)

- **Vertical Turbine Pumps:** These provide high efficiency and reliability. They are the most expensive option and require a more complex installation process.



Figure 7. Vertical Turbine Pumps (Image from Precision Pumping Systems)

[CITY, DO YOU HAVE A PREFERENCE ON PUMP TYPE?]

Upon review, the City prefers [TO FOLLOW] pumps for this application.

Pump Configuration

The minimum pump station configuration will consist of two larger pumps, each capable of supplying the required fire flow and a jockey pump to satisfy daily flows. The jockey pump will run most of the time to

meet the PHD and typical flows. Based on the capacity analysis discussed previously, the pumps would be approximately 60 hp and 5 hp, respectively. The skid for this configuration, which includes the electrical control panel, is approximately 8 feet x 17 feet.

The jockey pump ensures that the system maintains efficiency by not relying solely on the larger pumps for regular flow requirements. This approach conserves energy and reduces wear and tear on the larger pumps, which are reserved for emergency fire flow situations. By having dedicated pumps for both fire flow and regular flow, the system is optimized for reliability and performance.

[CITY, CONFIRM APPROACH]

Controls/ Communications

Effective control systems are crucial for the efficient and reliable operation of the booster pump station. The pump station will utilize Supervisory Control and Data Acquisition (SCADA) for monitoring and control. Additionally, Remote Telemetry Units (RTUs) will be integrated into the system, akin to the configuration used at the Oak Knoll Pump Station. This setup ensures consistent and reliable communication, allowing for real-time monitoring and control of the pump station operations from a central location. [CITY, CONFIRM. WHAT ARE YOUR THOUGHTS ON THE CONTROLS USED IN THE OAK KNOLL PUMP STATION? ARE THERE ANY ASPECTS YOU PARTICULARLY LIKE OR DISLIKE?]

Variable Frequency Drives

Variable Frequency Drives (VFDs) are an important component of the control system. They regulate the speed and torque of the pump motors, offering several benefits:

- **Energy Efficiency:** By adjusting the motor speed to match the system demand, VFDs reduce energy consumption and operational costs.
- **System Protection:** VFDs provide smooth start-ups and shut-downs, reducing mechanical stress on the pumps and minimizing water hammer effects.
- **Enhanced Control:** VFDs allow for precise control of flow and pressure, ensuring the system can respond dynamically to changes in demand.
- **Extended Equipment Life:** By reducing wear and tear on the pumps, VFDs can extend the operational lifespan of the equipment.

Integrating VFDs into the control system of the booster pump station will enhance its performance, improve energy efficiency, and reduce maintenance costs, making them a valuable addition to the overall design.

Instrumentation and Valves

Instrumentation is vital for monitoring and controlling the booster pump station to ensure optimal performance and reliability. Several key instruments are typically used in a constant pressure booster pump station:

- **Flow Meter:** Essential for measuring the volume and rate of water being pumped, helping to monitor performance, detect leaks, and ensure accurate billing.
- **Pressure Gauges:** Installed to monitor the pressure within the system, ensuring that the pump station maintains the required pressure levels for both domestic use and fire protection.
- **Control Valves:** Integral for regulating flow and pressure, maintaining system stability, and protecting against pressure surges.

- **Pressure Relief Valves:** These valves automatically release pressure when it exceeds a predetermined limit. They are essential for protecting the system from overpressure conditions.
- **Check Valves:** Check valves prevent backflow and protect the integrity of the system.

Selecting the appropriate instrumentation ensures the pump station operates efficiently, meets regulatory requirements, and provides reliable service to the community.

The City has chosen to include the following instrumentation: [TO FOLLOW].

Power

The power utility service of the subdivision is Portland General Electric (PGE). Preferred power configuration for motors 1 HP and larger is 3-phase, with 480 Volts generally being preferred for motors larger than 20 HP to 25 HP. We have confirmed with PGE that three phase power is available along N. Springbrook Road, which allows for the proposed pump station location to be provided with 480 Volt, 3-phase power. Actual design of the service from the existing overhead lines to the pump station site will be performed by PGE, but it is assumed a primary power line will be extended, underground, from one of the existing power poles along N. Springbrook Road, to a transformer pad (or pad/vault, depending on PGE's requirements) location near the Booster Pump Station. The actual transformer size (kVA-rating) will be by PGE; the transformer pad should have a dimension of 6-ft x 6-ft.

Based on (2) 60HP pumps, (1) 5 HP pump, and various miscellaneous loads (lights, heat, receptacles, controls, etc.), our preliminary calculations indicate a 400 Amp service (at 480 Volts, 3-phase) will be required.

Backup Generator

Ensuring reliable backup power is essential for the continuous operation of the booster pump station. It is assumed that the generator will be natural gas powered, similar to the city's wastewater lift station standards.

Assuming the entire pump station is to be provided with backup power, preliminary calculations indicate a 150 kW generator will be required.

There are a couple of placement options for the generator, each with its own set of considerations:

- **Outside with a Sound Attenuating Enclosure:** Placing the generator outside in a sound attenuating enclosure can effectively reduce noise levels and exhaust issues. This option simplifies maintenance access and it keeps the interior space free for other equipment if a building is chosen to house the pumps. However, it requires adequate outdoor space and consideration of weather protection and security measures.
- **Inside a Building:** Housing the generator inside a building can protect it from environmental elements and potential vandalism. However, this option requires a larger custom building to accommodate the generator and ensure proper ventilation for exhaust and cooling. This increases construction costs and can complicate the internal layout.

[CITY, WOULD YOU LIKE THE GENERATOR OUTSIDE OR INSIDE A BUILDING? IF THE LATTER THE BUILDING MUST BE CUSTOM TO ACCOMMODATE NFPA AND VENTILATION REQUIREMENTS.]

The City has chosen to place the generator [TO FOLLOW].

Preliminary Cost Estimate

The estimated project cost for the proposed Crestview Green Sanitary Pump Station is $XXX,XXX which includes a 30% contingency. The cost estimate represents an opinion of cost only, acknowledging that final costs of individual projects will vary depending on actual labor and material costs, and other factors. The Association for the Advancement of Cost Engineering International (AACE International) classifies cost estimates depending on project definition, end usage, and other factors. The cost estimates presented herein are considered Class 4 with the end usage being concept evaluation. The expected accuracy range for this level of detail is -20 percent to +30 percent.

Estimated costs shown herein are expressed in 2024 dollars. Costs are based on historical data, past projects, and correspondence with contractors. Costs do not include land acquisition in the form of either purchase or easements.

Next Steps

Based on the results of the predesign task described in this memorandum, the anticipated next steps for the project are outlined below.

- Geotechnical investigation site work and design recommendations
- Finalize pump selection
- Complete final design
- Prepare project report for submittal to OHA

ATTACHMENT A

Precision Pumping System Enclosure and Building Options

PPS
Precision Pumping Systems

PRE-PACKAGED PUMP STATION

MARINE GRADE ALUMINUM ENCLOSURES

Protect your pump station from the elements with our marine grade aluminum custom enclosures. These enclosures provide life-extending protections—while eliminating the need to build an expensive pump house.





Features

- 5052 H-32 marine grade aluminum combat corrosion
- Heat fused, polyester TGIC powder coating
- Thickness: .08"
- Removable bolt-down, single or double roll-off lids
- Lift-off lids and detachable panels
- Locking doors prevent vandalism and intrusion
- Low profile dimensions and design
- Non-slip floor matting

Available Options

- Custom colors available
- Interior and exterior lighting
- Heating, air conditioning and insulation
- Ventilation fans to regulate temperature
- Standard and custom designs
- Stainless Steel

Powder Coat Color Options

PPS Green

PPS Beige

PPS BEIGE IS STANDARD UNLESS OTHERWISE SPECIFIED

Boise, ID
208.323.5300

Columbia, SC
839.895.5350

PPS
Precision Pumping Systems

GoPPS.com

FAMILY-OWNED
SINCE 1972
AND OPERATED

Available in 12 different sizes (Custom sizes available)



W **24** x D **36** x H **25**



W **32** x D **48** x H **33**



W **32** x D **48** x H **33**



W **48** x D **33** x H **32**



W **66** x D **48** x H **48**



W **96** x D **48** x H **48**



W **96** x D **48** x H **66**



W **96** x D **72** x H **66**



W **200** x D **72** x H **66**



W **96** x D **96** x H **78**



W **120** x D **96** x H **78**



W **200** x D **96** x H **78**





Boise, ID
208.323.5300

Columbia, SC
839.895.5350

PPS
Precision Pumping Systems

GoPPS.com

FAMILY-OWNED
SINCE 1972
AND OPERATED

PPS
Precision Pumping Systems

PRE-PACKAGED PUMP STATION

PREFABRICATED ENCLOSURE OPTIONS

PreCast Concrete Buildings







Color Options



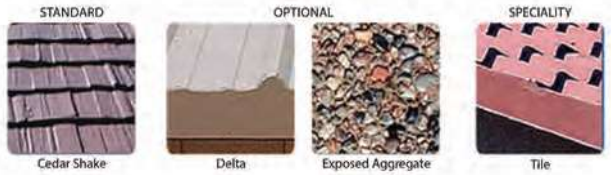
Stone Options



Wall Textures



Roof Textures



Powder Coated Marine Grade Aluminum Enclosures











Composite Buildings

Standard Composite Finish



Composite with Siding and Roofing





Additional Options





Pump Station Prefabricated Enclosure Features & Options

Precast Concrete

- 4" thick steel-reinforced concrete walls
- 5" thick steel-reinforced concrete roof
- Standard and custom designs
- Built to withstand earthquakes, hurricane winds and 120 lb/Ft^2 snow load
- Vandal resistant components
- Widest variety of finishes, textures and colors available
- Shipped ready to use

Available Options

- Custom window and doors
- Ventilation/Heating/Air Conditioning
- Interior and exterior lighting
- Intrusion alarm prevents unauthorized entry and theft
- Non-slip floor matting

Powder Coated Marine Grade Aluminum

- 5052 H-32 marine grade aluminum combat corrosion
- Heat fused, polyester TGIC powder coating
- Removable bolt-down, single or double roll-off lids
- Lift-off lids and detachable panels
- Locking doors prevent vandalism and intrusion
- Low profile dimensions and design
- Non-slip floor matting

Available Options

- Custom colors available
- Interior and exterior lighting
- Heating, air conditioning and insulation
- Ventilation fans to regulate temperature
- Standard and custom designs

Composite

- Non-corrosive, sound reducing composite material
- Secure equipment protection
- Designed to resist damage from impact, chemicals, and environmental conditions
- Arrives fully assembled and generally does not require a building permit
- Locking doors prevent vandalism and intrusion
- Walk-in space for easy service and maintenance access
- New construction or retrofit for existing installations

Available Options

- Thermal insulation
- Interior and exterior lighting
- Roof access hatches
- Custom enclosure colors and finishes
- Standard and custom designs

Boise, ID
208.323.5300

Columbia, SC
839.895.5350

PPS
Precision Pumping Systems

GoPPS.com

FAMILY-OWNED SINCE 1972 AND OPERATED

ATTACHMENT B

Hydrant Test Data

AFP SYSTEMS 19435 SW 129th AVE. Tualatin, OR 97063 (503) 692 9284

AFP Systems Fire Hydrant Test Form

Person conducting inspection: Clinton Crisp, Michael Garcia Date: 6-24-24

Building Name: 3809 NE Springbrook Rd, Newberg, OR, USA

Building Address: Northeast Springbrook Road Newberg OR 97132

Number of hydrants being tested: _____

Contact: _____ Number: _____ Email: _____

	#1	#2	#3	#4	#5
Location of hydrant?	South	North			
Access unobstructed?	Yes	Yes			
Faced correctly?	Yes	Yes			
Set Properly?	Yes	Yes			
Location of residual pressure gauge?	N	S			
Static PSI?	60	63			
Residual PSI?	55	57			
Size of outlet flowed?	2.5	2.5			
Number of outlets flowed?	1	1			
Pitot reading?	37	34			
GPM flowed?	1040	1030			
Threads in good repair?	Yes	Yes			
Lubricated?	Yes	Yes			
Leaking in base, dome, or sleeve when under pressure not present?	Yes	Yes			
Hydrant operates properly?	Yes	Yes			
Operating nut lubricated?	Yes	Yes			
Hydrant drains properly?	Yes	Yes			

If NO Please explain:

_____

_____

_____

_____

_____

AFP SYSTEMS 19435 SW 129th AVE. Tualatin, OR 97063 (503) 692 9284

Corrections made:

_____
_____
_____
_____
_____

Corrections required:

_____
_____
_____
_____
_____

Recommendations:

_____
_____
_____
_____
_____

Who was notified of corrections required if needed? _____

Name: _____ Phone number: _____ Email: _____

AFP systems qualified technician preformed this inspection.

Name: Clinton Crisp

Signature: _____

Title: Service

Questions please call (503) 692 9284 or email Justin@afpsys.com

CS-13948 Received 6/4/2024 County Surveyor

RECORD OF SURVEY

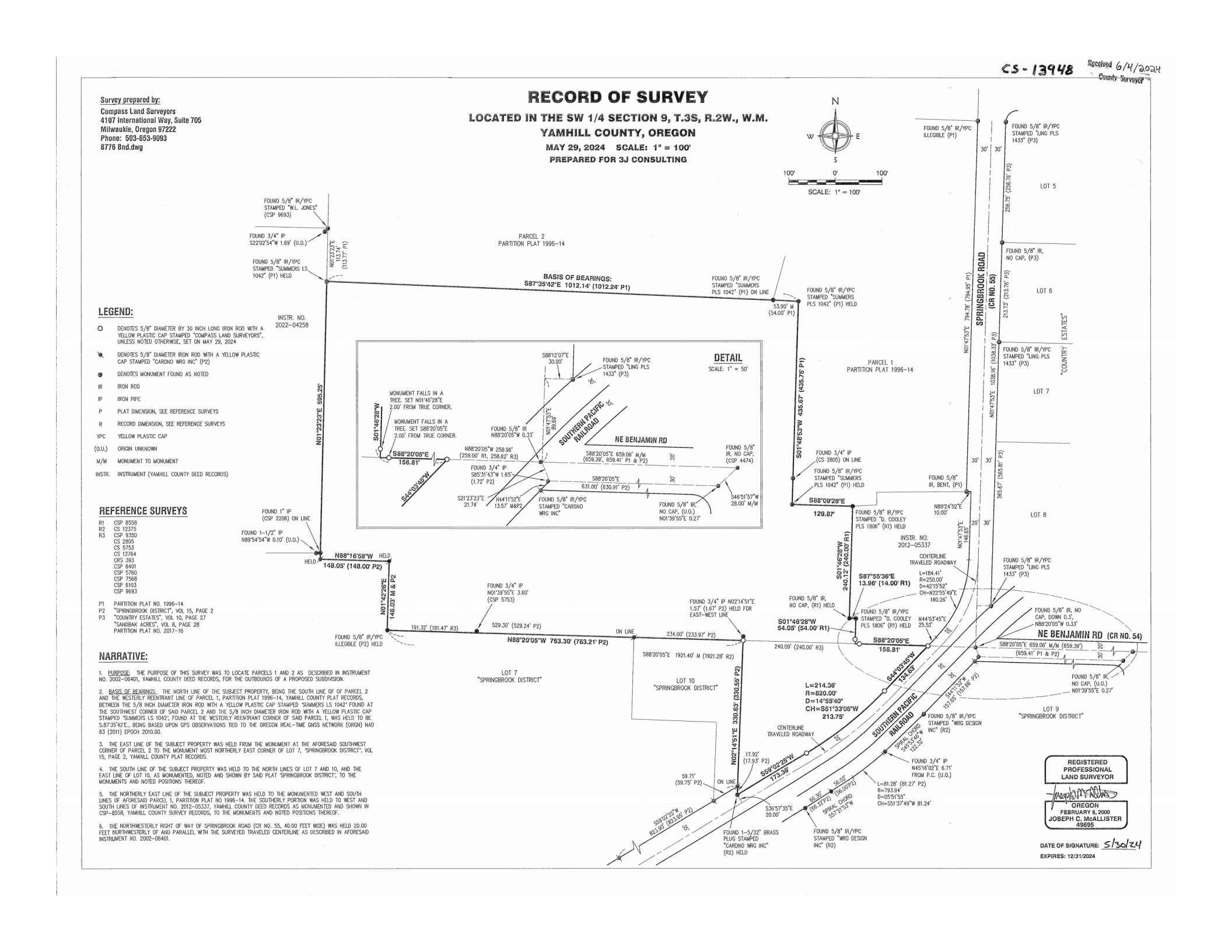
LOCATED IN THE SW 1/4 SECTION 9, T.3S, R.2W., W.M.

YAMHILL COUNTY, OREGON

MAY 29, 2024 SCALE: 1" = 100'

PREPARED FOR 3J CONSULTING

Survey prepared by:
Compass Land Surveyors
4107 International Way, Suite 705
Milwaukie, Oregon 97222
Phone: 503-653-9093
8776 Bnd.dwg



LEGEND:

○	DENOTES 5/8" DIAMETER BY 30 INCH LONG IRON ROD WITH A YELLOW PLASTIC CAP STAMPED "COMPASS LAND SURVEYORS", UNLESS NOTED OTHERWISE, SET ON MAY 29, 2024
⊗	DENOTES 5/8" DIAMETER IRON ROD WITH A YELLOW PLASTIC CAP STAMPED "CARDNO WRG INC" (P2)
●	DENOTES MONUMENT FOUND AS NOTED
IR	IRON ROD
IP	IRON PIPE
P	PLAT DIMENSION, SEE REFERENCE SURVEYS
R	RECORD DIMENSION, SEE REFERENCE SURVEYS
YPC	YELLOW PLASTIC CAP
(O.U.)	ORIGIN UNKNOWN
M/M	MONUMENT TO MONUMENT
INSTR.	INSTRUMENT (YAMHILL COUNTY DEED RECORDS)

REFERENCE SURVEYS

R1	CSP 8558
R2	CS 12375
R3	CSP 9350 CS 2805 CS 5753 CS 12764 CRS 393 CSP 8401 CSP 5760 CSP 7568 CSP 6103 CSP 9693
P1	PARTITION PLAT NO. 1996-14
P2	"SPRINGBROOK DISTRICT", VOL 15, PAGE 2
P3	"COUNTRY ESTATES", VOL 10, PAGE 27 "SANDBAK ACRES", VOL 8, PAGE 28 PARTITION PLAT NO. 2017-16

NARRATIVE:

1. PURPOSE: THE PURPOSE OF THIS SURVEY WAS TO LOCATE PARCELS 1 AND 2 AS DESCRIBED IN INSTRUMENT NO. 2002-06401, YAMHILL COUNTY DEED RECORDS, FOR THE OUTBOUNDS OF A PROPOSED SUBDIVISION.

2. BASIS OF BEARINGS: THE NORTH LINE OF THE SUBJECT PROPERTY, BEING THE SOUTH LINE OF OF PARCEL 2 AND THE WESTERLY REENTRANT LINE OF PARCEL 1, PARTITION PLAT 1996-14, YAMHILL COUNTY PLAT RECORDS, BETWEEN THE 5/8 INCH DIAMETER IRON ROD WITH A YELLOW PLASTIC CAP STAMPED "SUMMERS LS 1042" FOUND AT THE SOUTHWEST CORNER OF SAID PARCEL 2 AND THE 5/8 INCH DIAMETER IRON ROD WITH A YELLOW PLASTIC CAP STAMPED "SUMMERS LS 1042", FOUND AT THE WESTERLY REENTRANT CORNER OF SAID PARCEL 1, WAS HELD TO BE S.87°35'42"E., BEING BASED UPON GPS OBSERVATIONS TIED TO THE OREGON REAL-TIME GNSS NETWORK (ORGN) NAD 83 (2011) EPOCH 2010.00.

3. THE EAST LINE OF THE SUBJECT PROPERTY WAS HELD FROM THE MONUMENT AT THE AFORESAID SOUTHWEST CORNER OF PARCEL 2 TO THE MONUMENT MOST NORTHERLY EAST CORNER OF LOT 7, "SPRINGBROOK DISTRICT", VOL 15, PAGE 2, YAMHILL COUNTY PLAT RECORDS.

4. THE SOUTH LINE OF THE SUBJECT PROPERTY WAS HELD TO THE NORTH LINES OF LOT 7 AND 10, AND THE EAST LINE OF LOT 10, AS MONUMENTED, NOTED AND SHOWN BY SAID PLAT "SPRINGBROOK DISTRICT", TO THE MONUMENTS AND NOTED POSITIONS THEREOF.

5. THE NORTHERLY EAST LINE OF THE SUBJECT PROPERTY WAS HELD TO THE MONUMENTED WEST AND SOUTH LINES OF AFORESAID PARCEL 1, PARTITION PLAT NO 1996-14. THE SOUTHERLY PORTION WAS HELD TO WEST AND SOUTH LINES OF INSTRUMENT NO. 2012-05337, YAMHILL COUNTY DEED RECORDS AS MONUMENTED AND SHOWN IN CSP-8558, YAMHILL COUNTY SURVEY RECORDS, TO THE MONUMENTS AND NOTED POSITIONS THEREOF.

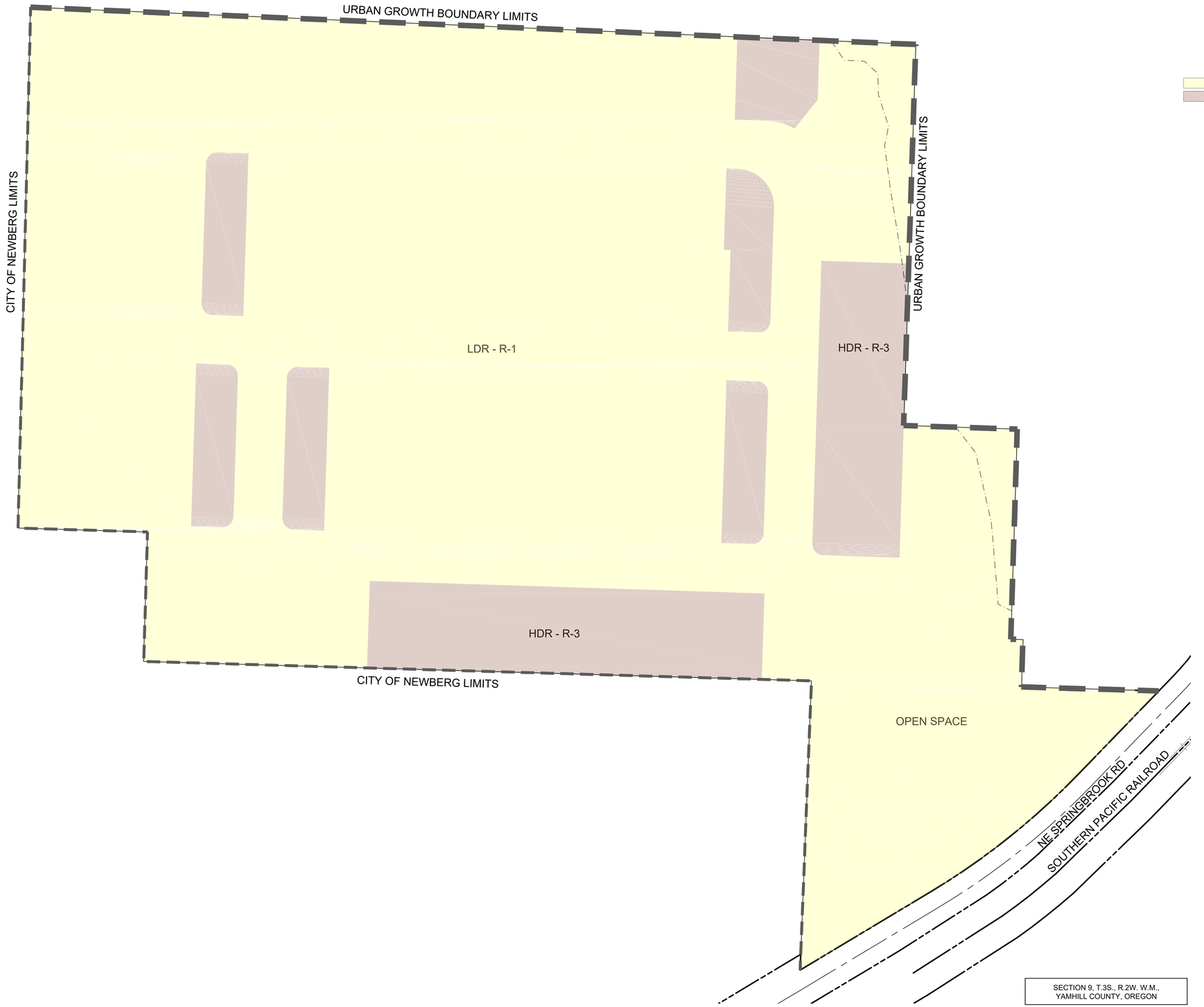
6. THE NORTHWESTERLY RIGHT OF WAY OF SPRINGBROOK ROAD (CR NO. 55, 40.00 FEET WIDE) WAS HELD 20.00 FEET NORTHWESTERLY OF AND PARALLEL WITH THE SURVEYED TRAVELED CENTERLINE AS DESCRIBED IN AFORESAID INSTRUMENT NO. 2002-06401.

REGISTERED PROFESSIONAL LAND SURVEYOR

OREGON
FEBRUARY 8, 2000
JOSEPH C. McALLISTER
49695

DATE OF SIGNATURE: 5/30/24

EXPIRES: 12/31/2024



LEGEND

- PROPOSED RIGHT OF WAY
- PROPOSED CENTERLINE
- EXISTING STREAM CORRIDOR
- CITY OF NEWBERG LIMITS
- URBAN GROWTH BOUNDARY LIMITS

ZONE	GROSS SIZE (ACRE)	NET SIZE (ACRE)
R-1	16.14	15.81
R-3	3.02	3.01
TOTAL	19.16	18.82

SECTION 9, T.3S., R.2W. W.M.,
YAMHILL COUNTY, OREGON

N
W E
S

SCALE: 1" = 60'
0 60 120 FT

Know what's below.
Call before you dig.

REGISTERED PROFESSIONAL ENGINEER
92408
OREGON
JULY 11, 2017
JAMES J. SCHMITT
PRELIMINARY
EXPIRES: 06/30/26

PUBLISH DATE
9/9/2024
ISSUED FOR
LAND USE DOCUMENTS
REVISIONS

GENERAL LAND USE PLAN
NE SPRINGBROOK RD ANNEXATION
ICHIJO USA CO., LTD.
NEWBERG, OR

3J CONSULTING
CIVIL ENGINEERING
WATER RESOURCES
COMMUNITY PLANNING
9600 SW NIMBUS AVE., SUITE 100; BEAVERTON, OR 97008

PROJECT INFORMATION
3J PROJECT # | 23913
TAX LOT(S) | 3S2W9 2300
LAND USE # | TBD
DESIGNED BY | SRC
CHECKED BY | JJS

SHEET NUMBER
C201

P:\23913-3809 NE SPRINGBROOK RD SUBDIVISION\CAD\EXHIBITS-ANALYSIS\GENERAL USE PLAN\2024-09-09 UPDATED ZONING MAP FOR ANNEXATION\23913 - PROPOSED ZONING MAP.DWG

3J CONSULTING
9600 SW NIMBUS AVENUE, SUITE 100
BEAVERTON, OREGON 97008
PH: (503) 946.9365
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MEMORANDUM

To: James Dingwall
Assistant Planner
City of Newberg

From: Sam Huck
Planner

Date: September 17, 2024

Project Name: 3809 NE Springbrook Road Annexation
Project No: ANX24-0001
RE: Additional Finding for NMC 15.250.030(A)(1)

This memorandum has been prepared in response to the request by City Staff to provide an additional finding for NMC 15.250.030(A)(1) discussing how the areas selected for the HDR designation/R-3 zoning are the portions of the property most suitable for high density development.

15.250.030 Quasi-judicial annexation criteria.
Quasi-judicial annexation applications are those filed pursuant to the application of property owners and exclude legislative annexations. The following criteria shall apply to all quasi-judicial annexation requests:

A. The proposed use for the site complies with the Newberg comprehensive plan and with the designation on the Newberg comprehensive plan map. If a redesignation of the plan map is requested concurrent with annexation, the uses allowed under the proposed designation must comply with the Newberg comprehensive plan.

1. Where large LDR or MDR designated parcels or groups of parcels are to be annexed, the applicant(s) shall concurrently apply for a comprehensive plan map amendment to include some HDR-designated/R-3 zoned lands, consistent with the policy of distributing R-3 multifamily housing throughout the community. Such zoning shall be applied to portions of the property that are most suitable for high density development.

For the purposes of this policy, "large" is defined as an area greater than 15 net acres, after subtracting for land in stream corridor overlays. "Some" is defined as 10 percent of the net size of the application.

Finding: The subject property is 19.16 gross acres. After subtracting land in stream corridor overlays, the site is 18.82 net acres, therefore the requirements of this section apply. A portion of the LDR designated parcels will be redesignated through a concurrent

comprehensive plan map amendment and zone change applications to include HDR designated/R-3 zoned lands.

The Applicant proposes approximately 16 percent of the net size of the site as HDR-designated/R-3 zoned lands, as demonstrated in the General Land Use Plan (Sheet C201) provided in Appendix E. This amount of land proposed as HDR-designated/R-3 zoned lands exceeds the requirement for providing 10 percent of net acres by an additional 6 percent, or approximately one and a half acres.

The policy for distributing R-3 housing throughout the community as referenced in this section of code is based on the Location Policies and Mix Policies of the comprehensive plan. These policies encourage R-3 zoning throughout the community. The areas proposed for R-3 zoning in this proposal have been distributed throughout the development site in accordance with these policies.

The Mix Policies section of the Comprehensive Plan and this section of the development code state that R-3 zoning should be applied to portions of the property that are most suitable for high density development. The location of these R-3 zoned lands have been carefully chosen as they are the most suitable in relation to access and visibility in the future development of the site. Nearly two acres out of the approximately three acres of R-3 zoned areas are located nearest to the main road that provides access to the future neighborhood. The Location Policies of the Comprehensive plan provide guidance for where medium and high density areas should be located, stating that such areas should be located for immediate access to collector streets. The location of these areas of proposed R-3 lands were located for proximity to Springbrook Road, which is classified as a Major Collector, and the highest road classification serving the site. The R-3 zoned lands are not located directly abutting Springbrook Road due to topographic constraints for development as the slope of the area on the site abutting Springbrook Road would likely prevent development of any residential dwellings.

The areas that are proposed closest to Springbrook Road are approximately 1.97 acres in size. This area alone exceeds the requirement for providing 10 percent of net acreage as R-3 zoned lands. All other areas proposed as R-3 zoned land are located at street corners of the future development, providing additional R-3 zoning to the community and distributing it throughout the site.

The location of the HDR-designated/R-3 zoned lands have been chosen in accordance with the Newberg Municipal Code and Comprehensive Plan policies.

This standard is met.

Thank you for providing this opportunity to provide an additional finding for NMC 15.250.030(A)(1). Please don't hesitate to reach out with any questions.

Sincerely,



Sam Huck, AICP Candidate
Planner
3J Consulting, Inc.

PLANNING DIVISION FILE #: .

CITY OF NEWBERG
AFFIDAVIT OF NOTICING

REFERENCE ATTACHED LIST(S)/NOTICE(S)

I, Sam Huck, do hereby certify that the attached Notice of Land Use Action was:

a) mailed to the following list of property owners, by United States mail, postage prepaid on 09/17/2024 (date);

b) posted on the site according to standards established in Newberg Development Code §15.100.260 on 09/18/2024 (date).

I acknowledge that failure to mail the notice in a timely manner constitutes an agreement by the applicant to defer the 120-day process limit and acknowledge that failure to mail will result in the automatic postponement of a decision on the application *15.100.210.(D)(2)* 09/18/2024 (date).

OFFICIAL STAMP
AUDREY L. JONES
NOTARY PUBLIC - OREGON
COMMISSION NO. 1036782
MY COMMISSION EXPIRES JULY 25, 2027

Audrey Jones

Signature 09/18/2024 Date

Sam Huck
Print name

PLANNING DIVISION FILE #: ANX24-0001 / CPMA24-0001 / ZMA24-0001

CITY OF NEWBERG
AFFIDAVIT OF NOTICING

REFERENCE ATTACHED LIST(S)/NOTICE(S)

I, Sam Huck, do hereby certify that the attached Notice of Land Use Action was:

a) mailed to the following list of property owners, by United States mail, postage prepaid on 10/23/2024 (date);

b) posted on the site according to standards established in Newberg Development Code §15.100.260 on 09/18/2024 (date).

I acknowledge that failure to mail the notice in a timely manner constitutes an agreement by the applicant to defer the 120-day process limit and acknowledge that failure to mail will result in the automatic postponement of a decision on the application *15.100.210.(D)(2)* 10/24/2024 (date).

OFFICIAL STAMP
AUDREY L. JONES
NOTARY PUBLIC - OREGON
COMMISSION NO. 1036782
MY COMMISSION EXPIRES JULY 25, 2027

Audrey L Jones

Signature 10/24/2024 Date

Sam Huck
Print name

EXHIBIT “F”
AGENCY COMMENTS

AFFIDAVIT OF ROUTING

FILE #: ANX24-0001/CPMA24-0001/ZMA24-0001 **REFERRAL OF APPLICATION**

INFO: annex property into the City limits, amend the Comprehensive Plan and Zoning Map for a proposed Subdivision

CITY OF NEWBERG
AFFIDAVIT OF ROUTING

REFERENCE ATTACHED LIST(S)/NOTICE(S)

I, Fé Bates, for the City of Newberg, Oregon, do hereby certify that the attached referral was;

A. Routed/mailed referral to the following list, by Email or United States mail, postage prepaid & interoffice mail Sep 19, 2024.

Fé Bates — Administrative Assistant — 9/19/24

Signature | Title | Date

Fe Bates

From:	Fe Bates
Sent:	Tuesday, September 17, 2024 4:29 PM
Cc:	Fe Bates; James Dingwall
Subject:	City of Newberg Request for Referral Review: ANX24-0001/CPMA24-0001/ZMA24-0001
Attachments:	Referral - ANX24-0001, CPMA24-0001, ZMA24-0001.pdf

Good Day,

Attached is Referral ANX24-0001/CPMA24-0001/ZMA24-0001 for request to annex property into the City limits, amend the Comprehensive Plan and Zoning Map for a proposed Subdivision.

The full application for can be viewed by clicking on the Link located on the Form. Please fill out the Referral Sign Off sheet and email it back no later than October 2, 2024 to Planning@newbergoregon.gov .

Thank you,

Please let us know how you feel about our services by filling out this *City Services Customer Satisfaction Survey*.

Fé Bates
Community Development
Administrative Assistant
City of Newberg
City Hall: 503-537-1240
Direct: 503-554-7788

OUR OFFICE HAS TEMPORARILY MOVED TO THE WASTE WATER TREATMENT PLANT AT: 2301 NE WYNOOSKI RD.
We will be open to the Public for any Permitting or Planning needs from 8:30 to 3:30; Monday- Friday

Always STRIVE for Your Best
Want to learn more and get involved? 👉 **bit.ly/cityofnewberg**

PUBLIC RECORDS LAW DISCLOSURE: *Messages to and from this e-mail address are public records of the City of Newberg and may be subject to public disclosure. This e-mail may be subject to the State Retention Schedule.*

Members:

andress@newberg.k12.or.us	andress@newberg.k12.or.us
brion.scott@odot.oregon.gov	brion.scott@odot.oregon.gov
Brown, Jason	JBrown2@wm.com
Comcast Business (Jason_carroll@cable.comcast.com)	Jason_carroll@cable.comcast.com
Don Clements	dclements@cprdnewberg.org
justin.fantz@ziply.com	justin.fantz@ziply.com
jwille@wm.com	jwille@wm.com
Newberg Postmaster	97132newbergor@usps.gov
NW Nat-Brian Kelley	brian.kelley@nwnatural.com
ODOT - Planing	ODOTR2PLANMGR@odot.oregon.gov
ODOT Rail-Manager Rail Safety	Carrie.a.martin@odot.state.or.us
PGE-Service & Design	service.coordinators@pgn.com
Pike Brandon	Brandon.PIKE@odav.oregon.gov
Sportsman Airpark-Jason	jason1@sportsmanairpark.com
Sportsman Airpark-Jerry	jerry@sportsmanairpark.com
thompsonc@co.yamhill.or.us	thompsonc@co.yamhill.or.us
TVFR Deputy Fire Marshall-Ty Darby	Ty.darby@tvfr.com
Yamhill County Planning-Ken Friday	fridayk@co.yamhill.or.us
Yamhill County Roads Dept	haffnerg@co.yamhill.or.us

Fe Bates

Contact Group Name: Referral Email

Categories: Staff Out

Members:

April Catan	april.catan@newbergoregon.gov
Barbara Davis	barbara.davis@newbergoregon.gov
Brett Musick	Brett.Musick@newbergoregon.gov
Brooks Bateman	brooks.bateman@newbergoregon.gov
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Vance Barton	vance.barton@newbergoregon.gov
Will Worthey	Will.Worthey@newbergoregon.gov

Fe Bates

Contact Group Name: Referral Email -City Department

COMMUNITY DEVELOPMENT
LAND USE APPLICATION REFERRAL

The enclosed material has been referred to you for your information and comment. Any comments you wish to make should be returned to the Community Development Department prior to: October 2, 2024
Please refer questions and comments to: James Dingwall

NOTE: Full size plans are available at the Community Development Department Office.

APPLICANT:	IchiJo USA Co. LTD
REQUEST:	Anex Prop into City/ Amend Comp Plan & Zoning Map for proposed subdivision
SITE ADDRESS:	3809 NE Springbrook
LOCATION:	
TAX LOT:	R3209 02300
FILE NO:	ANX24-0001/ CPMA24-0001/ ZMA24-0001
ZONE:	AF-10(YC Acricultral Farm Use- 10acres) City Comprehensive Plan Designation: R-1(Res Low Density Zone)
HEARING DATE:	10/10/2024

For full Project Information click on the Link Here: FULL APPLICATION

A revised Boundary Survey (Appendix A), General Land Use Plan (Appendix E), and finding for NMC 15.250.030(A)(1) were submitted by the Applicant and are included at the end of the referral materials.

- [✔] Reviewed, no conflict.
- [ ] Reviewed; recommend denial for the following reasons:
- [ ] Require additional information to review. (Please list information required)
- [ ] Meeting requested.
- [ ] Comments. (Attach additional pages as needed)

Reviewed By: _____ Date: 9/23/24

Organization: _____

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☐ Require additional information to review. (Please list information required)

☐ Meeting requested.

_____ Comments. (Attach additional pages as needed)

_____ _____

Reviewed By: Date:

_____

Organization:

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☐ Reviewed; recommend denial for the following reasons:

☐ Require additional information to review. (Please list information required)

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_____ Comments. (Attach additional pages as needed)

_____ _____

Reviewed By: Date:

_____

Organization:

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_____ Comments. (Attach additional pages as needed)

_____ _____

Reviewed By: Date:

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Organization:

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☑ Reviewed, no conflict.

☐ Reviewed; recommend denial for the following reasons:

☐ Require additional information to review. (Please list information required)

☐ Meeting requested.

_____ Comments. (Attach additional pages as needed)

_____Shelley Eggiman_____ ____9/18/24___
Reviewed By: _____ Date:

__PGE_____
Organization:

Engineering Comments on ANX24-0001 October 1, 2024

15.250.030 Quasi-judicial annexation criteria.

Quasi-judicial annexation applications are those filed pursuant to the application of property owners and exclude legislative annexations. The following criteria shall apply to all quasi-judicial annexation requests:

….

B. An adequate level of urban services must be available, or made available, within three years' time of annexation, except as noted in subsection (E) of this section. An "adequate level of urban services" shall be defined as:

1. Municipal wastewater and water service meeting the requirements enumerated in the Newberg comprehensive plan for provision of these services.

Finding: The Applicant is requesting annexation into the City of Newberg.

The City's online GIS mapping shows there is an existing 15-inch wastewater line in NE Springbrook Road approximately 380 feet southwest of the property. The City's wastewater system master plan shows the system has a capacity issue further south in Springbrook Road. It is modeled from the wastewater line in NE Springbrook Road. Project 12 Springbrook Road Alternative B Parallel Pipe is identified to address the capacity issues.

With future development of the site, the development will be required to provide a downstream wastewater analysis to determine if downstream deficiencies exist that need to be addressed by the development.

The City's online GIS mapping shows there is an existing 12-inch water service line in NE Springbrook Road approximately 380 feet Southwest of the property. This system is in pressure zone 1 which ranges from 80 to 310 feet in elevation. the applicant's design team determined that a portion of the project site is above the elevation served by pressure zone 1. This resulted in the need for a localized water booster pump station or for a larger regional water pump station and new reservoir as identified in the current Water Master Plan, Projects P-1, R-1 and M-16.

With future development of the site, the development will be required to provide a scoping memo for the water booster pump station design. the City of Newberg is to be provided with a water booster pump station design scoping memo for coordination prior to the development beginning design.

With future development of the site, the development will also be required to extend public water and wastewater lines to and through the development site.

This criterion will be met if the aforementioned condition of approval is adhered to.

2. Roads with an adequate design capacity for the proposed use and projected future uses. Where construction of the road is not deemed necessary within the three-year time period, the city shall note requirements such as dedication of right-of-way, waiver of remonstrance against assessment for road improvement costs, or participation in other traffic improvement costs, for application at the appropriate level of the planning process. The city shall also consider public costs for improvement and the ability of the city to provide for those costs.

Finding: The property has access frontage NE Springbrook Road. It is classified as Major Collector and is under the jurisdiction of Yamhill County. The Southern Pacific Railroad right-of-way is shown adjacent to the public road right-of-way on the City Online GIS. That right-of-way measures approximately 40 feet of public right-of-way and 60 feet of railroad right-of-way. Improvements will require a Yamhill County permit and will need to be built to City of Newberg Standards.

Information regarding existing right-of-way and cross-sections can be seen below and is consistent with the City's Transportation System Plan, Municipal Code and Public Works Design and Construction Standards.

Roadway	Functional Classification	Existing Right-of-way	Existing Pavement Width	Minimum Right-of-way	Minimum Pavement Width	Typical Cross-Section (per Transportation System Plan)
NE Springbrook Road	**Major Collector** (57-feet to 80-feet)	Approx. 40-feet	Approx. 25-feet	60-feet For typical section per TSP. 68-feet if parking allowed on one side.	36-feet	• 1-foot from back of walk to right-of-way** • 5-foot sidewalk • 5.5-foot planter* • 0.5-foot curb • 6-foot bike lane • 12-foot travel lane • 12-foot travel lane • 6-foot bike lane • 0.5-foot curb • 5.5-foot planter* • 5-foot sidewalk • 1-foot from back of walk to right-of-way**

*5-foot minimum inclusive of the curb per NMC 15.505.030(G)(8), **Per PWDCS 5.14

With future development of the site, the development will be required to locate the center line of the street based on the dimensions of a major collector and dedicate the amount of additional right-of-way necessary to provide for that full cross section.

Additionally, since the existing railroad right-of-way is adjacent to the public road right-of-way the applicant will be required to build full street improvements for NE Springbrook Road to match City of Newberg Standards for major collector dimensions. This would include street lighting and is to be consistent with existing street improvements along the adjacent property frontage southwest of the site.

With future development of the site, the development will be required to complete transportation system mitigations recommended in the Traffic Impact Analysis for the future development.

This criterion will be met if the aforementioned conditions of approval are adhered to.

COMMUNITY DEVELOPMENT
LAND USE APPLICATION REFERRAL

The enclosed material has been referred to you for your information and comment. Any comments you wish to make should be returned to the Community Development Department prior to: October 2, 2024
Please refer questions and comments to: James Dingwall

NOTE: Full size plans are available at the Community Development Department Office.

APPLICANT:	IchiJo USA Co. LTD
REQUEST:	Anex Prop into City/ Amend Comp Plan & Zoning Map for proposed subdivision
SITE ADDRESS:	3809 NE Springbrook
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ZONE:	AF-10(YC Acricultral Farm Use- 10acres) City Comprehensive Plan Designation: R-1(Res Low Density Zone)
HEARING DATE:	10/10/2024

For full Project Information click on the Link Here: FULL APPLICATION

A revised Boundary Survey (Appendix A), General Land Use Plan (Appendix E), and finding for NMC 15.250.030(A)(1) were submitted by the Applicant and are included at the end of the referral materials.

☐ Reviewed, no conflict.

☐ Reviewed; recommend denial for the following reasons:

☐ Require additional information to review. (Please list information required)

☐ Meeting requested.

_____ Comments. (Attach additional pages as needed) Page 187

I am also concerned about wastewater flows for this trunk line
Make sure any pump station doesn't enter the trunk line at a 90 degree angle to flow.

Reviewed By: _____ Date: 9/18/24

Organization: _____

3J CONSULTING
9600 SW NIMBUS AVENUE, SUITE 100
BEAVERTON, OREGON 97008
PH: (503) 946.9365
WWW.3JCONSULTING.COM

MEMORANDUM

To: James Dingwall
Assistant Planner
City of Newberg

From: Sam Huck
Planner

Date: August 16, 2024

Project Name: 3809 NE Springbrook Road Annexation
Project No: ANX24-0001
RE: Incomplete Notice Letter Response

This memorandum has been prepared to respond to the comments and request for additional information from the City in the Incomplete Notice letter dated August 12, 2024, for case file ANX24-0001. Submitted with this memorandum is a current title report submitted in the revised Appendix A, and a water systems analysis report submitted as Appendix H. In addition to these items requested by the City, a revised full land use submittal package with all appendices updated has been submitted.

Additional Information Requested by the City:

Planning:

- A current title report.

Applicant's Response: The Applicant provided the City with a current title report with this letter that has been delivered by email to James Dingwall and the City, dated August 16, 2024.

Engineering:

- The narrative references a need for a water booster pump station, however the submitted materials do not include a water system analysis report.

Applicant's Response: The Applicant provided the City with a draft water system analysis report with this letter that has been delivered by email to James Dingwall and the City, dated August 16, 2024.

Thank you for providing this opportunity to provide a response to the Incomplete Notice letter. Please find the additional and revised application materials submitted with this letter, and please don't hesitate to reach out with any questions.

Sincerely,



Sam Huck, AICP Candidate
Planner
3J Consulting, Inc.

Attached:

1. Full land use application packet with revised appendices and materials requested.

3J CONSULTING
CIVIL ENGINEERING | WATER RESOURCES | LAND USE PLANNING



3809 NE SPRINGBROOK ROAD ANNEXATION

3809 NE SPRINGBROOK ROAD, NEWBERG, OR 97132

APPLICANT

ICHIJO USA CO., LTD.
3800 SW CEDAR HILLS BOULEVARD, SUITE 131
BEAVERTON, OR 97005
CONTACT: MASAKI NARITA

APPLICANT'S REPRESENTATIVE

3J CONSULTING, INC.
9600 NW NIMBUS AVENUE, SUITE 100
BEAVERTON, OR 97008
CONTACT: SAM HUCK
PHONE: (503) 946-9365 x251

APPLICATION TYPE

TYPE III - ANNEXATION
TYPE III - COMPREHENSIVE PLAN MAP AMENDMENT
TYPE III - ZONING MAP AMENDMENT

SUBMITTAL DATE

JULY 11, 2024

SUBMITTAL DATE - REVISED/ADDITIONAL MATERIALS

AUGUST 16, 2024

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Appendices

Appendix A – Application Forms

- Application Form
- Consent to Annex
- Waiver of Expiration of Annexation Consent
- Measure 49 Waiver
- Legal Description
- Boundary Survey
- Current Title Report

Appendix B – Vicinity Map and Land Use Designations

- Vicinity Map
- Current Comprehensive Plan Designations
- Proposed Comprehensive Plan and Zoning Designations

Appendix C – Public Notice Materials

- Mailed Notice
- Mailing List
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- Affidavit of Notice

Appendix D – Traffic Impact Analysis

Appendix E – General Land Use Plans: Preliminary Drawing

- Sheet C201: General Land Use Plan

Appendix F – Wastewater Capacity Analysis

Appendix G – TVF&R Permit

Appendix H – Water System Analysis Report

GENERAL INFORMATION

Property Owner and Applicant:	**Ichijo USA Co., LTD.** 3800 SW Cedar Hills Boulevard, Suite 131 Beaverton, OR 97005 Contact: Masaki Narita Phone: (503) 430-7413 Email: m-narita@ichijousa.com
Planning Consultant:	**3J Consulting, Inc.** 9600 SW Nimbus Avenue, Suite 100 Beaverton, OR 97008 Contact: Sam Huck Phone: (503) 946-9365 x251 Email: sam.huck@3j-consulting.com
Civil Engineer:	**3J Consulting, Inc.** 9600 SW Nimbus Avenue, Suite 100 Beaverton, OR 97008 Contact: Chase Welborn, PE Phone: (503) 946-9365 x215 Email: chase.welborn@3j-consulting.com

SITE INFORMATION

Parcel Number:	R3209-02300
Address:	3809 NE Springbrook Road
Gross Site Area:	19.16 acres
Existing Zoning Designation:	AF-10
Comprehensive Plan Designation:	Low Density Residential (LDR)
Existing Use:	Single Family Residential – Farm Use
Surrounding Zoning:	The properties to the north, east, and west are located in unincorporated Yamhill County and are zoned AF-10. The properties to the South are located in the City of Newberg and are zoned Springbrook District Hospitality (SD/H).
Street Classification:	N Springbrook Road is classified as a Major Collector.

INTRODUCTION

APPLICANT'S REQUEST

Ichijo USA ("the Applicant") is proposing to annex the subject property into the City of Newberg and seeks approval of concurrent annexation, comprehensive plan map amendment, and zoning map amendment applications. This narrative describes the proposed annexation and demonstrates compliance with the relevant approval standards of Newberg's Title 15 Development Code ("NMC").

Annexations, comprehensive plan map amendments, and zoning map amendments are evaluated under the Type III Quasi-Judicial decision process. The proposal will be heard by the Planning Commission who will make a recommendation to the City Council. The City Council will render the Type III decision after a public hearing on the application is held.

SITE DESCRIPTION/SURROUNDING LAND USE

Located at 3809 Northeast Springbrook Road, the subject site is 19.16 acres in size. Identified as tax lot 3209 02300, the site is located within unincorporated Yamhill County. The site currently is zoned with a Agriculture/Forestry Small Holding District zoning designation (AF-10). The site is located within the City of Newberg's Urban Growth Boundary, and is designated Low Density Residential (LDR) on the City's Comprehensive Plan Map. The terrain of the property has a generally sloping topography from the west to the east /southeast of the property.

Portions of the property along the southern edge abut the Springbrook Master Plan boundary. However, the subject site itself is not included within the Springbrook District. The property has frontage on and takes access from Northeast Springbrook Road, which is classified as a Major Collector. A mapped stream and its associated vegetative corridor run along portions of the east property boundary. The site currently has a single-family residence, and several other structures that are used for agricultural purposes. The site has a number of trees, a stand of fir trees that is a matured tree farm, and fields that have been used for agriculture in the past.

PROPOSAL

The Applicant proposes an annexation, comprehensive plan map amendment, and zoning map amendment (zone change) for the subject property in order to bring the property into the City of Newberg. The concurrent applications will prepare the property for future development of residential housing as designated on the City's comprehensive plan map. A development application will be submitted separately after the annexation is complete.

The subject property is considered a large LDR designated parcel because it is greater than 15 net acres. The Newberg Municipal Code requires the Applicant to apply for a comprehensive plan map amendment to include some HDR-designated/R-3 zoned lands upon annexation. The Applicant proposes to annex some of the property as HDR/R-3 lands, which is consistent with the City of Newbery policy of distributing housing types throughout the community. Approximately 16 percent of the net acreage is proposed as R-3 zoned land.

APPLICABLE CRITERIA

The following sections of the Newberg Development Code have been extracted as they have been deemed to be applicable to the proposal. Following each **bold** applicable criteria or design standard, the Applicant has provided a series of draft findings. The intent of providing code and detailed responses and findings is to document, with absolute certainty, that the proposed development has satisfied the approval criteria for the annexation, comprehensive plan map amendment, and zone change applications.

Title 15 Development Code
Chapter 15.100 Land Use Processes and Procedures
15.100.050 Type III procedure-Quasi-judicial hearing
A. All Type III decisions shall be heard and decided by the planning commission. The planning commission's decision shall be final unless the decision is appealed or the decision is a recommendation to the city council.
B. Type III actions include, but are not limited to:

9. Annexation: This action is a recommendation to the city council.

Finding: In accordance with NMC 15.100.050.B.9 the proposed Annexation will follow the Type III process and procedures. The Applicant acknowledges the applicable provisions of Section 15.100.050.C through Section 15.100.050.H regarding the Type III review procedures. This criteria is met.

15.100.090 Development permit application.
Applications for development permits shall be submitted upon forms established by the director.
An application shall consist of all materials required by this code, including the following information:
A. A completed development permit application form.
B. Proof that the property affected by the application is in the exclusive ownership of the applicant, or that the applicant has the consent of all owners of the affected property.
C. Other information required by this code.
D. The applicable fees.

Finding: A completed land use application form is included with this narrative, provided in Appendix A. Proof of ownership is also provided in Appendix A through the signed application from the property owner. All other applicable information required by this code is included in this narrative and the provided appendices. All application fees have been paid with this application. This criteria is met.

15.100.200 Compliance required.
Notice on all Type I through Type IV actions, including appeals, shall be conducted in accordance with this article.

Finding: The provisions of this section are applicable to the proposed applications.

15.100.210 Mailed notice.
Mailed notice shall be provided as follows:
B. Type II and Type III Actions. The applicant shall provide public notice to:

1. **The owner of the site for which the application is made; and**
2. **Owners of property within 500 feet of the entire site for which the application is made. The list shall be compiled from the most recent property tax assessment roll. For purposes of review, this requirement shall be deemed met when the applicant can provide an affidavit or other certification that such notice was deposited in the mail or personally delivered.**

Finding: In accordance with this code, mailed notice will be provided by the Applicant to all applicable parties. The Applicant acknowledges and will adhere to the noticing requirements of Section 15.100.210.C through Section 15.100.210.J. This criteria is met.

Division 15.200 Land Use Applications
Chapter 15.250 ANNEXATIONS
15.250.020 Conditions for annexation.
The following conditions must be met prior to or concurrent with city processing of any annexation request:

A. **The subject site must be located within the Newberg urban growth boundary or Newberg urban reserve areas.**
B. **The subject site must be contiguous to the existing city limits.**

Finding: The subject site is located within the Newberg Urban Growth Boundary and is contiguous to the existing city limits to the south. This standard is met.

15.250.030 Quasi-judicial annexation criteria.
Quasi-judicial annexation applications are those filed pursuant to the application of property owners and exclude legislative annexations. The following criteria shall apply to all quasi-judicial annexation requests:

A. **The proposed use for the site complies with the Newberg comprehensive plan and with the designation on the Newberg comprehensive plan map. If a redesignation of the plan map is requested concurrent with annexation, the uses allowed under the proposed designation must comply with the Newberg comprehensive plan.**

Finding: The proposed use of the site upon annexation approval is residential development. The current comprehensive plan map designation is Low Density Residential (LDR). In accordance with this code a portion of the LDR designated lands on the subject property is proposed to be redesignated as High Density Residential (HDR) concurrent with this annexation application. The uses allowed under the proposed HDR designation complies with the Newberg comprehensive plan. This standard is met.

1. **Where large LDR or MDR designated parcels or groups of parcels are to be annexed, the applicant(s) shall concurrently apply for a comprehensive plan map amendment to include some HDR-designated/R-3 zoned lands, consistent with the policy of distributing R-3 multifamily housing throughout the community. Such zoning shall be applied to portions of the property that are most suitable for high density development.**
   For the purposes of this policy, "large" is defined as an area greater than 15 net acres, after subtracting for land in stream corridor overlays. "Some" is defined as 10 percent of the net size of the application.

Finding: The subject property is 19.16 gross acres. After subtracting land in stream corridor overlays, the site is 18.82 net acres, therefore the requirements of this section apply. A portion of the LDR designated parcels will be redesignated through a concurrent comprehensive plan map amendment to include HDR designated/R-3 zoned lands.

The Applicant proposes approximately 16 percent of the net size of the site as HDR-designated/R-3 zoned lands, as demonstrated in the General Land Use Plan (Sheet C201) provided in Appendix E. This standard is met.

B. An adequate level of urban services must be available, or made available, within three years' time of annexation, except as noted in subsection (E) of this section. An "adequate level of urban services" shall be defined as:

1. **Municipal wastewater and water service meeting the requirements enumerated in the Newberg comprehensive plan for provision of these services.**

Finding: As shown in the illustration below, sewer and water services terminate near the subject property. Upon annexation approval the Applicant will submit a development application for the subject property to develop the property for residential uses. The future development application will propose a water pump station to serve residential development on the site, and will be located in a separate tract. Ownership of the pump station will be transferred to the City upon completion. The pump station will meet the water supply needs of the future residential development on the subject property and meet the City's Operations and Maintenance requirements within three years' time of annexation. This standard is met.

The Applicant has coordinated with City staff on potential improvements to the wastewater system. Municipal wastewater improvements will be addressed during the future development application. With the future development application an adequate level of urban services for wastewater will be made available within three years time of annexation. This standard is met.



2. **Roads with an adequate design capacity for the proposed use and projected future uses. Where construction of the road is not deemed necessary within the three-year time period, the city shall note requirements such as dedication of right-of-way, waiver of remonstrance against assessment for road improvement costs, or participation in other traffic improvement costs, for application at the appropriate level of the planning process. The city shall also consider public costs for improvement and the ability of the city to provide for those costs.**

Finding: The Newberg Transportation System Plan does not identify any capacity concerns for this portion of NE Springbrook Road. After annexation approval, the Applicant will submit a development application for the subject property. A Traffic Impact Analysis (TIA) has been provided with this application in Appendix D outlining potential impacts on four study intersections due to future development of the site. The submitted TIA demonstrates that with transportation system mitigations the future development of the site will meet the City's operating standards. This standard is met.

C. Findings documenting the availability of police, fire, parks, and school facilities and services shall be made to allow for conclusionary findings either for or against the proposed annexation. The adequacy of these services shall be considered in relation to annexation proposals.

Finding: The subject property is within the Tualatin Valley Fire and Rescue (TVF&R) service area. TVF&R Station 21 is located at 3100 Middlebrook Drive, approximately 0.8 miles from the subject property.

The subject property is within the Chehalem Parks and Recreation District (CPRD) boundary therefore these services are available and will be provided. Spring Meadow Park located at 3815 Vittoria Way is approximately 1.2 miles from the subject property,

and the Chehalem Aquatic and Fitness Center located at 1802 Haworth Avenue is approximately 1.8 miles from the subject property.

The subject property is within the Newberg-Dundee School District boundary and will be served by the School District.

The Newberg-Dundee Police Department located at 401 E Third Street is approximately 2.9 miles from the subject property. During review of this requested annexation application the City will request comments from the Newberg-Dundee Police Department prior to issuance of a staff report to ensure adequate services are available to serve the future development of the subject property.

The City will send the application information to TVF&R, the Chehalem Park and Recreation District (CPRD), the Newberg School District, and the Newberg-Dundee Police Department, among other agencies, for comments prior to the staff report. Publicly available information indicate that City services will support the addition of the 19.16 acres proposed for annexation into the City limits.

This standard is met.

D. The burden for providing the findings for subsections (A), (B) and (C) of this section is placed upon the applicant.

Finding: The Applicant has submitted adequate information to allow the City to make findings that demonstrate compliance with this criteria. This standard is met.

15.250.040 Quasi-judicial annexation procedures.
All quasi-judicial annexation requests approved by the city council shall be referred to the voters in accordance with the requirements of this code and ORS Chapter 222.

Finding: This Annexation request was initiated by the owner of the subject property and filed pursuant to ORS 222.120 - 222.125. All owners of the subject property and all electors residing on the property have consented to this annexation. Therefore, as provided by ORS 222.125, "Upon receiving written consent to annexation by owners and electors under this section, the legislative body of the city, by resolution or ordinance, may set the final boundaries of the area to be annexed by a legal description and proclaim the annexation." This standard is met.

15.250.050 Application requirements for quasi-judicial annexations.
Applications for quasi-judicial annexations shall be made on forms provided by the planning division and include the following material:

A. Written consent to the annexation signed by the requisite number of affected property owners, electors, or both to conduct an election within the area to be annexed, as provided by state law. The consent shall include a waiver stating that the owner will not file any demand against the city under Measure 49, approved November 6, 2007, that amended ORS Chapters 195 and 197.

Finding: The Applicant has provided all required application materials for an annexation request within this narrative and within the corresponding attached appendices.

B. Legal description of the property to be annexed and a boundary survey certified by a registered engineer or surveyor.

Finding: The Applicant has provided a legal description and boundary survey certified by a registered land survey of the subject property proposed to be annexed, which is provided in Appendix A.

C. Vicinity map and map of the area to be annexed including adjacent city territory.

Finding: The Applicant provided a vicinity map and map of area to be annexed, including the adjacent city territory and the existing Newberg Urban Growth Boundary. The vicinity map is provided in Appendix B. This standard is met.

D. General land use plan indicating types and intensities of proposed development, transportation corridors (including pedestrian and vehicular corridors), watercourses, significant natural features, open space, significant stands of mature trees, wildlife travel corridors, and adjoining development.

Finding: A general land use plan is provided with this application indicating the concept for future development, transportation corridors (including vehicular and pedestrian corridors), existing watercourses, significant natural features, open space, stands of mature trees, wildlife corridors, and adjoining development as applicable to the subject property. The General Land Use Plan (Sheet C210) provided in Appendix E. This standard is met.

E. Statement of overall development concept and methods by which physical and related social environment of the site, surrounding area, and community will be enhanced.

Finding: The overall development concept after annexation of the property is for a residential neighborhood. The Applicant intends to use the provisions of the Planned Unit Development Regulations for future development of the site as detailed in Chapter 15.240 of the Newberg Municipal Code.

Upon development of the site, the annexed area will enhance the community with greater access to the surrounding area with an improved right-of-way on the property frontage along NE Springbrook Road. The community will also be provided with a new residential neighborhood that is comprehensively planned with homes that are attractive, energy efficient, and compatible to the surrounding area. By integrating sustainable practices, the development will respect the natural areas adjacent to the site and manage stormwater effectively. The future development will provide new streetscapes and upgraded infrastructure to ensure seamless connectivity and reliability. These measures will foster a visually appealing community neighborhood.

Socially, the subdivision will provide high-quality housing that caters to the needs of its residents. Safety and accessibility will be provided with well-designed and safe crosswalks and routes for individuals with disabilities. Overall, this project is designed to enhance the quality of life for residents in Newberg to create a vibrant and connected community.

This standard is met.

F. Annexation fees, as set by city council resolution.

Finding: The Applicant has submitted the appropriate annexation fees with this application. This standard is met.

G. Statement outlining method and source of financing to provide additional public facilities.

Finding: The extension and improvement of public infrastructure and right-of-way infrastructure necessary to serve the future development of the subject property will be financed through a combination of System Development Charges determined at the time of building permit applications, as well as on-site and off-site improvements constructed by a developer that may be conditions of approval through the appropriate land use review process after a development application is submitted.

This standard is met.

H. Comprehensive narrative of potential positive and negative physical, aesthetic, and related social effects of the proposed development on the community as a whole and on the smaller subcommunity or neighborhood of which it will become a part and proposed actions to mitigate such effects.

Finding: The proposed development after annexation will be a positive community asset. Drawing inspiration from sustainable principles the property owner and developer aims to enhance the natural beauty of the area by integrating modern infrastructure to create an aesthetically pleasing environment. The development will foster a sense of community by providing high-quality housing and promote social interaction and engagement among residents.

While construction may temporarily disrupt the area, the property owner and developer are committed to minimizing inconvenience through careful management practices and clear communication. Safety is a top priority and will be ensured with secure fencing around construction zones and clear signage to protect the community and the construction workers.

This standard is met.

I. Concurrent with application for annexation, the property may be assigned one of the following methods for development plan review:

1. A planned unit development approved through a Type III procedure.

2. **A development agreement approved by the city council.**
3. **A contract annexation as provided for in the state statutes. Development plans must be approved and an annexation contract must be signed by the city council in order to use the contract annexation process.**

Finding: No concurrent development applications are submitted with this annexation request, therefore there is no request or need for a development review type at this time.

15.250.080 Comprehensive plan and zoning designations.

A. The comprehensive plan map designation of the property at the time of annexation shall be used as a criterion to determine whether or not the proposed request complies with the Newberg comprehensive plan. A redesignation of the comprehensive plan map may be requested concurrent with annexation. The proposed redesignation shall then be used to determine compliance with the Newberg comprehensive plan.

Finding: The existing comprehensive plan map designation on the subject property is LDR (Low Density Residential), and in accordance with this code, approximately 18 percent of the net area being annexed into the City will be redesignated as HDR (High Density Residential). A redesignation and zone change are requested concurrent with this annexation application. The existing and proposed designations comply with the Newberg comprehensive plan. This standard is met.

B. Upon annexation, the area annexed shall be automatically zoned to the corresponding land use zoning classification which implements the Newberg comprehensive plan map designation. The corresponding designations are shown in the table below. The procedures and criteria of NMC 15.302.030 shall not be required.

Comprehensive Plan Classification	Appropriate Zoning Classification
LDR	R-1
HDR	R-3

Finding: The proposed area will contain mostly R-1 zoned lands upon approval of the annexation application. In accordance with 15.250.030.A.1., the area to be annexed shall concurrently apply for a comprehensive plan map amendment to include some HDR-designated/R-3 zoned lands. This annexation application qualifies as a "large" area because it is greater than 15 acres in size, therefore "some" of the area to be annexed, (defined as 10 percent of the net size of the application) will be zoned as HDR-designated R-3 lands.

The total area of the subject property is 834,807 square feet, or 19.16 acres. After subtracting land in stream corridor overlays the subject property is 819,882 square feet, or 18.82 net acres. A total of 129,552 square feet, or 2.92 acres of land will be designated as HDR/R-3 lands after annexation. This is approximately 16 percent of the net size of the subject property, which exceeds the requirement.

The R-3 lands are located dispersed throughout the proposed annexation. The proposed HDR/R-3 zoning areas are demonstrated on the Proposed Comprehensive and Zoning

Designations submitted in Appendix B, and on the General Land Use Plan (Sheet C210) provided in Appendix E. This standard is met.

C. If a zoning classification is requested by the applicant for other than that described in subsection (B) of this section, the criteria of NMC 15.302.030 shall apply. This application shall be submitted concurrently with the annexation application.

Finding: The criteria of NMC 15.302.030 is addressed in this narrative.

D. In the event that the annexation request is denied, the zone change request shall also be denied.

Finding: The Applicant understands and acknowledges this standard.

15.250.090 Coordination.
Annexation requests shall be coordinated with affected public and private agencies, including, but not limited to, Yamhill County, Chehalem Park and Recreation District, Newberg School District, Northwest Natural Gas, Portland General Electric, and, where appropriate, various state agencies. Coordination shall be made by referral of annexation request to these bodies sufficiently in advance of final city action to allow for reviews and recommendations to be incorporated into the

Finding: The Applicant understands and acknowledges this criteria.

Division 15.300 Zoning Districts
Chapter 15.302 DISTRICTS AND THEIR AMENDMENT
15.302.030 Procedures for comprehensive plan map and zoning map amendments.
This section describes the procedures and criteria that apply to any application to amend the land use designations identified on the comprehensive plan map, zoning map and land use regulations.

A. Type III Plan and Zoning Map Amendments – One Parcel or Small Group of Parcels.

1. **Property owners or the city may initiate a map amendment for one parcel or a small group of parcels under the Type III procedure. May be initiated by a resolution of the planning commission or city council. Unlike other Type III procedures, the decision of the planning commission on a Type III plan map amendment shall be in the form of a recommendation to the city council. The city council shall hold another new hearing and make a final decision.**
2. **Where an application has been denied, no new application for the same purpose shall be filed within one year of the date of the previous denial unless the city council for good cause shall grant permission to do so.**

Finding: This Type III comprehensive plan map and zoning map amendment request for a single parcel was initiated by the owner of the subject property in accordance with this code.

The Applicant acknowledges the applicable provisions of Section 15.303.030.A.1-2. regarding the Type III review procedures. This standard is met.

3. **Amendment Criteria. The owner must demonstrate compliance with the following criteria:**
   a. **The proposed change is consistent with and promotes the goals and policies of the Newberg comprehensive plan and this code;**

Finding: The proposed zone change meets the requirement to provide 10 percent of the net size of the application as HDR/R-3 designated land, demonstrating the proposed change is consistent with this code. Each applicable section of the Newberg Development Code, and the applicable goals and policies of the Newberg Comprehensive Plan have been addressed in this narrative. This standard is met.

   b. **Public facilities and services are or can be reasonably made available to support the uses allowed by the proposed change;**

Finding: The proposed zone change on the subject parcel is located within the UGB and upon annexation will be within the Newberg city limits. The Applicant has provided findings in this narrative discussing how public facilities and services will be made available to support the uses allowed by the proposed change. This standard is met.

   c. **Compliance with the State Transportation Planning Rule (OAR 660-012-0060) for proposals that significantly affect transportation facilities.**

Finding: In accordance with this code, the Applicant has submitted a Traffic Impact Analysis with this application provided in Appendix D, demonstrating compliance with the State Transportation Planning Rule (OAR 660-012-0060). Specific findings detailing compliance with the Goal 12, Transportation element are included in this narrative.

4. **The property owner who desired to have their property reclassified has the burden of establishing that the requested classification meets the requirements of this section. As part of the application, the property owner requesting a change shall file a waiver stating that the owner will not file any demand against the city under Ballot Measure 49, approved November 6, 2007, that amended ORS Chapters 195 and 197.**

Finding: A Ballot Measure 49 waiver included in Appendix A has been submitted by the Applicant stating that a demand against the City will not be filed. This standard is met.

5. **A traffic study shall be submitted for any proposed change that would significantly affect a transportation facility, or that would allow uses that would increase trip generation in excess of 40 trips per p.m. peak hour. This requirement may be waived by the director when a determination is made that a previous traffic study adequately addresses the proposal and/or when off-site and frontage**

improvements have already been completed, which adequately mitigate any traffic impacts and/or the proposed use is not in a location, which is adjacent to an intersection, which is functioning at a poor level of service. A traffic study may be required by the director for changes in areas below 40 trips per p.m. peak hour where the use is located immediately adjacent to an intersection functioning at a poor level of service. The traffic study shall be conducted according to the City of Newberg design standards.

Finding: A Traffic Impact Analysis (TIA) has been submitted with this application that demonstrates the impacts to the level of service on four study intersections upon completion of a residential subdivision on the subject property. Recommendations for mitigating the impacts are included in the report. The TIA is submitted with this application in Appendix D. This standard is met.

15.302.032 Purposes of each zoning district.

A. R-1 Low Density Residential District.

1. **The purpose of this land use designation is to provide a stable and healthful residential environment together with the full range of urban services. The R-1 zone is intended for low density urban residential uses at an average overall density of 4.4 units per gross buildable acre, and/or middle housing densities consistent with applicable minimum lot sizes, in the district.**
2. **Typical housing types will include single-family dwellings, duplex dwellings, triplex dwellings, quadplex dwellings, townhouse dwellings, cottage cluster projects, limited multifamily dwellings and planned unit developments. The district also is intended to allow low intensity institutional uses that operate consistent with peaceful enjoyment of residential neighborhoods. The R-1 district is intended to be consistent with the low density residential (LDR) designation of the comprehensive plan.**

Finding: The subject property is primary designated LDR, with R-1 Zoning. The Applicant acknowledges the purpose and typical housing types for the R-1 zone. Future development of the subject parcel will provide residential housing that will meet the density standards of the code which will be verified during the development application review procedures in accordance with the Newberg Title 15 Development Code. This standard is met.

C. R-3 High Density Residential District.

1. **The purpose of this land use designation is to provide dwellings of different types and styles at an average overall density of 16.5 units per gross buildable acre, and/or middle housing densities consistent with applicable minimum lot sizes, in the district.**
2. **Typical housing types will include duplex dwellings, triplex dwellings, quadplex dwellings, townhouse dwellings, cottage cluster projects, multifamily dwellings, and manufactured dwelling and mobile home parks. The district also is intended to**

allow low intensity institutional uses that operate consistent with peaceful enjoyment of residential neighborhoods. Density may vary depending on lot size, off-street parking area, transportation, landscaping and other site considerations. The R-3 district is intended to be consistent with the high density residential (HDR) designation of the comprehensive plan.

Finding: As required by 15.250.030.A.1., this annexation application will redesignate a portion of the subject parcel as HDR/R-3 zoning. The proposal exceeds the requirement of providing 10 percent of the net area of the parcel as HDR/R-3 land, as demonstrated on the General Land Use Plan (Sheet C210) provided in Appendix E. The Applicant acknowledges the purpose and typical housing types for the R-3 zone. Future development of the subject parcel will provide residential housing that will meet the density standards of the code which will be verified during the development application review procedures in accordance with the Newberg Title 15 Development Code. This standard is met.

CITY OF NEWBERG COMPREHENSIVE PLAN

Applicable goals and policies of the Newbery Comprehensive Plan are set forth below with findings demonstrating the proposals consistency with these goals and policies.

A. CITIZEN INVOLVEMENT

GOAL: To maintain a Citizen Involvement Program that offers citizens the opportunity for involvement in all phases of the planning process.

Finding: This application for an annexation, comprehensive plan map amendment, and zone change will be reviewed and decided upon concurrently through the Type III procedures. The City's public hearing procedures for the concurrent applications meet the requirements of this Goal for citizen involvement in the land use process.

The planning director will review a public notice letter that will be sent at least twenty days before the first public hearing on this application. A public notice sign will be reviewed by the director and posted at least 10 days before the first scheduled hearing. The mailed public notices will be sent to neighboring community members and the posted notice will be made visible from the right-of-way adjacent to the subject property in accordance with the Newberg Title 15 Development Code. Both public notices will invite community members to be involved in the land use process. Interested community members are given the opportunity to provide written and verbal comments that will be entered into the public record during the planning commission hearing. The Applicant finds that the proposal is consistent with this goal.

B. LAND USE PLANNING

GOAL: To maintain an on-going land use planning program to implement statewide and local goals. The program shall be consistent with natural and cultural resources and needs.

POLICIES:

2. **The Comprehensive Plan and implementing ordinances shall be reviewed continually and revised as needed. Major reviews shall be conducted during the State periodic review process.**

Finding: The proposed single parcel annexation, comprehensive plan map amendment, and zone change is not considered a major review and therefore separate from the State periodic review process. The Applicant will demonstrate compliance with all development standards in a subsequent development application for the subject parcel. The proposed comprehensive plan map amendment for a portion of the subject parcel is in compliance with the Newberg Title 15 Development Code, and therefore is consistent with this policy and comprehensive plan goal.

C. AGRICULTURAL LANDS

GOAL: To provide for the orderly and efficient transition from rural to urban land uses.

POLICIES:

1. **The conversion of urbanizable land from agricultural to urban land uses shall be orderly and efficient.**
2. **Agriculture is a part of our heritage, uniqueness, culture and future. Inclusion of lands in agricultural use within the Urban Growth Boundary is recognition of a commitment to future urbanization, as such lands are necessary to meet long-range population and economic needs, based on criteria outlined in the statewide Urbanization Goal. Urbanization of agricultural land shall be carefully considered and balanced with the needs of the community as a whole.**

Finding: This proposal is the first step for the conversion of urbanizable land from agricultural to urban land uses. The subject parcel is within the Urban Growth Boundary, therefore it has been recognized by the City as necessary to meet long-range population and economic needs. The urbanization of the agricultural land has been carefully considered by the Applicant and this initial step of annexation, comprehensive plan map amendment, and zone change applications will provide for the orderly and efficient conversion of this land to developable land. The future development of the site will maximize the utility of the land resource and enable the logical and efficient extension of services to future residential parcels. The Applicant finds that the proposal is consistent with this goal.

I. HOUSING

GOAL: To provide for diversity in the type, density and location of housing within the City to ensure there is an adequate supply of affordable housing units to meet the needs of City residents of various income levels.

POLICIES:

1. **Density Policies**
   a. **Needed housing, as identified in the Newberg Housing Needs Analysis shall be considered when examining different types of residential areas on the plan.**
   b. **Target densities shall be as follows: [density table omitted]**

c. **In determining net residential densities, developers may be given density credit for land donated and accepted by the City for needed public facilities.**
d. **The City encourages the creation of affordable housing through density bonuses. Developers may be given density bonuses for projects meeting minimum City standards for housing affordability and design, as defined under subsection 3, Housing Mix and Affordability.**

Finding: The future residential development that will occur after annexation helps alleviate some of the stated residential need identified in the 2021 Newberg Housing Needs Analysis (HNA). The HNA states that the forecast of demand for new dwelling units on vacant and partially vacant lands inside the Newberg UGB for the planning period of 2021 to 2041 is 1,881 Single-family detached dwelling units, 254 Single-family attached dwelling units, and 914 Multifamily dwelling units for a total of 3,049 dwelling units requiring vacant or partially vacant land. The future development of the site will address some of this need therefore this proposal is consistent with the policies and this comprehensive plan goal. The density of the future development will be consistent with the Newberg Title 15 Development Code. The Applicant finds that the proposal is consistent with this goal.

2. **Location Policies**
   a. **Medium and high density areas should be located for immediate access to collector streets or minor arterials and should not cause traffic to move through low density areas. High density areas should be easily accessible to arterial streets. They should also be located near commercial services and public open spaces.**
   b. **While the policies in (a) above are desirable, they are not absolute requirements and are a lower priority than the goal of dispersing R-3 multi-family housing throughout the City.**
   c. **The City will encourage medium - to high density- housing in and adjacent to the commercial core of the Riverfront District medium-density residential uses in the western and northern portions of the Riverfront District.**

Finding: The proposal proposes HDR/R-3 designated areas dispersed throughout the site, consistent with the location policies of the comprehensive plan Housing Goal.

3. **Mix Policies**

   [...]

   y. **Where large LDR or MDR designated parcels or groups of parcels are to be annexed, the applicant(s) shall concurrently apply for a comprehensive plan map amendment to include some HDR-designated/R-3 zoned lands, consistent with the policy of distributing R-3 multi-family housing throughout the community. Such zoning shall be**

applied to portions of the property that are most suitable for high density development.

For the purposes of this policy, "large" is defined as an area greater than 15 net acres, after subtracting for land in stream corridor overlays. "Some" is defined as 10% of the net size of the application.

Finding: This proposal is for a large LDR designated parcel to be annexed into the City, therefore the Applicant is concurrently applying for a comprehensive plan map amendment and zone change to include some HDR/R-3 lands, consistent with the policy of distributing R-3 zoned lands throughout the community. The Applicant finds that the proposal is consistent with the Mix Policies of the comprehensive plan Housing Goal.

J. URBAN DESIGN

Finding: Future development of the site under the proposed LDR/HDR designations will require development review approval by the City of Newberg. The Newberg Development code have standards implementing the urban design goals and policies that any development on the site must meet. Therefore, the Applicant finds that the proposal is consistent with this goal.

K. TRANSPORTATION

GOAL 2: Establish consistent policies which require concurrent consideration of transportation/land use system impacts.

POLICIES:

a. Transportation improvements should be used to guide urban development and should be designed to serve anticipated future needs.

Finding: A Traffic Impact Analysis (TIA) was prepared by DKS Associates and is submitted in Appendix D. As demonstrated in the TIA, the Applicant has evaluated the project impacts for the proposed annexation and future development scenarios. The TIA include recommendations for paying a percentage of fee for the future intersection improvements to mitigate impacts associated with future development on the transportation network. The Applicant finds that the proposal is consistent with this goal.

N. URBANIAZATION

GOALS:

1. **To provide for the orderly and efficient transition from rural to urban land uses.**
2. **To maintain Newberg's identity as a community which is separate from the Portland Metropolitan area.**
3. **To create a quality living environment through a balanced growth of urban and cultural activities.**

POLICIES:

1. **Urban Growth Boundary and Urban Reserve Area Policies**

a. The conversion of lands from rural to urban uses within the Urban Growth Boundary will be based on a specific plan for the extension of urban services.

Finding: The subject site is within the Urban Growth Boundary and this proposal demonstrates the plan for the extension of urban services to the subject site. The proposed plan for extension of urban services will accommodate future development of the site. The Applicant finds that the proposal is consistent with this policy.

b. The City shall oppose urban development outside the City limits but within the Newberg Area Influence.

Finding: The Newberg Urban Area Growth Management Agreement defines the Area of Influence as the area that extends one mile outside Newberg's Urban Growth Boundary. The subject property is within the Urban Growth Boundary, therefore it is not within the Newberg Area of Influence. The Applicant finds that the proposal is consistent with this policy.

d. The Urban Growth Boundary shall designate urbanizable land.

Finding: The subject site is within the Newberg Urban Growth Boundary, therefore it is designated as urbanizable land. The Applicant finds that the proposal is consistent with this policy.

e. The City will support development within the areas outside the City limits but within the Newberg Urban Growth Boundary or Urban Reserve Area based on the following standards or restrictions:

- **Residential development will be allowed on the basis of one house per 10 acres, or any lot of record created prior to January 1, 1989.**
- **New commercial and industrial uses will generally be discouraged within the UGB and Urban Reserve Area.**
- **Agricultural uses will be in accordance with the Yamhill County Comprehensive Plan.**
- **The City and County shall coordinate plans for interim rural residential development within the designated Urban Reserve Area. After street and utility corridor plans are adopted, overall rural residential densities shall be limited to one dwelling per five acres. The following strategies will be used to ensure that interim rural development does not inhibit long-term urbanization of lands within the Newberg UGB and Urban Reserve Area (these include but are not limited to):**
    1) **shadow plats**
    2) **cluster development**
    3) **redevelopment plans**

4) **non-remonstrance agreements for annexation and provision of urban facilities**

Development not meeting the standards may be opposed by the City.

Finding: The subject site is within the Urban Growth Boundary and is proposed to be annexed into the city limits with this application. Residential development will be proposed in a development application submitted at a later date, and will likely propose development through the use of the PUD procedures. No new commercial, industrial, or agricultural uses will be proposed with the PUD development application for the subject site, as it will be proposed for residential uses only. The Applicant finds that the proposal is consistent with this policy and recommends support by the City.

2. **Annexation Policies**
   a. **The City shall amend the annexation ordinance to streamline the procedures used for annexations.**
   b. **If it appears that a proposed annexation would create excessive public costs or impacts on the surrounding area, an analysis of costs and/or impacts will be required.**
   c. **Property outside the Urban Growth Boundary may be annexed only upon inclusion of such property into the Urban Growth Boundary.**

Finding: The proposal will result in minimal public costs or impacts on the surrounding area, therefore an analysis of costs or impacts has not been required by the City. The subject site is located within the Urban Growth Boundary and is feasible for annexation into the city limits. The Applicant finds that the proposal is consistent with these policies, and with the Urbanization goals of the Newberg Comprehensive Plan.

SUMMARY AND CONCLUSION

Based upon the materials submitted herein, the application is consistent with the applicable provisions of the Newberg Municipal Code and City of Newberg Comprehensive Plan. The evidence in the record is substantial and supports approval of this application. The Applicant respectfully requests approval from the City of Newberg City Council for this annexation, comprehensive plan map amendment, and zone change on the subject property.

Appendix A - Application Forms

3809 NE Springbrook Road Annexation

08/16/2024

- Application Form
- Legal Description
- Boundary Survey
- Consent to Annex
- Waiver of Expiration of Annexation Consent
- Measure 49 Waiver
- Current Title Report

TYPE III APPLICATION (QUASI-JUDICIAL REVIEW)

File #: _____

TYPES – PLEASE CHECK ONE:

- ☑ **Annexation**
- ☑ **Comprehensive Plan Amendment (site specific)**
- ☑ **Zoning Amendment (site specific)**
- ☐ **Historic Landmark Modification/alteration**
- ☐ **Conditional Use Permit**
- ☐ **Type III Major Modification**
- ☐ **Planned Unit Development**
- ☐ **Other: (Explain)** _____

APPLICANT INFORMATION:

APPLICANT: Ichijo USA Co.LTD C/O Masaki Narita

ADDRESS: 3800 Cedar Hills BLVD Suite 131 CITY: Beaverton STATE: OR ZIP: 97005

EMAIL ADDRESS: m-narita@ichijousa.com PHONE: (503) 430-7413 MOBILE:

OWNER *(if different from above)*: Ross D Kerr, Rolland G Kerr Jr PHONE: 503-537-6664

ADDRESS: 3809 NE Springbrook Rd CITY: Newberg STATE: OR ZIP: 97132

ENGINEER/SURVEYOR: 3J Consulting, Inc. CONTACT: Chase Welborn, PE

EMAIL ADDRESS: chase.welborn@3j-consulting.com PHONE: (503) 946-9365 MOBILE:

GENERAL INFORMATION:

PROJECT LOCATION: 3809 NE Springbrook Road PROJECT VALUATION: $

PROJECT DESCRIPTION/USE: Annexation

MAP/TAX LOT NO. (i.e.3200AB-400): R3209 02300 SITE SIZE: 19.16 SQ. FT. ☐ ACRE ☑

COMP PLAN DESIGNATION: Low Density Residential (LDR) CURRENT ZONING: None

CURRENT USE: Single Family Home TOPOGRAPY: Sloping

SURROUNDING USES:

NORTH: Yamhill County AF-10 SOUTH: SD/H Springbrook District - Hospitality

EAST: Yamhill County AF-10 / VLRD 2.5 WEST: Yamhill County AF-10

ATTACHED PROJECT CRITERIA AND REQUIREMENTS *(check all that is included)*

General Checklist: ☑ Fees ☑ Public Notice Information ☑ Current Title Report(*60 days*) ☑ Written Criteria Response ☑ Owner Signature ☑ 1 -Digital Copy of Full Application Packet

For the type of project detailed checklists and applicable criteria for the written criteria response, turn to:

Annexation	**p. 11**
Comprehensive Plan / Zoning Map Amendment (site specific)	**p. 20**
Conditional Use Permit	**p. 26**
Historic Landmark Modification/Alteration	**p. 32**
Planned Unit Development	**p. 34**

Submit a complete Application Packet to *Planning@newbergoregon.gov*

Tentative plans must substantially conform to all standards, regulations, and procedures officially adopted by the City of Newberg. All owners must sign the application or submit letters of consent. Incomplete or missing information may delay the approval process.

The above statements and information herein contained are in all respects true, complete, and correct to the best of my knowledge and belief.

Masaki Narita Digitally signed by Masaki Narita DN: cn=Masaki Narita, c=US, email=m-narita@ichijousa.com Date: 2024.07.02 18:09:06 -07'00' — 7/9/24

Applicant Signature Date

Ross D. Kerr — 7/9/24

Owner Signature Date

Masaki Narita

Print Name

Ross D Kerr, Rolland G Kerr Jr

Print Name

NEWBERG PERMIT CENTER FEE SCHEDULE

Effective Date: April 1,2024

5% TECHNOLOGY FEE WILL BE ADDED TO TOTAL FEES *(Resolution No. 2016-3268)*

PRE-APPLICATION REVIEW	**$100**
TYPE I (ADMINISTRATIVE REVIEW)	
OTHER:ANY TYPE I ACTION NOT SPECIFICALLY LISTED IN THIS SECTION	$208
HOME OCCUPATION BUSINESS LICENSE REVIEW	$208
* ADU DESIGN REVIEW	$208
* COTTAGE CLUSTER DESIGN REVIEW	$417
PROPERTY CONSOLIDATION	$208
CODE ADJUSTMENT	$521
* DESIGN REVIEW (DUPLEX OR COM. /IND. MINOR ADDITION REVIEW	0.3% OF PROJECT VALUE, $521 MINIMUM
MINOR MODIFICATION OR EXTENSION OF TYPE I DECISION	$208
MAJOR MODIFICATION OF TYPE I DECISION	50% OF ORIGINAL FEE
* PARTITION FINAL PLAT	$1,048 + $90 PER PARCEL
PROPERTY LINE ADJUSTMENT	$1,048
SIGN REVIEW	$91 + $1.00 PER SQ. FT. OF SIGN FACE
* SUBDIVISION, PUD, OR CONDOMINIUM FINAL PLAT	$2,101 + $90 PER LOT OR UNIT
HISTORIC LANDMARK MINOR ALTERATION/DEMOLITION	$0
TYPE II (LAND USE DECISION)	
OTHER-ANY TYPE II ACTION NOT SPECIFICALLY LISTED IN THIS SECTION	$1,048
MINOR MODIFICATION OR EXTENSION OF TYPE II DECISION	$208
MAJOR MODIFICATION OF TYPE II DECISION	50% OF ORIGINAL FEE
* DESIGN REVIEW (INCLUDING MOBILE/MANUFACTURED HOME PARKS)	0.6% OF TOTAL PROJECT COST, $1,048 MINIMUM
* PARTITION PRELIMINARY PLAT	$1,048 + $90 PER PARCEL
* SUBDIVISION PRELIMINARY PLAT	$2,101 + $90 PER LOT
VARIANCE	$1,048
TYPE III (QUASI-JUDICIAL REVIEW)	
OTHER-ANY TYPE III ACTION NOT SPECIFICALLY LISTED IN THIS SECTION	$2,226
ANNEXATION	$2,926 + $278 PER ACRE
COMPREHENSIVE PLAN AMENDMENT (SITE SPECIFIC)	$2,742
CONDITIONAL USE PERMIT	$2,226
MINOR MODIFICATION OR EXTENSION OF TYPE III DECISION	$208
MAJOR MODIFICATION OF TYPE III DECISION	50% OF ORIGINAL FEE
HISTORIC LANDMARK ESTABLISHMENT OR MODIFICATION	$0
HISTORIC LANDMARK ELIMINATION	$2,552
* SUBDIVISION PRELIMINARY PLAT	$2,101 + $90 PER LOT
* PLANNED UNIT DEVELOPMENT	$4,446 + $90 PER LOT
ZONING AMENDMENT (SITE SPECIFIC)	$2,772
TYPE IV (LEGISLATIVE AMENDMENTS)	
COMPREHENSIVE PLAN TEXT AMENDMENT OR LARGE SCALE MAP REVISION	$3,153
DEVELOPMENT CODE TEXT AMENDMENT OR LARGE SCALE MAP REVISION	$3,153
APPEALS	
TYPE I OR II APPEAL TO PLANNING COMMISSION	$601
TYPE I OR II APPEAL TO CITY COUNCIL	$1,089
TYPE III APPEAL TO CITY COUNCIL	$1,279
TYPE I ADJUSTMENTS OR TYPE II VARIANCES *(That are not designed to reculate the phyusical characteristics ofa use permitted outright)*	$336
EXHIBITOR LICENSE FEE APPPEAL TO THE CITY COUNCIL	50% OF EXIBITOR LICENSE FEE
OTHER FEES	
TECHNOLOGY FEE *(This fee will be added to all Planning, Engineering and Building Fees, does not apply to SDC fees)*	5% OF TOTAL
TREES IN PUBLIC RIGHT-OF-WAY REMOVAL PERMIT	$10.50
EXPEDITED LAND DIVISION	$7,812 + $90 PER LOT OR UNIT
URBAN GROWTH BOUNDARY AMENDMENT	$4,992
VACATION OF PUBLIC RIGHT-OF-WAY	$2,071
FEE-IN-LIEU OF PARKING PROGRAM	$16,295 PER VEHICLE SPACE
VERTICAL HOUSING DEVELOPMENT ZONE FEES	$600 CERTIFICATION & APPLICATION FEE $400 ANNUAL MONITORING FEE
BIKE RACK COST SHARING PROGRAM	$100 PER RACK
LICENSE FEES	
GENERAL BUSINESS	$50
HOME OCCUPATION	$25
PEDDLER/SOLICITOR/STREET VENDOR	NO FEE (*GENERAL BUSINESS LICENSE FEE ONLY*)
EXHIBITOR	$152
TEMPORARY MERCHANT	$123/45 DAYS OR $414/PERPETUAL

***ADDITIONAL LAND USE REVIEW FEES – ENGINEERING DEPARTMENT**	
ALL DESIGN REVIEWS & TYPE II/III PARTITION, SUBDIVISION, PUD'S & MHLD	$340.79 + $15.14 PER LOT OVER 19 LOT'S
FINAL PLAT REVIEW: PARTITION, SUBDIVISION & MHLD	$340.79 + $8.56 PER LOT OR PARCEL
DEVELOPMENT REVIEW FOR PUBLIC IMPROVEMENTS ON COMMERCIAL, INDUSTRIAL, INSTITUTIONAL ZONES, & MULTIFAMILY DEVELOPMENTS	$476.60 1ST ACRE + $272.24 PER ADDITIONAL ACRES

EXHIBIT "A"

Legal Description

PARCEL 1:

Beginning at a point 160 rods North and 46 rods West of the Southeast corner of the Solomon Heater and wife Donation Land Claim in Township 3 South, Range 2 West of the Willamette Meridian in Yamhill County, Oregon; thence running West 400 feet; thence South 300 feet to the center of the County Road and 50 feet North of the center of the railroad track of the Southern Pacific Company; and thence in a Northeasterly direction along the center of said County Road to the Point of Beginning.

PARCEL 2:

A tract of land in Section 9, Township 3 South, Range 2 West of the Willamette Meridian in Yamhill County, Oregon, more particularly described as follows:

Being a part of the Solomon Heater Donation Land Claim, Notification No. 1471, Claim No. 48 in Section 9, Township 3 South, Range 2 West of the Willamette Meridian in Yamhill County, Oregon, and beginning at an iron pipe in the County Road at point 45.23 chains North and 10.00 chains West from the Southeast corner of said Heater Claim; thence North 89°24' West 6.105 chains to a set iron pipe for corner; and the True Point of Beginning of the property herein described; thence North 5.705 chains to a set stake at the Northeast corner of a 3 acre tract; thence North 89°24' West along the North line of said 3 acre tract, 15.356 chains to a stake on division line of said Heater Claim; thence South along the division line of said claim, 11.235 chains to the North line of that certain tract conveyed to Florence Rees Baldwin by Deed recorded in Book 85, Page 383, Deed Records; thence North 89°51' East along the North line of said Baldwin tract and the North line of the Mills tract and the same extended Easterly to the Southerly Southwest corner of that certain tract conveyed by Fred Kincaid et ux. to Elvin Mills et ux., by Deed recorded November 16, 1962 in Film Volume 26, Page 656, Deed and Mortgage Records; thence North 55 feet; thence West 14 feet; thence North 240 feet; thence West 130 feet; thence North 64 feet to the Point of Beginning.

EXCEPTING THEREFROM that certain tract conveyed by Emma O. Kincaid to Springbrook Packing Company, by Deed recorded February 21, 1938 in Book 114, Page 1, Deed Records.

FOUND 5/8" IR/YPC
STAMPED "W.L. JONES"
(CSP 9693)

FOUND 3/4" IP
S22°02'54"W 1.69' (U.O.)

FOUND 5/8" IR/YPC
STAMPED "SUMMERS LS
1042" (P1) HELD

N01°23'23"E
113.74'
(113.77' P1)

PARCEL 2
PARTITION PLAT 1996-14

BASIS OF BEARINGS:
S87°35'42"E 1012.14' (1012.24' P1)

FOUND 5/8" IR/YPC
STAMPED "SUMMERS
PLS 1042" (P1) ON LINE

53.90' M
(54.00' P1)

FOUND 5/8" IR/YPC
STAMPED "SUMMERS
PLS 1042" (P1) HELD

INSTR. NO.
2022-04258

ON ROD WITH A
D SURVEYORS",
024

LLOW PLASTIC

N01°23'23"E 595.25'

DETAIL
SCALE: 1" = 50'

S88°12'07"E
30.00'

FOUND 5/8" IR/YPC
STAMPED "LING PLS
1433" (P3)

30'

MONUMENT FALLS IN A
TREE. SET N01°46'28"E
2.00' FROM TRUE CORNER.

MONUMENT FALLS IN A
TREE. SET S88°20'05"E
2.00' FROM TRUE CORNER.

S01°46'28"W

N01°47'53"E
89.69'

SOUTHERN PACIFIC
RAILROAD

30'

NE BENJAMIN RD

FOUND 5/8" IR
N88°20'05"W 0.33'

S88°20'05"E
156.81'

N88°20'05"W 258.96'
(259.00' R1, 258.62' R3)

S88°20'05"E 659.06' M/M
(659.39', 659.41' P1 & P2)

FOUND 5/8"
IR, NO CAP,
(CSP 4474)

FOUND 3/4" IP
S85°31'43"W 1.65'
(1.72' P2)

S88°20'05"E
631.00' (630.91' P2)

30'

20'

S44°03'45"W

S21°23'23"E
21.74'

N44°11'52"E
13.57' M&P2

FOUND 5/8" IR/YPC
STAMPED "CARDNO
WRG INC"

FOUND 5/8" IR,
NO CAP, (U.O.)
N01°39'55"E 0.27'

S46°51'57"W
28.00' M/M

S01°48'53"W 435.67' (435.75' P1)

N01°47'53"E 794.78' (794.95' P1)

SPRINGBROOK ROAD
(CR NO. 55)

N01°47'53"E 1038.16' (1038.33' P3)

PARCEL 1
PARTITION PLAT 1996-14

FOUND 3/4" IP
(CS 2805) ON LINE

FOUND 5/8" IR/YPC
STAMPED "SUMMERS
PLS 1042" (P1) HELD

FOUND 5/8"
IR, BENT, (P1)

30'

30'

S88°09'28"E
129.87'

N89°24'52"E
10.00'

FOUND 5/8" IR/YPC
STAMPED "D. COOLEY
PLS 1806" (R1) HELD

20'

30'

INSTR. NO.
2012-05337

N01°47'53"E
146.65'

S01°46'28"W
240.12' (240.00' R1)

CENTERLINE
TRAVELED ROADWAY

S87°55'36"E
13.96' (14.00' R1)

L=184.41'
R=250.00'
D=42°15'52"
CH=N22°55'49"E
180.26'

FOUND 5/8" IR,
NO CAP, (R1) HELD

FOUND 5/8" IR/YPC
STAMPED "D. COOLEY
PLS 1806" (R1) HELD

N44°03'45"E
25.52'

S01°46'28"W
54.05' (54.00' R1)

20'

S88°20'05"E
156.81'

240.09' (240.00' R3)

FOUND 1" IP
(CSP 2206) ON LINE

FOUND 1-1/2" IP
N89°54'54"W 0.10' (U.O.)

HELD

N88°16'58"W HELD
148.05' (148.00' P2)

N01°42'26"E
148.03' M & P2

FOUND 3/4" IP
N01°39'55"E 3.60'
(CSP 5753)

191.32' (191.47' R3)

529.30' (529.24' P2)

FOUND 5/8" IR/YPC
ILLEGIBLE (P2) HELD

FOUND 3/4" IP N02°14'51"E
1.57' (1.67' P2) HELD FOR
EAST-WEST LINE

ON LINE

234.00' (233.97' P2)

N88°20'05"W 763.30' (763.21' P2)

S88°20'05"E 1921.40' M (1921.28' R2)

S44°03'45"W
134.63'

30'

30'

S44°11'52"W
157.65' (157.66' P2)

L=214.36'
R=820.00'
D=14°58'40"
CH=S51°33'05"W
213.75'

SOUTHERN PACIFIC
RAILROAD

FOUND 5/8" IR/YPC
STAMPED "WRG DESIGN
INC" (R2)

CENTERLINE
TRAVELED ROADWAY

20'

SPIRAL CHORD
S45°53'46"W
122.32'

LOT 7
"SPRINGBROOK DISTRICT"

LOT 10
"SPRINGBROOK DISTRICT"

N01°14'51"E 330.63' (330.55' P2)

TO LOCATE PARCELS 1 AND 2 AS DESCRIBED IN INSTRUMENT
FOR THE OUTBOUNDS OF A PROPOSED SUBDIVISION.

SUBJECT PROPERTY, BEING THE SOUTH LINE OF OF PARCEL 2
PARTITION PLAT 1996-14, YAMHILL COUNTY PLAT RECORDS,
YELLOW PLASTIC CAP STAMPED "SUMMERS LS 1042" FOUND AT
E 5/8 INCH DIAMETER IRON ROD WITH A YELLOW PLASTIC CAP
RLY REENTRANT CORNER OF SAID PARCEL 1, WAS HELD TO BE
S TIED TO THE OREGON REAL-TIME GNSS NETWORK (ORGN) NAD

HELD FROM THE MONUMENT AT THE AFORESAID SOUTHWEST

ANNEXATION CONSENT

TO THE HONORABLE MAYOR AND COUNCIL OF THE CITY OF NEWBERG, OREGON:

The undersigned Ross D Kerr
Rolland G Kerr Jr.

being the sole owner of the real premises described in Exhibit A attached hereto and incorporated by reference herein, and generally known as (address) 3809 NE Springbrook Rd, Newberg and (tax lot) R3209 02300, does hereby consent to the annexation of such territory above described to the City of Newberg, Oregon.

The undersigned does hereby respectfully petition that the real premises described in Exhibit A be annexed to the City of Newberg, Oregon, in the manner provided by the laws of the State of Oregon and the Charter and Ordinances of the City of Newberg, Oregon.

This consent is binding upon the heirs, successors, and assigns of the above listed property.

In construing this consent, the singular includes the plural as circumstances may require.

IN WITNESS WHEREOF, Petitioner has caused these presents to be executed this 9th day of July, 2024.

STATE OF OREGON, County of Yamhill ss July 09th 2024.
Month / day / year

Personally appeared the above named Ross D. Kerr and Rolland G. Kerr Jr

and acknowledged the foregoing instrument to be their voluntary act and deed.

Before me:
Molly Anne McDonnell
Notary Public for Yamhill County, Oregon
My commission expires Feb 21, 2027

OFFICIAL STAMP
MOLLY ANNE MCDONNELL
NOTARY PUBLIC - OREGON
COMMISSION NO. 1033343
MY COMMISSION EXPIRES FEBRUARY 21, 2027

AFTER RECORDING RETURN TO:
City of Newberg
Community Development Department
PO Box 970 – (414 E. First Street)
Newberg, OR 97132

COVENANT OF WAIVER OF RIGHTS AND REMEDIES

Recitals

1) The undersigned, Ross D Kerr and Rolland G Kerr Jr (hereinafter referred to as "Owner" or "Owners") has/have petitioned the City of Newberg (hereinafter referred to as "City") to commence certain proceedings, relating to annexation, for the real property described in **Exhibit A** which is attached hereto and incorporated herein.

2) Pursuant to the enactment of **Ballot Measure 49** (adopted November 6, 2007), if a public entity enacts one or more land use regulations that restrict the residential use of private real property or a farming or forest practice and that reduce the fair market value of the property, then the owner of the property shall be entitled to just compensation from the public entity that enacted the land use regulation or regulations as provided in Measure 49.

3) There is the potential that the Oregon electors or the Oregon Legislature may, in the future, enact further statutory or constitutional amendments relating to compensation for the impact of local regulations upon real property, under certain circumstances.

4) City does not wish to approve the Owner's/Owners' requested proceedings if the result would or could arguably give rise to a later claim by the Owner or Owners, or the Owner's/Owners' successors or assigns for compensation for the land use regulations in effect upon the effective date of the proceedings, or would or could arguably require the City to waive the City's land use regulations in effect upon the effective date of the proceedings, which are being newly imposed upon the property by reason and result of the proceedings.

5) Owner(s) seek(s) to induce the City to proceed with the proceedings and therefore Owner(s) agree(s) to eliminate the potential of claim for compensation or the right to seek waiver from the City's land use regulations existing as of the effective date of the proceedings.

NOW THEREFORE, the undersigned Owner(s) warrant(s) that the Owner(s) executing this covenant hold(s) the full and complete present ownership or any interest therein in the property, and hereby agree(s) and covenant(s) as follows:

1) As inducement to the City to proceed with the following proceeding(s) affecting the subject real property: 3809 NE Springbrook Rd, Newberg, which may include designation of the property as subject to additional applicable overlay zones and districts, e.g., Limited Use Overlay District, (all inclusively referred to herein as "proceedings"), the undersigned Owner(s), on behalf of Owner(s), Owner's/Owners' heirs, devisees, executors, administrators, successors and assigns, agree(s) and covenant(s) to the City of Newberg, its officers, agents, employees and assigns that the undersigned hereby remises, waives, releases and forever discharges, and agrees that Owner(s) shall be estopped from asserting any rights and remedies, actions, causes of action, suits, claims, liabilities, demands, and rights to waivers arising under or granted by any statutory or constitutional regulatory compensation or waiver provisions, including but not limited to Ballot Measure 49 (2007) or otherwise enacted after the date of this proceeding which would create a right of claim for compensation or waiver from City land use regulations that exist upon the effective date of the proceeding and which, by the approval of the proceeding, are then applicable to the property.

2) This waiver and release shall bind the undersigned's heirs, devisees, executors and administrators, successors in interests, and assigns. This covenant, waiver, release and discharge shall run with the land, and this instrument, or a memorandum hereof, may be recorded in the official records of the County in which the subject real property is located. This instrument may be terminated upon the filing of a Notice of Termination of Covenant filed by the City of Newberg.

3) If this instrument is given contemporaneous with a consent to future proceedings to be initiated by the City, Owner(s) acknowledge(s) that the proceedings may be initiated by the City of Newberg at any time in the discretion of the City of Newberg, and that this waiver and release is applicable to any ordinances adopted prior to the effective date of the proceeding.

4) This document is executed of my/our own free will and without duress. I, or if more than one, each of us respectively acknowledge that I/we have been advised to obtain legal advice prior to the execution of this document, and that either I, or each of us respectively, have either obtained legal advice or have independently elected not to seek legal advice prior to the execution of this document, recognizing that this document may affect my/our legal rights and remedies.

OWNER

Ross D. Kerr

OWNER

STATE OF OREGON)
) ss.
County of Yamhill)

This instrument was acknowledged before me on this 9th day of July, 2024, by Ross D. Kerr and Rolland G Kerr Jr..

Molly Anne McDonnell
Notary Public for Oregon
My Commission expires: Feb 21, 2027

OFFICIAL STAMP
MOLLY ANNE MCDONNELL
NOTARY PUBLIC - OREGON
COMMISSION NO. 1033343
MY COMMISSION EXPIRES FEBRUARY 21, 2027

CITY OF NEWBERG

City Recorder

Dated: _____

APPROVED AS TO FORM:

City Attorney

Dated: _____

WAIVER OF EXPIRATION OF ANNEXATION CONSENT

WHEREAS: The undersigned

Ross D Kerr

Rolland G Kerr Jr

as

owner(s) of certain property have signed a consent to annex that property to the City of Newberg, Oregon, which consent is attached; and

WHEREAS: ORS 222.173 provides that "only statements of consent to annexation which are filed within any one-year period shall be effective, unless separate written agreement waiving the one-year period or prescribing some other period of time has been entered into between an owner of land or an elector and the city."; and

WHEREAS: The owner(s) desire that this consent to annex be valid until the property is annexed.

NOW, THEREFORE:

The undersigned do hereby request that the attached consent to annex be valid until the property is annexed to the City of Newberg, Oregon.

In construing this consent, the singular includes the plural as circumstances may require.

IN WITNESS WHEREOF, Petitioner has caused these presents to be executed this 9th day of July, 2024.

STATE OF OREGON, County of Yamhill ss July 09, 2024.
month/day/year

Personally appeared the above named Ross D. Kerr and Rolland G. Kerr Jr

and acknowledged the foregoing instrument to be their voluntary act and deed.

OFFICIAL STAMP
MOLLY ANNE MCDONNELL
NOTARY PUBLIC - OREGON
COMMISSION NO. 1033343
MY COMMISSION EXPIRES FEBRUARY 21, 2027

Before me:

Molly Anne McDonnell

Notary Public for:

Yamhill County, Oregon

My commission expires:

Feb 21, 2027

TICOR TITLE™
Company of Oregon

PRELIMINARY REPORT

In response to the application for a policy of title insurance referenced herein Ticor Title Company of Oregon hereby reports that it is prepared to issue, or cause to be issued, as of the specified date, a policy or policies of title insurance describing the land and the estate or interest hereinafter set forth, insuring against loss which may be sustained by reason of any defect, lien or encumbrance not shown or referred to as an exception herein or not excluded from coverage pursuant to the printed Schedules or Conditions of said policy forms.

The printed Exceptions and Exclusions from the coverage of said policy or policies are set forth in Exhibit One. Copies of the policy forms should be read. They are available from the office which issued this report.

This report (and any supplements or amendments hereto) is issued solely for the purpose of facilitating the issuance of a policy of title insurance and no liability is assumed hereby.

The policy(s) of title insurance to be issued hereunder will be policy(s) of Chicago Title Insurance Company, a/an Florida corporation.

Please read the exceptions shown or referred to herein and the Exceptions and Exclusions set forth in Exhibit One of this report carefully. The Exceptions and Exclusions are meant to provide you with notice of matters which are not covered under the terms of the title insurance policy and should be carefully considered.

It is important to note that this preliminary report is not a written representation as to the condition of title and may not list all liens, defects and encumbrances affecting title to the land.

This preliminary report is for the exclusive use of the parties to the contemplated transaction, and the Company does not have any liability to any third parties nor any liability until the full premium is paid and a policy is issued. Until all necessary documents are placed of record, the Company reserves the right to amend or supplement this preliminary report.

Countersigned



Peter Harris

TICOR TITLE™
Company of Oregon

1455 SW Broadway, Suite 1450, Portland, OR 97201
(503)646-4444 FAX (503)469-4198

PRELIMINARY REPORT

TITLE OFFICER: Deborah Clark
deborah.clark@titlegroup.fntg.com
(503)535-3743

ORDER NO.: 471823128578
CUSTOMER NO.: 262303001
Supplement 1: Eff Date

TO: Lawyers Title
Eden Toothman
825 NE Multnomah Suite 1175
Portland, OR 97232

OWNER/SELLER: Ross D. Kerr and Rolland G. Kerr, Jr.
BUYER/BORROWER: Ichijo USA Co., LTD
PROPERTY ADDRESS: 3809 N Springbrook Road, Newberg, OR 97132

EFFECTIVE DATE: August 9, 2024, 08:00 AM

1. THE POLICY AND ENDORSEMENTS TO BE ISSUED AND THE RELATED CHARGES ARE:

	AMOUNT	PREMIUM
ALTA Owner's Policy 2021	$ 9,800,000.00	$ 24,165.00
Owner's Extended		
OTIRO Endorsement No. 110		$ 0.00

2. THE ESTATE OR INTEREST IN THE LAND HEREINAFTER DESCRIBED OR REFERRED TO COVERED BY THIS REPORT IS:

   A Fee

3. TITLE TO SAID ESTATE OR INTEREST AT THE DATE HEREOF IS VESTED IN:

   Ross D. Kerr, as to an undivided one-half interest and Rolland G. Kerr, Jr., as to an undivided one-half interest, as tenants in common

4. THE LAND REFERRED TO IN THIS REPORT IS SITUATED IN THE COUNTY OF YAMHILL, STATE OF OREGON, AND IS DESCRIBED AS FOLLOWS:

   SEE EXHIBIT "A" ATTACHED HERETO AND MADE A PART HEREOF

EXHIBIT "A"

Legal Description

PARCEL 1:

Beginning at a point 160 rods North and 46 rods West of the Southeast corner of the Solomon Heater and wife Donation Land Claim in Township 3 South, Range 2 West of the Willamette Meridian in Yamhill County, Oregon; thence running West 400 feet; thence South 300 feet to the center of the County Road and 50 feet North of the center of the railroad track of the Southern Pacific Company; and thence in a Northeasterly direction along the center of said County Road to the Point of Beginning.

PARCEL 2:

A tract of land in Section 9, Township 3 South, Range 2 West of the Willamette Meridian in Yamhill County, Oregon, more particularly described as follows:

Being a part of the Solomon Heater Donation Land Claim, Notification No. 1471, Claim No. 48 in Section 9, Township 3 South, Range 2 West of the Willamette Meridian in Yamhill County, Oregon, and beginning at an iron pipe in the County Road at point 45.23 chains North and 10.00 chains West from the Southeast corner of said Heater Claim; thence North 89°24' West 6.105 chains to a set iron pipe for corner; and the True Point of Beginning of the property herein described; thence North 5.705 chains to a set stake at the Northeast corner of a 3 acre tract; thence North 89°24' West along the North line of said 3 acre tract, 15.356 chains to a stake on division line of said Heater Claim; thence South along the division line of said claim, 11.235 chains to the North line of that certain tract conveyed to Florence Rees Baldwin by Deed recorded in Book 85, Page 383, Deed Records; thence North 89°51' East along the North line of said Baldwin tract and the North line of the Mills tract and the same extended Easterly to the Southerly Southwest corner of that certain tract conveyed by Fred Kincaid et ux. to Elvin Mills et ux., by Deed recorded November 16, 1962 in Film Volume 26, Page 656, Deed and Mortgage Records; thence North 55 feet; thence West 14 feet; thence North 240 feet; thence West 130 feet; thence North 64 feet to the Point of Beginning.

EXCEPTING THEREFROM that certain tract conveyed by Emma O. Kincaid to Springbrook Packing Company, by Deed recorded February 21, 1938 in Book 114, Page 1, Deed Records.

AS OF THE DATE OF THIS REPORT, ITEMS TO BE CONSIDERED AND EXCEPTIONS TO COVERAGE IN ADDITION TO THE PRINTED EXCEPTIONS AND EXCLUSIONS IN THE POLICY FORM WOULD BE AS FOLLOWS:

GENERAL EXCEPTIONS:

1. Taxes or assessments which are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the Public Records; proceedings by a public agency which may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the Public Records.

2. Any facts, rights, interests or claims, which are not shown by the Public Records but which could be ascertained by an inspection of the Land or by making inquiry of persons in possession thereof.

3. Easements, or claims of easement, which are not shown by the Public Records; reservations or exceptions in patents or in Acts authorizing the issuance thereof; water rights, claims or title to water.

4. Any encroachment (of existing improvements located on the Land onto adjoining land or of existing improvements located on adjoining land onto the subject Land), encumbrance, violation, variation or adverse circumstance affecting the Title that would be disclosed by an accurate and complete land survey of the subject Land.

5. Any lien or right to a lien for services, labor, material, equipment rental or workers compensation heretofore or hereafter furnished, imposed by law and not shown by the Public Records.

SPECIFIC ITEMS AND EXCEPTIONS:

6. As disclosed by the assessment and tax roll, the premises herein were once specially assessed for farmland, forestland or other special assessment status and later disqualified. Per ORS 308A.700 to 308A.733, additional taxes were imposed and remain as potential additional tax liability for the property. A check with the Assessor's office will be necessary to determine the effect and continuation of the additional tax liability.

   Additional Tax Liability Amount: $2,904.34

7. The Land has been classified as Forest land, as disclosed by the tax roll. If the Land becomes disqualified, said Land may be subject to additional taxes and/or penalties.

8. Rights of the public to any portion of the Land lying within the area commonly known as streets, roads and highways.

9. Any invalidity or defect in the title of the vestees in the event that the trust referred to herein is invalid or fails to grant sufficient powers to the trustee(s) or in the event there is a lack of compliance with the terms and provisions of the trust instrument.

   If title is to be insured in the trustee(s) of a trust (or if their act is to be insured), this Company will require a copy of said Trust Agreement or a Trust Certification pursuant to ORS Chapter 130.860.

   The Company reserves the right to make additional requirements or add additional items or exceptions after review of the requested documentation.

   Affects: The former ownership interest held under the Kerr Living Trust, dated March 27, 2002.

10. Please be advised that our search did not disclose any open Deeds of Trust of record. If you should have knowledge of any outstanding obligation, please contact the Title Department immediately for further review prior to closing.

11. If requested to issue an extended coverage ALTA loan policy, the following matters must be addressed:

    a) The rights of tenants holding under unrecorded leases or tenancies
    b) Matters disclosed by a statement as to parties in possession and as to any construction, alterations or repairs to the Land within the last 75 days. The Company must be notified in the event that any funds are to be used for construction, alterations or repairs.
    c) Any facts which would be disclosed by an accurate survey of the Land

12. Property taxes in an undetermined amount, which are a lien but not yet payable, including any assessments collected with taxes to be levied for the fiscal year 2024-2025.

ADDITIONAL REQUIREMENTS/NOTES:

A. Note: Property taxes for the fiscal year shown below are paid in full.

Fiscal Year:	2023-2024
Amount:	$5,719.65
Levy Code:	29.2
Account No.:	25902
Map No.:	R3209 02300

Prior to close of escrow, please contact the Tax Collector's Office to confirm all amounts owing, including current fiscal year taxes, supplemental taxes, escaped assessments and any delinquencies.

B. In addition to the standard policy exceptions, the exceptions enumerated above shall appear on the final ALTA Policy unless removed prior to issuance.

C. Note: There are NO conveyances affecting said Land recorded within 24 months of the date of this report.

D. The Company will require the following documents for review prior to the issuance of any title insurance predicated upon a conveyance or encumbrance by the corporation named below:

Name of Corporation: Ichijo USA Co., LTD

a) A Copy of the corporation By-laws and Articles of Incorporation

b) An original or certified copy of a resolution authorizing the transaction contemplated herein

c) If the Articles and/or By-laws require approval by a 'parent' organization, a copy of the Articles and By-laws of the parent

d) A current dated certificate of good standing from the proper governmental authority of the state in which the entity was created

The Company reserves the right to add additional items or make further requirements after review of the requested documentation.

The Oregon Corporation Commission records were unavailable for search as of the effective date herein. Evidence of the existence of the above referenced entity will be required prior to closing.

E. Note: There are no matters against the party(ies) shown below which would appear as exceptions to coverage in a title insurance product:

Parties: Ichijo USA Co., LTD

F. Note: The State of Oregon requires every ALTA Owner's Policy (07-01-2021) to include the OTIRO 110 Endorsement as a supplement to the definition of Insured in said Owner's Policy's Conditions to confirm coverage is the same for an Oregon Registered Domestic Partner as it is for a Spouse.

G. Note: No utility search has been made or will be made for water, sewer or storm drainage charges unless the City/Service District claims them as liens (i.e. foreclosable) and reflects them on its lien docket as of the date of closing. Buyers should check with the appropriate city bureau or water service district and obtain a billing cutoff. Such charges must be adjusted outside of escrow.

H. Note: Effective January 1, 2008, Oregon law (ORS 314.258) mandates withholding of Oregon income taxes from sellers who do not continue to be Oregon residents or qualify for an exemption. Please contact your Escrow Closer for further information.

I. THE FOLLOWING NOTICE IS REQUIRED BY STATE LAW: YOU WILL BE REVIEWING, APPROVING AND SIGNING IMPORTANT DOCUMENTS AT CLOSING. LEGAL CONSEQUENCES FOLLOW FROM THE SELECTION AND USE OF THESE DOCUMENTS. YOU MAY CONSULT AN ATTORNEY ABOUT THESE DOCUMENTS. YOU SHOULD CONSULT AN ATTORNEY IF YOU HAVE QUESTIONS OR CONCERNS ABOUT THE TRANSACTION OR ABOUT THE DOCUMENTS. IF YOU WISH TO REVIEW TRANSACTION DOCUMENTS THAT YOU HAVE NOT SEEN, PLEASE CONTACT THE ESCROW AGENT.

J. Recording Charge (Per Document) is the following:

County	First Page	Each Additional Page
Yamhill	$81.00	$5.00

Note: When possible the company will record electronically. An additional charge of $5.00 applies to each document that is recorded electronically.

Note: Please send any documents for recording to the following address:
Portland Title Group
Attn: Recorder
1455 SW Broadway, Suite 1450
Portland, OR. 97201

Please email your release to the following email address: or-ttc-yamhillrecording@ticortitle.com

K. Note: This map/plat is being furnished as an aid in locating the herein described Land in relation to adjoining streets, natural boundaries and other land. Except to the extent a policy of title insurance is expressly modified by endorsement, if any, the Company does not insure dimensions, distances or acreage shown thereon.

L. Notice: Please be aware that due to the conflict between federal and state laws concerning the cultivation, distribution, processing, manufacture, sale, dispensing or use of marijuana and psilocybin, the Company is not able to close or insure any transaction involving Land associated with these activities.

M. NOTE: IMPORTANT INFORMATION REGARDING PROPERTY TAX PAYMENTS:
Fiscal Year: July 1st through June 30th
Taxes become a lien on real property, but are not yet payable: July 1st
Taxes become certified and payable (approximately on this date): October 15th
First one third payment of taxes is due: November 15th
Second one third payment of taxes is due: February 15th
Final payment of taxes is due: May 15th

Discounts: If two thirds are paid by November 15th, a 2% discount will apply. If the full amount of the taxes are paid by November 15th, a 3% discount will apply.

Interest: Interest accrues as of the 15th of each month based on any amount that is unpaid by the due date. No interest is charged if the minimum amount is paid according to the above mentioned payment schedule.

EXHIBIT ONE

2021 AMERICAN LAND TITLE ASSOCIATION LOAN POLICY (07-01-2021)
EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy, and the Company will not pay loss or damage, costs, attorneys' fees, or expenses that arise by reason of:

1. a. any law, ordinance, permit, or governmental regulation (including those relating to building and zoning) that restricts, regulates, prohibits, or relates to:
      i. the occupancy, use, or enjoyment of the Land;
      ii. the character, dimensions, or location of any improvement on the Land;
      iii. the subdivision of land; or
      iv. environmental remediation or protection.
   b. any governmental forfeiture, police, regulatory, or national security power.
   c. the effect of a violation or enforcement of any matter excluded under Exclusion 1.a. or 1.b.
2. Any power of eminent domain. Exclusion 2 does not modify or limit the coverage provided under Covered Risk 7.
3. Any defect, lien, encumbrance, adverse claim, or other matter:
   a. created, suffered, assumed, or agreed to by the Insured Claimant;
   b. not Known to the Company, not recorded in the Public Records at the Date of Policy, but Known to the Insured Claimant and not disclosed in writing to the Company by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;
   c. resulting in no loss or damage to the Insured Claimant;
   d. attaching or created subsequent to the Date of Policy (Exclusion 3.d. does not modify or limit the coverage provided under Covered Risk 11, 13, or 14); or
   e. resulting in loss or damage that would not have been sustained if consideration sufficient to qualify the Insured named in Schedule A as a bona fide purchaser or encumbrancer had been given for the Insured Mortgage at the Date of Policy.
4. Unenforceability of the lien of the Insured Mortgage because of the inability or failure of an Insured to comply with applicable doing-business law.
5. Invalidity or unenforceability of the lien of the Insured Mortgage that arises out of the transaction evidenced by the Insured Mortgage and is based upon usury or Consumer Protection Law.
6. Any claim, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights law, that the transaction creating the lien of the Insured Mortgage is a:
   a. fraudulent conveyance or fraudulent transfer;
   b. voidable transfer under the Uniform Voidable Transactions Act; or
   c. preferential transfer:
      i. to the extend the Insured Mortgage is not a transfer made as a contemporaneous exchange for new value; or
      ii. for any reason not stated in the Covered Risk 13.b
7. Any claim of a PACA-PSA Trust. Exclusion 7 does not modify or limit the coverage provided under Covered Risk 8.
8. Any lien on the Title for real estate taxes or assessments imposed by a governmental authority and created or attaching between the Date of Policy and the date of recording of the Insured Mortgage in the Public Records. Exclusion 8 does not modify or limit the coverage provided under Covered Risk 2.b. or 11.b.
9. Any discrepancy in the quantity of the area, square footage, or acreage of the Land or of any improvement to the Land.

The above policy form may be issued to afford either Standard Coverage or Extended Coverage. In addition to the above Exclusions from Coverage, the Exceptions from Coverage in a Standard Coverage policy will also include the following Exceptions from Coverage.

SCHEDULE B - GENERAL EXCEPTIONS FROM COVERAGE

This policy does not insure against loss or damage (and the Company will not pay costs, attorneys' fees or expenses) which arise by reason of:

1. Taxes or assessments which are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the Public Records; proceedings by a public agency which may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the Public Records.
2. Facts, rights, interests or claims which are not shown by the Public Records but which could be ascertained by an inspection of the Land or by making inquiry of persons in possession thereof.
3. Easements, or claims of easement, not shown by the Public Records; reservations or exceptions in patents or in Acts authorizing the issuance thereof, water rights, claims or title to water.
4. Any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the Title that would be disclosed by an accurate and complete land survey of the Land. The term "encroachment" includes encroachments of existing improvements located on the Land onto adjoining land, and encroachments onto the Land of existing improvements located on adjoining land.
5. Any lien for services, labor or material heretofore or hereafter furnished, or for contributions due to the State of Oregon for unemployment compensation or worker's compensation, imposed by law and not shown by the Public Records.

2021 AMERICAN LAND TITLE ASSOCIATION OWNER'S POLICY (07-01-2021)
EXCLUSIONS FROM COVERAGE

The following matters are excluded from the coverage of this policy and the Company will not pay loss or damage, costs, attorneys' fees or expenses that arise by reason of:

1. a. any law, ordinance, permit, or governmental regulation (including those relating to building and zoning) that restricts, regulates, prohibits, or relates to:
      i. the occupancy, use, or enjoyment of the Land;
      ii. the character, dimensions or location of any improvement on the Land;
      iii. the subdivision of land; or
      iv. environmental remediation or protection;
   b. any governmental forfeiture, police, regulatory, or national security power
   c. the effect of a violation or enforcement of any matter excluded under Exclusion 1.a. or 1.b.

   Exclusion 1 does not modify or limit the coverage provided under Covered Risk 5 or 6.
2. Any power of eminent domain. Exclusion 2 does not modify or limit the coverage provided under Covered Risk 7.
3. Any defect, lien, encumbrance, adverse claim, or other matter:
   a. created, suffered, assumed or agreed to by the Insured Claimant;
   b. not known to the Company, not recorded in the Public Records at the Date of Policy, but Known to the Insured Claimant and not disclosed in writing to the Company by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;
   c. resulting in no loss or damage to the Insured Claimant;
   d. attaching or created subsequent to the Date of Policy (Exclusion 3.d. does not modify or limit the coverage provided under Covered Risk 9 or 10); or
   e. resulting in loss or damage that would not have been sustained if consideration sufficient to qualify the Insured named in Schedule A as a bona fide purchaser had been given for the Title at the Date of Policy.
4. Any claim, by reason of the operation of federal bankruptcy, state insolvency or similar creditors' rights law, that the transaction vesting the Title as shown in Schedule A is a:
   a. fraudulent conveyance or fraudulent transfer, or
   b. voidable transfer under the Uniform Voidable Transactions Act; or
   c. preferential transfer:
      i. to the extent the instrument of transfer vesting the Title as shown in Schedule A is not a transfer made as a contemporaneous exchange for new value; or
      ii. for any other reason not stated in Covered Risk 9.b.
5. Any claim of a PACA-PSA Trust. Exclusion 5 does not modify or limit the coverage provided under Covered Risk 8.
6. Any lien on the Title for real estate taxes or assessments imposed or collected by a governmental authority that becomes due and payable after the Date of Policy. Exclusion 6 does not modify or limit the coverage provided under Covered Risk 2.b.
7. Any discrepancy in the quantity of the area, square footage, or acreage of the Land or of any improvement to the Land.

The above policy form may be issued to afford either Standard Coverage or Extended Coverage. In addition to the above Exclusions from Coverage, the Exceptions from Coverage in a Standard Coverage policy will also include the following Exceptions from Coverage.

SCHEDULE B - GENERAL EXCEPTIONS FROM COVERAGE

This policy does not insure against loss or damage (and the Company will not pay costs, attorneys' fees or expenses) which arise by reason of:

1. Taxes or assessments which are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the Public Records; proceedings by a public agency which may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the Public Records.
2. Facts, rights, interests or claims which are not shown by the Public Records but which could be ascertained by an inspection of the Land or by making inquiry of persons in possession thereof.
3. Easements, or claims of easement, not shown by the Public Records; reservations or exceptions in patents or in Acts authorizing the issuance thereof, water rights, claims or
4. Any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the Title that would be disclosed by an accurate and complete land survey of the Land. The term "encroachment" includes encroachments of existing improvements located on the Land onto adjoining land, and encroachments onto the Land of existing improvements located on adjoining land.
5. Any lien for services, labor or material heretofore or hereafter furnished, or for contributions due to the State of Oregon for unemployment compensation or worker's compensation, imposed by law and not shown by the Public Records.

title to water.

EXHIBIT ONE

2006 AMERICAN LAND TITLE ASSOCIATION LOAN POLICY (06-17-06)
EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy and the Company will not pay loss or damage, costs, attorneys' fees or expenses that arise by reason of:

1. (a) Any law, ordinance or governmental regulation (including but not limited to building and zoning) restricting, regulating, prohibiting or relating to
   (i) the occupancy, use, or enjoyment of the Land;
   (ii) the character, dimensions or location of any improvement erected on the land;
   (iii) the subdivision of land; or
   (iv) environmental protection;
   or the effect of any violation of these laws, ordinances or governmental regulations. This Exclusion 1(a) does not modify or limit the coverage provided under Covered Risk 5.
   (b) Any governmental police power. This Exclusion 1(b) does not modify or limit the coverage provided under Covered Risk 6.
2. Rights of eminent domain. This Exclusion does not modify or limit the coverage provided under Covered Risk 7 or 8.
3. Defects, liens, encumbrances, adverse claims, or other matters
   (a) created, suffered, assumed or agreed to by the Insured Claimant;
   (b) not known to the Company, not recorded in the Public Records at Date of Policy, but known to the Insured Claimant and not disclosed in writing to the Company by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;
   (c) resulting in no loss or damage to the Insured Claimant;
   (d) attaching or created subsequent to Date of Policy (however, this does not modify or limit the coverage provided under Covered Risk 11, 13, or 14); or
   (e) resulting in loss or damage that would not have been sustained if the Insured Claimant had paid value for the Insured Mortgage.
4. Unenforceability of the lien of the Insured Mortgage because of the inability or failure of an Insured to comply with the applicable doing-business laws of the state where the Land is situated.
5. Invalidity or unenforceability in whole or in part of the lien of the Insured Mortgage that arises out of the transaction evidenced by the Insured Mortgage and is based upon usury or any consumer credit protection or truth-in-lending law.
6. Any claim, by reason of the operation of federal bankruptcy, state insolvency or similar creditors' rights laws, that the transaction creating the lien of the Insured Mortgage, is
   (a) a fraudulent conveyance or fraudulent transfer, or
   (b) a preferential transfer for any reason not stated in the Covered Risk 13(b) of this policy.
7. Any lien on the Title for real estate taxes or assessments imposed by governmental authority and created or attaching between Date of Policy and the date of recording of the Insured Mortgage in the Public Records. This Exclusion does not modify or limit the coverage provided under Covered Risk 11(b).

The above policy form may be issued to afford either Standard Coverage or Extended Coverage. In addition to the above Exclusions from Coverage, the Exceptions from Coverage in a Standard Coverage policy will also include the following Exceptions from Coverage.

SCHEDULE B - GENERAL EXCEPTIONS FROM COVERAGE

This policy does not insure against loss or damage (and the Company will not pay costs, attorneys' fees or expenses) which arise by reason of:

1. Taxes or assessments which are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the Public Records; proceedings by a public agency which may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the Public Records.
2. Facts, rights, interests or claims which are not shown by the Public Records but which could be ascertained by an inspection of the Land or by making inquiry of persons in possession thereof.
3. Easements, or claims of easement, not shown by the Public Records; reservations or exceptions in patents or in Acts authorizing the issuance thereof, water rights, claims or title to water.
4. Any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the Title that would be disclosed by an accurate and complete land survey of the Land. The term "encroachment" includes encroachments of existing improvements located on the Land onto adjoining land, and encroachments onto the Land of existing improvements located on adjoining land.
5. Any lien for services, labor or material heretofore or hereafter furnished, or for contributions due to the State of Oregon for unemployment compensation or worker's compensation, imposed by law and not shown by the Public Records.

2006 AMERICAN LAND TITLE ASSOCIATION OWNER'S POLICY (06-17-06)
EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy and the Company will not pay loss or damage, costs, attorneys' fees or expenses that arise by reason of:

1. (a) Any law, ordinance or governmental regulation (including but not limited to building and zoning) restricting, regulating, prohibiting or relating to
   (i) the occupancy, use, or enjoyment of the Land;
   (ii) the character, dimensions or location of any improvement erected on the land;
   (iii) the subdivision of land; or
   (iv) environmental protection;
   or the effect of any violation of these laws, ordinances or governmental regulations. This Exclusion 1(a) does not modify or limit the coverage provided under Covered Risk 5.
   (b) Any governmental police power. This Exclusion 1(b) does not modify or limit the coverage provided under Covered Risk 6.
2. Rights of eminent domain. This Exclusion does not modify or limit the coverage provided under Covered Risk 7 or 8.
3. Defects, liens, encumbrances, adverse claims, or other matters
   (a) created, suffered, assumed or agreed to by the Insured Claimant;
   (b) not known to the Company, not recorded in the Public Records at Date of Policy, but known to the Insured Claimant and not disclosed in writing to the Company by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;
   (c) resulting in no loss or damage to the Insured Claimant;
   (d) attaching or created subsequent to Date of Policy (however, this does not modify or limit the coverage provided under Covered Risk 9 and 10); or
   (e) resulting in loss or damage that would not have been sustained if the Insured Claimant had paid value for the Title.
4. Any claim, by reason of the operation of federal bankruptcy, state insolvency or similar creditors' rights laws, that the transaction creating the lien of the Insured Mortgage, is
   (a) a fraudulent conveyance or fraudulent transfer, or
   (b) a preferential transfer for any reason not stated in the Covered Risk 9 of this policy.
7. Any lien on the Title for real estate taxes or assessments imposed by governmental authority and created or attaching between Date of Policy and the date of recording of the deed or other instrument of transfer in the Public Records that vests Title as shown in Schedule A.

The above policy form may be issued to afford either Standard Coverage or Extended Coverage. In addition to the above Exclusions from Coverage, the Exceptions from Coverage in a Standard Coverage policy will also include the following Exceptions from Coverage.

SCHEDULE B - GENERAL EXCEPTIONS FROM COVERAGE

This policy does not insure against loss or damage (and the Company will not pay costs, attorneys' fees or expenses) which arise by reason of:

1. Taxes or assessments which are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the Public Records; proceedings by a public agency which may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the Public Records.
2. Facts, rights, interests or claims which are not shown by the Public Records but which could be ascertained by an inspection of the Land or by making inquiry of persons in possession thereof.
3. Easements, or claims of easement, not shown by the Public Records; reservations or exceptions in patents or in Acts authorizing the issuance thereof, water rights, claims or title to water.
4. Any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the Title that would be disclosed by an accurate and complete land survey of the Land. The term "encroachment" includes encroachments of existing improvements located on the Land onto adjoining land, and encroachments onto the Land of existing improvements located on adjoining land.
5. Any lien for services, labor or material heretofore or hereafter furnished, or for contributions due to the State of Oregon for unemployment compensation or worker's compensation, imposed by law and not shown by the Public Records.

WIRE SAFE™ | Inquire before you wire!

WIRE FRAUD ALERT

This Notice is not intended to provide legal or professional advice.
If you have any questions, please consult with a lawyer.

All parties to a real estate transaction are targets for wire fraud and many have lost hundreds of thousands of dollars because they simply relied on the wire instructions received via email, without further verification. **If funds are to be wired in conjunction with this real estate transaction, we strongly recommend verbal verification of wire instructions through a known, trusted phone number prior to sending funds.**

In addition, the following non-exclusive self-protection strategies are recommended to minimize exposure to possible wire fraud.

- **NEVER RELY** on emails purporting to change wire instructions. Parties to a transaction rarely change wire instructions in the course of a transaction.
- **ALWAYS VERIFY** wire instructions, specifically the ABA routing number and account number, by calling the party who sent the instructions to you. DO NOT use the phone number provided in the email containing the instructions, use phone numbers you have called before or can otherwise verify. **Obtain the number of relevant parties to the transaction as soon as an escrow account is opened.** DO NOT send an email to verify as the email address may be incorrect or the email may be intercepted by the fraudster.
- **USE COMPLEX EMAIL PASSWORDS** that employ a combination of mixed case, numbers, and symbols. Make your passwords greater than eight (8) characters. Also, change your password often and do NOT reuse the same password for other online accounts.
- **USE MULTI-FACTOR AUTHENTICATION** for email accounts. Your email provider or IT staff may have specific instructions on how to implement this feature.

For more information on wire-fraud scams or to report an incident, please refer to the following links:

Federal Bureau of Investigation:
http://www.fbi.gov

Internet Crime Complaint Center:
http://www.ic3.gov

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- To verify and authenticate identities and credentials;
- To communicate with you about our, our affiliates', and others' products and services, jointly or independently.
- To provide reviews and testimonials about our services, with your consent.

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- to affiliated or nonaffiliated third parties with whom we perform joint marketing, pursuant to an agreement with them to jointly market financial products or services to you;
- to law enforcement or authorities in connection with an investigation, or in response to a subpoena or court order; or
- in the good-faith belief that such disclosure is necessary to comply with legal process or applicable laws, or to protect the rights, property, or safety of FNF, its customers, or the public.

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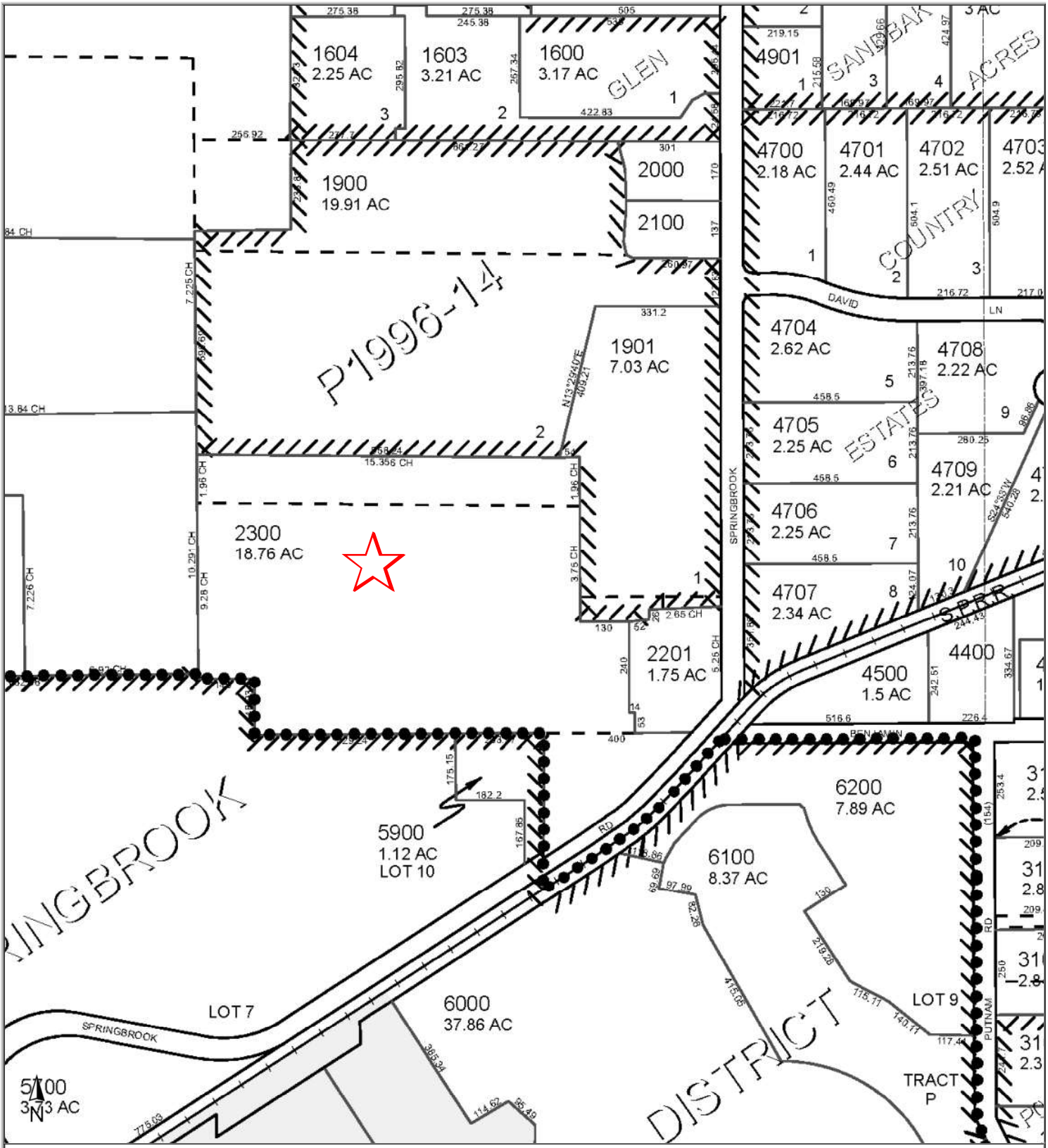
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601 Riverside Avenue,
Jacksonville, Florida 32204
Attn: Chief Privacy Officer

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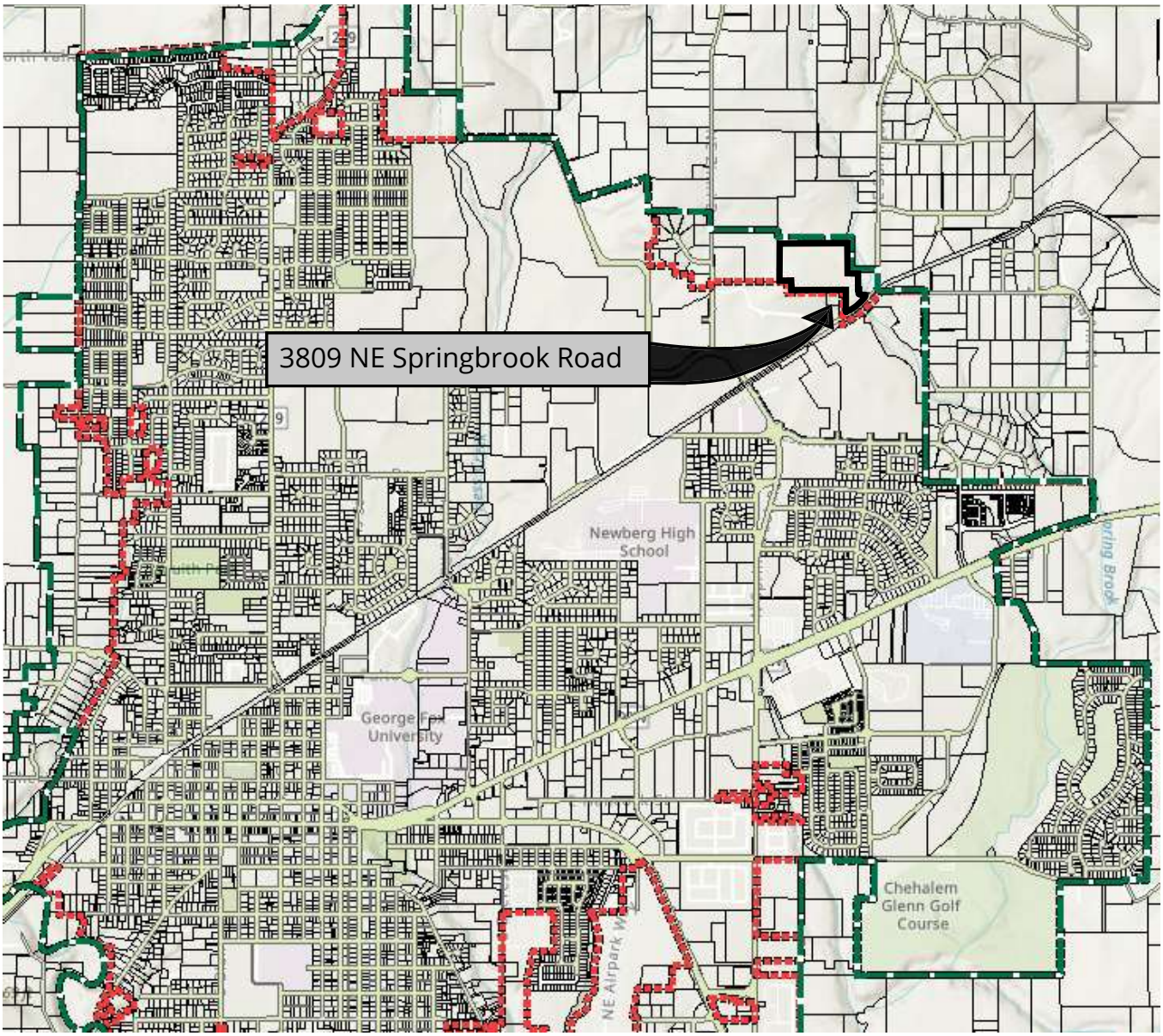
3809 NE Springbrook Rd, Newberg OR 97132

This map/plat is being furnished as an aid in locating the herein described land in relation to adjoining streets, natural boundaries and other land, and is not a survey of the land depicted. Except to the extent a policy of title insurance is expressly modified by endorsement, if any, the company does not insure dimensions, distances, location of easements, acreage or other matters shown thereon.

Appendix B - Vicinity Map

3809 NE Springbrook Road Annexation

08/16/2024



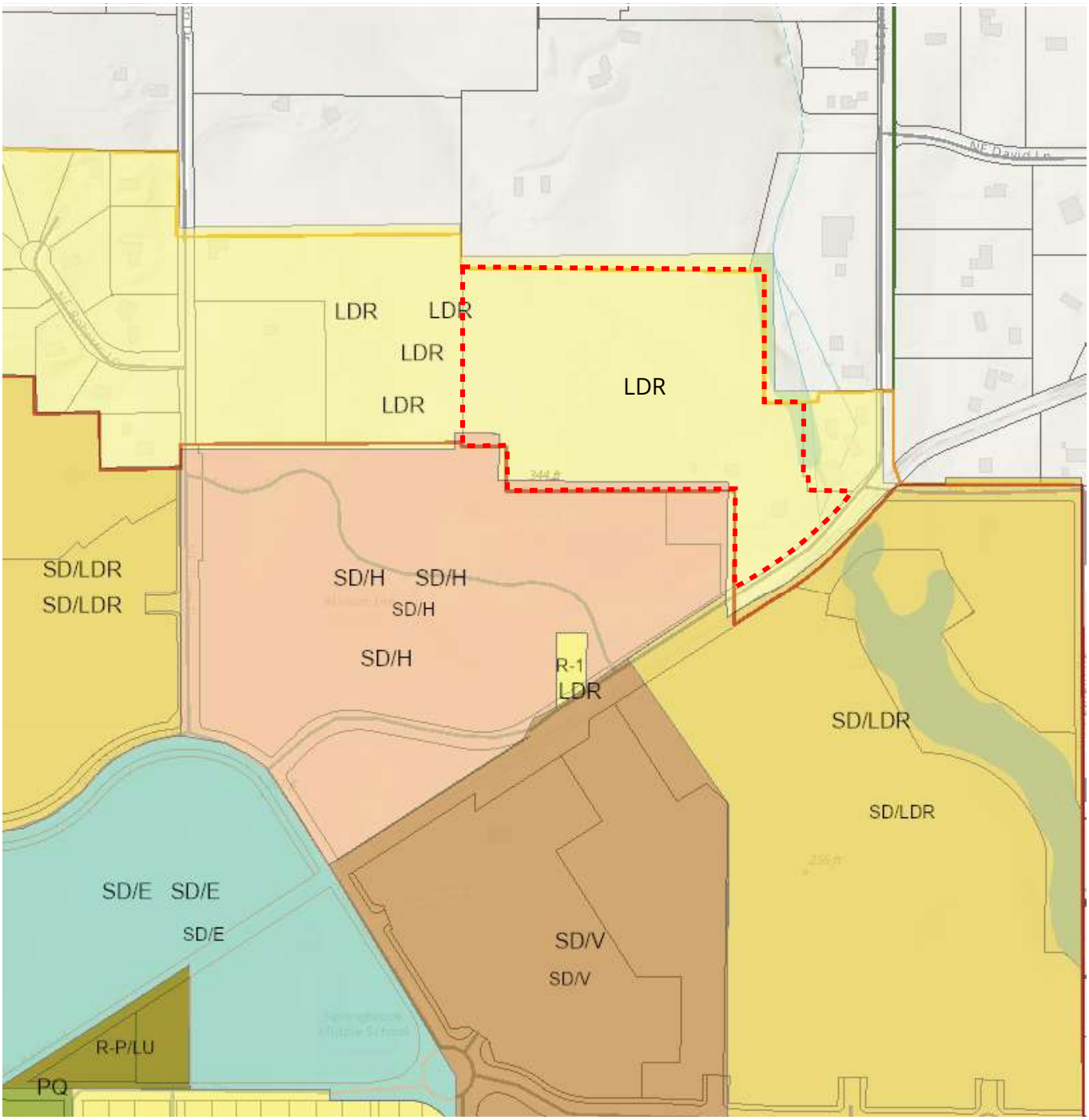
Existing City Limits

Newberg Urban Growth Boundary

Appendix B - Current Comprehensive Plan Designation

3809 NE Springbrook Road Annexation

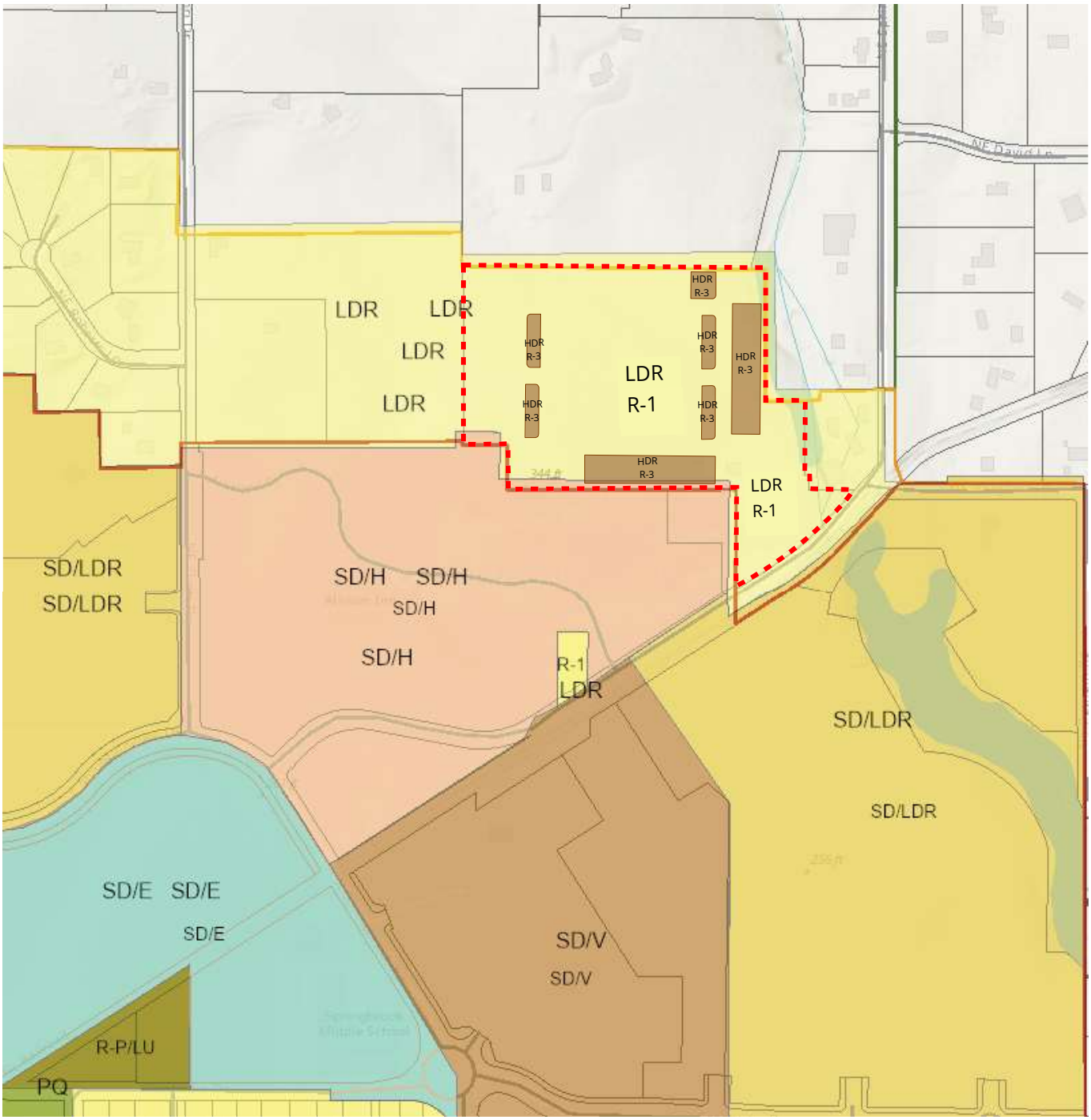
08/16/2024



Appendix B - Proposed Comprehensive and Zoning Designations

3809 NE Springbrook Road Annexation

08/16/2024



Appendix C - Public Notice Materials

3809 NE Springbrook Road Annexation

08/16/2024

- Mailed Notice
- Mailing List
- Posted Notice
- Affidavit of Notice

City of Newberg
Community Development Department
P.O. Box 970 ▪ 414 E First Street ▪ Newberg, Oregon 97132
503-537-1240. Fax 503-537-1272 www.newbergoregon.gov

NOTICE OF PLANNING COMMISSION HEARING ON A PROPOSED ANNEXATION AND COMPREHENSIVE PLAN AND ZONE CHANGE

A property owner in your neighborhood submitted an application to the City of Newberg to annex approximately 19.16 acres at 3809 NE Springbrook Road, Yamhill County tax lot R3209 02300. The Newberg Planning Commission will hold a hearing on ***Date of Hearing*** at 7pm at the Newberg Public Safety Building, 401 E. Third Street, Newberg, OR, to evaluate the proposal. You are invited to take part in the City's review of this project by sending in your written comments or testifying before the Planning Commission. For more details about giving comments, please see the back of this sheet.

The application would expand the City limits by 19.16 acres of R-1/R-3 zoning designation. Future development of the site of a residential neighborhood is anticipated.

APPLICANT:	***Ichijo USA Co. LTD***
TELEPHONE:	***503-946-9365***
PROPERTY OWNER:	***Ichijo USA Co. LTD***
LOCATION:	***3809 NE Springbrook Road***
TAX LOT NUMBER:	***Yamhill County Tax Map R3209-02300***



DRAFT

We are mailing you information about this project because you own land within 500 feet of the proposed annexation and comprehensive plan zone change. We invite you to participate in the land use hearing scheduled before the Planning Commission. If you wish to participate in the hearing, you may do so in person or be represented by someone else. You also may submit written comments. Oral testimony is typically limited to five minutes per speaker.

If you mail your comments to the City, please put the following information on the outside of the envelope:

Written Comments: File No. ***XX***
City of Newberg
Community Development Department
PO Box 970
Newberg, OR 97132

All written comments must be received by 4:30 p.m. on ***July XX, 2024***. Written information received after this time will be read out loud at the hearing subject to time limits for speakers, and will be included in the record if there are further proceedings.

You can look over all the information about this project or drop comments off at Newberg City Hall, 414 E. First Street. You can also buy copies of the information for a cost of 25 cents a page. A staff report relating to the proposal will be available for inspection at no cost seven days prior to the public hearing. If you have any questions about the project, you can call the Newberg Planning Division at 503-537-1215.

Any issue which might be raised in an appeal of this case to the Land Use Board of Appeals (LUBA) must be submitted to the City in writing before this date. You must include enough detail to enable the decision maker an opportunity to respond. The applicable criteria used to make a decision on this application for annexation are found in Newberg Development Code Section 15.250.030, and for a comprehensive plan map and zone change are found in Newberg Development Code Section 15.302.030(A)(3).

Prior to the conclusion of the initial evidentiary hearing, any participant may request an opportunity to present additional evidence, arguments or testimony regarding the application through a continuance or extension of the record. Failure of an issue to be raised in the hearing, in person or by letter, or failure to provide statements or evidence sufficient to afford the decision maker an opportunity to respond to the issue precludes appeal to the State Land Use Board of Appeals based on that issue.

The Planning Commission will make a recommendation to the City Council at the end of the public hearing process. The Planning Commission's recommendation will be forwarded to the City Council. The City Council will hold a hearing on the application at a later date. If you participate in the public hearing process, either by testifying at the public hearing, or by sending in written comments, we will send you information about any decision made by the City relating to this project.

Date Mailed: ***July XX, 2024***

ACCOMMODATION OF PHYSICAL IMPAIRMENTS:

In order to accommodate persons with physical impairments, please notify the City Recorder's office of any special physical or language accommodations you may need as far in advance of the meeting as possible and no later than 48 hours prior to the meeting. To request these arrangements, please contact the City Recorder at 503- 537-1283. For TRS services please dial 711.

DRAFT

To Our Neighbors at:
2525 ALLISON LN
NEWBERG, OR 97132

To Our Neighbors at:
29105 NE BENJAMIN RD
NEWBERG, OR 97132

To Our Neighbors at:
PO BOX 627
NEWBERG, OR 97132

To Our Neighbors at:
14630 NE SPRINGBROOK RD
NEWBERG, OR 97132

To Our Neighbors at:
14650 NE SPRINGBROOK RD
NEWBERG, OR 97132

To Our Neighbors at:
PO BOX 1060
NEWBERG, OR 97132

To Our Neighbors at:
3809 NE SPRINGBROOK RD
NEWBERG, OR 97132

To Our Neighbors at:
14780 NE SPRINGBROOK RD
NEWBERG, OR 97132

To Our Neighbors at:
PO BOX 1060
NEWBERG, OR 97132

To Our Neighbors at:
14755 NE SPRINGBROOK RD
NEWBERG, OR 97132

To Our Neighbors at:
3220 NE ZIMRI DR
NEWBERG, OR 97132

To Our Neighbors at:
14945 NE SPRINGBROOK RD
NEWBERG, OR 97132

To Our Neighbors at:
3113 CRESTVIEW DR
NEWBERG, OR 97132

DRAFT

E # ANX24-0

AL: Annexation of 3809 NE Newberg, OR 97132

THER INFORMATION,

PLANNING DIVISION FILE #: _____

CITY OF NEWBERG
AFFIDAVIT OF NOTICING

REFERENCE ATTACHED LIST(S)/NOTICE(S)

I, Sam Huck _____, do hereby certify that the attached Notice of Land Use Action was:

a) mailed to the following list of property owners, by United States mail, postage prepaid on_____;
(date)

b) posted on the site according to standards established in Newberg Development Code §15.100.260 on_____.
(date)

I acknowledge that failure to mail the notice in a timely manner constitutes an agreement by the applicant to defer the 120-day process limit and acknowledge that failure to mail will result in the automatic postponement of a decision on the application *15.100.210.(D)(2)* _____.
(date)

_____
Signature Date

_____
Print name

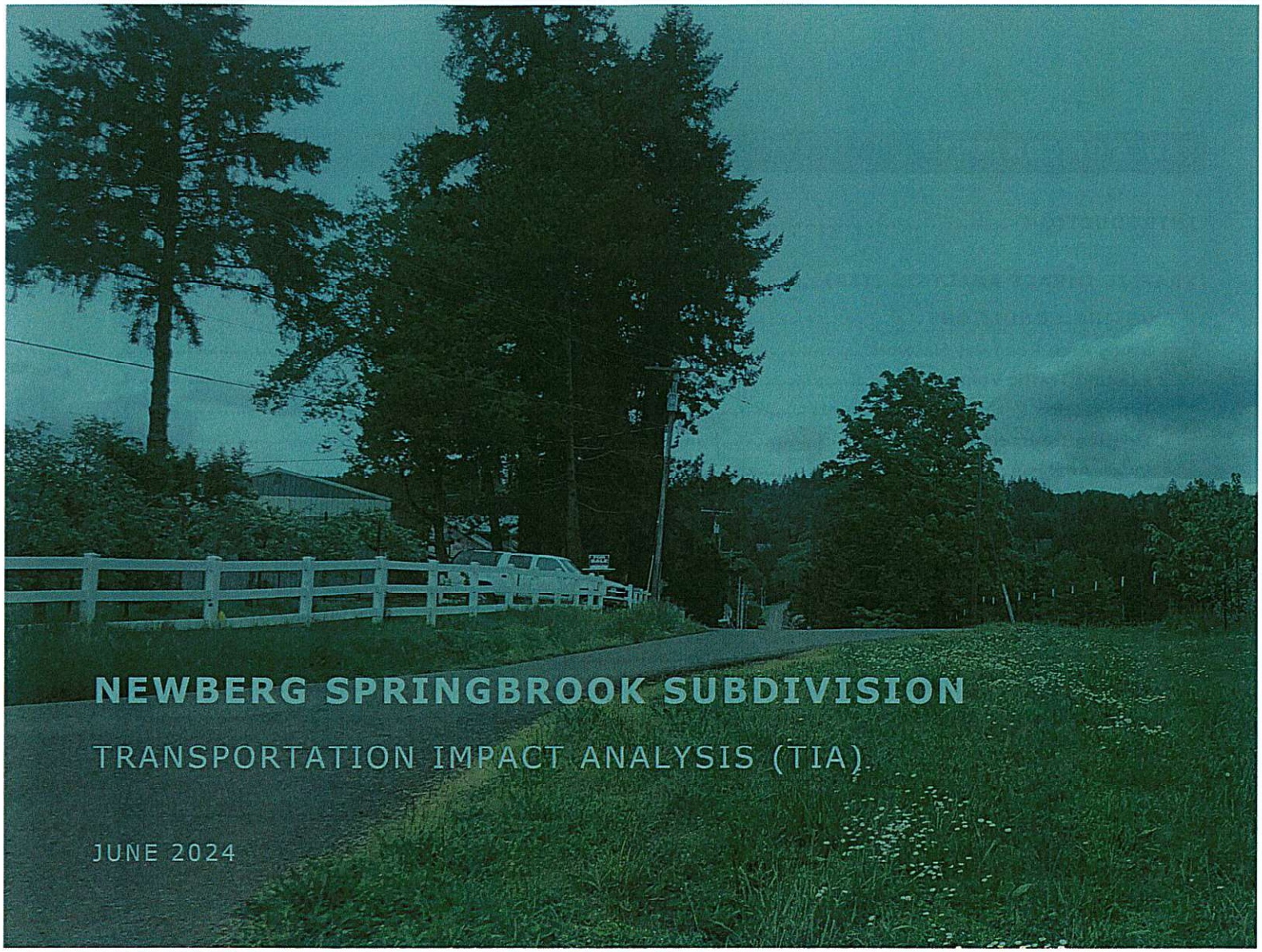
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Appendix D - Traffic Impact Analysis

3809 NE Springbrook Road Annexation

08/16/2024





NEWBERG SPRINGBROOK SUBDIVISION

TRANSPORTATION IMPACT ANALYSIS (TIA)

JUNE 2024

PREPARED FOR

3J CONSULTING

3J CONSULTING

PREPARED BY

DKS

DKS ASSOCIATES

Jenna Bogert, PE

Aidan Flynn, EIT

REGISTERED PROFESSIONAL ENGINEER
97,731
OREGON
MAY 11, 2021
JENNA C. BOGERT
EXPIRES: DEC. 31, 2025

DKS

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INTRODUCTION

This study evaluates the transportation impacts associated with the proposed Springbrook Subdivision development located at 3809 NE N Springbrook Road in Newberg, Oregon. The proposed development consists of 104 single family houses on an approximately 19-acre site.

The proposed site plan proposes one access point onto N Springbrook Road with four additional "stub" roads that would lead into potential future developments. The project site is located immediately outside of the city limits but will be annexed into the City of Newberg.

The purpose of this transportation study is to conduct a traffic impact analysis (TIA), which will identify any potential mitigation measures that might be needed to offset transportation impacts that the proposed development may have on the nearby transportation network in the near-term.

TRAFFIC IMPACT ANALYSIS (TIA)

The TIA is focused on four (4) intersections which were selected for evaluation based on discussion with City staff. Important characteristics of the study area and proposed project are listed in Table 1. The intersections are listed and shown in Figure 1.

- N Springbrook Road and NE Benjamin Road
- N Springbrook Road and E Mountainview Drive
- N Springbrook Road and E Crestview Drive
- N Springbrook Road and Haworth Avenue

TABLE 1: STUDY AREA & DEVELOPMENT CHARACTERISTICS

STUDY AREA	
NUMBER OF STUDY INTERSECTIONS	Four intersections
ANALYSIS PERIODS	Weekday AM peak hour (one hour between 6am – 9am) Weekday PM peak hour (one hour between 3pm – 6pm)
PROPOSED DEVELOPMENT	
PROPOSED LAND USE	Single Family Detached Residential
PROJECT TRIPS	77 (19 in, 58 out) AM peak hour trips 103 (65 in, 38 out) PM peak hour trips
VEHICULAR ACCESS POINTS	One proposed access point from N Springbrook Road



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

Key roadways and their existing characteristics in the study area are summarized in Table 2. The functional classifications for City of Newberg streets are provided in the City of Newberg Transportation System Plan (TSP).[1]

TABLE 2: STUDY AREA ROADWAY CHARACTERISTICS

ROADWAY	JURISDICTION	CLASSIFICATION	NUMBER OF LANES	POSTED SPEED	SIDEWALKS	BIKE LANES
N SPRINGBROOK ROAD	City of Newberg/ Yamhill County	Minor Arterial [a] (City)/ Major Collector (County)	2	35 mph [c]	Partial	Partial
E CRESTVIEW DRIVE	City of Newberg	Major Collector [b]	2	25 mph	Yes	Yes
E MOUNTAINVIEW DRIVE	City of Newberg	Minor Arterial	2	35 mph	Yes	Yes
NE BENJAMIN ROAD	Yamhill County	Local Road	2	40 mph	No	No
HAWORTH AVENUE	City of Newberg	Major Collector	2	25 mph	Yes	No

[a] N Springbrook Road is classified as a Major Collector north of E Mountainview Drive
[b] E Crestview Drive is classified as a Minor Collector east of N Springbrook Road
[c] Within the study area

Bicycle and Pedestrian Facilities

Bike lanes and sidewalks currently exist along N Springbrook Road with the exception of periodic bike lane gaps. Pedestrian and bicycle facilities drop off approximately 500 feet east of the intersection of N Springbrook Road/Allison Lane. Within the study area, both E Crestview Drive and E Mountainview Drive have sidewalks and bike lanes. NE Benjamin Road does not have any pedestrian or bicycle facilities.

The N Springbrook Road/E Crestview Drive roundabout intersection provides marked pedestrian crosswalks at all approaches. The N Springbrook Road/E Mountainview Drive unsignalized intersection includes a marked crosswalk on the north leg and the west leg. The N Springbrook Road/NE Benjamin Road unsignalized intersection does not provide any pedestrian facilities. The N

[1] Newberg Transportation System Plan, City of Newberg, March 2021

Springbrook Road/Haworth Avenue intersection provides pedestrian facilities on all four corners and has a bike lane on N Springbrook Road in the northbound direction.

Public Transit Service

Yamhill County provides weekday public transit service to Newberg. However, there are no transit stops within one mile of the project site.

EXISTING TRAFFIC VOLUMES

New intersection turning movement count data was collected during the weekday AM (6:00am – 9:00am) and PM peak period (3:00pm – 6:00pm) on Wednesday, April 17th, 2024, at the study intersections. No adjustment factors were applied to the peak hour volumes. See Appendix B for the traffic count data.

Figure 2 shows the existing AM and PM peak hour traffic volumes for the study intersections, along with the lane configurations and traffic control.

INTERSECTION PERFORMANCE MEASURES

Agency mobility standards often require intersections to meet level of service (LOS) intersection operation thresholds.

- The intersection LOS is similar to a "report card" rating based upon average vehicle delay. Level of service A, B, and C indicate conditions where traffic moves without significant delays over periods of peak hour travel demand. Level of service D and E are progressively worse operating conditions. Level of service F represents conditions where average vehicle delay has become excessive, and demand has exceeded capacity. This condition is typically evident in long queues and delays.
- The volume-to-capacity (v/c) ratio represents the level of saturation of the intersection or individual movement. It is determined by dividing the peak hour traffic volume by the maximum hourly capacity of an intersection or turn movement. When the V/C ratio approaches 0.95, operations become unstable and small disruptions can cause the traffic flow to break down, resulting in the formation of excessive queues.

The City of Newberg requires study intersections on public streets to meet its minimum acceptable volume to capacity (v/c) standard of v/c < 0.90 and Level of Service threshold D during the peak hours.[2]

[2] Public Works Design and Construction Standards, City of Newberg, August 2015.

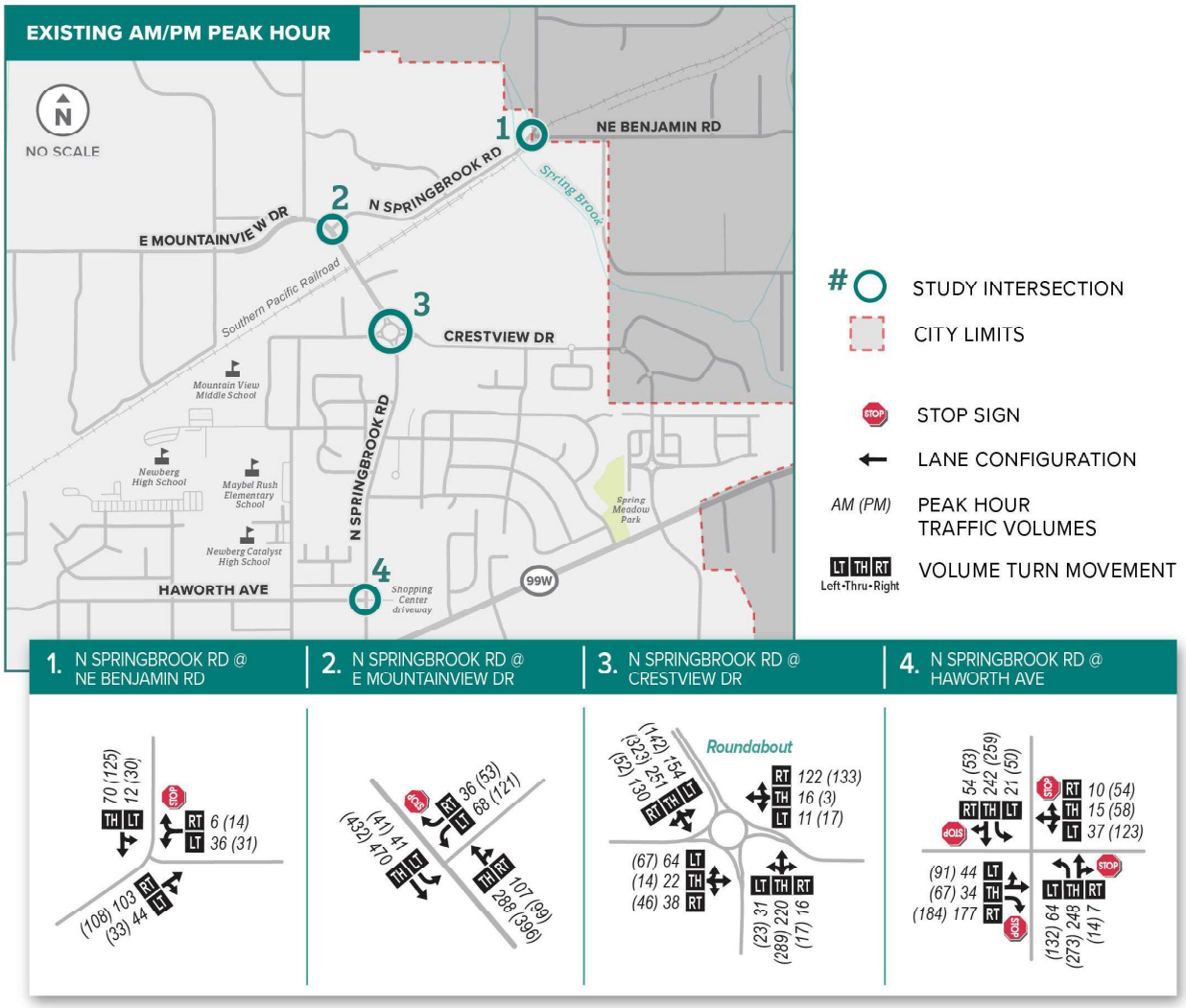


FIGURE 2: EXISTING AM (PM) PEAK HOUR TRAFFIC VOLUMES

EXISTING INTERSECTION OPERATIONS

Intersection operations were analyzed for the AM and PM peak hour at all study intersections for the existing conditions using Highway Capacity Manual (HCM) 6th Edition methodology.[3] The volume to capacity (v/c) ratio, delay, and level of service (LOS) of each study intersection are listed in Table 3: . As shown, the intersection of N Springbrook Road E Mountainview Drive does not meet the operating standard during the PM peak hour under existing conditions. See Appendix C for the Existing HCM Reports.

TABLE 3: EXISTING (2024) INTERSECTION OPERATIONS

[3] Highway Capacity Manual, 6th Edition, Transportation Research Board, 2017.

INTERSECTION	OPERATING STANDARD	AM PEAK HOUR			PM PEAK HOUR		
		V/C	DELAY	LOS	V/C	DELAY	LOS
N SPRINGBROOK ROAD AND NE BENJAMIN ROAD	LOS D, v/c < 0.90	0.07	10.2	B	0.07	10.5	B
N SPRINGBROOK ROAD AND E MOUNTAINVIEW DRIVE	LOS D, v/c < 0.90	0.33	27.1	D	0.61	**42.9**	**E**
N SPRINGBROOK ROAD AND E CRESTVIEW DRIVE	LOS D, v/c < 0.90	0.52	7.4	A	0.46	7.0	A
N SPRINGBROOK ROAD AND HAWORTH AVENUE	LOS D, v/c < 0.90	0.56	16.5	C	0.76	31.9	D

STOP-CONTROLLED OR ROUNDABOUT INTERSECTION:
DELAY = CRITICAL MOVEMENT DELAY (SECS)
V/C = CRITICAL MOVEMENT VOLUME-TO-CAPACITY RATIO
LOS = CRITICAL LEVEL OF SERVICE

BOLD/HIGHLIGHTED = DOES NOT MEET OPERATING STANDARD

CRASH ANALYSIS

Crash data was obtained for the five most recent years of available data (2018-2022) at the study intersections. A total of 19 crashes were reported at the study intersections with 17 occurring at N Springbrook Road and Haworth Avenue and the other 2 occurring at N Springbrook Road and NE Benjamin Road.

Of the 17 crashes at N Springbrook Road and Haworth Avenue, 16 of them were angle or turning crashes and were a result of the driver failing to yield right-of-way or ignoring the stop sign. Of the 17 crashes at this intersection, 9 of them resulted in possible or minor injuries while the other 8 resulted in property damage. One crash involved a pedestrian who was struck in the crosswalk. As discussed later in this report, the City of Newberg plans to signalize this intersection which will significantly reduce turning and angle crashes.

The 2 crashes at N Springbrook Road and NE Benjamin Road were due to speeding and resulted in property damage only. Neither of these crashes involved a train. See Appendix G for the crash data.

PROJECT IMPACTS

This chapter reviews the impacts that the proposed development may have on the transportation system within the study area. This analysis includes trip generation, trip distribution, future traffic volume development, and operations analysis for the study intersections.

PROPOSED DEVELOPMENT

The proposed development would construct 104 single family homes and the site would be accessed via N Springbrook Rd.

FUTURE ANALYSIS SCENARIOS

Vehicle operating conditions were analyzed at the study intersections for the following traffic scenarios in the 2027 AM and PM peak hours. All future analysis scenarios assume the same traffic control as existing conditions.

The comparison of the following scenarios enables the assessment of project impacts:

- Existing + Background (No Build)
- Existing + Background + Project (Build)

TRIP GENERATION

Trip generation is the method used to estimate the number of vehicles added to site driveways and the adjacent roadway network by a development during a specified period (e.g., PM peak hour). The Institute of Transportation Engineers (ITE) publishes trip generation rates for the various land uses that can be applied to determine estimated traffic volumes.[4]

Table 4 shows the total number of trips that this development will produce. ITE code 210 (Single Family Housing) was used for all 104 units. The proposed project is estimated to generate a total of 77 AM peak hour trips (19 in, 58 out) and 103 PM peak hour trips (65 in, 38 out).

TABLE 4: PROJECT VEHICLE TRIP GENERATION

LAND USE (ITE CODE)	SIZE	AM PEAK TRIP			PM PEAK TRIP		
		IN	OUT	TOTAL	IN	OUT	TOTAL
SINGLE FAMILY DETACHED HOUSING (210)	104 UNITS	19	58	77	65	38	103

VEHICLE TRIP DISTRIBUTION

Vehicle trip distribution provides an estimation of where vehicles would be coming from and going to. It is given as a percentage at key gateways to the study area and is used to route project trips through the study intersections. **Figure 3** shows the trip distribution for the proposed site. The trip distribution for the passenger car trips was based on the ODOT Transportation Demand Model and confirmed by City staff.

The vehicle trips generated by the site expansion were distributed as follows:

- 40% south of the project site via N Springbrook Road OR99
- 20% west of the project site via E Crestview Drive

[4] Trip Generation Manual, 11th Edition, Institute of Transportation Engineers, 2021.

- 30% east of the project site via E Mountainview Drive
- 5% east of the project site via NE Benjamin Road
- 5% north of the project site via N Springbrook Road

FUTURE TRAFFIC VOLUMES

Traffic volumes were estimated at the study intersections for the two future analysis scenarios previously listed. A 2027 No Build scenario that does not account for traffic generated by the development, and a 2027 Build scenario that does account for traffic generated by the development.

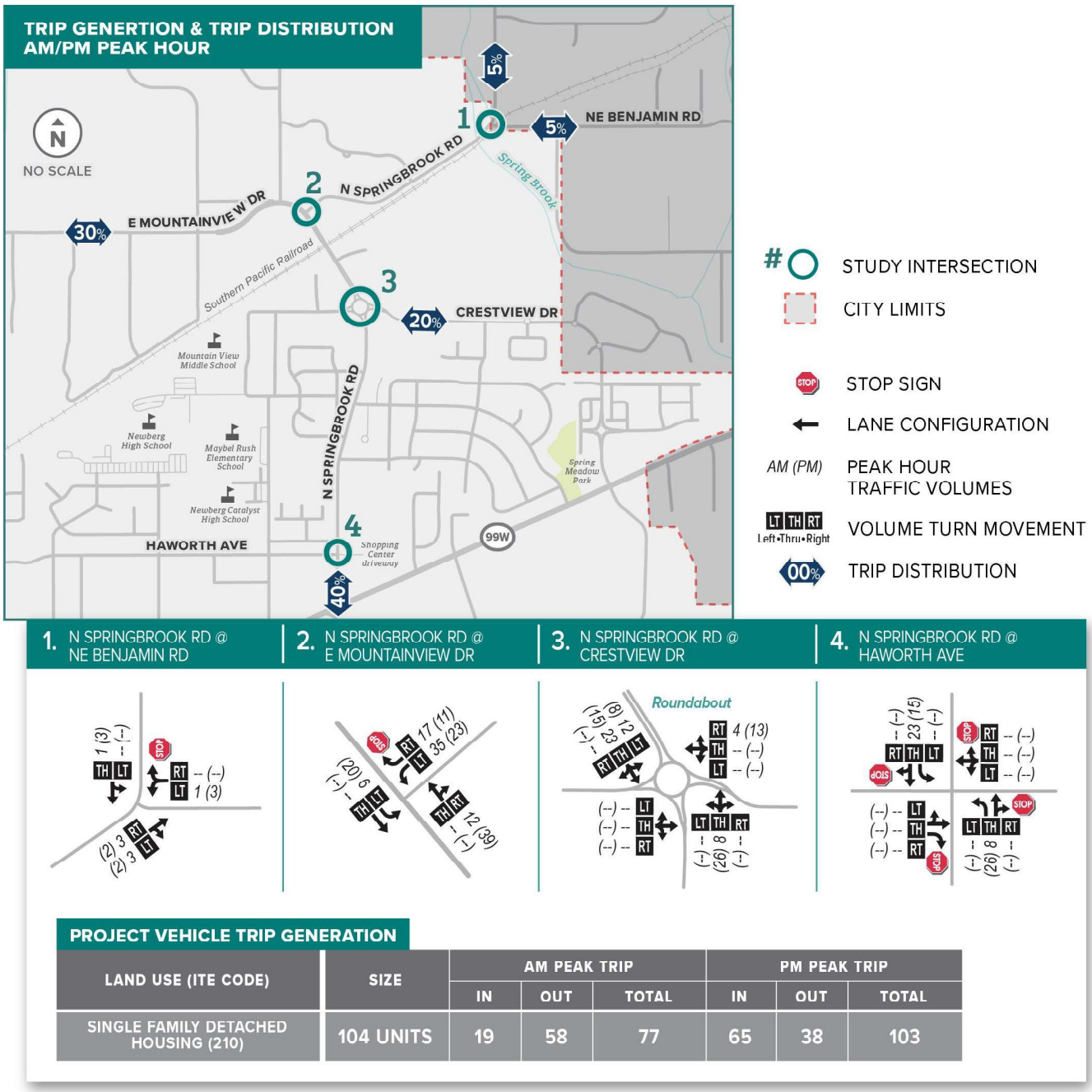
Background Growth Rate

The future 2027 No Build traffic volumes were estimated by applying a growth rate of 3% per year to the existing 2024 traffic volumes. This growth rate was calculated based on growth trends taken from the Newberg Travel Demand model, which is managed by the ODOT Transportation Planning Analysis Unit (TPAU). The background growth rate was also compared to the growth rate assumed in the recently approved Crestview Crossing traffic impact study (see In-Process Developments below) and was found to be higher. The Crestview Crossing traffic analysis assumed a rate of 2% on state highways, but assumed 0% growth on City streets. Because a 3% growth is an above average rate of growth and much higher than the 0% background growth assumed in the Crestview Crossing TIA, the 3% growth rate in this analysis is assumed to include the trips generated by the Collina Subdivision and remainder of the Crestview Crossing development.

Below is a summary of the City's current in-process developments in the vicinity of the Springbrook Subdivision.

- E Crestview Crossing PUD18-0001: This project includes the construction of approximately 248 single family homes, 51 multifamily homes, and commercial space. As of Spring 2024, the majority of the development has been constructed. The remaining construction includes 85 single-family homes. The remaining trips generated by this site were included in the 3% growth rate used to calculate the 2027 No Build traffic volumes.
- Collina at N Springbrook SUB322-002: This project includes the construction of approximately 403 single family homes by 2031 and is to be completed in multiple phases. The trips generated by this site were included in the 3% growth rate used to calculate the 2027 No Build traffic volumes.

Figure 4 shows the 2027 No Build AM and PM peak hour traffic volumes. Figure 5 shows the 2027 Build AM and PM peak hour traffic volumes.



PROJECT VEHICLE TRIP GENERATION

LAND USE (ITE CODE)	SIZE	AM PEAK TRIP			PM PEAK TRIP		
		IN	OUT	TOTAL	IN	OUT	TOTAL
SINGLE FAMILY DETACHED HOUSING (210)	104 UNITS	19	58	77	65	38	103

FIGURE 3: PROJECT TRIPS & TRIP DISTRIBUTION

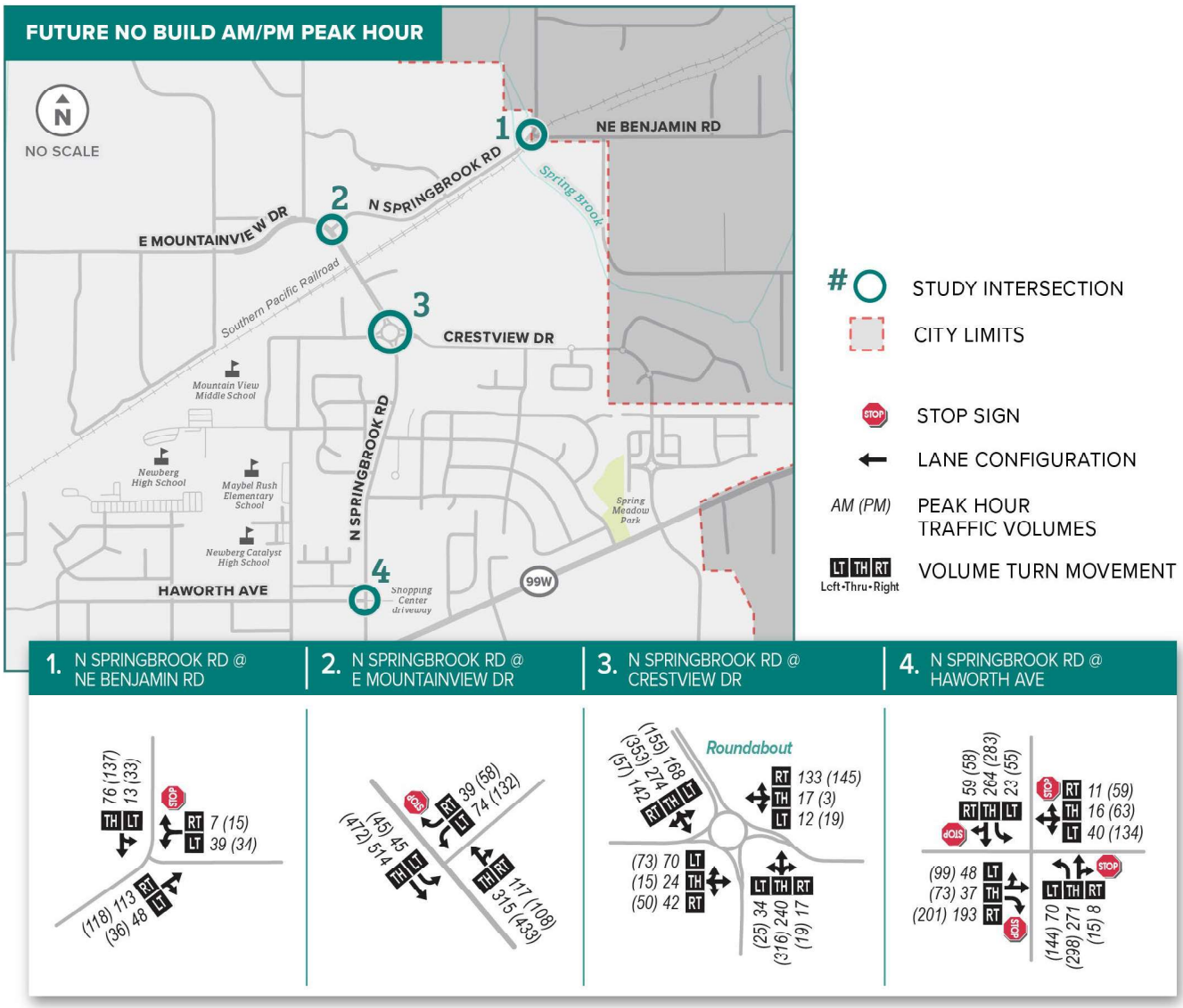


FIGURE 4: FUTURE NO BUILD AM(PM) TRAFFIC VOLUMES

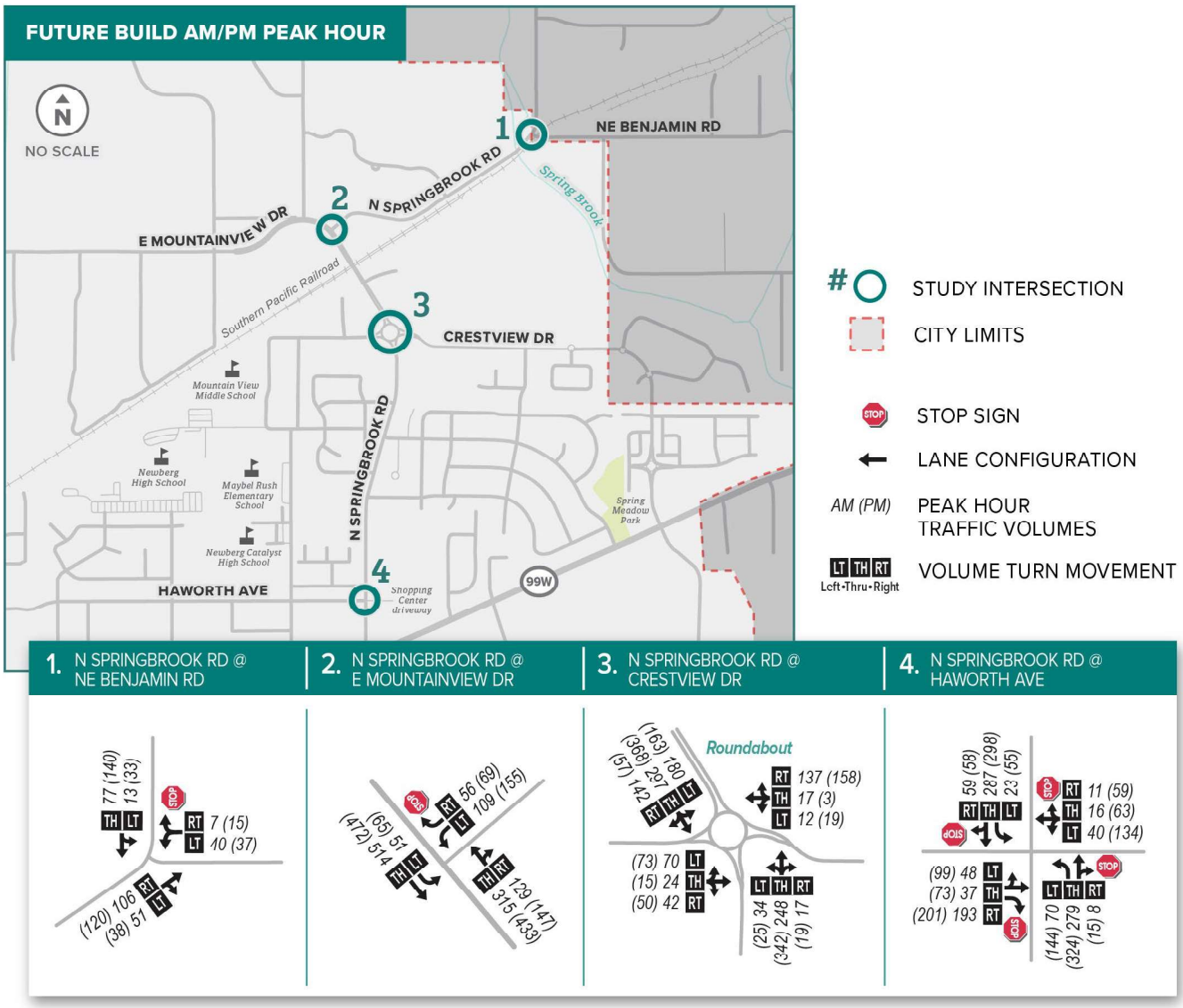


FIGURE 5: FUTURE BUILD AM(PM) TRAFFIC VOLUMES

FUTURE INTERSECTION OPERATIONS

Vehicle operations were analyzed for the AM and PM peak hour at all study intersections for the future scenarios using Highway Capacity Manual (HCM) 6th Edition methodology.[5] The delay, level of service (LOS), and volume to capacity (v/c) ratio of each study intersection are listed in Tables 5 and 6.

As shown, the intersection of N Springbrook Road and E Mountainview Drive continues to fail to meet the City's operating standard. N Springbrook Road and Haworth Road fails to operate at an acceptable LOS for both No Build and Build scenarios, while also exceeding the v/c ratio threshold during the Build scenario during the PM peak hours. See Appendices D and E for the 2027 No Build HCM Reports and the 2027 Build HCM Reports, respectively.

TABLE 5: FUTURE 2027 INTERSECTION OPERATIONS (NO BUILD)

INTERSECTION	OPERATING STANDARD	AM PEAK HOUR			PM PEAK HOUR		
		V/C	DELAY	LOS	V/C	DELAY	LOS
N SPRINGBROOK ROAD AND NE BENJAMIN ROAD	LOS D, v/c < 0.90	0.08	10.4	B	0.08	10.8	B
N SPRINGBROOK ROAD AND E MOUNTAINVIEW DRIVE	LOS D, v/c < 0.90	0.42	33.8	D	0.77	**66.0**	**F**
N SPRINGBROOK ROAD AND E CRESTVIEW DRIVE	LOS D, v/c < 0.90	0.60	8.2	A	0.50	7.6	A
N SPRINGBROOK ROAD AND HAWORTH AVENUE	LOS D, v/c < 0.90	0.63	19.5	C	0.88	**49.3**	**E**

STOP-CONTROLLED OR ROUNDABOUT INTERSECTION:
DELAY = CRITICAL MOVEMENT DELAY (SECS)
V/C = CRITICAL MOVEMENT VOLUME-TO-CAPACITY RATIO
LOS = CRITICAL LEVEL OF SERVICE

BOLD/HIGHLIGHTED = DOES NOT MEET OPERATING STANDARD

[5] Highway Capacity Manual, 6th Edition, Transportation Research Board, 2017.

TABLE 6: FUTURE 2027 INTERSECTION OPERATIONS (BUILD)

INTERSECTION	OPERATING STANDARD	AM PEAK HOUR			PM PEAK HOUR		
		V/C	DELAY	LOS	V/C	DELAY	LOS
N SPRINGBROOK ROAD AND NE BENJAMIN ROAD	LOS D, v/c < 0.90	0.08	10.4	B	0.09	10.9	B
N SPRINGBROOK ROAD AND E MOUNTAINVIEW DRIVE	LOS D, v/c < 0.90	0.63	49.0	E	**1.02**	**127.6**	**F**
N SPRINGBROOK ROAD AND E CRESTVIEW DRIVE	LOS D, v/c < 0.90	0.60	8.6	A	0.52	8.0	A
N SPRINGBROOK ROAD AND HAWORTH AVENUE	LOS D, v/c < 0.90	0.68	21.8	C	**0.93**	**60.7**	**F**

STOP-CONTROLLED OR ROUNDABOUT INTERSECTION:
DELAY = CRITICAL MOVEMENT DELAY (SECS)
V/C = CRITICAL MOVEMENT VOLUME-TO-CAPACITY RATIO
LOS = CRITICAL LEVEL OF SERVICE

BOLD/HIGHLIGHTED = DOES NOT MEET OPERATING STANDARD

IMPACTS TO RAILROAD CROSSING AT BENJAMIN ROAD

Railroad tracks owned by Pacific & Western Railroad (PNWR) intersect Benajmin Road just east of Springbrook Road. Based on data provided by ODOT, an average of two trains per day cross Benjamin Road at a speed of 15 mph and there have been no reported vehicle crashes involving trains at this crossing within the last five years of published crash data. The average daily traffic on Benjamin Road at the crossing is approximately 450 vehicles per day today.

Based on the analysis in this report, the proposed project will not create any safety and operational deficiencies at this railroad crossing. The proposed subdivision is estimated to increase traffic at the railroad crossing by 1 AM peak hour trip and 3 PM peak hour trips.

Additionally, no street improvements related to the subdivision will be constructed within 50' of the railroad crossing and therefore, improvements to the railroad crossing (e.g., railroad crossing panels) are not required based on information provided by ODOT.[6]

[6] Phone call between Colby DeGeros and Kristyn Peterson (ODOT Rail) on April 23, 2024.

RECOMMENDED TRANSPORTATION MITIGATIONS

Based on the intersection operations presented in this traffic study, the intersections of N Springbrook Road/E Mountainview Drive and N Springbrook Road/Haworth Avenue fail to meet City's required operating standards.

The following improvement projects at these two intersections are identified in the City's Transportation System Plan. The planned improvements are described below.

N Springbrook Road/E Mountainview Drive

In the City's Transportation System Plan[7], the intersection is anticipated to fail to meet the City's mobility standard by 2040 and a traffic signal is identified as the planned improvement (Project I08). Based on the analysis results in this TIS, the N Springbrook Road/E Mountainview Drive intersection is anticipated to fail to meet the City's operating standard during the PM peak hour by 2027 without the construction of the proposed subdivision.

Based on a preliminary signal warrant evaluation, the intersection is not anticipated to meet signal warrants by 2027. See Appendix H for the preliminary traffic signal warrant spreadsheet. In order to mitigate the impacts of the proposed subdivision development, the developer should pay their proportionate share cost of the planned traffic signal improvement. The calculated proportionate share percentage is 6.9% based on the calculations shown in Table 8.

N Springbrook Road/Haworth Avenue

In the City's Transportation System Plan[8], the N Springbrook Road/Haworth Avenue intersection was shown to fail to meet the City's mobility standard in 2015. The TSP identified a traffic signal and left turn lanes on Haworth as the planned improvement (Project I09). Based on the analysis results, the N Springbrook Road/Haworth Avenue intersection does currently (2024) fail to meet the City's operating standard during the PM peak hour without the construction of the proposed subdivision.

Based on a preliminary signal warrant evaluation, the intersection is anticipated to meet signal warrants by 2027. See Appendix H for the preliminary traffic signal warrant spreadsheet. In order to mitigate the impacts of the proposed subdivision development, the developer should pay their proportionate share cost of the planned traffic signal improvement. The calculated proportionate share percentage is 2.7% based on the calculations shown in Table 8.

Mitigated Intersection Operations

Table 7 below shows the intersection operations for the two intersections with the identified transportation improvements constructed under project build conditions. As shown, the two intersections will meet the City's operating standard with the planned improvements in place. See Appendix F for Build Mitigation Reports.

[7] Newberg Transportation System Plan, City of Newberg, March 2021

[8] Newberg Transportation System Plan, City of Newberg, March 2021

TABLE 7: FUTURE INTERSECTION OPERATIONS WITH IMPROVMENTS (BUILD)

INTERSECTION	OPERATING STANDARD	MITIGATION	AM PEAK HOUR			PM PEAK HOUR		
			V/C	DELAY	LOS	V/C	DELAY	LOS
N SPRINGBROOK RD/ E MOUNTAINVIEW RD	LOS D, v/c < 0.90	Traffic Signal	0.53	10.5	B	0.66	14.1	B
N SPRINGBROOK RD/ HAWORTH AVE	LOS D, v/c < 0.90	Traffic Signal	0.52	23.7	C	0.73	34.3	C

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

Proportionate Share of Mitigations

The developer's proportionate share of the planned improvements are discussed and calculated in this section. Table 8 shows the number of project vehicle trips as well as the total number of vehicles in 2027 (build year) for both intersections. Proportionate share is calculated based on the total number of project trips entering an intersection and the scenario in which the intersection initially fails to meet operating standards.

TABLE 8: PROPORTIONATE SHARE CALCULATIONS

INTERSECTION	AM PEAK HOUR			PM PEAK HOUR		
	PROJECT TRIPS	2027 VEHICLE VOLUMES	PROPOR-TIONATE SHARE	PROJECT TRIPS	2027 VEHICLE VOLUMES	PROPOR-TIONATE SHARE
SPRINGBROOK RD/ MOUNTAINVIEW RD	70	1,174	6.0%	93	1,341	**6.9%**
SPRINGBROOK RD/ HAWORTH AVE	31	1,071	2.9%	41	1,523	**2.7%**

SITE PLAN REVIEW

This section reviews the project site plan for consistency with the Newberg Transportation System Plan and other applicable transportation standards, including the Newberg Development Code and Newberg Public Works Standards. The purpose of this review is to help identify any major site plan design concerns that could impact the greater project goals and could necessitate overall site plan changes. The site plan is provided in Appendix A.

VEHICULAR SITE ACCESS

There is a new street connection (Street A) that will be the only access road to the proposed subdivision. The new street is shown on the conceptual site plan to connect to N Springbrook Road approximately 250 south of Benjamin Road.

SIGHT DISTANCE

N Springbrook Road at the intersection of the new street experiences significant horizontal and vertical curvature which could hinder sight distance for drivers entering and exiting the project site. Photos were taken near the location of the new street connection on Springbrook Road during a site visit (Figure 6). As shown, there is a hill with horizontal curvature that could potentially block the visibility of southbound traffic. There is no clear posted speed on this road, but a warning sign advising 30 mph is posted at either end of the horizontal curve here.



FIGURE 6: HILL BLOCKING SIGHT DISTANCE LOOKING NORTH ON SPRINGBROOK ROAD

According to Federal Highway Administration, an intersection for a minor road with a major road that has a design speed of 30 mph, a minimum of 335 feet should be visible in both directions.[9]

It is recommended that the new intersection street be located at the top of the hill and as close to the center of the horizontal curve as possible so as to maximize sight distance for both vehicles turning onto Springbrook Road and for vehicles making a northbound left turn off Springbrook Road. A sight distance evaluation should be conducted to verify that no signs, foliage, or other obstructions are hindering the necessary sight distance at the intersection of the new street and N Springbrook Road.

[9] FHWA Intersection Safety and Sight Distance

HALF-STREET IMPROVEMENTS

Because the project site is directly adjacent to N Springbrook Road (550 linear feet approximately), half-street improvements will be required along the site's frontage. The half-street improvements will need to be constructed to City of Newberg's cross section standards. Today, N Springbrook Road fronting the project site has 2 travel lanes and no bicycle or pedestrian facilities. Based on the City's standards, the half-street improvements are to include a bike lane, planting strip, and sidewalk. The sidewalks will provide a continuous pedestrian connection between the new subdivision and the existing pedestrian and bicycle facilities on N Springbrook Road, which end approximately 350 feet south of the new street connection.

ON-SITE CIRCULATION

The City's Developmental Code states that new developments shall be required to provide a circulation system that accommodates expected traffic on the site.[10] There are three east/west roadways within the project site that are connected by two north/south streets. Ingress/egress from the development will be located at the southeast corner of the project site. The proposed roadway network throughout the development is shown in the site plan.

[10] City of Newberg Development Code, Section 3.1.020P

SUMMARY

The key findings of the transportation impact analysis (TIA).

- The proposed project is a single-family residential development consisting of 104 single family detached houses located at 3809 NE N Springbrook Road in Newberg, Oregon.
- The proposed development is expected to generate 77 (19 in, 58 out) AM peak hour vehicle trips and 103 (65 in, 38 out) PM peak hour vehicle trips.
- Under Existing 2024 conditions, the N Springbrook Road and E Mountainview Drive intersection does not operate within the City's LOS standard during the PM peak hour.
- Under the 2027 No Build and Build conditions, the N Springbrook Road and E Mountainview Drive intersection and the N Springbrook Road and Haworth Avenue intersection do not operate within the City's standards during the PM peak hour.
- As a mitigation at the N Springbrook Road and E Mountainview Drive intersection and the N Springbrook Road and Haworth Avenue intersection, the developer should pay the City their proportionate share of cost of the future traffic signals to mitigate impacts from the proposed subdivision.
- There are no operational or safety deficiencies caused by the proposed subdivision to the PNWR railroad crossing on Benjamin Road. Therefore, no improvements to the railroad crossing are required.
- Half-street improvements on N Springbrook Road are required along the project site frontage (approximately 550 feet) consistent with the City's cross section standards for Major Collectors.
- There is significant horizontal and vertical roadway curvature along Springbrook Road near the new street connection, potentially limiting required sight distance (335 feet) for drivers entering and exiting the project site. It is recommended that the new street connection at Springbrook Road be located at the top of the hill and as close to the center of the horizontal curve as possible so as to maximize sight distance.
- A sight distance evaluation should be conducted to verify that no signs, foliage, or other obstructions are hindering sight distance at the intersection of the project site access and N Springbrook Road.

APPENDIX

APPENDIX A: SITE PLAN

APPENDIX B: TRAFFIC COUNT DATA

APPENDIX C: EXISTING HCM REPORTS

APPENDIX D: 2027 NO BUILD HCM REPORTS

APPENDIX E: 2027 BUILD HCM REPORTS

APPENDIX G: CRASH DATA

APPENDIX H: PRELIMINARY SIGNAL WARRANT SPREADSHEETS

APPENDIX A: SITE PLAN

STREET B

STREET D

STREET E

STREET A

CITY OF NEWBERG LIMITS

URBAN GROWTH BOU

LOT 56 5079 SF | LOT 55 5022 SF | LOT 54 5022 SF | LOT 53 5022 SF | LOT 52 5022 SF | LOT 51 5022 SF | LOT 50 5022 SF | LOT 49 5022 SF | LOT 48 5022 SF | LOT 47 5022 SF | LOT 46 5022 SF | LOT 45 5079 SF

LOT 62 5079 SF | LOT 63 5022 SF | LOT 64 5022 SF | LOT 65 5022 SF | LOT 66 5022 SF | LOT 67 5022 SF | LOT 68 5022 SF | LOT 69 5022 SF | LOT 70 5022 SF | LOT 71 5022 SF | LOT 72 5022 SF | LOT 73 5079 SF

LOT 85 5079 SF | LOT 84 5022 SF | LOT 83 5022 SF | LOT 82 5022 SF | LOT 81 5022 SF | LOT 80 5022 SF | LOT 79 5022 SF | LOT 78 5022 SF | LOT 77 5022 SF | LOT 76 5022 SF | LOT 75 5022 SF | LOT 74 5079 SF

LOT 88 5788 SF | LOT 89 5455 SF | LOT 90 5443 SF | LOT 91 5432 SF | LOT 92 5420 SF | LOT 93 3935 SF | LOT 94 3926 SF | LOT 95 3923 SF | LOT 96 3914 SF | LOT 97 3911 SF | LOT 98 3905 SF | LOT 99 3899 SF | LOT 100 3893 SF | LOT 101 3887 SF | LOT 102 3881 SF | LOT 103 3871 SF | LOT 104 4166 SF

LOT 8 4000 SF | LOT 7 4000 SF | LOT 6 4000 SF | LOT 5 4000 SF | LOT 4 4000 SF | LOT 3 4000 SF | LOT 2 4000 SF | LOT 1 4000 SF

TRACT B
40086 SF

TRACT A
45151 SF

ACTS TO BE OWNED AND

TRACT TO BE OWNED AND
G

R1 ZONE

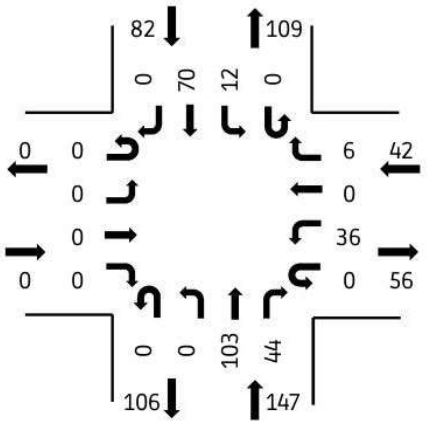
R3 ZONE

APPENDIX B: TRAFFIC COUNT DATA

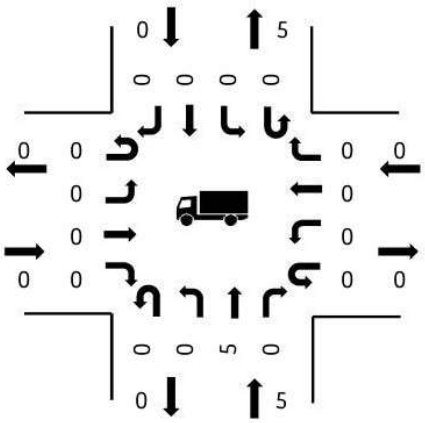
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Date: 2024-04-18
Peak Hour Start: 07:25 AM
Peak 15 Minute Start: 08:00 AM
Peak Hour Factor: 0.83

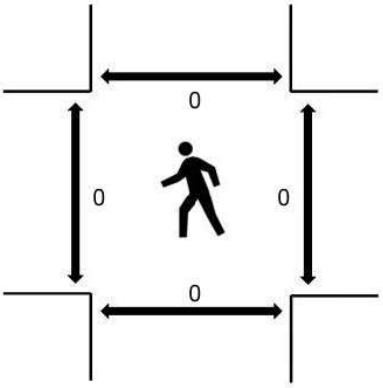
Motorized Vehicles



Heavy Vehicles



Pedestrians



(peak hour)

All Vehicle Volumes

Time	NB (N Springbrook Rd)					SB (N Springbrook Rd)					EB (NE Benjamin Rd)					WB (NE Benjamin 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
06:00:00 AM	0	1	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0		
06:05:00 AM	0	6	5	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0		
06:10:00 AM	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	19	
06:15:00 AM	0	2	0	0	0	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	22	
06:20:00 AM	0	1	2	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	15	
06:25:00 AM	0	2	3	0	0	0	2	0	0	0	0	0	0	0	0	2	0	1	0	0	22	
06:30:00 AM	0	11	3	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	31	
06:35:00 AM	0	4	2	0	0	1	1	0	0	0	0	0	0	0	0	1	0	0	0	0	34	
06:40:00 AM	0	4	3	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	34	
06:45:00 AM	0	8	2	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	32	
06:50:00 AM	0	1	2	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	34	
06:55:00 AM	0	4	2	0	0	2	4	0	0	0	0	0	0	0	0	4	0	1	0	0	41	116
07:00:00 AM	0	5	1	0	0	2	1	0	0	0	0	0	0	0	0	0	0	2	0	0	39	124
07:05:00 AM	0	5	2	0	0	1	2	0	0	0	0	0	0	0	0	1	0	0	0	0	39	122
07:10:00 AM	0	6	1	0	0	1	5	0	0	0	0	0	0	0	0	2	0	0	0	0	37	134
07:15:00 AM	0	6	2	0	0	1	3	0	0	0	0	0	0	0	0	0	0	2	0	0	40	142
07:20:00 AM	0	11	2	0	0	0	3	0	0	0	0	0	0	0	0	0	0	1	0	0	46	153
07:25:00 AM	0	8	1	0	0	0	4	0	0	0	0	0	0	0	0	3	0	0	0	0	47	159
07:30:00 AM	0	8	2	0	0	0	10	0	0	0	0	0	0	0	0	5	0	0	0	0	58	169
07:35:00 AM	0	8	6	0	0	1	5	0	0	0	0	0	0	0	0	1	0	0	0	0	62	181
07:40:00 AM	0	9	7	0	0	1	6	0	0	0	0	0	0	0	0	1	0	0	0	0	70	195
07:45:00 AM	0	5	2	0	0	2	6	0	0	0	0	0	0	0	0	4	0	0	0	0	64	201
07:50:00 AM	0	6	4	0	0	1	7	0	0	0	0	0	0	0	0	3	0	1	0	0	65	212
07:55:00 AM	0	3	2	0	0	1	6	0	0	0	0	0	0	0	0	6	0	1	0	0	60	214
08:00:00 AM	0	9	7	0	0	1	8	0	0	0	0	0	0	0	0	4	0	1	0	0	71	233
08:05:00 AM	0	14	5	0	0	1	5	0	0	0	0	0	0	0	0	1	0	1	0	0	76	249
08:10:00 AM	0	12	5	0	0	1	4	0	0	0	0	0	0	0	0	1	0	2	0	0	82	259
08:15:00 AM	0	12	1	0	0	2	6	0	0	0	0	0	0	0	0	4	0	0	0	0	77	270
08:20:00 AM	0	9	2	0	0	1	3	0	0	0	0	0	0	0	0	3	0	0	0	0	68	271
08:25:00 AM	0	7	2	0	0	2	3	0	0	0	0	0	0	0	0	2	0	0	0	0	59	271
08:30:00 AM	0	4	1	0	0	2	6	0	0	0	0	0	0	0	0	1	0	0	0	0	48	260
08:35:00 AM	0	5	2	0	0	1	6	0	0	0	0	0	0	0	0	1	0	0	0	0	45	254
08:40:00 AM	0	5	4	0	0	3	2	0	0	0	0	0	0	0	0	2	0	0	0	0	45	246
08:45:00 AM	0	2	1	0	0	1	7	0	0	0	0	0	0	0	0	1	0	1	0	0	44	240
08:50:00 AM	0	5	2	0	0	0	9	0	0	0	0	0	0	0	0	4	0	2	0	0	51	240
08:55:00 AM	0	4	2	0	0	0	1	0	0	0	0	0	0	0	0	2	0	0	0	0	44	230

Car Volumes

Time	NB (N Springbrook Rd)					SB (N Springbrook Rd)					EB (NE Benjamin Rd)					WB (NE Benjamin 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
06:00:00 AM	0	1	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0		
06:05:00 AM	0	6	5	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0		
06:10:00 AM	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	18	
06:15:00 AM	0	2	0	0	0	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	21	
06:20:00 AM	0	1	2	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	15	
06:25:00 AM	0	2	3	0	0	0	2	0	0	0	0	0	0	0	0	2	0	0	0	0	21	
06:30:00 AM	0	11	3	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	30	
06:35:00 AM	0	4	2	0	0	1	1	0	0	0	0	0	0	0	0	1	0	0	0	0	33	
06:40:00 AM	0	4	3	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	34	
06:45:00 AM	0	8	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	31	
06:50:00 AM	0	1	2	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	33	
06:55:00 AM	0	4	2	0	0	2	4	0	0	0	0	0	0	0	0	4	0	1	0	0	40	113
07:00:00 AM	0	5	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	0	0	37	119
07:05:00 AM	0	5	2	0	0	1	2	0	0	0	0	0	0	0	0	1	0	0	0	0	37	118
07:10:00 AM	0	6	1	0	0	1	5	0	0	0	0	0	0	0	0	2	0	0	0	0	35	130
07:15:00 AM	0	6	2	0	0	1	3	0	0	0	0	0	0	0	0	0	0	1	0	0	39	137
07:20:00 AM	0	11	2	0	0	0	3	0	0	0	0	0	0	0	0	0	0	1	0	0	45	148
07:25:00 AM	0	8	1	0	0	0	4	0	0	0	0	0	0	0	0	3	0	0	0	0	46	155
07:30:00 AM	0	8	2	0	0	0	10	0	0	0	0	0	0	0	0	5	0	0	0	0	58	165
07:35:00 AM	0	8	6	0	0	1	5	0	0	0	0	0	0	0	0	1	0	0	0	0	62	177
07:40:00 AM	0	9	7	0	0	1	6	0	0	0	0	0	0	0	0	1	0	0	0	0	70	191
07:45:00 AM	0	5	2	0	0	2	6	0	0	0	0	0	0	0	0	4	0	0	0	0	64	198
07:50:00 AM	0	3	4	0	0	1	7	0	0	0	0	0	0	0	0	3	0	1	0	0	62	206
07:55:00 AM	0	2	2	0	0	1	6	0	0	0	0	0	0	0	0	6	0	1	0	0	56	207
08:00:00 AM	0	9	7	0	0	1	8	0	0	0	0	0	0	0	0	4	0	1	0	0	67	228
08:05:00 AM	0	14	5	0	0	1	5	0	0	0	0	0	0	0	0	1	0	1	0	0	75	244
08:10:00 AM	0	12	5	0	0	1	4	0	0	0	0	0	0	0	0	1	0	2	0	0	82	254
08:15:00 AM	0	11	1	0	0	2	6	0	0	0	0	0	0	0	0	4	0	0	0	0	76	265
08:20:00 AM	0	9	2	0	0	1	3	0	0	0	0	0	0	0	0	3	0	0	0	0	67	266
08:25:00 AM	0	7	2	0	0	2	3	0	0	0	0	0	0	0	0	2	0	0	0	0	58	266
08:30:00 AM	0	4	1	0	0	2	6	0	0	0	0	0	0	0	0	1	0	0	0	0	48	255
08:35:00 AM	0	5	2	0	0	1	6	0	0	0	0	0	0	0	0	1	0	0	0	0	45	249
08:40:00 AM	0	5	4	0	0	3	2	0	0	0	0	0	0	0	0	2	0	0	0	0	45	241
08:45:00 AM	0	2	1	0	0	1	7	0	0	0	0	0	0	0	0	1	0	1	0	0	44	235
08:50:00 AM	0	5	2	0	0	0	9	0	0	0	0	0	0	0	0	4	0	2	0	0	51	238
08:55:00 AM	0	4	2	0	0	0	1	0	0	0	0	0	0	0	0	2	0	0	0	0	44	229

Truck Volumes

Time	NB (N Springbrook Rd)					SB (N Springbrook Rd)					EB (NE Benjamin Rd)					WB (NE Benjamin 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
06:00:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
06:05:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0		
06:10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
06:15:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
06:20:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
06:25:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	
06:30:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
06:35:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
06:40:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
06:45:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
06:50:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
06:55:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3
07:00:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2	5
07:05:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	4
07:10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	4
07:15:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	5
07:20:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5
07:25:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4
07:30:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
07:35:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
07:40:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
07:45:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
07:50:00 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	6
07:55:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	7
08:00:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	5
08:05:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5
08:10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
08:15:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5
08:20:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5
08:25:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5
08:30:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
08:35:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
08:40:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
08:45:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
08:50:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
08:55:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1

Bike Volumes

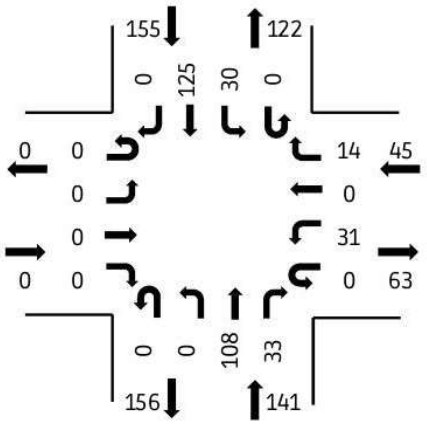
Time	NB (N Springbrook Rd)					SB (N Springbrook Rd)					EB (NE Benjamin Rd)					WB (NE Benjamin Rd)					Totals	
Time	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	15min	1hr
06:00:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
06:05:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
06:10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
06:15:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
06:20:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
06:25:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
06:30:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
06:35:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	
06:40:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
06:45:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
06:50:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
06:55:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07:00:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07:05:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07:10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07:15:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07:20:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07:25:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07:30:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07:35:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:40:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:50:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:55:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:05:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
08:10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
08:15:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
08:20:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
08:25:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
08:30:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
08:35:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
08:40:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	2
08:45:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2
08:50:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2
08:55:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2

Pedestrian Volumes

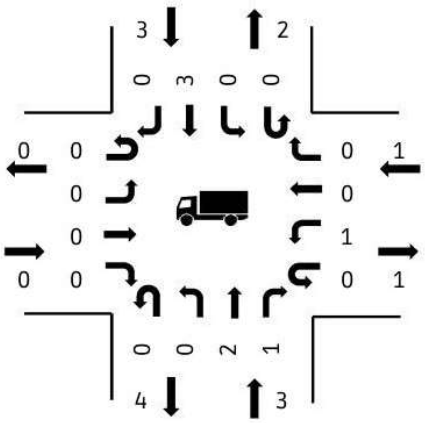
Time	Pedestrians				Totals	
Time	NB	SB	EB	WB	15min	1hr
06:00:00 AM	0	0	0	0		
06:05:00 AM	0	0	0	0		
06:10:00 AM	0	0	0	0	0	
06:15:00 AM	0	0	0	0	0	
06:20:00 AM	0	0	0	0	0	
06:25:00 AM	0	0	0	0	0	
06:30:00 AM	0	0	0	0	0	
06:35:00 AM	0	0	0	0	0	
06:40:00 AM	0	0	0	0	0	
06:45:00 AM	0	0	0	0	0	
06:50:00 AM	0	0	0	0	0	
06:55:00 AM	0	0	0	0	0	0
07:00:00 AM	0	0	0	0	0	0
07:05:00 AM	0	0	0	0	0	0
07:10:00 AM	0	0	0	0	0	0
07:15:00 AM	0	0	0	0	0	0
07:20:00 AM	0	0	0	0	0	0
07:25:00 AM	0	0	0	0	0	0
07:30:00 AM	0	0	0	0	0	0
07:35:00 AM	0	0	0	0	0	0
07:40:00 AM	0	0	0	0	0	0
07:45:00 AM	0	0	0	0	0	0
07:50:00 AM	0	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: N Springbrook Rd & NE Benjamin Rd
Date: 2024-04-17
Peak Hour Start: 03:20 PM
Peak 15 Minute Start: 03:55 PM
Peak Hour Factor: 0.91

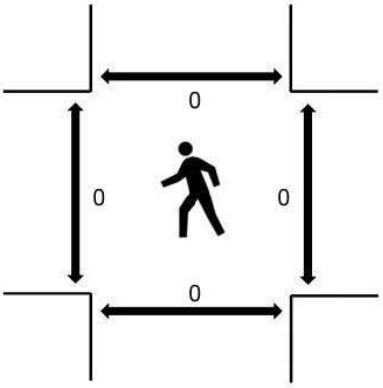
Motorized Vehicles



Heavy Vehicles



Pedestrians



(peak hour)

All Vehicle Volumes

Time	NB (N Springbrook Rd)					SB (N Springbrook Rd)					EB (NE Benjamin Rd)					WB (NE Benjamin 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
03:00:00 PM	0	3	2	0	0	1	24	0	0	0	0	0	0	0	0	1	0	0	0	0		
03:05:00 PM	0	8	0	0	0	3	10	0	0	0	0	0	0	0	0	0	0	2	0	0		
03:10:00 PM	0	9	2	0	0	1	9	0	0	0	0	0	0	0	0	2	0	0	0	0	77	
03:15:00 PM	0	6	1	0	0	0	12	0	0	0	0	0	0	0	0	2	0	1	0	0	68	
03:20:00 PM	0	8	2	0	0	5	11	0	0	0	0	0	0	0	0	4	0	1	0	0	76	
03:25:00 PM	0	16	1	0	0	3	10	0	0	0	0	0	0	0	0	0	0	0	0	0	83	
03:30:00 PM	0	6	2	0	0	2	9	0	0	0	0	0	0	0	0	2	0	0	0	0	82	
03:35:00 PM	0	10	4	0	0	3	10	0	0	0	0	0	0	0	0	2	0	4	0	0	84	
03:40:00 PM	0	7	4	0	0	1	11	0	0	0	0	0	0	0	0	7	0	1	0	0	85	
03:45:00 PM	0	3	3	0	0	3	10	0	0	0	0	0	0	0	0	5	0	0	0	0	88	
03:50:00 PM	0	8	2	0	0	2	7	0	0	0	0	0	0	0	0	2	0	1	0	0	77	
03:55:00 PM	0	9	1	0	0	2	13	0	0	0	0	0	0	0	0	4	0	3	0	0	78	323
04:00:00 PM	0	12	4	0	0	2	7	0	0	0	0	0	0	0	0	2	0	3	0	0	84	322
04:05:00 PM	0	12	2	0	0	5	13	0	0	0	0	0	0	0	0	0	0	0	0	0	94	331
04:10:00 PM	0	9	5	0	0	0	13	0	0	0	0	0	0	0	0	1	0	0	0	0	90	336
04:15:00 PM	0	8	3	0	0	2	11	0	0	0	0	0	0	0	0	2	0	1	0	0	87	341
04:20:00 PM	0	14	1	0	0	0	8	0	0	0	0	0	0	0	0	2	0	2	0	0	82	337
04:25:00 PM	0	9	1	0	0	2	9	0	0	0	0	0	0	0	0	3	0	0	0	0	78	331
04:30:00 PM	0	14	3	0	0	2	5	0	0	0	0	0	0	0	0	4	0	0	0	0	79	338
04:35:00 PM	0	13	1	0	0	1	13	0	0	0	0	0	0	0	0	2	0	1	0	0	83	336
04:40:00 PM	0	6	3	0	0	1	13	0	0	0	0	0	0	0	0	3	0	0	0	0	85	331
04:45:00 PM	0	6	0	0	0	1	17	0	0	0	0	0	0	0	0	0	0	0	0	0	81	331
04:50:00 PM	0	9	3	0	0	0	18	0	0	0	0	0	0	0	0	0	0	0	0	0	80	339
04:55:00 PM	0	12	2	0	0	1	12	0	0	0	0	0	0	0	0	4	0	0	0	0	85	338
05:00:00 PM	0	6	0	0	0	1	7	0	0	0	0	0	0	0	0	2	0	3	0	0	80	327
05:05:00 PM	0	7	5	0	0	2	10	0	0	0	0	0	0	0	0	3	0	2	0	0	79	324
05:10:00 PM	0	8	1	0	0	0	12	0	0	0	0	0	0	0	0	2	0	0	0	0	71	319
05:15:00 PM	0	10	3	0	0	0	12	0	0	0	0	0	0	0	0	2	0	0	0	0	79	319
05:20:00 PM	0	15	2	0	0	0	10	0	0	0	0	0	0	0	0	4	0	2	0	0	83	325
05:25:00 PM	0	11	1	0	0	0	11	0	0	0	0	0	0	0	0	1	0	1	0	0	85	326
05:30:00 PM	0	1	2	0	0	1	10	0	0	0	0	0	0	0	0	1	0	0	0	0	73	313
05:35:00 PM	0	4	2	0	0	1	7	0	0	0	0	0	0	0	0	2	0	0	0	0	56	298
05:40:00 PM	0	7	2	0	0	0	18	0	0	0	0	0	0	0	0	7	0	2	0	0	67	308
05:45:00 PM	0	6	1	0	0	0	10	0	0	0	0	0	0	0	0	2	0	0	0	0	71	303
05:50:00 PM	0	11	0	0	0	1	7	0	0	0	0	0	0	0	0	2	0	1	0	0	77	295
05:55:00 PM	0	11	0	0	0	4	13	0	0	0	0	0	0	0	0	3	0	1	0	0	73	296

Car Volumes

Time	NB (N Springbrook Rd)					SB (N Springbrook Rd)					EB (NE Benjamin Rd)					WB (NE Benjamin 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
03:00:00 PM	0	3	2	0	0	1	22	0	0	0	0	0	0	0	0	1	0	0	0	0		
03:05:00 PM	0	8	0	0	0	3	10	0	0	0	0	0	0	0	0	0	0	2	0	0		
03:10:00 PM	0	9	2	0	0	1	8	0	0	0	0	0	0	0	0	2	0	0	0	0	74	
03:15:00 PM	0	6	1	0	0	0	12	0	0	0	0	0	0	0	0	2	0	1	0	0	67	
03:20:00 PM	0	8	2	0	0	5	11	0	0	0	0	0	0	0	0	4	0	1	0	0	75	
03:25:00 PM	0	16	0	0	0	3	10	0	0	0	0	0	0	0	0	0	0	0	0	0	82	
03:30:00 PM	0	6	2	0	0	2	9	0	0	0	0	0	0	0	0	1	0	0	0	0	80	
03:35:00 PM	0	10	4	0	0	3	10	0	0	0	0	0	0	0	0	2	0	4	0	0	82	
03:40:00 PM	0	7	4	0	0	1	11	0	0	0	0	0	0	0	0	7	0	1	0	0	84	
03:45:00 PM	0	3	3	0	0	3	9	0	0	0	0	0	0	0	0	5	0	0	0	0	87	
03:50:00 PM	0	8	2	0	0	2	7	0	0	0	0	0	0	0	0	2	0	1	0	0	76	
03:55:00 PM	0	9	1	0	0	2	12	0	0	0	0	0	0	0	0	4	0	3	0	0	76	316
04:00:00 PM	0	12	4	0	0	2	7	0	0	0	0	0	0	0	0	2	0	3	0	0	83	317
04:05:00 PM	0	12	2	0	0	5	12	0	0	0	0	0	0	0	0	0	0	0	0	0	92	325
04:10:00 PM	0	8	5	0	0	0	13	0	0	0	0	0	0	0	0	1	0	0	0	0	88	330
04:15:00 PM	0	7	3	0	0	2	11	0	0	0	0	0	0	0	0	2	0	1	0	0	84	334
04:20:00 PM	0	14	1	0	0	0	8	0	0	0	0	0	0	0	0	2	0	2	0	0	80	330
04:25:00 PM	0	9	1	0	0	2	9	0	0	0	0	0	0	0	0	3	0	0	0	0	77	325
04:30:00 PM	0	14	3	0	0	2	5	0	0	0	0	0	0	0	0	4	0	0	0	0	79	333
04:35:00 PM	0	12	1	0	0	1	13	0	0	0	0	0	0	0	0	2	0	1	0	0	82	330
04:40:00 PM	0	6	3	0	0	1	13	0	0	0	0	0	0	0	0	3	0	0	0	0	84	325
04:45:00 PM	0	6	0	0	0	1	17	0	0	0	0	0	0	0	0	0	0	0	0	0	80	326
04:50:00 PM	0	8	3	0	0	0	18	0	0	0	0	0	0	0	0	0	0	0	0	0	79	333
04:55:00 PM	0	11	2	0	0	1	12	0	0	0	0	0	0	0	0	4	0	0	0	0	83	332
05:00:00 PM	0	6	0	0	0	1	7	0	0	0	0	0	0	0	0	2	0	3	0	0	78	321
05:05:00 PM	0	7	5	0	0	2	10	0	0	0	0	0	0	0	0	3	0	2	0	0	78	319
05:10:00 PM	0	8	1	0	0	0	12	0	0	0	0	0	0	0	0	2	0	0	0	0	71	315
05:15:00 PM	0	10	3	0	0	0	12	0	0	0	0	0	0	0	0	2	0	0	0	0	79	316
05:20:00 PM	0	15	2	0	0	0	10	0	0	0	0	0	0	0	0	3	0	2	0	0	82	321
05:25:00 PM	0	11	1	0	0	0	11	0	0	0	0	0	0	0	0	1	0	1	0	0	84	322
05:30:00 PM	0	1	2	0	0	1	10	0	0	0	0	0	0	0	0	1	0	0	0	0	72	309
05:35:00 PM	0	4	2	0	0	1	7	0	0	0	0	0	0	0	0	2	0	0	0	0	56	295
05:40:00 PM	0	7	2	0	0	0	17	0	0	0	0	0	0	0	0	7	0	2	0	0	66	304
05:45:00 PM	0	6	1	0	0	0	10	0	0	0	0	0	0	0	0	2	0	0	0	0	70	299
05:50:00 PM	0	11	0	0	0	1	7	0	0	0	0	0	0	0	0	2	0	1	0	0	76	292
05:55:00 PM	0	11	0	0	0	4	13	0	0	0	0	0	0	0	0	3	0	1	0	0	73	294

Truck Volumes

Time	NB (N Springbrook Rd)					SB (N Springbrook Rd)					EB (NE Benjamin Rd)					WB (NE Benjamin 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
03:00:00 PM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0		
03:05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
03:10:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	3	
03:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
03:20:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
03:25:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
03:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2	
03:35:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
03:40:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
03:45:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
03:50:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
03:55:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	7
04:00:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5
04:05:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	6
04:10:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	6
04:15:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	7
04:20:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	7
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	6
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	5
04:35:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	6
04:40:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	6
04:45:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5
04:50:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	6
04:55:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	6
05:00:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	6
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	5
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	4
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	3
05:20:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	4
05:25:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4
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	4
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	3
05:40:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4
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	4
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	3
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

Bike Volumes

Time	NB (N Springbrook Rd)					SB (N Springbrook Rd)					EB (NE Benjamin Rd)					WB (NE Benjamin 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
03:00:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
03:05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
03:10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
03:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
03:20:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
03:25:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
03:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
03:35:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
03:40:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
03:45:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
03:50:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
03:55:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	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	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	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	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	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	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	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	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	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	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

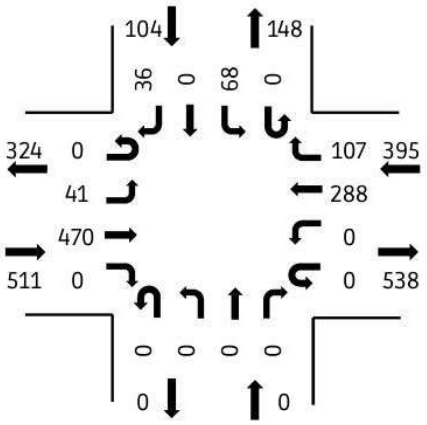
Pedestrian Volumes

Time	Pedestrians				Totals	
Time	NB	SB	EB	WB	15min	1hr
03:00:00 PM	0	0	0	1		
03:05:00 PM	0	0	0	0		
03:10:00 PM	0	0	0	0	1	
03:15:00 PM	0	0	0	0	0	
03:20:00 PM	0	0	0	0	0	
03:25:00 PM	0	0	0	0	0	
03:30:00 PM	0	0	0	0	0	
03:35:00 PM	0	0	0	0	0	
03:40:00 PM	0	0	0	0	0	
03:45:00 PM	0	0	0	0	0	
03:50:00 PM	0	0	0	0	0	
03:55:00 PM	0	0	0	0	0	1
04:00:00 PM	0	0	0	0	0	0
04:05:00 PM	0	0	0	0	0	0
04:10:00 PM	0	0	0	0	0	0
04:15:00 PM	0	0	0	0	0	0
04:20:00 PM	0	0	0	0	0	0
04:25:00 PM	0	0	0	0	0	0
04:30:00 PM	0	0	0	0	0	0
04:35:00 PM	0	0	0	0	0	0
04:40:00 PM	0	0	0	0	0	0
04:45:00 PM	0	0	0	0	0	0
04:50:00 PM	0	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

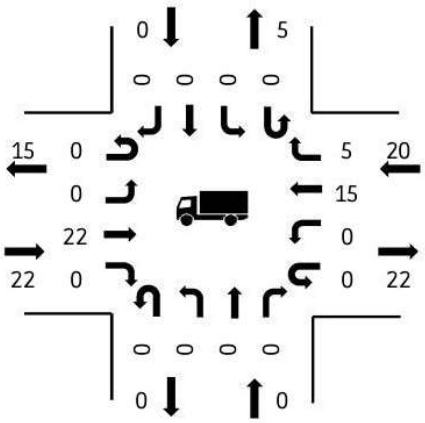
RallyTraffic

Location: N Springbrook Rd & E Mountain View
Date: 2024-04-18
Peak Hour Start: 07:25 AM
Peak 15 Minute Start: 07:55 AM
Peak Hour Factor: 0.85

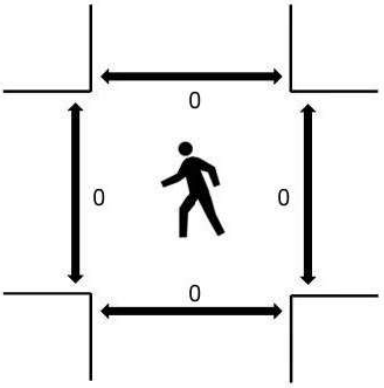
Motorized Vehicles



Heavy Vehicles



Pedestrians



(peak hour)

All Vehicle Volumes

Time	NB (N Springbrook Rd)					SB (N Springbrook Rd)					EB (E Mountain View)					WB (E Mountain View)					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
06:00:00 AM	0	0	0	0	0	2	0	0	0	0	0	10	0	0	0	0	3	1	0	0		
06:05:00 AM	0	0	0	0	0	1	0	1	0	0	5	21	0	0	0	0	5	6	0	0		
06:10:00 AM	0	0	0	0	0	1	0	0	0	0	1	12	0	0	0	0	5	1	0	0	75	
06:15:00 AM	0	0	0	0	0	2	0	0	0	0	1	20	0	0	0	0	8	2	0	0	92	
06:20:00 AM	0	0	0	0	0	0	0	2	0	0	1	11	0	0	0	0	8	2	0	0	77	
06:25:00 AM	0	0	0	0	0	3	0	1	0	0	3	17	0	0	0	0	12	5	0	0	98	
06:30:00 AM	0	0	0	0	0	1	0	0	0	0	3	18	0	0	0	0	10	7	0	0	104	
06:35:00 AM	0	0	0	0	0	1	0	1	0	0	3	13	0	0	0	0	13	5	0	0	116	
06:40:00 AM	0	0	0	0	0	1	0	0	0	0	3	26	0	0	0	0	12	7	0	0	124	
06:45:00 AM	0	0	0	0	0	1	0	1	0	0	1	20	0	0	0	0	10	7	0	0	125	
06:50:00 AM	0	0	0	0	0	6	0	2	0	0	1	24	0	0	0	0	20	1	0	0	143	
06:55:00 AM	0	0	0	0	0	4	0	5	0	0	3	26	0	0	0	0	13	4	0	0	149	446
07:00:00 AM	0	0	0	0	0	1	0	0	0	0	2	19	0	0	0	0	18	3	0	0	152	473
07:05:00 AM	0	0	0	0	0	2	0	1	0	0	2	26	0	0	0	0	17	8	0	0	154	490
07:10:00 AM	0	0	0	0	0	3	0	2	0	0	1	36	0	0	0	0	15	4	0	0	160	531
07:15:00 AM	0	0	0	0	0	5	0	0	0	0	3	25	0	0	0	0	14	8	0	0	172	553
07:20:00 AM	0	0	0	0	0	1	0	2	0	0	2	27	0	0	0	0	20	9	0	0	177	590
07:25:00 AM	0	0	0	0	0	4	0	0	0	0	1	35	0	0	0	0	14	7	0	0	177	610
07:30:00 AM	0	0	0	0	0	11	0	2	0	0	4	41	0	0	0	0	14	9	0	0	203	652
07:35:00 AM	0	0	0	0	0	8	0	1	0	0	5	41	0	0	0	0	17	8	0	0	222	696
07:40:00 AM	0	0	0	0	0	3	0	4	0	0	4	35	0	0	0	0	30	12	0	0	249	735
07:45:00 AM	0	0	0	0	0	6	0	4	0	0	4	29	0	0	0	0	22	5	0	0	238	765
07:50:00 AM	0	0	0	0	0	6	0	4	0	0	2	51	0	0	0	0	27	4	0	0	252	805
07:55:00 AM	0	0	0	0	0	8	0	5	0	0	2	44	0	0	0	0	27	5	0	0	255	841
08:00:00 AM	0	0	0	0	0	6	0	4	0	0	4	46	0	0	0	0	28	14	0	0	287	900
08:05:00 AM	0	0	0	0	0	2	0	3	0	0	8	43	0	0	0	0	35	13	0	0	297	948
08:10:00 AM	0	0	0	0	0	5	0	2	0	0	4	31	0	0	0	0	32	14	0	0	294	975
08:15:00 AM	0	0	0	0	0	6	0	3	0	0	2	37	0	0	0	0	22	7	0	0	269	997
08:20:00 AM	0	0	0	0	0	3	0	4	0	0	1	37	0	0	0	0	20	9	0	0	239	1010
08:25:00 AM	0	0	0	0	0	3	0	2	0	0	2	25	0	0	0	0	19	6	0	0	208	1006
08:30:00 AM	0	0	0	0	0	4	0	2	0	0	2	21	0	0	0	0	12	3	0	0	175	969
08:35:00 AM	0	0	0	0	0	6	0	1	0	0	1	18	0	0	0	0	15	7	0	0	149	937
08:40:00 AM	0	0	0	0	0	2	0	3	0	0	4	19	0	0	0	0	11	6	0	0	137	894
08:45:00 AM	0	0	0	0	0	7	0	2	0	0	2	28	0	0	0	0	15	3	0	0	150	881
08:50:00 AM	0	0	0	0	0	6	0	3	0	0	1	24	0	0	0	0	18	4	0	0	158	843
08:55:00 AM	0	0	0	0	0	3	0	2	0	0	4	22	0	0	0	0	17	3	0	0	164	803

Car Volumes

Time	NB (N Springbrook Rd)					SB (N Springbrook Rd)					EB (E Mountain View)					WB (E Mountain View)					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
06:00:00 AM	0	0	0	0	0	2	0	0	0	0	0	9	0	0	0	0	3	1	0	0		
06:05:00 AM	0	0	0	0	0	1	0	1	0	0	5	21	0	0	0	0	5	6	0	0		
06:10:00 AM	0	0	0	0	0	1	0	0	0	0	1	12	0	0	0	0	5	1	0	0	74	
06:15:00 AM	0	0	0	0	0	2	0	0	0	0	1	20	0	0	0	0	7	2	0	0	91	
06:20:00 AM	0	0	0	0	0	0	0	2	0	0	1	11	0	0	0	0	8	2	0	0	76	
06:25:00 AM	0	0	0	0	0	3	0	1	0	0	3	17	0	0	0	0	11	5	0	0	96	
06:30:00 AM	0	0	0	0	0	1	0	0	0	0	3	18	0	0	0	0	9	7	0	0	102	
06:35:00 AM	0	0	0	0	0	1	0	1	0	0	3	13	0	0	0	0	11	5	0	0	112	
06:40:00 AM	0	0	0	0	0	1	0	0	0	0	3	26	0	0	0	0	11	7	0	0	120	
06:45:00 AM	0	0	0	0	0	1	0	1	0	0	1	20	0	0	0	0	10	7	0	0	122	
06:50:00 AM	0	0	0	0	0	5	0	2	0	0	1	24	0	0	0	0	19	1	0	0	140	
06:55:00 AM	0	0	0	0	0	4	0	5	0	0	3	26	0	0	0	0	13	4	0	0	147	437
07:00:00 AM	0	0	0	0	0	1	0	0	0	0	2	19	0	0	0	0	16	3	0	0	148	463
07:05:00 AM	0	0	0	0	0	2	0	1	0	0	2	26	0	0	0	0	16	8	0	0	151	479
07:10:00 AM	0	0	0	0	0	3	0	2	0	0	1	35	0	0	0	0	15	4	0	0	156	519
07:15:00 AM	0	0	0	0	0	5	0	0	0	0	3	25	0	0	0	0	13	8	0	0	169	541
07:20:00 AM	0	0	0	0	0	1	0	2	0	0	2	27	0	0	0	0	19	9	0	0	174	577
07:25:00 AM	0	0	0	0	0	4	0	0	0	0	1	34	0	0	0	0	13	7	0	0	173	596
07:30:00 AM	0	0	0	0	0	11	0	2	0	0	4	40	0	0	0	0	14	9	0	0	199	638
07:35:00 AM	0	0	0	0	0	8	0	1	0	0	5	39	0	0	0	0	17	8	0	0	217	682
07:40:00 AM	0	0	0	0	0	3	0	4	0	0	4	31	0	0	0	0	30	12	0	0	242	718
07:45:00 AM	0	0	0	0	0	6	0	4	0	0	4	26	0	0	0	0	22	3	0	0	227	743
07:50:00 AM	0	0	0	0	0	6	0	4	0	0	2	45	0	0	0	0	24	3	0	0	233	775
07:55:00 AM	0	0	0	0	0	8	0	5	0	0	2	40	0	0	0	0	24	4	0	0	232	803
08:00:00 AM	0	0	0	0	0	6	0	4	0	0	4	46	0	0	0	0	25	14	0	0	266	861
08:05:00 AM	0	0	0	0	0	2	0	3	0	0	8	43	0	0	0	0	34	13	0	0	285	909
08:10:00 AM	0	0	0	0	0	5	0	2	0	0	4	31	0	0	0	0	30	14	0	0	288	935
08:15:00 AM	0	0	0	0	0	6	0	3	0	0	2	37	0	0	0	0	22	6	0	0	265	957
08:20:00 AM	0	0	0	0	0	3	0	4	0	0	1	36	0	0	0	0	18	9	0	0	233	968
08:25:00 AM	0	0	0	0	0	3	0	2	0	0	2	21	0	0	0	0	18	6	0	0	199	961
08:30:00 AM	0	0	0	0	0	4	0	2	0	0	2	21	0	0	0	0	9	3	0	0	164	922
08:35:00 AM	0	0	0	0	0	6	0	1	0	0	1	18	0	0	0	0	14	7	0	0	140	891
08:40:00 AM	0	0	0	0	0	2	0	3	0	0	4	18	0	0	0	0	11	6	0	0	132	851
08:45:00 AM	0	0	0	0	0	7	0	1	0	0	2	25	0	0	0	0	15	3	0	0	144	839
08:50:00 AM	0	0	0	0	0	6	0	3	0	0	1	24	0	0	0	0	17	4	0	0	152	810
08:55:00 AM	0	0	0	0	0	3	0	2	0	0	4	22	0	0	0	0	17	3	0	0	159	778

Truck Volumes

Time	NB (N Springbrook Rd)					SB (N Springbrook Rd)					EB (E Mountain View)					WB (E Mountain View)					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
06:00:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0		
06:05:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
06:10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
06:15:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	
06:20:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
06:25:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	
06:30:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	
06:35:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	4	
06:40:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	4	
06:45:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	
06:50:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	3	
06:55:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	9
07:00:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	4	10
07:05:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	3	11
07:10:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	4	12
07:15:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	3	12
07:20:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	3	13
07:25:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	4	14
07:30:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	4	14
07:35:00 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	5	14
07:40:00 AM	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	7	17
07:45:00 AM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	2	0	0	11	22
07:50:00 AM	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	3	1	0	0	19	30
07:55:00 AM	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	3	1	0	0	23	38
08:00:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	21	39
08:05:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	12	39
08:10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	6	40
08:15:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	4	40
08:20:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2	0	0	0	6	42
08:25:00 AM	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	1	0	0	0	9	45
08:30:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	11	47
08:35:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	9	46
08:40:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	5	43
08:45:00 AM	0	0	0	0	0	0	0	1	0	0	0	3	0	0	0	0	0	0	0	0	6	42
08:50:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	6	33
08:55:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	25

Bike Volumes

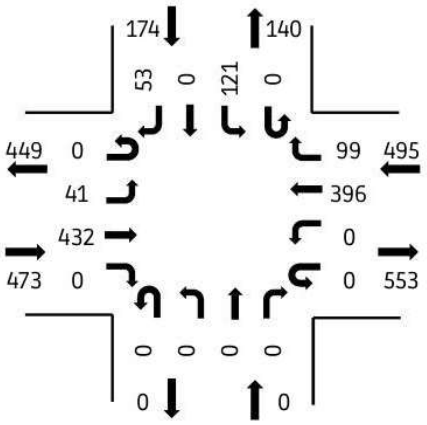
Time	NB (N Springbrook Rd)					SB (N Springbrook Rd)					EB (E Mountain View)					WB (E Mountain View)					Totals	
Time	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	15min	1hr
06:00:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
06:05:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
06:10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
06:15:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
06:20:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
06:25:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
06:30:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
06:35:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
06:40:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
06:45:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
06:50:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
06:55:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07:00:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07:05:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07:10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07:15:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07:20:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07:25:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07:30:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07:35:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07:40:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:50:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:55:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:05:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
08:10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
08:15:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
08:20:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2
08:25:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2
08:30:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2
08:35:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
08:40:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
08:45:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3
08:50:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3
08:55:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3

Pedestrian Volumes

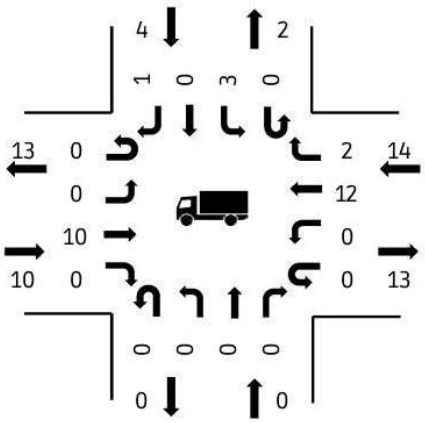
Time	Pedestrians				Totals	
Time	NB	SB	EB	WB	15min	1hr
06:00:00 AM	0	0	1	0		
06:05:00 AM	0	0	0	0		
06:10:00 AM	0	0	0	0	1	
06:15:00 AM	0	0	0	0	0	
06:20:00 AM	0	0	0	0	0	
06:25:00 AM	0	0	0	0	0	
06:30:00 AM	0	0	0	0	0	
06:35:00 AM	0	0	0	0	0	
06:40:00 AM	0	0	1	0	1	
06:45:00 AM	0	0	0	0	1	
06:50:00 AM	0	0	0	0	1	
06:55:00 AM	0	0	0	0	0	2
07:00:00 AM	0	0	0	0	0	1
07:05:00 AM	0	0	0	0	0	1
07:10:00 AM	0	0	0	0	0	1
07:15:00 AM	0	0	0	0	0	1
07:20:00 AM	0	0	0	0	0	1
07:25:00 AM	0	0	0	0	0	1
07:30:00 AM	0	0	0	0	0	1
07:35:00 AM	0	0	0	0	0	1
07:40:00 AM	0	0	0	0	0	0
07:45:00 AM	0	0	0	0	0	0
07:50:00 AM	0	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	1	0	1	1
08:50:00 AM	0	0	0	0	1	1
08:55:00 AM	0	0	0	0	1	1

Location: N Springbrook Rd & E Mountain View
Date: 2024-04-17
Peak Hour Start: 03:10 PM
Peak 15 Minute Start: 03:25 PM
Peak Hour Factor: 0.88

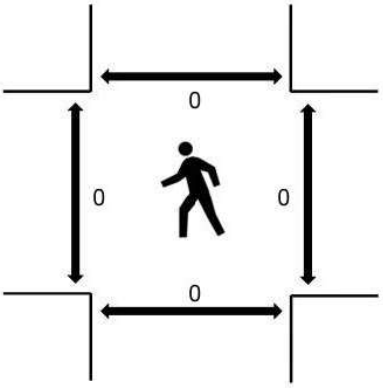
Motorized Vehicles



Heavy Vehicles



Pedestrians



(peak hour)

All Vehicle Volumes

Time	NB (N Springbrook Rd)					SB (N Springbrook Rd)					EB (E Mountain View)					WB (E Mountain View)					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
03:00:00 PM	0	0	0	0	0	24	0	3	0	0	2	25	0	0	0	0	33	3	0	0		
03:05:00 PM	0	0	0	0	0	8	0	3	0	0	4	39	0	0	0	0	27	6	0	0		
03:10:00 PM	0	0	0	0	0	12	0	2	0	0	1	28	0	0	0	0	45	9	0	0	274	
03:15:00 PM	0	0	0	0	0	5	0	2	0	0	3	30	0	0	0	0	38	4	0	0	266	
03:20:00 PM	0	0	0	0	0	12	0	8	0	0	1	34	0	0	0	0	36	14	0	0	284	
03:25:00 PM	0	0	0	0	0	17	0	2	0	0	2	31	0	0	0	0	43	12	0	0	294	
03:30:00 PM	0	0	0	0	0	8	0	3	0	0	4	60	0	0	0	0	28	4	0	0	319	
03:35:00 PM	0	0	0	0	0	20	0	4	0	0	8	45	0	0	0	0	23	9	0	0	323	
03:40:00 PM	0	0	0	0	0	11	0	7	0	0	4	23	0	0	0	0	25	7	0	0	293	
03:45:00 PM	0	0	0	0	0	5	0	7	0	0	4	21	0	0	0	0	27	5	0	0	255	
03:50:00 PM	0	0	0	0	0	9	0	3	0	0	0	34	0	0	0	0	29	8	0	0	229	
03:55:00 PM	0	0	0	0	0	12	0	5	0	0	5	29	0	0	0	0	31	6	0	0	240	1101
04:00:00 PM	0	0	0	0	0	2	0	8	0	0	4	49	0	0	0	0	29	12	0	0	275	1115
04:05:00 PM	0	0	0	0	0	8	0	2	0	0	5	48	0	0	0	0	42	9	0	0	306	1142
04:10:00 PM	0	0	0	0	0	11	0	1	0	0	5	32	0	0	0	0	27	11	0	0	305	1132
04:15:00 PM	0	0	0	0	0	12	0	3	0	0	3	28	0	0	0	0	32	7	0	0	286	1135
04:20:00 PM	0	0	0	0	0	9	0	4	0	0	3	23	0	0	0	0	37	12	0	0	260	1118
04:25:00 PM	0	0	0	0	0	8	0	2	0	0	2	27	0	0	0	0	35	10	0	0	257	1095
04:30:00 PM	0	0	0	0	0	6	0	2	0	0	6	33	0	0	0	0	27	13	0	0	259	1075
04:35:00 PM	0	0	0	0	0	14	0	4	0	0	5	41	0	0	0	0	44	9	0	0	288	1083
04:40:00 PM	0	0	0	0	0	10	0	2	0	0	4	32	0	0	0	0	24	5	0	0	281	1083
04:45:00 PM	0	0	0	0	0	15	0	3	0	0	3	29	0	0	0	0	31	2	0	0	277	1097
04:50:00 PM	0	0	0	0	0	19	0	2	0	0	6	39	0	0	0	0	35	8	0	0	269	1123
04:55:00 PM	0	0	0	0	0	8	0	7	0	0	2	31	0	0	0	0	40	8	0	0	288	1131
05:00:00 PM	0	0	0	0	0	5	0	4	0	0	1	27	0	0	0	0	38	8	0	0	288	1110
05:05:00 PM	0	0	0	0	0	10	0	4	0	0	4	32	0	0	0	0	37	8	0	0	274	1091
05:10:00 PM	0	0	0	0	0	11	0	4	0	0	5	33	0	0	0	0	37	5	0	0	273	1099
05:15:00 PM	0	0	0	0	0	10	0	4	0	0	5	40	0	0	0	0	35	11	0	0	295	1119
05:20:00 PM	0	0	0	0	0	9	0	4	0	0	1	17	0	0	0	0	37	13	0	0	281	1112
05:25:00 PM	0	0	0	0	0	10	0	2	0	0	9	27	0	0	0	0	31	4	0	0	269	1111
05:30:00 PM	0	0	0	0	0	7	0	4	0	0	1	25	0	0	0	0	31	6	0	0	238	1098
05:35:00 PM	0	0	0	0	0	4	0	3	0	0	1	23	0	0	0	0	24	4	0	0	216	1040
05:40:00 PM	0	0	0	0	0	13	0	8	0	0	2	24	0	0	0	0	26	6	0	0	212	1042
05:45:00 PM	0	0	0	0	0	10	0	5	0	0	2	30	0	0	0	0	36	7	0	0	228	1049
05:50:00 PM	0	0	0	0	0	11	0	2	0	0	1	24	0	0	0	0	34	8	0	0	249	1020
05:55:00 PM	0	0	0	0	0	9	0	4	0	0	5	18	0	0	0	0	35	8	0	0	249	1003

Car Volumes

Time	NB (N Springbrook Rd)					SB (N Springbrook Rd)					EB (E Mountain View)					WB (E Mountain View)					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
03:00:00 PM	0	0	0	0	0	23	0	3	0	0	2	24	0	0	0	0	31	3	0	0		
03:05:00 PM	0	0	0	0	0	6	0	3	0	0	4	39	0	0	0	0	27	6	0	0		
03:10:00 PM	0	0	0	0	0	11	0	2	0	0	1	27	0	0	0	0	45	9	0	0	266	
03:15:00 PM	0	0	0	0	0	5	0	2	0	0	3	29	0	0	0	0	38	4	0	0	261	
03:20:00 PM	0	0	0	0	0	12	0	8	0	0	1	31	0	0	0	0	33	14	0	0	275	
03:25:00 PM	0	0	0	0	0	17	0	2	0	0	2	30	0	0	0	0	38	11	0	0	280	
03:30:00 PM	0	0	0	0	0	8	0	2	0	0	4	59	0	0	0	0	26	4	0	0	302	
03:35:00 PM	0	0	0	0	0	20	0	4	0	0	8	45	0	0	0	0	23	9	0	0	312	
03:40:00 PM	0	0	0	0	0	11	0	7	0	0	4	23	0	0	0	0	25	6	0	0	288	
03:45:00 PM	0	0	0	0	0	4	0	7	0	0	4	21	0	0	0	0	27	5	0	0	253	
03:50:00 PM	0	0	0	0	0	9	0	3	0	0	0	32	0	0	0	0	27	8	0	0	223	
03:55:00 PM	0	0	0	0	0	11	0	5	0	0	5	29	0	0	0	0	31	6	0	0	234	1068
04:00:00 PM	0	0	0	0	0	2	0	8	0	0	4	48	0	0	0	0	29	12	0	0	269	1085
04:05:00 PM	0	0	0	0	0	8	0	2	0	0	5	48	0	0	0	0	42	9	0	0	304	1114
04:10:00 PM	0	0	0	0	0	10	0	1	0	0	5	32	0	0	0	0	27	10	0	0	302	1104
04:15:00 PM	0	0	0	0	0	12	0	3	0	0	2	26	0	0	0	0	31	7	0	0	280	1104
04:20:00 PM	0	0	0	0	0	9	0	4	0	0	3	23	0	0	0	0	34	11	0	0	250	1089
04:25:00 PM	0	0	0	0	0	8	0	2	0	0	2	27	0	0	0	0	34	10	0	0	248	1072
04:30:00 PM	0	0	0	0	0	6	0	2	0	0	6	33	0	0	0	0	27	13	0	0	254	1056
04:35:00 PM	0	0	0	0	0	14	0	4	0	0	5	40	0	0	0	0	44	8	0	0	285	1062
04:40:00 PM	0	0	0	0	0	10	0	2	0	0	4	31	0	0	0	0	23	5	0	0	277	1061
04:45:00 PM	0	0	0	0	0	15	0	3	0	0	3	29	0	0	0	0	31	2	0	0	273	1076
04:50:00 PM	0	0	0	0	0	19	0	2	0	0	6	39	0	0	0	0	35	6	0	0	265	1104
04:55:00 PM	0	0	0	0	0	8	0	7	0	0	2	30	0	0	0	0	40	8	0	0	285	1112
05:00:00 PM	0	0	0	0	0	5	0	4	0	0	1	25	0	0	0	0	38	8	0	0	283	1090
05:05:00 PM	0	0	0	0	0	10	0	4	0	0	4	31	0	0	0	0	37	8	0	0	270	1070
05:10:00 PM	0	0	0	0	0	11	0	4	0	0	5	33	0	0	0	0	36	5	0	0	269	1079
05:15:00 PM	0	0	0	0	0	10	0	4	0	0	5	39	0	0	0	0	34	11	0	0	291	1101
05:20:00 PM	0	0	0	0	0	9	0	4	0	0	1	17	0	0	0	0	37	13	0	0	278	1098
05:25:00 PM	0	0	0	0	0	10	0	2	0	0	9	27	0	0	0	0	31	4	0	0	267	1098
05:30:00 PM	0	0	0	0	0	7	0	4	0	0	1	25	0	0	0	0	31	6	0	0	238	1085
05:35:00 PM	0	0	0	0	0	4	0	3	0	0	1	23	0	0	0	0	24	4	0	0	216	1029
05:40:00 PM	0	0	0	0	0	12	0	8	0	0	2	24	0	0	0	0	26	6	0	0	211	1032
05:45:00 PM	0	0	0	0	0	10	0	5	0	0	2	29	0	0	0	0	36	7	0	0	226	1038
05:50:00 PM	0	0	0	0	0	11	0	2	0	0	1	24	0	0	0	0	34	8	0	0	247	1011
05:55:00 PM	0	0	0	0	0	9	0	4	0	0	5	18	0	0	0	0	33	8	0	0	246	993

Truck Volumes

Time	NB (N Springbrook Rd)					SB (N Springbrook Rd)					EB (E Mountain View)					WB (E Mountain View)					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
03:00:00 PM	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	2	0	0	0		
03:05:00 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
03:10:00 PM	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	8	
03:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	5	
03:20:00 PM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	0	0	0	9	
03:25:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	5	1	0	0	14	
03:30:00 PM	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	2	0	0	0	17	
03:35:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	
03:40:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	5	
03:45:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
03:50:00 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	6	
03:55:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	33
04:00:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	6	30
04:05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	28
04:10:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	3	28
04:15:00 PM	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	1	0	0	0	6	31
04:20:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	0	0	10	29
04:25:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	9	23
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	19
04:35:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	3	21
04:40:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	4	22
04:45:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	21
04:50:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	4	19
04:55:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	3	19
05:00:00 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	5	20
05:05:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	4	21
05:10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	4	20
05:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	4	18
05:20:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	14
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	13
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	13
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	11
05:40:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	10
05:45:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	2	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	9
05:55:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	3	10

Bike Volumes

Time	NB (N Springbrook Rd)					SB (N Springbrook Rd)					EB (E Mountain View)					WB (E Mountain View)					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
03:00:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
03:05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
03:10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
03:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
03:20:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
03:25:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
03:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
03:35:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
03:40:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
03:45:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
03:50:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
03:55:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	1
04:05:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	2	2
04:10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	3	3
04:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3
04:20:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3
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	3
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	3
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	3
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	3
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	3
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	3
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	3
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	2
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	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	1	0	0	0	1	1
05:25:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
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	1
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	1
05:40:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	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	1	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	1	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

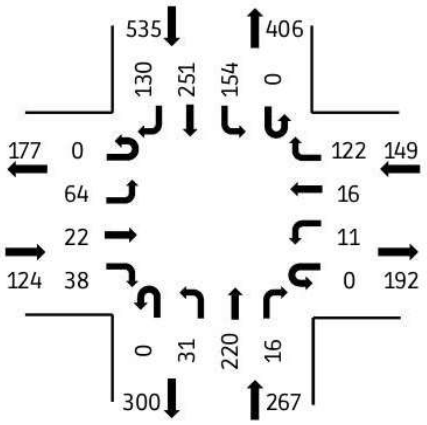
Pedestrian Volumes

Time	Pedestrians				Totals	
Time	NB	SB	EB	WB	15min	1hr
03:00:00 PM	0	0	0	0		
03:05:00 PM	0	0	0	0		
03:10:00 PM	0	0	0	0	0	
03:15:00 PM	0	0	0	0	0	
03:20:00 PM	0	0	0	0	0	
03:25:00 PM	0	0	0	0	0	
03:30:00 PM	0	0	0	0	0	
03:35:00 PM	0	0	0	0	0	
03:40:00 PM	0	0	0	0	0	
03:45:00 PM	0	0	0	0	0	
03:50:00 PM	0	0	0	0	0	
03:55:00 PM	0	0	0	0	0	0
04:00:00 PM	0	0	0	0	0	0
04:05:00 PM	0	0	0	0	0	0
04:10:00 PM	0	0	0	0	0	0
04:15:00 PM	0	0	0	0	0	0
04:20:00 PM	0	0	0	0	0	0
04:25:00 PM	0	0	0	0	0	0
04:30:00 PM	0	0	0	0	0	0
04:35:00 PM	0	0	1	0	1	1
04:40:00 PM	0	0	0	0	1	1
04:45:00 PM	0	0	0	0	1	1
04:50:00 PM	0	0	0	0	0	1
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	1
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

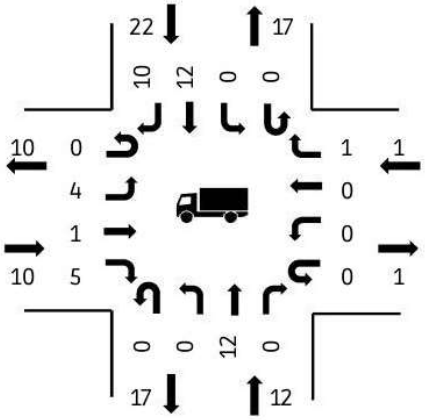
RallyTraffic

Location: N Springbrook Rd & E Crestview Dr
Date: 2024-04-18
Peak Hour Start: 07:25 AM
Peak 15 Minute Start: 08:00 AM
Peak Hour Factor: 0.83

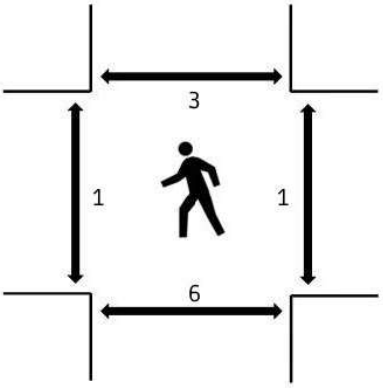
Motorized Vehicles



Heavy Vehicles



Pedestrians



(peak hour)

All Vehicle Volumes

Time	NB (N Springbrook Rd)					SB (N Springbrook Rd)					EB (E Crestview Dr)					WB (E Crestview Dr)					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
06:00:00 AM	0	5	1	0	0	5	5	0	0	0	0	0	0	0	0	0	0	1	0	0		
06:05:00 AM	0	7	0	0	0	9	11	0	0	0	0	0	0	0	0	0	0	2	0	0		
06:10:00 AM	0	4	1	0	0	5	7	0	0	0	0	0	0	0	0	0	0	2	0	0	65	
06:15:00 AM	0	6	0	0	0	9	11	0	0	0	0	0	0	0	0	0	0	5	0	0	79	
06:20:00 AM	1	6	0	0	0	8	6	0	0	0	0	0	0	0	0	0	0	5	0	0	76	
06:25:00 AM	0	12	0	0	0	9	8	1	0	0	0	0	1	0	0	0	1	3	0	0	92	
06:30:00 AM	0	14	0	0	0	13	8	1	0	0	1	0	0	0	0	0	0	3	0	0	101	
06:35:00 AM	1	15	2	0	0	6	4	2	0	0	1	0	1	0	0	0	0	3	0	0	110	
06:40:00 AM	0	16	0	0	0	14	12	1	0	0	0	0	2	0	0	0	0	2	0	0	122	
06:45:00 AM	1	14	0	0	0	10	12	1	0	0	1	0	0	0	0	0	2	3	0	0	126	
06:50:00 AM	0	13	1	0	0	9	17	2	0	0	0	0	1	0	0	1	1	10	0	0	146	
06:55:00 AM	0	12	3	0	0	9	20	3	0	0	0	0	0	0	0	1	0	7	0	0	154	433
07:00:00 AM	0	10	0	0	0	5	12	4	0	0	1	0	1	0	0	2	1	6	0	0	152	458
07:05:00 AM	0	15	0	0	0	11	16	1	0	0	1	1	0	0	0	1	1	8	0	0	152	484
07:10:00 AM	2	13	0	0	0	12	19	7	0	0	0	0	2	0	0	0	0	6	0	0	158	526
07:15:00 AM	0	14	0	0	0	16	14	1	0	0	2	0	0	0	0	1	0	8	0	0	172	551
07:20:00 AM	1	16	1	0	0	12	12	2	0	0	1	0	1	0	0	1	0	17	0	0	181	589
07:25:00 AM	2	9	3	0	0	11	15	14	0	0	0	2	1	0	0	1	1	10	0	0	189	623
07:30:00 AM	3	18	1	0	0	20	23	7	0	0	2	0	0	0	0	0	0	8	0	0	215	665
07:35:00 AM	1	15	1	0	0	15	26	7	0	0	5	3	3	0	0	0	3	6	0	0	236	715
07:40:00 AM	2	23	2	0	0	15	21	6	0	0	1	0	1	0	0	2	2	15	0	0	257	758
07:45:00 AM	1	17	0	0	0	10	17	7	0	0	3	0	1	0	0	1	2	8	0	0	242	781
07:50:00 AM	3	17	2	0	0	16	25	13	0	0	5	0	3	0	0	1	1	11	0	0	254	823
07:55:00 AM	0	16	1	0	0	10	28	21	0	0	4	2	3	0	0	0	2	14	0	0	265	869
08:00:00 AM	4	24	2	0	0	18	20	11	0	0	7	4	5	0	0	1	1	15	0	0	310	939
08:05:00 AM	6	20	0	0	0	8	10	20	0	0	15	2	9	0	0	2	3	11	0	0	319	990
08:10:00 AM	4	25	2	0	0	10	21	10	0	0	9	5	5	0	0	1	1	13	0	0	324	1035
08:15:00 AM	3	18	2	0	0	10	24	10	0	0	8	3	6	0	0	2	0	7	0	0	305	1072
08:20:00 AM	2	18	0	0	0	11	21	4	0	0	5	1	1	0	0	0	0	4	0	0	266	1075
08:25:00 AM	0	18	1	0	0	10	24	1	0	0	1	0	1	0	0	1	0	6	0	0	223	1069
08:30:00 AM	0	12	2	0	0	7	17	2	0	0	0	0	1	0	0	0	0	3	0	0	174	1031
08:35:00 AM	1	17	0	0	0	8	16	1	0	0	0	0	1	0	0	1	0	5	0	0	157	996
08:40:00 AM	2	12	1	0	0	7	14	0	0	0	0	0	0	0	0	0	0	5	0	0	135	947
08:45:00 AM	2	10	0	0	0	7	24	1	0	0	0	1	1	0	0	1	1	6	0	0	145	934
08:50:00 AM	2	15	1	0	0	9	21	2	0	0	1	0	3	0	0	0	1	5	0	0	155	897
08:55:00 AM	0	18	0	0	0	8	15	2	0	0	1	1	0	0	0	0	0	4	0	0	163	845

Car Volumes

Time	NB (N Springbrook Rd)					SB (N Springbrook Rd)					EB (E Crestview Dr)					WB (E Crestview Dr)					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
06:00:00 AM	0	5	1	0	0	5	4	0	0	0	0	0	0	0	0	0	0	1	0	0		
06:05:00 AM	0	7	0	0	0	9	11	0	0	0	0	0	0	0	0	0	0	2	0	0		
06:10:00 AM	0	4	1	0	0	5	7	0	0	0	0	0	0	0	0	0	0	2	0	0	64	
06:15:00 AM	0	6	0	0	0	9	11	0	0	0	0	0	0	0	0	0	0	4	0	0	78	
06:20:00 AM	1	6	0	0	0	8	6	0	0	0	0	0	0	0	0	0	0	5	0	0	75	
06:25:00 AM	0	11	0	0	0	9	8	1	0	0	0	0	1	0	0	0	1	3	0	0	90	
06:30:00 AM	0	13	0	0	0	13	8	1	0	0	1	0	0	0	0	0	0	3	0	0	99	
06:35:00 AM	1	13	2	0	0	6	4	2	0	0	1	0	1	0	0	0	0	3	0	0	106	
06:40:00 AM	0	15	0	0	0	14	12	1	0	0	0	0	2	0	0	0	0	2	0	0	118	
06:45:00 AM	1	14	0	0	0	10	12	1	0	0	1	0	0	0	0	0	2	3	0	0	123	
06:50:00 AM	0	12	1	0	0	9	16	2	0	0	0	0	1	0	0	1	0	10	0	0	142	
06:55:00 AM	0	11	2	0	0	9	20	3	0	0	0	0	0	0	0	1	0	7	0	0	149	421
07:00:00 AM	0	9	0	0	0	5	12	4	0	0	1	0	1	0	0	2	1	6	0	0	146	446
07:05:00 AM	0	14	0	0	0	11	16	1	0	0	1	1	0	0	0	1	1	8	0	0	148	471
07:10:00 AM	2	13	0	0	0	12	19	6	0	0	0	0	2	0	0	0	0	6	0	0	155	512
07:15:00 AM	0	13	0	0	0	16	14	1	0	0	2	0	0	0	0	1	0	8	0	0	169	537
07:20:00 AM	1	15	1	0	0	12	12	2	0	0	1	0	1	0	0	1	0	17	0	0	178	574
07:25:00 AM	2	8	3	0	0	11	14	14	0	0	0	2	1	0	0	1	1	10	0	0	185	607
07:30:00 AM	3	18	1	0	0	20	22	7	0	0	2	0	0	0	0	0	0	8	0	0	211	649
07:35:00 AM	1	15	1	0	0	15	25	6	0	0	5	3	3	0	0	0	3	6	0	0	231	699
07:40:00 AM	2	23	2	0	0	15	20	4	0	0	1	0	1	0	0	2	2	15	0	0	251	740
07:45:00 AM	1	16	0	0	0	10	15	6	0	0	3	0	1	0	0	1	2	8	0	0	233	759
07:50:00 AM	3	15	2	0	0	16	23	10	0	0	4	0	3	0	0	1	1	11	0	0	239	796
07:55:00 AM	0	14	1	0	0	10	25	18	0	0	3	2	3	0	0	0	2	14	0	0	244	835
08:00:00 AM	4	22	2	0	0	18	20	11	0	0	7	4	3	0	0	1	1	14	0	0	288	901
08:05:00 AM	6	20	0	0	0	8	10	20	0	0	14	2	7	0	0	2	3	11	0	0	302	950
08:10:00 AM	4	24	2	0	0	10	21	10	0	0	8	4	4	0	0	1	1	13	0	0	312	992
08:15:00 AM	3	17	2	0	0	10	24	10	0	0	8	3	6	0	0	2	0	7	0	0	297	1029
08:20:00 AM	2	16	0	0	0	11	20	4	0	0	5	1	1	0	0	0	0	4	0	0	258	1030
08:25:00 AM	0	17	1	0	0	10	21	0	0	0	1	0	1	0	0	1	0	5	0	0	213	1020
08:30:00 AM	0	10	2	0	0	7	17	2	0	0	0	0	1	0	0	0	0	3	0	0	163	981
08:35:00 AM	1	16	0	0	0	8	16	1	0	0	0	0	1	0	0	1	0	5	0	0	148	947
08:40:00 AM	2	12	1	0	0	7	13	0	0	0	0	0	0	0	0	0	0	5	0	0	131	900
08:45:00 AM	2	10	0	0	0	7	22	1	0	0	0	1	1	0	0	1	1	6	0	0	141	889
08:50:00 AM	2	14	1	0	0	9	21	1	0	0	1	0	3	0	0	0	1	5	0	0	150	858
08:55:00 AM	0	18	0	0	0	8	15	2	0	0	1	1	0	0	0	0	0	4	0	0	159	815

Truck Volumes

Time	NB (N Springbrook Rd)					SB (N Springbrook Rd)					EB (E Crestview Dr)					WB (E Crestview Dr)					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
06:00:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0		
06:05:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
06:10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
06:15:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	
06:20:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
06:25:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
06:30:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
06:35:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	
06:40:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	
06:45:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	
06:50:00 AM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	4	
06:55:00 AM	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	12
07:00:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	12
07:05:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	13
07:10:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	3	14
07:15:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	14
07:20:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	15
07:25:00 AM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	4	16
07:30:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	4	16
07:35:00 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	5	16
07:40:00 AM	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	6	18
07:45:00 AM	0	1	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	9	22
07:50:00 AM	0	2	0	0	0	0	2	3	0	0	1	0	0	0	0	0	0	0	0	0	15	27
07:55:00 AM	0	2	0	0	0	0	3	3	0	0	1	0	0	0	0	0	0	0	0	0	21	34
08:00:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	1	0	0	22	38
08:05:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	2	0	0	0	0	0	0	0	17	40
08:10:00 AM	0	1	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	12	43
08:15:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	43
08:20:00 AM	0	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	8	45
08:25:00 AM	0	1	0	0	0	0	3	1	0	0	0	0	0	0	0	0	0	1	0	0	10	49
08:30:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	50
08:35:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	49
08:40:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	4	47
08:45:00 AM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	4	45
08:50:00 AM	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	5	39
08:55:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	30

Bike Volumes

Time	NB (N Springbrook Rd)					SB (N Springbrook Rd)					EB (E Crestview Dr)					WB (E Crestview Dr)					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
06:00:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
06:05:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
06:10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
06:15:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
06:20:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
06:25:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
06:30:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
06:35:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
06:40:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
06:45:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
06:50:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
06:55:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07:00:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07:05:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07:10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07:15:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07:20:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07:25:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07:30:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07:35:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07:40:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:50:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:55:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1
08:05:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
08:10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
08:15:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
08:20:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
08:25:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
08:30:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
08:35:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
08:40:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
08:45:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	2
08:50:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2
08:55:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2

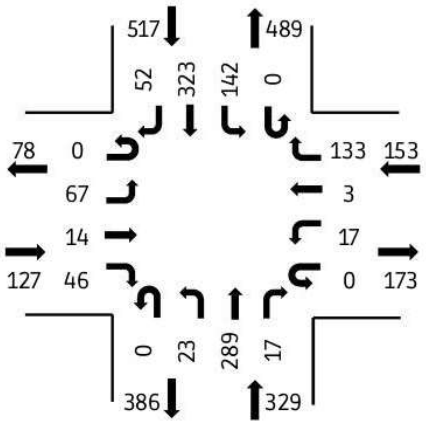
Pedestrian Volumes

Time	Pedestrians				Totals	
Time	NB	SB	EB	WB	15min	1hr
06:00:00 AM	0	1	0	0		
06:05:00 AM	0	0	0	0		
06:10:00 AM	1	1	0	1	4	
06:15:00 AM	0	0	0	0	3	
06:20:00 AM	0	0	0	0	3	
06:25:00 AM	0	1	0	0	1	
06:30:00 AM	0	0	0	0	1	
06:35:00 AM	0	0	1	0	2	
06:40:00 AM	0	0	0	0	1	
06:45:00 AM	0	0	0	0	1	
06:50:00 AM	0	0	0	0	0	
06:55:00 AM	0	0	0	0	0	6
07:00:00 AM	0	0	0	0	0	5
07:05:00 AM	0	0	0	0	0	5
07:10:00 AM	0	0	0	0	0	2
07:15:00 AM	0	0	0	0	0	2
07:20:00 AM	0	0	0	0	0	2
07:25:00 AM	3	1	1	0	5	6
07:30:00 AM	0	0	0	0	5	6
07:35:00 AM	0	0	0	0	5	5
07:40:00 AM	0	0	0	0	0	5
07:45:00 AM	0	1	0	0	1	6
07:50:00 AM	0	0	0	0	1	6
07:55:00 AM	1	0	0	1	3	8
08:00:00 AM	1	0	0	0	3	9
08:05:00 AM	0	0	0	0	3	9
08:10:00 AM	1	1	0	0	3	11
08:15:00 AM	0	0	0	0	2	11
08:20:00 AM	0	0	0	0	2	11
08:25:00 AM	0	0	0	0	0	6
08:30:00 AM	0	0	0	0	0	6
08:35:00 AM	0	0	0	0	0	6
08:40:00 AM	0	0	1	0	1	7
08:45:00 AM	0	0	0	0	1	6
08:50:00 AM	0	0	0	0	1	6
08:55:00 AM	0	0	1	0	1	5

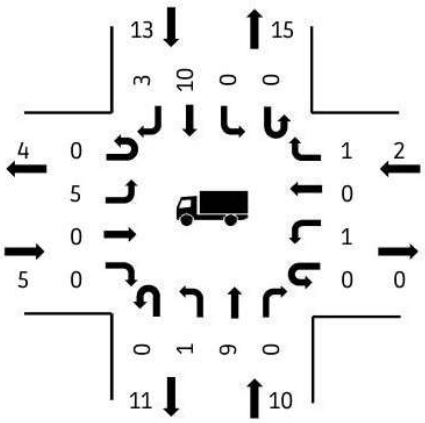
RallyTraffic

Location: N Springbrook Rd & E Crestview Dr
Date: 2024-04-17
Peak Hour Start: 03:10 PM
Peak 15 Minute Start: 03:20 PM
Peak Hour Factor: 0.89

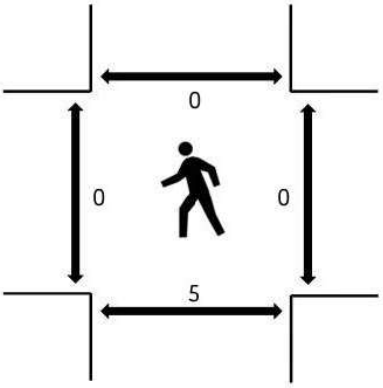
Motorized Vehicles



Heavy Vehicles



Pedestrians



(peak hour)

All Vehicle Volumes

Time	NB (N Springbrook Rd)					SB (N Springbrook Rd)					EB (E Crestview Dr)					WB (E Crestview Dr)					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
03:00:00 PM	1	18	0	0	0	7	35	7	0	0	2	0	0	0	0	1	0	10	0	0		
03:05:00 PM	2	21	1	0	0	14	34	6	0	0	4	0	0	0	0	0	2	3	0	0		
03:10:00 PM	1	37	0	0	0	8	27	8	0	0	12	2	3	0	0	2	0	9	0	0	277	
03:15:00 PM	4	26	2	0	0	8	21	8	0	0	6	0	1	0	0	1	0	9	0	0	282	
03:20:00 PM	5	38	1	0	0	8	31	6	0	0	10	0	3	0	0	1	1	7	0	0	306	
03:25:00 PM	3	22	1	0	0	13	19	3	0	0	17	1	19	0	0	1	0	7	0	0	303	
03:30:00 PM	2	12	0	0	0	22	23	7	0	0	10	2	8	0	0	0	0	13	0	0	316	
03:35:00 PM	1	20	2	0	0	16	37	1	0	0	1	0	4	0	0	1	0	9	0	0	297	
03:40:00 PM	1	23	2	0	0	11	21	2	0	0	2	1	2	0	0	1	1	9	0	0	267	
03:45:00 PM	1	14	1	0	0	9	17	3	0	0	2	2	3	0	0	2	0	15	0	0	237	
03:50:00 PM	2	24	3	0	0	16	19	2	0	0	2	3	0	0	0	5	0	9	0	0	230	
03:55:00 PM	2	24	0	0	0	6	39	0	0	0	1	2	0	0	0	2	1	15	0	0	246	1093
04:00:00 PM	0	26	0	0	0	11	35	4	0	0	0	1	0	0	0	0	0	13	0	0	267	1102
04:05:00 PM	1	23	5	0	0	14	34	8	0	0	4	0	3	0	0	1	0	18	0	0	293	1126
04:10:00 PM	2	26	2	0	0	15	25	2	0	0	1	0	2	0	0	1	1	12	0	0	290	1106
04:15:00 PM	1	25	1	0	0	10	30	1	0	0	2	0	0	0	0	3	0	10	0	0	283	1103
04:20:00 PM	2	27	0	0	0	6	24	1	0	0	1	0	0	0	0	2	1	16	0	0	252	1072
04:25:00 PM	2	27	1	0	0	8	24	3	0	0	4	1	4	0	0	4	1	18	0	0	260	1063
04:30:00 PM	1	24	1	0	0	11	27	3	0	0	1	3	1	0	0	2	0	11	0	0	262	1049
04:35:00 PM	3	29	2	0	0	11	39	2	0	0	2	0	3	0	0	0	0	19	0	0	292	1067
04:40:00 PM	2	18	0	0	0	13	26	5	0	0	0	1	1	0	0	2	0	10	0	0	273	1069
04:45:00 PM	0	24	0	0	0	10	29	6	0	0	2	2	2	0	0	1	1	10	0	0	275	1087
04:50:00 PM	0	33	2	0	0	11	35	2	0	0	2	0	1	0	0	3	0	8	0	0	262	1099
04:55:00 PM	1	24	1	0	0	12	32	6	0	0	4	0	4	0	0	2	0	18	0	0	288	1111
05:00:00 PM	1	29	0	0	0	8	20	2	0	0	4	0	1	0	0	0	0	9	0	0	275	1095
05:05:00 PM	0	25	1	0	0	13	26	2	0	0	1	1	0	0	0	2	0	20	0	0	269	1075
05:10:00 PM	1	25	3	0	0	7	30	3	0	0	5	0	0	0	0	0	1	11	0	0	251	1072
05:15:00 PM	0	24	2	0	0	16	28	5	0	0	3	0	1	0	0	3	0	19	0	0	278	1090
05:20:00 PM	1	32	2	0	0	4	20	5	0	0	2	0	1	0	0	1	1	13	0	0	269	1092
05:25:00 PM	1	18	1	0	0	6	22	5	0	0	0	0	0	0	0	0	1	19	0	0	256	1068
05:30:00 PM	1	18	2	0	0	9	25	7	0	0	4	0	1	0	0	1	1	14	0	0	238	1066
05:35:00 PM	1	15	1	0	0	7	18	0	0	0	2	0	0	0	0	0	2	14	0	0	216	1016
05:40:00 PM	0	16	1	0	0	8	26	2	0	0	2	0	1	0	0	2	0	11	0	0	212	1007
05:45:00 PM	1	27	3	0	0	10	25	5	0	0	0	0	1	0	0	2	0	17	0	0	220	1011
05:50:00 PM	1	19	0	0	0	7	24	8	0	0	3	0	0	0	0	0	0	22	0	0	244	998
05:55:00 PM	2	22	0	0	0	6	18	3	0	0	1	0	0	0	0	2	0	21	0	0	250	969

Car Volumes

Time	NB (N Springbrook Rd)					SB (N Springbrook Rd)					EB (E Crestview Dr)					WB (E Crestview Dr)					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
03:00:00 PM	1	17	0	0	0	7	33	6	0	0	2	0	0	0	0	1	0	10	0	0		
03:05:00 PM	2	21	1	0	0	13	33	5	0	0	4	0	0	0	0	0	2	3	0	0		
03:10:00 PM	1	37	0	0	0	8	26	7	0	0	12	2	3	0	0	1	0	9	0	0	267	
03:15:00 PM	4	26	2	0	0	8	20	8	0	0	6	0	1	0	0	1	0	9	0	0	275	
03:20:00 PM	5	37	1	0	0	8	28	6	0	0	8	0	3	0	0	1	1	7	0	0	296	
03:25:00 PM	3	17	1	0	0	13	18	3	0	0	16	1	19	0	0	1	0	6	0	0	288	
03:30:00 PM	2	12	0	0	0	22	23	6	0	0	8	2	8	0	0	0	0	13	0	0	299	
03:35:00 PM	1	20	2	0	0	16	37	1	0	0	1	0	4	0	0	1	0	9	0	0	286	
03:40:00 PM	1	22	2	0	0	11	21	2	0	0	2	1	2	0	0	1	1	9	0	0	263	
03:45:00 PM	1	14	1	0	0	9	16	3	0	0	2	2	3	0	0	2	0	15	0	0	235	
03:50:00 PM	2	22	3	0	0	16	18	2	0	0	2	3	0	0	0	5	0	9	0	0	225	
03:55:00 PM	2	24	0	0	0	6	37	0	0	0	1	2	0	0	0	2	1	15	0	0	240	1058
04:00:00 PM	0	26	0	0	0	11	35	4	0	0	0	1	0	0	0	0	0	13	0	0	262	1071
04:05:00 PM	1	23	5	0	0	14	34	7	0	0	4	0	3	0	0	1	0	18	0	0	290	1097
04:10:00 PM	2	24	2	0	0	15	25	1	0	0	1	0	2	0	0	1	1	12	0	0	286	1077
04:15:00 PM	1	25	1	0	0	10	29	1	0	0	2	0	0	0	0	3	0	10	0	0	278	1074
04:20:00 PM	2	25	0	0	0	6	24	1	0	0	0	0	0	0	0	2	1	15	0	0	244	1045
04:25:00 PM	2	27	1	0	0	8	24	3	0	0	3	1	4	0	0	4	1	18	0	0	254	1043
04:30:00 PM	1	24	1	0	0	11	27	3	0	0	1	3	1	0	0	2	0	11	0	0	257	1032
04:35:00 PM	3	28	2	0	0	10	39	2	0	0	2	0	3	0	0	0	0	19	0	0	289	1048
04:40:00 PM	2	17	0	0	0	13	25	5	0	0	0	1	1	0	0	2	0	10	0	0	269	1049
04:45:00 PM	0	24	0	0	0	10	29	6	0	0	2	2	2	0	0	1	1	10	0	0	271	1068
04:50:00 PM	0	31	2	0	0	11	35	2	0	0	2	0	1	0	0	3	0	8	0	0	258	1081
04:55:00 PM	1	24	1	0	0	12	31	6	0	0	4	0	4	0	0	2	0	18	0	0	285	1094
05:00:00 PM	1	29	0	0	0	7	19	2	0	0	4	0	1	0	0	0	0	9	0	0	270	1076
05:05:00 PM	0	24	1	0	0	13	25	2	0	0	1	1	0	0	0	2	0	20	0	0	264	1055
05:10:00 PM	1	24	3	0	0	7	30	3	0	0	5	0	0	0	0	0	1	11	0	0	246	1054
05:15:00 PM	0	24	2	0	0	16	28	4	0	0	3	0	1	0	0	3	0	19	0	0	274	1072
05:20:00 PM	1	32	2	0	0	4	20	5	0	0	2	0	1	0	0	1	1	13	0	0	267	1078
05:25:00 PM	1	18	1	0	0	6	22	5	0	0	0	0	0	0	0	0	1	19	0	0	255	1055
05:30:00 PM	1	18	2	0	0	9	25	7	0	0	4	0	1	0	0	1	1	14	0	0	238	1053
05:35:00 PM	1	15	1	0	0	7	18	0	0	0	2	0	0	0	0	0	2	14	0	0	216	1005
05:40:00 PM	0	16	1	0	0	8	25	2	0	0	2	0	1	0	0	2	0	11	0	0	211	997
05:45:00 PM	1	27	3	0	0	10	24	5	0	0	0	0	1	0	0	2	0	17	0	0	218	1000
05:50:00 PM	1	18	0	0	0	7	24	8	0	0	3	0	0	0	0	0	0	22	0	0	241	988
05:55:00 PM	2	21	0	0	0	6	18	3	0	0	1	0	0	0	0	2	0	21	0	0	247	959

Truck Volumes

Time	NB (N Springbrook Rd)					SB (N Springbrook Rd)					EB (E Crestview Dr)					WB (E Crestview Dr)					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
03:00:00 PM	0	1	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0		
03:05:00 PM	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0		
03:10:00 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	0	0	0	0	10	
03:15:00 PM	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	8	
03:20:00 PM	0	1	0	0	0	0	3	0	0	0	2	0	0	0	0	0	0	0	0	0	11	
03:25:00 PM	0	5	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1	0	0	16	
03:30:00 PM	0	0	0	0	0	0	0	1	0	0	2	0	0	0	0	0	0	0	0	0	17	
03:35:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	
03:40:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	
03:45:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
03:50:00 PM	0	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	5	
03:55:00 PM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	6	36
04:00:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	32
04:05:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	3	30
04:10:00 PM	0	2	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	4	30
04:15:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	5	29
04:20:00 PM	0	2	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	8	27
04:25:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	6	20
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	17
04:35:00 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	19
04:40:00 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	4	20
04:45:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	19
04:50:00 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	18
04:55:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	3	17
05:00:00 PM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	5	19
05:05:00 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	5	20
05:10:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	18
05:15:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	4	18
05:20:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	14
05:25:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	13
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	13
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	11
05:40:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	10
05:45:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	11
05:50:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	10
05:55:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	10

Bike Volumes

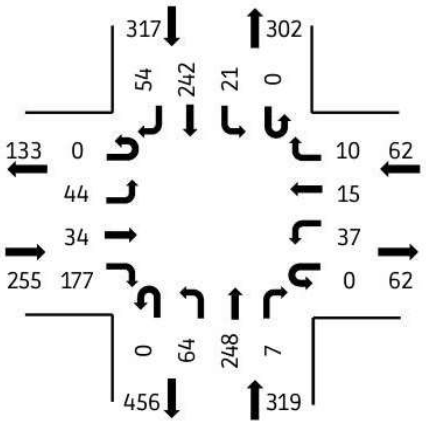
Time	NB (N Springbrook Rd)					SB (N Springbrook Rd)					EB (E Crestview Dr)					WB (E Crestview Dr)					Totals	
Time	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	15min	1hr
03:00:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
03:05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
03:10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
03:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
03:20:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
03:25:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
03:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
03:35:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
03:40:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
03:45:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
03:50:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
03:55:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
04:05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
04:10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2	2
04:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2
04:20:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2
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	2
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	2
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	2
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	2
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	2
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	2
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	2
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	0
05:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	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	1	1
05:25:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
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	1
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	1
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	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	1	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	1	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

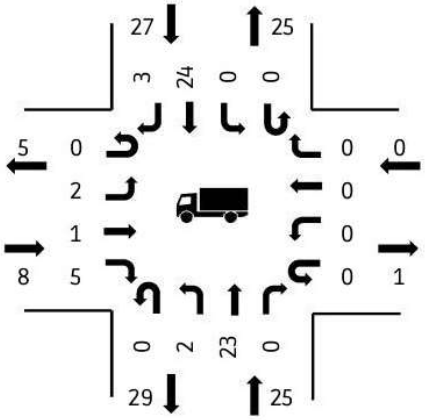
Time	Pedestrians				Totals	
Time	NB	SB	EB	WB	15min	1hr
03:00:00 PM	0	0	0	0		
03:05:00 PM	0	0	0	0		
03:10:00 PM	0	0	0	0	0	
03:15:00 PM	0	0	0	0	0	
03:20:00 PM	0	0	0	0	0	
03:25:00 PM	0	0	0	0	0	
03:30:00 PM	3	0	0	0	3	
03:35:00 PM	1	0	0	0	4	
03:40:00 PM	0	0	0	0	4	
03:45:00 PM	1	0	0	0	2	
03:50:00 PM	0	0	0	0	1	
03:55:00 PM	0	0	0	0	1	5
04:00:00 PM	0	0	0	0	0	5
04:05:00 PM	0	0	0	0	0	5
04:10:00 PM	0	0	0	0	0	5
04:15:00 PM	0	0	0	0	0	5
04:20:00 PM	0	0	0	0	0	5
04:25:00 PM	0	0	0	0	0	5
04:30:00 PM	0	0	0	0	0	2
04:35:00 PM	0	0	0	0	0	1
04:40:00 PM	0	0	0	0	0	1
04:45:00 PM	1	0	0	0	1	1
04:50:00 PM	2	0	0	0	3	3
04:55:00 PM	1	0	0	0	4	4
05:00:00 PM	0	0	0	0	3	4
05:05:00 PM	2	0	0	0	3	6
05:10:00 PM	2	0	0	0	4	8
05:15:00 PM	0	0	0	0	4	8
05:20:00 PM	0	0	0	0	2	8
05:25:00 PM	0	0	0	0	0	8
05:30:00 PM	0	0	0	0	0	8
05:35:00 PM	0	0	0	0	0	8
05:40:00 PM	0	0	0	0	0	8
05:45:00 PM	2	0	0	0	2	9
05:50:00 PM	1	0	0	0	3	8
05:55:00 PM	0	0	0	0	3	7

Location: N Springbrook Rd & Haworth Ave
Date: 2024-05-21
Peak Hour Start: 07:25 AM
Peak 15 Minute Start: 07:30 AM
Peak Hour Factor: 0.91

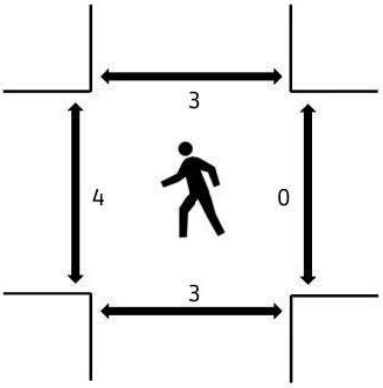
Motorized Vehicles



Heavy Vehicles



Pedestrians



(peak hour)

All Vehicle Volumes

Time	NB (N Springbrook Rd)					SB (N Springbrook Rd)					EB (Haworth Ave)					WB (Haworth Ave)					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	20	1	0	0	2	17	4	0	0	3	1	12	0	0	1	0	1	0	0		
07:05:00 AM	3	20	1	0	0	1	17	3	0	0	3	0	7	0	0	4	1	1	0	0		
07:10:00 AM	1	17	2	0	0	0	11	7	0	0	1	0	9	0	0	3	1	0	0	0	177	
07:15:00 AM	6	22	2	0	0	2	12	2	0	0	2	1	15	0	0	1	0	0	0	0	178	
07:20:00 AM	8	13	1	0	0	3	17	4	0	0	2	0	16	0	0	3	4	0	0	0	188	
07:25:00 AM	9	20	0	0	0	0	13	4	0	0	3	1	14	0	0	4	2	1	0	0	207	
07:30:00 AM	6	24	1	0	0	3	24	2	0	0	3	4	20	0	0	2	2	1	0	0	234	
07:35:00 AM	7	16	0	0	0	2	20	9	0	0	5	1	25	0	0	3	1	1	0	0	253	
07:40:00 AM	7	21	0	0	0	1	24	3	0	0	5	2	13	0	0	3	0	1	0	0	262	
07:45:00 AM	1	20	1	0	0	2	18	4	0	0	5	2	14	0	0	2	3	0	0	0	242	
07:50:00 AM	3	21	1	0	0	4	21	7	0	0	2	3	14	0	0	4	2	2	0	0	236	
07:55:00 AM	4	19	2	0	0	1	15	6	0	0	10	4	12	0	0	2	0	0	0	0	231	877
08:00:00 AM	2	26	1	0	0	1	28	4	0	0	2	3	5	0	0	6	2	0	0	0	239	893
08:05:00 AM	7	22	1	0	0	0	20	4	0	0	0	4	18	0	0	2	1	0	0	0	234	911
08:10:00 AM	3	22	0	0	0	2	22	3	0	0	5	3	12	0	0	3	1	1	0	0	236	936
08:15:00 AM	11	18	0	0	0	3	18	5	0	0	2	2	14	0	0	4	1	0	0	0	234	949
08:20:00 AM	4	19	0	0	0	2	19	3	0	0	2	5	16	0	0	2	0	3	0	0	230	953
08:25:00 AM	3	14	1	0	0	2	18	3	0	0	2	3	14	0	0	4	3	0	0	0	220	949
08:30:00 AM	2	13	0	0	0	3	15	0	0	0	3	1	7	0	0	7	1	0	0	0	194	909
08:35:00 AM	3	20	0	0	0	1	8	2	0	0	5	1	10	0	0	5	2	0	0	0	176	876
08:40:00 AM	4	12	1	0	0	0	19	0	0	0	0	1	13	0	0	4	4	2	0	0	169	856
08:45:00 AM	2	21	2	0	0	0	20	4	0	0	0	1	10	0	0	1	0	2	0	0	180	847
08:50:00 AM	4	6	1	0	0	1	20	4	0	0	4	7	10	0	0	3	0	0	0	0	183	823
08:55:00 AM	5	15	1	0	0	3	18	4	0	0	3	1	7	0	0	3	2	1	0	0	186	811

Car Volumes

Time	NB (N Springbrook Rd)					SB (N Springbrook Rd)					EB (Haworth Ave)					WB (Haworth Ave)					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	19	1	0	0	2	17	4	0	0	3	1	12	0	0	1	0	1	0	0		
07:05:00 AM	3	19	1	0	0	1	16	3	0	0	3	0	7	0	0	4	1	1	0	0		
07:10:00 AM	1	14	2	0	0	0	11	7	0	0	1	0	9	0	0	3	1	0	0	0	171	
07:15:00 AM	6	20	2	0	0	2	12	2	0	0	2	1	15	0	0	1	0	0	0	0	171	
07:20:00 AM	8	11	1	0	0	3	17	4	0	0	2	0	14	0	0	3	4	0	0	0	179	
07:25:00 AM	9	19	0	0	0	0	11	4	0	0	3	1	14	0	0	4	2	1	0	0	198	
07:30:00 AM	6	22	1	0	0	3	24	2	0	0	3	4	20	0	0	2	2	1	0	0	225	
07:35:00 AM	7	14	0	0	0	2	19	9	0	0	5	1	24	0	0	3	1	1	0	0	244	
07:40:00 AM	7	20	0	0	0	1	22	3	0	0	5	2	13	0	0	3	0	1	0	0	253	
07:45:00 AM	1	20	1	0	0	2	18	4	0	0	5	2	14	0	0	2	3	0	0	0	235	
07:50:00 AM	3	16	1	0	0	4	20	7	0	0	2	3	14	0	0	4	2	2	0	0	227	
07:55:00 AM	4	15	2	0	0	1	15	4	0	0	9	4	11	0	0	2	0	0	0	0	217	839
08:00:00 AM	2	24	1	0	0	1	21	3	0	0	1	3	5	0	0	6	2	0	0	0	214	845
08:05:00 AM	7	20	1	0	0	0	13	4	0	0	0	4	17	0	0	2	1	0	0	0	205	855
08:10:00 AM	3	21	0	0	0	2	19	3	0	0	5	2	12	0	0	3	1	1	0	0	210	878
08:15:00 AM	11	17	0	0	0	3	18	5	0	0	2	2	14	0	0	4	1	0	0	0	218	892
08:20:00 AM	4	17	0	0	0	2	18	3	0	0	2	5	14	0	0	2	0	3	0	0	219	895
08:25:00 AM	3	12	1	0	0	2	16	3	0	0	2	3	12	0	0	3	3	0	0	0	207	887
08:30:00 AM	2	12	0	0	0	3	12	0	0	0	3	1	7	0	0	7	1	0	0	0	178	845
08:35:00 AM	3	17	0	0	0	1	7	2	0	0	5	1	10	0	0	5	2	0	0	0	161	812
08:40:00 AM	4	11	1	0	0	0	18	0	0	0	0	1	13	0	0	4	4	2	0	0	159	793
08:45:00 AM	2	19	2	0	0	0	20	3	0	0	0	1	9	0	0	1	0	2	0	0	170	780
08:50:00 AM	4	6	1	0	0	1	20	4	0	0	4	7	9	0	0	3	0	0	0	0	176	761
08:55:00 AM	5	13	1	0	0	3	15	4	0	0	3	1	6	0	0	3	2	1	0	0	175	751

Truck Volumes

Time	NB (N Springbrook Rd)					SB (N Springbrook Rd)					EB (Haworth Ave)					WB (Haworth Ave)					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	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
07:05:00 AM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0		
07:10:00 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	
07:15:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	
07:20:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	9	
07:25:00 AM	1	1	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	10	
07:30:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	
07:35:00 AM	0	2	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	10	
07:40:00 AM	0	1	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	9	
07:45:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	
07:50:00 AM	0	5	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	9	
07:55:00 AM	0	4	0	0	0	0	0	2	0	0	1	0	1	0	0	0	0	0	0	0	14	39
08:00:00 AM	0	2	0	0	0	0	7	1	0	0	1	0	0	0	0	0	0	0	0	0	25	49
08:05:00 AM	0	2	0	0	0	0	7	0	0	0	0	0	1	0	0	0	0	0	0	0	29	57
08:10:00 AM	1	1	0	0	0	0	3	0	0	0	0	1	0	0	0	0	0	0	0	0	27	60
08:15:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17	59
08:20:00 AM	0	2	0	0	0	0	1	0	0	0	0	0	2	0	0	0	0	0	0	0	12	60
08:25:00 AM	0	2	0	0	0	0	2	0	0	0	0	0	2	0	0	1	0	0	0	0	13	63
08:30:00 AM	1	1	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	17	66
08:35:00 AM	0	3	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	16	66
08:40:00 AM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	11	65
08:45:00 AM	0	2	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	10	69
08:50:00 AM	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	8	65
08:55:00 AM	0	2	0	0	0	0	3	0	0	0	0	0	1	0	0	0	0	0	0	0	12	63

Bike Volumes

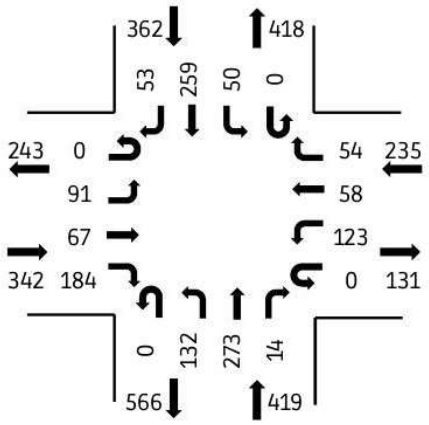
Time	NB (N Springbrook Rd)					SB (N Springbrook Rd)					EB (Haworth Ave)					WB (Haworth Ave)					Totals	
Time	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	15min	1hr
07:00:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
07:05:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
07:10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
07:15:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
07:20:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
07:25:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
07:30:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
07:35:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
07:40:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
07:45:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
07:50:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
07:55:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
08:00:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
08:05:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
08:10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
08:15:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
08:20:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
08:25:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
08:30:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
08:35:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
08:40:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
08:45:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
08:50:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
08:55:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Pedestrian Volumes

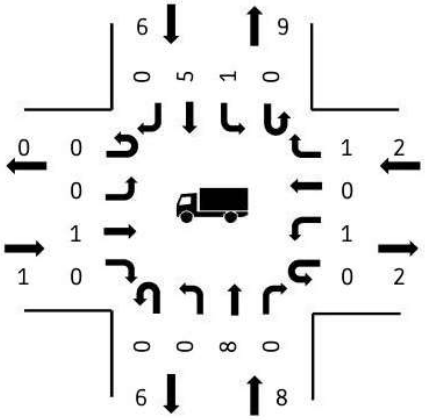
Time	Pedestrians				Totals	
Time	NB	SB	EB	WB	15min	1hr
07:00:00 AM	0	0	1	0		
07:05:00 AM	0	0	0	0		
07:10:00 AM	0	1	1	1	4	
07:15:00 AM	0	0	1	0	4	
07:20:00 AM	0	0	0	0	4	
07:25:00 AM	0	0	0	0	1	
07:30:00 AM	0	0	0	0	0	
07:35:00 AM	0	0	0	0	0	
07:40:00 AM	0	1	0	0	1	
07:45:00 AM	1	0	0	0	2	
07:50:00 AM	0	2	0	0	4	
07:55:00 AM	0	0	1	0	4	10
08:00:00 AM	0	0	1	0	4	10
08:05:00 AM	0	0	0	0	2	10
08:10:00 AM	0	0	0	0	1	7
08:15:00 AM	2	0	2	0	4	10
08:20:00 AM	0	0	0	0	4	10
08:25:00 AM	0	0	0	0	4	10
08:30:00 AM	2	0	0	0	2	12
08:35:00 AM	0	0	0	0	2	12
08:40:00 AM	0	0	0	0	2	11
08:45:00 AM	0	0	0	0	0	10
08:50:00 AM	0	0	0	0	0	8
08:55:00 AM	0	0	0	0	0	7

Location: N Springbrook Rd & Haworth Ave
Date: 2024-05-21
Peak Hour Start: 04:05 PM
Peak 15 Minute Start: 04:25 PM
Peak Hour Factor: 0.91

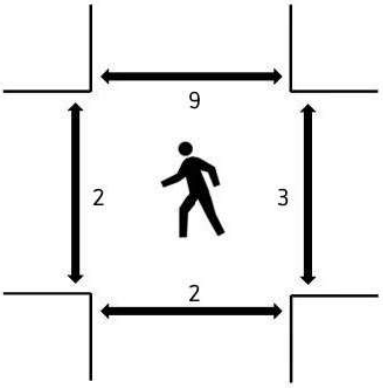
Motorized Vehicles



Heavy Vehicles



Pedestrians



(peak hour)

All Vehicle Volumes

Time	NB (N Springbrook Rd)					SB (N Springbrook Rd)					EB (Haworth Ave)					WB (Haworth Ave)					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	11	13	1	0	0	1	23	2	0	0	6	7	10	0	0	10	6	6	0	0		
04:05:00 PM	9	21	0	0	0	3	30	5	0	0	4	6	18	0	0	10	4	4	0	0		
04:10:00 PM	7	27	2	0	0	2	21	4	0	0	5	5	11	0	0	6	4	2	0	0	306	
04:15:00 PM	10	17	2	0	0	5	23	3	0	0	8	5	10	0	0	10	2	5	0	0	310	
04:20:00 PM	12	20	1	0	0	4	15	3	0	0	8	8	15	0	0	13	6	2	0	0	303	
04:25:00 PM	18	20	1	0	0	3	24	3	0	0	8	3	24	0	0	10	9	2	0	0	332	
04:30:00 PM	10	18	0	0	0	6	22	9	0	0	9	5	15	0	0	17	6	5	0	0	354	
04:35:00 PM	13	27	2	0	0	5	25	4	0	0	6	7	16	0	0	9	7	6	0	0	374	
04:40:00 PM	8	20	2	0	0	5	9	1	0	0	13	4	18	0	0	10	6	6	0	0	351	
04:45:00 PM	12	28	1	0	0	1	19	7	0	0	8	11	15	0	0	9	5	4	0	0	349	
04:50:00 PM	13	32	0	0	0	9	20	7	0	0	11	6	17	0	0	10	4	8	0	0	359	
04:55:00 PM	10	25	1	0	0	4	23	3	0	0	6	5	15	0	0	6	1	5	0	0	361	1350
05:00:00 PM	10	18	2	0	0	3	28	4	0	0	5	2	10	0	0	13	4	5	0	0	345	1358
05:05:00 PM	8	19	1	0	0	2	20	7	0	0	5	5	10	0	0	6	5	4	0	0	300	1336
05:10:00 PM	8	25	0	0	0	5	27	3	0	0	5	6	11	0	0	10	4	5	0	0	305	1349
05:15:00 PM	12	28	0	0	0	2	27	1	0	0	6	4	13	0	0	3	3	1	0	0	301	1349
05:20:00 PM	14	22	1	0	0	4	20	5	0	0	3	8	11	0	0	5	2	5	0	0	309	1342
05:25:00 PM	10	21	0	0	0	3	20	2	0	0	9	12	12	0	0	7	5	3	0	0	304	1321
05:30:00 PM	15	18	2	0	0	6	24	4	0	0	12	6	12	0	0	11	3	4	0	0	321	1316
05:35:00 PM	14	22	1	0	0	2	17	2	0	0	6	6	13	0	0	8	6	7	0	0	325	1293
05:40:00 PM	14	27	3	0	0	2	25	3	0	0	4	7	12	0	0	6	4	5	0	0	333	1303
05:45:00 PM	6	24	2	0	0	2	23	2	0	0	9	3	16	0	0	8	7	4	0	0	322	1289
05:50:00 PM	16	28	1	0	0	3	17	4	0	0	6	1	24	0	0	6	8	7	0	0	339	1273
05:55:00 PM	8	20	2	0	0	3	21	0	0	0	6	2	6	0	0	7	11	5	0	0	318	1260

Car Volumes

Time	NB (N Springbrook Rd)					SB (N Springbrook Rd)					EB (Haworth Ave)					WB (Haworth Ave)					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	11	13	1	0	0	1	21	2	0	0	6	7	10	0	0	10	6	6	0	0		
04:05:00 PM	9	20	0	0	0	3	30	5	0	0	4	6	18	0	0	10	4	4	0	0		
04:10:00 PM	7	24	2	0	0	2	21	4	0	0	5	5	11	0	0	6	4	2	0	0	300	
04:15:00 PM	10	17	2	0	0	5	20	3	0	0	8	5	10	0	0	10	2	5	0	0	303	
04:20:00 PM	12	20	1	0	0	3	15	3	0	0	8	8	15	0	0	13	6	2	0	0	296	
04:25:00 PM	18	20	1	0	0	3	24	3	0	0	8	3	24	0	0	10	9	2	0	0	328	
04:30:00 PM	10	18	0	0	0	6	21	9	0	0	9	5	15	0	0	17	6	5	0	0	352	
04:35:00 PM	13	25	2	0	0	5	25	4	0	0	6	6	16	0	0	9	7	6	0	0	370	
04:40:00 PM	8	19	2	0	0	5	9	1	0	0	13	4	18	0	0	9	6	6	0	0	345	
04:45:00 PM	12	28	1	0	0	1	19	7	0	0	8	11	15	0	0	9	5	4	0	0	344	
04:50:00 PM	13	32	0	0	0	9	20	7	0	0	11	6	17	0	0	10	4	7	0	0	356	
04:55:00 PM	10	24	1	0	0	4	23	3	0	0	6	5	15	0	0	6	1	5	0	0	359	1332
05:00:00 PM	10	18	2	0	0	3	27	4	0	0	5	2	10	0	0	13	4	5	0	0	342	1341
05:05:00 PM	8	19	1	0	0	2	19	7	0	0	5	5	10	0	0	6	5	4	0	0	297	1319
05:10:00 PM	8	25	0	0	0	5	24	3	0	0	5	6	11	0	0	10	4	5	0	0	300	1332
05:15:00 PM	12	28	0	0	0	2	27	1	0	0	6	4	13	0	0	3	3	1	0	0	297	1335
05:20:00 PM	14	22	1	0	0	4	20	5	0	0	3	8	11	0	0	5	2	5	0	0	306	1329
05:25:00 PM	10	21	0	0	0	3	20	2	0	0	9	12	12	0	0	7	5	3	0	0	304	1308
05:30:00 PM	15	17	2	0	0	6	24	4	0	0	12	6	12	0	0	11	3	4	0	0	320	1303
05:35:00 PM	14	22	1	0	0	2	17	2	0	0	6	6	13	0	0	8	6	7	0	0	324	1283
05:40:00 PM	14	27	3	0	0	2	25	3	0	0	4	7	12	0	0	6	4	5	0	0	332	1295
05:45:00 PM	6	24	2	0	0	2	23	2	0	0	9	3	16	0	0	8	7	4	0	0	322	1281
05:50:00 PM	16	28	1	0	0	3	17	4	0	0	6	1	24	0	0	6	8	7	0	0	339	1266
05:55:00 PM	8	20	2	0	0	3	20	0	0	0	6	2	6	0	0	7	11	5	0	0	317	1253

Truck Volumes

Time	NB (N Springbrook Rd)					SB (N Springbrook Rd)					EB (Haworth Ave)					WB (Haworth Ave)					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	2	0	0	0	0	0	0	0	0	0	0	0	0	0		
04:05:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
04:10:00 PM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	
04:15:00 PM	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	7	
04:20:00 PM	0	0	0	0	0	1	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	
04:30:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
04:35:00 PM	0	2	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	4	
04:40:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	6	
04:45:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	
04:50:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	3	
04:55:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	18
05:00:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	3	17
05:05:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	3	17
05:10:00 PM	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	5	17
05:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	14
05:20:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	13
05:25:00 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	14
05:30:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	14
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	11
05:40:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	9
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	9
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	8
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	8

Bike Volumes

Time	NB (N Springbrook Rd)					SB (N Springbrook Rd)					EB (Haworth Ave)					WB (Haworth Ave)					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	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	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	2	
04:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
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	2
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	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	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	1	0	1	
04:20:00 PM	0	0	0	1	2	
04:25:00 PM	0	1	0	0	3	
04:30:00 PM	0	2	0	0	4	
04:35:00 PM	0	0	0	0	3	
04:40:00 PM	0	2	0	0	4	
04:45:00 PM	1	3	1	0	7	
04:50:00 PM	0	0	0	0	7	
04:55:00 PM	1	1	0	2	9	16
05:00:00 PM	0	0	0	0	4	16
05:05:00 PM	0	0	1	0	5	17
05:10:00 PM	0	0	0	0	1	17
05:15:00 PM	0	0	0	0	1	16
05:20:00 PM	0	0	0	0	0	15
05:25:00 PM	0	0	0	0	0	14
05:30:00 PM	0	0	0	0	0	12
05:35:00 PM	1	0	1	1	3	15
05:40:00 PM	0	0	0	0	3	13
05:45:00 PM	0	0	0	0	3	8
05:50:00 PM	0	0	0	0	0	8
05:55:00 PM	1	0	0	0	1	5

APPENDIX C: EXISTING HCM REPORTS

Intersection	
Int Delay, s/veh	1.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	36	6	103	44	12	70
Future Vol, veh/h	36	6	103	44	12	70
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	5	0	0	0
Mvmt Flow	43	7	124	53	14	84

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	263	151	0	0	177	0
Stage 1	151	-	-	-	-	-
Stage 2	112	-	-	-	-	-
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	730	901	-	-	1411	-
Stage 1	882	-	-	-	-	-
Stage 2	918	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	723	901	-	-	1411	-
Mov Cap-2 Maneuver	723	-	-	-	-	-
Stage 1	882	-	-	-	-	-
Stage 2	909	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.2	0	1.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	744	1411	-
HCM Lane V/C Ratio	-	-	0.068	0.01	-
HCM Control Delay (s)	-	-	10.2	7.6	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0	-

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	41	470	288	107	68	36
Future Vol, veh/h	41	470	288	107	68	36
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	80	-	-	-	125	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	0	5	5	5	0	0
Mvmt Flow	48	553	339	126	80	42

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	465	0	-	0	1051	402
Stage 1	-	-	-	-	402	-
Stage 2	-	-	-	-	649	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1107	-	-	-	253	653
Stage 1	-	-	-	-	680	-
Stage 2	-	-	-	-	524	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1107	-	-	-	242	653
Mov Cap-2 Maneuver	-	-	-	-	242	-
Stage 1	-	-	-	-	651	-
Stage 2	-	-	-	-	524	-

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	21.5
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1107	-	-	-	242	653
HCM Lane V/C Ratio	0.044	-	-	-	0.331	0.065
HCM Control Delay (s)	8.4	-	-	-	27.1	10.9
HCM Lane LOS	A	-	-	-	D	B
HCM 95th %tile Q(veh)	0.1	-	-	-	1.4	0.2

MOVEMENT SUMMARY

Site: 101 [EX AM Springbrook @ Crestview (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

Newberg Springbrook Subdivision
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: Springbrook															
3	L2	All MCs	37	3.0	37	3.0	0.328	7.0	LOS A	1.7	42.8	0.52	0.35	0.52	30.1
8	T1	All MCs	265	3.0	265	3.0	0.328	7.0	LOS A	1.7	42.8	0.52	0.35	0.52	30.6
18	R2	All MCs	19	3.0	19	3.0	0.328	7.0	LOS A	1.7	42.8	0.52	0.35	0.52	30.4
Approach			322	3.0	322	3.0	0.328	7.0	LOS A	1.7	42.8	0.52	0.35	0.52	30.5
East: Crestview															
1	L2	All MCs	13	3.0	13	3.0	0.202	6.0	LOS A	0.9	22.7	0.52	0.38	0.52	30.2
6	T1	All MCs	19	3.0	19	3.0	0.202	6.0	LOS A	0.9	22.7	0.52	0.38	0.52	30.7
16	R2	All MCs	147	3.0	147	3.0	0.202	6.0	LOS A	0.9	22.7	0.52	0.38	0.52	30.5
Approach			180	3.0	180	3.0	0.202	6.0	LOS A	0.9	22.7	0.52	0.38	0.52	30.5
North: Springbrook															
7	L2	All MCs	186	3.0	186	3.0	0.518	8.1	LOS A	4.0	103.0	0.35	0.14	0.35	29.1
4	T1	All MCs	302	3.0	302	3.0	0.518	8.1	LOS A	4.0	103.0	0.35	0.14	0.35	29.6
14	R2	All MCs	157	3.0	157	3.0	0.518	8.1	LOS A	4.0	103.0	0.35	0.14	0.35	29.4
Approach			645	3.0	645	3.0	0.518	8.1	LOS A	4.0	103.0	0.35	0.14	0.35	29.4
West: Crestview															
5	L2	All MCs	77	3.0	77	3.0	0.192	6.6	LOS A	0.8	20.5	0.57	0.46	0.57	29.1
2	T1	All MCs	27	3.0	27	3.0	0.192	6.6	LOS A	0.8	20.5	0.57	0.46	0.57	29.6
12	R2	All MCs	46	3.0	46	3.0	0.192	6.6	LOS A	0.8	20.5	0.57	0.46	0.57	29.4
Approach			149	3.0	149	3.0	0.192	6.6	LOS A	0.8	20.5	0.57	0.46	0.57	29.3
All Vehicles			1295	3.0	1295	3.0	0.518	7.4	LOS A	4.0	103.0	0.44	0.26	0.44	29.8

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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Intersection	
Intersection Delay, s/veh	13.8
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	44	34	177	37	15	10	64	248	7	21	242	54
Future Vol, veh/h	44	34	177	37	15	10	64	248	7	21	242	54
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	4	3	3	0	0	0	3	9	0	0	10	6
Mvmt Flow	48	37	195	41	16	11	70	273	8	23	266	59
Number of Lanes	0	1	1	0	1	0	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	2
HCM Control Delay	11.5	11.3	14	16
HCM LOS	B	B	B	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	56%	0%	60%	100%	0%
Vol Thru, %	0%	97%	44%	0%	24%	0%	82%
Vol Right, %	0%	3%	0%	100%	16%	0%	18%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	64	255	78	177	62	21	296
LT Vol	64	0	44	0	37	21	0
Through Vol	0	248	34	0	15	0	242
RT Vol	0	7	0	177	10	0	54
Lane Flow Rate	70	280	86	195	68	23	325
Geometry Grp	7	7	7	7	6	7	7
Degree of Util (X)	0.13	0.487	0.167	0.323	0.135	0.043	0.557
Departure Headway (Hd)	6.678	6.254	6.993	5.978	7.134	6.635	6.17
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	535	574	511	599	499	538	582
Service Time	4.438	4.014	4.76	3.744	5.223	4.393	3.928
HCM Lane V/C Ratio	0.131	0.488	0.168	0.326	0.136	0.043	0.558
HCM Control Delay	10.4	14.9	11.2	11.6	11.3	9.7	16.5
HCM Lane LOS	B	B	B	B	B	A	C
HCM 95th-tile Q	0.4	2.7	0.6	1.4	0.5	0.1	3.4

Intersection	
Int Delay, s/veh	2.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	31	14	108	33	30	125
Future Vol, veh/h	31	14	108	33	30	125
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	91	91	91	91	91	91
Heavy Vehicles, %	3	0	5	0	0	0
Mvmt Flow	34	15	119	36	33	137

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	340	137	0	0	155	0
Stage 1	137	-	-	-	-	-
Stage 2	203	-	-	-	-	-
Critical Hdwy	6.43	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	654	917	-	-	1438	-
Stage 1	887	-	-	-	-	-
Stage 2	829	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	638	917	-	-	1438	-
Mov Cap-2 Maneuver	638	-	-	-	-	-
Stage 1	887	-	-	-	-	-
Stage 2	808	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.5	0	1.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	705	1438	-
HCM Lane V/C Ratio	-	-	0.07	0.023	-
HCM Control Delay (s)	-	-	10.5	7.6	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0.1	-

Intersection	
Int Delay, s/veh	5.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	41	432	396	99	121	53
Future Vol, veh/h	41	432	396	99	121	53
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	80	-	-	-	125	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	0	2	3	2	2	2
Mvmt Flow	47	491	450	113	138	60

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	563	0	-	0	1092	507
Stage 1	-	-	-	-	507	-
Stage 2	-	-	-	-	585	-
Critical Hdwy	4.1	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.2	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1019	-	-	-	237	566
Stage 1	-	-	-	-	605	-
Stage 2	-	-	-	-	557	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1019	-	-	-	226	566
Mov Cap-2 Maneuver	-	-	-	-	226	-
Stage 1	-	-	-	-	577	-
Stage 2	-	-	-	-	557	-

Approach	EB	WB	SB
HCM Control Delay, s	0.8	0	33.5
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1019	-	-	-	226	566
HCM Lane V/C Ratio	0.046	-	-	-	0.608	0.106
HCM Control Delay (s)	8.7	-	-	-	42.9	12.1
HCM Lane LOS	A	-	-	-	E	B
HCM 95th %tile Q(veh)	0.1	-	-	-	3.5	0.4

MOVEMENT SUMMARY

Site: 101 [EX PM Springbrook @ Crestview (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

Newberg Springbrook Subdivision
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: Springbrook															
3	L2	All MCs	26	3.0	26	3.0	0.361	7.2	LOS A	1.9	49.8	0.51	0.32	0.51	30.1
8	T1	All MCs	325	3.0	325	3.0	0.361	7.2	LOS A	1.9	49.8	0.51	0.32	0.51	30.7
18	R2	All MCs	19	3.0	19	3.0	0.361	7.2	LOS A	1.9	49.8	0.51	0.32	0.51	30.5
Approach			370	3.0	370	3.0	0.361	7.2	LOS A	1.9	49.8	0.51	0.32	0.51	30.6
East: Crestview															
1	L2	All MCs	19	3.0	19	3.0	0.203	6.3	LOS A	0.9	22.5	0.54	0.41	0.54	30.0
6	T1	All MCs	3	3.0	3	3.0	0.203	6.3	LOS A	0.9	22.5	0.54	0.41	0.54	30.5
16	R2	All MCs	149	3.0	149	3.0	0.203	6.3	LOS A	0.9	22.5	0.54	0.41	0.54	30.3
Approach			172	3.0	172	3.0	0.203	6.3	LOS A	0.9	22.5	0.54	0.41	0.54	30.3
North: Springbrook															
7	L2	All MCs	160	3.0	160	3.0	0.456	7.0	LOS A	3.3	83.4	0.26	0.09	0.26	29.7
4	T1	All MCs	363	3.0	363	3.0	0.456	7.0	LOS A	3.3	83.4	0.26	0.09	0.26	30.2
14	R2	All MCs	58	3.0	58	3.0	0.456	7.0	LOS A	3.3	83.4	0.26	0.09	0.26	30.0
Approach			581	3.0	581	3.0	0.456	7.0	LOS A	3.3	83.4	0.26	0.09	0.26	30.0
West: Crestview															
5	L2	All MCs	75	3.0	75	3.0	0.191	6.9	LOS A	0.8	20.2	0.59	0.49	0.59	28.9
2	T1	All MCs	16	3.0	16	3.0	0.191	6.9	LOS A	0.8	20.2	0.59	0.49	0.59	29.4
12	R2	All MCs	52	3.0	52	3.0	0.191	6.9	LOS A	0.8	20.2	0.59	0.49	0.59	29.2
Approach			143	3.0	143	3.0	0.191	6.9	LOS A	0.8	20.2	0.59	0.49	0.59	29.1
All Vehicles			1265	3.0	1265	3.0	0.456	7.0	LOS A	3.3	83.4	0.41	0.24	0.41	30.1

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Intersection	
Intersection Delay, s/veh	23.6
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	91	67	184	123	58	54	132	273	14	50	259	53
Future Vol, veh/h	91	67	184	123	58	54	132	273	14	50	259	53
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	0	2	0	1	0	2	0	3	0	2	2	0
Mvmt Flow	100	74	202	135	64	59	145	300	15	55	285	58
Number of Lanes	0	1	1	0	1	0	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	2
HCM Control Delay	16.6	24.4	23.9	29.2
HCM LOS	C	C	C	D

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	58%	0%	52%	100%	0%
Vol Thru, %	0%	95%	42%	0%	25%	0%	83%
Vol Right, %	0%	5%	0%	100%	23%	0%	17%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	132	287	158	184	235	50	312
LT Vol	132	0	91	0	123	50	0
Through Vol	0	273	67	0	58	0	259
RT Vol	0	14	0	184	54	0	53
Lane Flow Rate	145	315	174	202	258	55	343
Geometry Grp	7	7	7	7	6	7	7
Degree of Util (X)	0.343	0.701	0.416	0.429	0.614	0.131	0.759
Departure Headway (Hd)	8.508	8.007	8.622	7.635	8.553	8.613	7.972
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	422	451	418	471	421	416	453
Service Time	6.259	5.758	6.371	5.384	6.606	6.363	5.721
HCM Lane V/C Ratio	0.344	0.698	0.416	0.429	0.613	0.132	0.757
HCM Control Delay	15.7	27.6	17.4	16	24.4	12.7	31.9
HCM Lane LOS	C	D	C	C	C	B	D
HCM 95th-tile Q	1.5	5.3	2	2.1	4	0.4	6.4

APPENDIX D: 2027 NO BUILD HCM REPORTS

Intersection	
Int Delay, s/veh	1.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	39	7	113	48	13	76
Future Vol, veh/h	39	7	113	48	13	76
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	5	0	0	0
Mvmt Flow	47	8	136	58	16	92

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	289	165	0	0	194	0
Stage 1	165	-	-	-	-	-
Stage 2	124	-	-	-	-	-
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	706	885	-	-	1391	-
Stage 1	869	-	-	-	-	-
Stage 2	907	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	698	885	-	-	1391	-
Mov Cap-2 Maneuver	698	-	-	-	-	-
Stage 1	869	-	-	-	-	-
Stage 2	896	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.4	0	1.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	721	1391	-
HCM Lane V/C Ratio	-	-	0.077	0.011	-
HCM Control Delay (s)	-	-	10.4	7.6	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0	-

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	45	514	315	117	74	39
Future Vol, veh/h	45	514	315	117	74	39
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	80	-	-	-	125	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	0	5	5	5	0	0
Mvmt Flow	53	605	371	138	87	46

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	509	0	-	0	1151	440
Stage 1	-	-	-	-	440	-
Stage 2	-	-	-	-	711	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1066	-	-	-	221	621
Stage 1	-	-	-	-	653	-
Stage 2	-	-	-	-	490	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1066	-	-	-	210	621
Mov Cap-2 Maneuver	-	-	-	-	210	-
Stage 1	-	-	-	-	620	-
Stage 2	-	-	-	-	490	-

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	26
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1066	-	-	-	210	621
HCM Lane V/C Ratio	0.05	-	-	-	0.415	0.074
HCM Control Delay (s)	8.6	-	-	-	33.8	11.3
HCM Lane LOS	A	-	-	-	D	B
HCM 95th %tile Q(veh)	0.2	-	-	-	1.9	0.2

MOVEMENT SUMMARY

Site: 101 [FY AM Springbrook @ Crestview (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

Newberg Springbrook Subdivision
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: Springbrook															
3	L2	All MCs	41	3.0	41	3.0	0.367	7.7	LOS A	1.9	49.2	0.56	0.38	0.56	29.8
8	T1	All MCs	289	3.0	289	3.0	0.367	7.7	LOS A	1.9	49.2	0.56	0.38	0.56	30.3
18	R2	All MCs	20	3.0	20	3.0	0.367	7.7	LOS A	1.9	49.2	0.56	0.38	0.56	30.1
Approach			351	3.0	351	3.0	0.367	7.7	LOS A	1.9	49.2	0.56	0.38	0.56	30.3
East: Crestview															
1	L2	All MCs	14	3.0	14	3.0	0.228	6.5	LOS A	1.0	25.8	0.55	0.41	0.55	30.0
6	T1	All MCs	20	3.0	20	3.0	0.228	6.5	LOS A	1.0	25.8	0.55	0.41	0.55	30.5
16	R2	All MCs	160	3.0	160	3.0	0.228	6.5	LOS A	1.0	25.8	0.55	0.41	0.55	30.3
Approach			195	3.0	195	3.0	0.228	6.5	LOS A	1.0	25.8	0.55	0.41	0.55	30.3
North: Springbrook															
7	L2	All MCs	202	3.0	202	3.0	0.569	9.0	LOS A	4.8	123.5	0.40	0.16	0.40	28.8
4	T1	All MCs	330	3.0	330	3.0	0.569	9.0	LOS A	4.8	123.5	0.40	0.16	0.40	29.3
14	R2	All MCs	171	3.0	171	3.0	0.569	9.0	LOS A	4.8	123.5	0.40	0.16	0.40	29.1
Approach			704	3.0	704	3.0	0.569	9.0	LOS A	4.8	123.5	0.40	0.16	0.40	29.1
West: Crestview															
5	L2	All MCs	84	3.0	84	3.0	0.221	7.3	LOS A	0.9	23.7	0.60	0.50	0.60	28.9
2	T1	All MCs	29	3.0	29	3.0	0.221	7.3	LOS A	0.9	23.7	0.60	0.50	0.60	29.3
12	R2	All MCs	51	3.0	51	3.0	0.221	7.3	LOS A	0.9	23.7	0.60	0.50	0.60	29.1
Approach			164	3.0	164	3.0	0.221	7.3	LOS A	0.9	23.7	0.60	0.50	0.60	29.0
All Vehicles			1413	3.0	1413	3.0	0.569	8.2	LOS A	4.8	123.5	0.48	0.29	0.48	29.5

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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Intersection	
Intersection Delay, s/veh	15.7
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	48	37	193	40	16	11	70	271	8	23	264	59
Future Vol, veh/h	48	37	193	40	16	11	70	271	8	23	264	59
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	4	3	3	0	0	0	3	9	0	0	10	6
Mvmt Flow	53	41	212	44	18	12	77	298	9	25	290	65
Number of Lanes	0	1	1	0	1	0	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	2
HCM Control Delay	12.3	12	15.8	18.9
HCM LOS	B	B	C	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	56%	0%	60%	100%	0%
Vol Thru, %	0%	97%	44%	0%	24%	0%	82%
Vol Right, %	0%	3%	0%	100%	16%	0%	18%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	70	279	85	193	67	23	323
LT Vol	70	0	48	0	40	23	0
Through Vol	0	271	37	0	16	0	264
RT Vol	0	8	0	193	11	0	59
Lane Flow Rate	77	307	93	212	74	25	355
Geometry Grp	7	7	7	7	6	7	7
Degree of Util (X)	0.147	0.55	0.188	0.366	0.155	0.048	0.629
Departure Headway (Hd)	6.886	6.46	7.228	6.21	7.577	6.841	6.375
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	517	555	493	575	476	520	564
Service Time	4.675	4.249	5.021	4.002	5.577	4.627	4.16
HCM Lane V/C Ratio	0.149	0.553	0.189	0.369	0.155	0.048	0.629
HCM Control Delay	10.9	17	11.7	12.6	12	10	19.5
HCM Lane LOS	B	C	B	B	B	A	C
HCM 95th-tile Q	0.5	3.3	0.7	1.7	0.5	0.2	4.4

Intersection	
Int Delay, s/veh	2.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	34	15	118	36	33	137
Future Vol, veh/h	34	15	118	36	33	137
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	91	91	91	91	91	91
Heavy Vehicles, %	3	0	5	0	0	0
Mvmt Flow	37	16	130	40	36	151

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	373	150	0	0	170	0
Stage 1	150	-	-	-	-	-
Stage 2	223	-	-	-	-	-
Critical Hdwy	6.43	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	626	902	-	-	1420	-
Stage 1	875	-	-	-	-	-
Stage 2	812	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	608	902	-	-	1420	-
Mov Cap-2 Maneuver	608	-	-	-	-	-
Stage 1	875	-	-	-	-	-
Stage 2	789	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.8	0	1.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	675	1420	-
HCM Lane V/C Ratio	-	-	0.08	0.026	-
HCM Control Delay (s)	-	-	10.8	7.6	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0.1	-

Intersection	
Int Delay, s/veh	7.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	45	472	433	108	132	58
Future Vol, veh/h	45	472	433	108	132	58
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	80	-	-	-	125	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	0	2	3	2	2	2
Mvmt Flow	51	536	492	123	150	66

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	615	0	-	0	1192	554
Stage 1	-	-	-	-	554	-
Stage 2	-	-	-	-	638	-
Critical Hdwy	4.1	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.2	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	974	-	-	-	207	532
Stage 1	-	-	-	-	575	-
Stage 2	-	-	-	-	526	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	974	-	-	-	196	532
Mov Cap-2 Maneuver	-	-	-	-	196	-
Stage 1	-	-	-	-	545	-
Stage 2	-	-	-	-	526	-

Approach	EB	WB	SB
HCM Control Delay, s	0.8	0	49.7
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	974	-	-	-	196	532
HCM Lane V/C Ratio	0.053	-	-	-	0.765	0.124
HCM Control Delay (s)	8.9	-	-	-	66	12.7
HCM Lane LOS	A	-	-	-	F	B
HCM 95th %tile Q(veh)	0.2	-	-	-	5.2	0.4

MOVEMENT SUMMARY

Site: 101 [FY PM Springbrook @ Crestview (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

Newberg Springbrook Subdivision
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: Springbrook															
3	L2	All MCs	28	3.0	28	3.0	0.405	8.0	LOS A	2.3	57.7	0.55	0.36	0.55	29.9
8	T1	All MCs	355	3.0	355	3.0	0.405	8.0	LOS A	2.3	57.7	0.55	0.36	0.55	30.4
18	R2	All MCs	21	3.0	21	3.0	0.405	8.0	LOS A	2.3	57.7	0.55	0.36	0.55	30.2
Approach			404	3.0	404	3.0	0.405	8.0	LOS A	2.3	57.7	0.55	0.36	0.55	30.3
East: Crestview															
1	L2	All MCs	21	3.0	21	3.0	0.231	6.9	LOS A	1.0	25.8	0.57	0.45	0.57	29.7
6	T1	All MCs	3	3.0	3	3.0	0.231	6.9	LOS A	1.0	25.8	0.57	0.45	0.57	30.3
16	R2	All MCs	163	3.0	163	3.0	0.231	6.9	LOS A	1.0	25.8	0.57	0.45	0.57	30.1
Approach			188	3.0	188	3.0	0.231	6.9	LOS A	1.0	25.8	0.57	0.45	0.57	30.0
North: Springbrook															
7	L2	All MCs	174	3.0	174	3.0	0.500	7.6	LOS A	3.8	98.5	0.29	0.10	0.29	29.4
4	T1	All MCs	397	3.0	397	3.0	0.500	7.6	LOS A	3.8	98.5	0.29	0.10	0.29	29.9
14	R2	All MCs	64	3.0	64	3.0	0.500	7.6	LOS A	3.8	98.5	0.29	0.10	0.29	29.7
Approach			635	3.0	635	3.0	0.500	7.6	LOS A	3.8	98.5	0.29	0.10	0.29	29.8
West: Crestview															
5	L2	All MCs	82	3.0	82	3.0	0.220	7.6	LOS A	0.9	23.2	0.61	0.53	0.61	28.7
2	T1	All MCs	17	3.0	17	3.0	0.220	7.6	LOS A	0.9	23.2	0.61	0.53	0.61	29.2
12	R2	All MCs	56	3.0	56	3.0	0.220	7.6	LOS A	0.9	23.2	0.61	0.53	0.61	29.0
Approach			155	3.0	155	3.0	0.220	7.6	LOS A	0.9	23.2	0.61	0.53	0.61	28.8
All Vehicles			1382	3.0	1382	3.0	0.500	7.6	LOS A	3.8	98.5	0.44	0.27	0.44	29.9

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Intersection	
Intersection Delay, s/veh	32.6
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	99	73	201	134	63	59	144	298	15	55	283	58
Future Vol, veh/h	99	73	201	134	63	59	144	298	15	55	283	58
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	0	2	0	1	0	2	0	3	0	2	2	0
Mvmt Flow	109	80	221	147	69	65	158	327	16	60	311	64
Number of Lanes	0	1	1	0	1	0	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	2
HCM Control Delay	19.7	32.4	33.1	44.3
HCM LOS	C	D	D	E

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	58%	0%	52%	100%	0%
Vol Thru, %	0%	95%	42%	0%	25%	0%	83%
Vol Right, %	0%	5%	0%	100%	23%	0%	17%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	144	313	172	201	256	55	341
LT Vol	144	0	99	0	134	55	0
Through Vol	0	298	73	0	63	0	283
RT Vol	0	15	0	201	59	0	58
Lane Flow Rate	158	344	189	221	281	60	375
Geometry Grp	7	7	7	7	6	7	7
Degree of Util (X)	0.399	0.819	0.483	0.503	0.716	0.154	0.885
Departure Headway (Hd)	9.072	8.57	9.194	8.202	9.161	9.147	8.503
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	396	423	391	437	394	392	427
Service Time	6.846	6.343	6.967	5.974	7.239	6.917	6.272
HCM Lane V/C Ratio	0.399	0.813	0.483	0.506	0.713	0.153	0.878
HCM Control Delay	17.8	40.2	20.3	19.1	32.4	13.6	49.3
HCM Lane LOS	C	E	C	C	D	B	E
HCM 95th-tile Q	1.9	7.5	2.5	2.8	5.4	0.5	9.2

APPENDIX E: 2027 BUILD HCM REPORTS

Intersection	
Int Delay, s/veh	2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	40	7	106	51	13	77
Future Vol, veh/h	40	7	106	51	13	77
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	5	0	0	0
Mvmt Flow	48	8	128	61	16	93

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	284	159	0	0	189	0
Stage 1	159	-	-	-	-	-
Stage 2	125	-	-	-	-	-
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	710	892	-	-	1397	-
Stage 1	875	-	-	-	-	-
Stage 2	906	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	701	892	-	-	1397	-
Mov Cap-2 Maneuver	701	-	-	-	-	-
Stage 1	875	-	-	-	-	-
Stage 2	895	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.4	0	1.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	724	1397	-
HCM Lane V/C Ratio	-	-	0.078	0.011	-
HCM Control Delay (s)	-	-	10.4	7.6	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0	-

Intersection	
Int Delay, s/veh	5.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	51	514	315	129	109	56
Future Vol, veh/h	51	514	315	129	109	56
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	80	-	-	-	125	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	0	5	5	5	0	0
Mvmt Flow	60	605	371	152	128	66

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	523	0	-	0	1172	447
Stage 1	-	-	-	-	447	-
Stage 2	-	-	-	-	725	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1054	-	-	-	215	616
Stage 1	-	-	-	-	649	-
Stage 2	-	-	-	-	483	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1054	-	-	-	203	616
Mov Cap-2 Maneuver	-	-	-	-	203	-
Stage 1	-	-	-	-	612	-
Stage 2	-	-	-	-	483	-

Approach	EB	WB	SB
HCM Control Delay, s	0.8	0	36.3
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1054	-	-	-	203	616
HCM Lane V/C Ratio	0.057	-	-	-	0.632	0.107
HCM Control Delay (s)	8.6	-	-	-	49	11.5
HCM Lane LOS	A	-	-	-	E	B
HCM 95th %tile Q(veh)	0.2	-	-	-	3.7	0.4

MOVEMENT SUMMARY

Site: 101 [FY PP AM Springbrook @ Crestview (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

Newberg Springbrook Subdivision
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: Springbrook															
3	L2	All MCs	41	3.0	41	3.0	0.383	8.0	LOS A	2.0	51.7	0.58	0.40	0.58	29.7
8	T1	All MCs	299	3.0	299	3.0	0.383	8.0	LOS A	2.0	51.7	0.58	0.40	0.58	30.2
18	R2	All MCs	20	3.0	20	3.0	0.383	8.0	LOS A	2.0	51.7	0.58	0.40	0.58	30.0
Approach			360	3.0	360	3.0	0.383	8.0	LOS A	2.0	51.7	0.58	0.40	0.58	30.1
East: Crestview															
1	L2	All MCs	14	3.0	14	3.0	0.236	6.7	LOS A	1.0	26.8	0.56	0.42	0.56	29.9
6	T1	All MCs	20	3.0	20	3.0	0.236	6.7	LOS A	1.0	26.8	0.56	0.42	0.56	30.5
16	R2	All MCs	165	3.0	165	3.0	0.236	6.7	LOS A	1.0	26.8	0.56	0.42	0.56	30.3
Approach			200	3.0	200	3.0	0.236	6.7	LOS A	1.0	26.8	0.56	0.42	0.56	30.3
North: Springbrook															
7	L2	All MCs	217	3.0	217	3.0	0.603	9.6	LOS A	5.5	140.2	0.43	0.17	0.43	28.6
4	T1	All MCs	358	3.0	358	3.0	0.603	9.6	LOS A	5.5	140.2	0.43	0.17	0.43	29.1
14	R2	All MCs	171	3.0	171	3.0	0.603	9.6	LOS A	5.5	140.2	0.43	0.17	0.43	28.9
Approach			746	3.0	746	3.0	0.603	9.6	LOS A	5.5	140.2	0.43	0.17	0.43	28.9
West: Crestview															
5	L2	All MCs	84	3.0	84	3.0	0.231	7.7	LOS A	1.0	24.6	0.62	0.53	0.62	28.7
2	T1	All MCs	29	3.0	29	3.0	0.231	7.7	LOS A	1.0	24.6	0.62	0.53	0.62	29.2
12	R2	All MCs	51	3.0	51	3.0	0.231	7.7	LOS A	1.0	24.6	0.62	0.53	0.62	29.0
Approach			164	3.0	164	3.0	0.231	7.7	LOS A	1.0	24.6	0.62	0.53	0.62	28.9
All Vehicles			1470	3.0	1470	3.0	0.603	8.6	LOS A	5.5	140.2	0.50	0.30	0.50	29.4

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Intersection	
Intersection Delay, s/veh	16.8
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	48	37	193	40	16	11	70	279	8	23	287	59
Future Vol, veh/h	48	37	193	40	16	11	70	279	8	23	287	59
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	4	3	3	0	0	0	3	9	0	0	10	6
Mvmt Flow	53	41	212	44	18	12	77	307	9	25	315	65
Number of Lanes	0	1	1	0	1	0	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	2
HCM Control Delay	12.6	12.2	16.5	21.1
HCM LOS	B	B	C	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	56%	0%	60%	100%	0%
Vol Thru, %	0%	97%	44%	0%	24%	0%	83%
Vol Right, %	0%	3%	0%	100%	16%	0%	17%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	70	287	85	193	67	23	346
LT Vol	70	0	48	0	40	23	0
Through Vol	0	279	37	0	16	0	287
RT Vol	0	8	0	193	11	0	59
Lane Flow Rate	77	315	93	212	74	25	380
Geometry Grp	7	7	7	7	6	7	7
Degree of Util (X)	0.149	0.572	0.19	0.372	0.158	0.048	0.678
Departure Headway (Hd)	6.952	6.526	7.336	6.317	7.724	6.879	6.422
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	512	549	486	564	468	517	559
Service Time	4.745	4.319	5.136	4.116	5.724	4.671	4.213
HCM Lane V/C Ratio	0.15	0.574	0.191	0.376	0.158	0.048	0.68
HCM Control Delay	11	17.8	11.9	12.9	12.2	10	21.8
HCM Lane LOS	B	C	B	B	B	A	C
HCM 95th-tile Q	0.5	3.6	0.7	1.7	0.6	0.2	5.1

Intersection	
Int Delay, s/veh	2.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	37	15	120	38	33	140
Future Vol, veh/h	37	15	120	38	33	140
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	91	91	91	91	91	91
Heavy Vehicles, %	3	0	2	3	0	2
Mvmt Flow	41	16	132	42	36	154

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	379	153	0	0	174	0
Stage 1	153	-	-	-	-	-
Stage 2	226	-	-	-	-	-
Critical Hdwy	6.43	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	621	898	-	-	1415	-
Stage 1	873	-	-	-	-	-
Stage 2	809	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	604	898	-	-	1415	-
Mov Cap-2 Maneuver	604	-	-	-	-	-
Stage 1	873	-	-	-	-	-
Stage 2	786	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.9	0	1.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	667	1415	-
HCM Lane V/C Ratio	-	-	0.086	0.026	-
HCM Control Delay (s)	-	-	10.9	7.6	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0.1	-

Intersection	
Int Delay, s/veh	15.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	65	472	433	147	155	69
Future Vol, veh/h	65	472	433	147	155	69
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	80	-	-	-	125	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	0	2	3	2	2	2
Mvmt Flow	74	536	492	167	176	78

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	659	0	-	0	1260	576
Stage 1	-	-	-	-	576	-
Stage 2	-	-	-	-	684	-
Critical Hdwy	4.1	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.2	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	939	-	-	-	188	517
Stage 1	-	-	-	-	562	-
Stage 2	-	-	-	-	501	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	939	-	-	-	~ 173	517
Mov Cap-2 Maneuver	-	-	-	-	~ 173	-
Stage 1	-	-	-	-	518	-
Stage 2	-	-	-	-	501	-

Approach	EB	WB	SB
HCM Control Delay, s	1.1	0	92.4
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	939	-	-	-	173	517
HCM Lane V/C Ratio	0.079	-	-	-	1.018	0.152
HCM Control Delay (s)	9.2	-	-	-	127.6	13.2
HCM Lane LOS	A	-	-	-	F	B
HCM 95th %tile Q(veh)	0.3	-	-	-	8.3	0.5

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

MOVEMENT SUMMARY

Site: 101 [FY PP PM Springbrook @ Crestview (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

Newberg Springbrook Subdivision
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: Springbrook															
3	L2	All MCs	28	3.0	28	3.0	0.438	8.5	LOS A	2.5	64.5	0.58	0.38	0.58	29.7
8	T1	All MCs	384	3.0	384	3.0	0.438	8.5	LOS A	2.5	64.5	0.58	0.38	0.58	30.2
18	R2	All MCs	21	3.0	21	3.0	0.438	8.5	LOS A	2.5	64.5	0.58	0.38	0.58	30.0
Approach			434	3.0	434	3.0	0.438	8.5	LOS A	2.5	64.5	0.58	0.38	0.58	30.1
East: Crestview															
1	L2	All MCs	21	3.0	21	3.0	0.257	7.4	LOS A	1.1	28.9	0.59	0.48	0.59	29.5
6	T1	All MCs	3	3.0	3	3.0	0.257	7.4	LOS A	1.1	28.9	0.59	0.48	0.59	30.1
16	R2	All MCs	178	3.0	178	3.0	0.257	7.4	LOS A	1.1	28.9	0.59	0.48	0.59	29.9
Approach			202	3.0	202	3.0	0.257	7.4	LOS A	1.1	28.9	0.59	0.48	0.59	29.8
North: Springbrook															
7	L2	All MCs	183	3.0	183	3.0	0.521	7.9	LOS A	4.2	106.4	0.30	0.11	0.30	29.3
4	T1	All MCs	413	3.0	413	3.0	0.521	7.9	LOS A	4.2	106.4	0.30	0.11	0.30	29.8
14	R2	All MCs	64	3.0	64	3.0	0.521	7.9	LOS A	4.2	106.4	0.30	0.11	0.30	29.6
Approach			661	3.0	661	3.0	0.521	7.9	LOS A	4.2	106.4	0.30	0.11	0.30	29.6
West: Crestview															
5	L2	All MCs	82	3.0	82	3.0	0.226	7.9	LOS A	0.9	23.7	0.63	0.54	0.63	28.6
2	T1	All MCs	17	3.0	17	3.0	0.226	7.9	LOS A	0.9	23.7	0.63	0.54	0.63	29.1
12	R2	All MCs	56	3.0	56	3.0	0.226	7.9	LOS A	0.9	23.7	0.63	0.54	0.63	28.9
Approach			155	3.0	155	3.0	0.226	7.9	LOS A	0.9	23.7	0.63	0.54	0.63	28.7
All Vehicles			1452	3.0	1452	3.0	0.521	8.0	LOS A	4.2	106.4	0.46	0.29	0.46	29.7

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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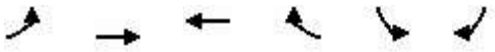
Intersection	
Intersection Delay, s/veh	39.1
Intersection LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	99	73	201	134	63	59	144	324	15	55	298	58
Future Vol, veh/h	99	73	201	134	63	59	144	324	15	55	298	58
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	0	2	0	1	0	2	0	3	0	2	2	0
Mvmt Flow	109	80	221	147	69	65	158	356	16	60	327	64
Number of Lanes	0	1	1	0	1	0	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	2
HCM Control Delay	20.6	34.8	42.8	54.4
HCM LOS	C	D	E	F

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	58%	0%	52%	100%	0%
Vol Thru, %	0%	96%	42%	0%	25%	0%	84%
Vol Right, %	0%	4%	0%	100%	23%	0%	16%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	144	339	172	201	256	55	356
LT Vol	144	0	99	0	134	55	0
Through Vol	0	324	73	0	63	0	298
RT Vol	0	15	0	201	59	0	58
Lane Flow Rate	158	373	189	221	281	60	391
Geometry Grp	7	7	7	7	6	7	7
Degree of Util (X)	0.405	0.902	0.495	0.517	0.736	0.156	0.942
Departure Headway (Hd)	9.219	8.719	9.421	8.426	9.414	9.306	8.665
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	389	414	382	426	383	384	419
Service Time	7.005	6.503	7.206	6.21	7.504	7.085	6.444
HCM Lane V/C Ratio	0.406	0.901	0.495	0.519	0.734	0.156	0.933
HCM Control Delay	18.2	53.2	21.2	20	34.8	13.8	60.7
HCM Lane LOS	C	F	C	C	D	B	F
HCM 95th-tile Q	1.9	9.5	2.6	2.9	5.7	0.5	10.7

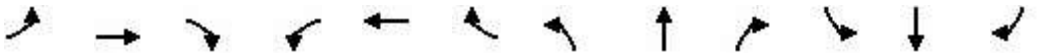
APPENDIX F: 2027 BUILD MITIGATION HCM REPORT



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	51	514	315	129	109	56
Future Volume (vph)	51	514	315	129	109	56
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5		4.5	4.5
Lane Util. Factor	1.00	1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00	1.00		1.00	0.97
Flpb, ped/bikes	1.00	1.00	1.00		1.00	1.00
Frt	1.00	1.00	0.96		1.00	0.85
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1805	1810	1739		1805	1574
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1805	1810	1739		1805	1574
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	60	605	371	152	128	66
RTOR Reduction (vph)	0	0	17	0	0	57
Lane Group Flow (vph)	60	605	506	0	128	9
Confl. Bikes (#/hr)						2
Heavy Vehicles (%)	0%	5%	5%	5%	0%	0%
Turn Type	Prot	NA	NA		Prot	Perm
Protected Phases	1	6	2		8	
Permitted Phases						8
Actuated Green, G (s)	3.1	39.0	31.4		7.8	7.8
Effective Green, g (s)	3.1	39.0	31.4		7.8	7.8
Actuated g/C Ratio	0.06	0.70	0.56		0.14	0.14
Clearance Time (s)	4.5	4.5	4.5		4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	100	1265	978		252	220
v/s Ratio Prot	0.03	c0.33	c0.29		c0.07	
v/s Ratio Perm						0.01
v/c Ratio	0.60	0.48	0.52		0.51	0.04
Uniform Delay, d1	25.7	3.8	7.5		22.2	20.8
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	9.3	1.3	2.0		1.6	0.1
Delay (s)	35.1	5.1	9.5		23.8	20.8
Level of Service	D	A	A		C	C
Approach Delay (s)		7.8	9.5		22.8	
Approach LOS		A	A		C	

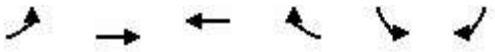
Intersection Summary			
HCM 2000 Control Delay	10.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	55.8	Sum of lost time (s)	13.5
Intersection Capacity Utilization	45.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



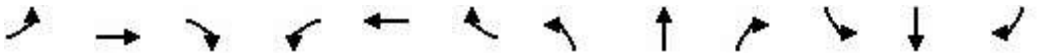
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	48	37	193	40	16	11	70	279	8	23	287	59
Future Volume (vph)	48	37	193	40	16	11	70	279	8	23	287	59
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5		4.5		4.5	4.5		4.5	4.5	
Lane Util. Factor		1.00	1.00		1.00		1.00	1.00		1.00	1.00	
Frpb, ped/bikes		1.00	0.97		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	
Frt		1.00	0.85		0.98		1.00	1.00		1.00	0.97	
Flt Protected		0.97	1.00		0.97		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1784	1514		1798		1752	1738		1798	1693	
Flt Permitted		0.97	1.00		0.97		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1784	1514		1798		1752	1738		1798	1693	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	53	41	212	44	18	12	77	307	9	25	315	65
RTOR Reduction (vph)	0	0	190	0	11	0	0	1	0	0	9	0
Lane Group Flow (vph)	0	94	22	0	63	0	77	315	0	25	371	0
Confl. Peds. (#/hr)	3		3	3		3			4	4		
Confl. Bikes (#/hr)									1			
Heavy Vehicles (%)	4%	3%	3%	0%	0%	0%	3%	9%	0%	0%	10%	6%
Turn Type	Split	NA	Perm	Split	NA		Prot	NA		Prot	NA	
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4									
Actuated Green, G (s)		5.7	5.7		4.5		2.7	25.8		0.9	24.0	
Effective Green, g (s)		5.7	5.7		4.5		2.7	25.8		0.9	24.0	
Actuated g/C Ratio		0.10	0.10		0.08		0.05	0.47		0.02	0.44	
Clearance Time (s)		4.5	4.5		4.5		4.5	4.5		4.5	4.5	
Vehicle Extension (s)		3.0	3.0		3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		185	157		147		86	816		29	740	
v/s Ratio Prot		c0.05			c0.04		c0.04	0.18		0.01	c0.22	
v/s Ratio Perm			0.01									
v/c Ratio		0.51	0.14		0.43		0.90	0.39		0.86	0.50	
Uniform Delay, d1		23.3	22.4		24.0		26.0	9.4		26.9	11.1	
Progression Factor		1.00	1.00		1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		2.2	0.4		2.0		63.1	1.4		109.1	2.4	
Delay (s)		25.5	22.8		26.0		89.0	10.8		136.1	13.6	
Level of Service		C	C		C		F	B		F	B	
Approach Delay (s)		23.6			26.0			26.1			21.1	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM 2000 Control Delay	23.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	54.9	Sum of lost time (s)	18.0
Intersection Capacity Utilization	47.4%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	65	472	433	147	155	69
Future Volume (vph)	65	472	433	147	155	69
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5		4.5	4.5
Lane Util. Factor	1.00	1.00	1.00		1.00	1.00
Frt	1.00	1.00	0.97		1.00	0.85
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1805	1863	1786		1770	1583
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1805	1863	1786		1770	1583
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	74	536	492	167	176	78
RTOR Reduction (vph)	0	0	15	0	0	65
Lane Group Flow (vph)	74	536	644	0	176	13
Heavy Vehicles (%)	0%	2%	3%	2%	2%	2%
Turn Type	Prot	NA	NA		Prot	Perm
Protected Phases	1	6	2		8	
Permitted Phases						8
Actuated Green, G (s)	3.0	38.1	30.6		9.1	9.1
Effective Green, g (s)	3.0	38.1	30.6		9.1	9.1
Actuated g/C Ratio	0.05	0.68	0.54		0.16	0.16
Clearance Time (s)	4.5	4.5	4.5		4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	96	1262	972		286	256
v/s Ratio Prot	c0.04	0.29	c0.36		c0.10	
v/s Ratio Perm						0.01
v/c Ratio	0.77	0.42	0.66		0.62	0.05
Uniform Delay, d1	26.3	4.1	9.1		21.9	19.9
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	30.9	1.0	3.6		3.9	0.1
Delay (s)	57.2	5.1	12.7		25.8	20.0
Level of Service	E	A	B		C	B
Approach Delay (s)		11.5	12.7		24.0	
Approach LOS		B	B		C	

Intersection Summary			
HCM 2000 Control Delay	14.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	56.2	Sum of lost time (s)	13.5
Intersection Capacity Utilization	55.7%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	99	73	201	134	63	59	144	324	15	55	298	58
Future Volume (vph)	99	73	201	134	63	59	144	324	15	55	298	58
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5		4.5		4.5	4.5		4.5	4.5	
Lane Util. Factor		1.00	1.00		1.00		1.00	1.00		1.00	1.00	
Frpb, ped/bikes		1.00	0.95		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	
Frt		1.00	0.85		0.97		1.00	0.99		1.00	0.98	
Flt Protected		0.97	1.00		0.97		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1831	1527		1766		1805	1833		1770	1815	
Flt Permitted		0.97	1.00		0.97		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1831	1527		1766		1805	1833		1770	1815	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	109	80	221	147	69	65	158	356	16	60	327	64
RTOR Reduction (vph)	0	0	193	0	15	0	0	2	0	0	9	0
Lane Group Flow (vph)	0	189	28	0	266	0	158	370	0	60	382	0
Confl. Peds. (#/hr)	2		9	9		2	3		2	2		3
Confl. Bikes (#/hr)									1			
Heavy Vehicles (%)	0%	2%	0%	1%	0%	2%	0%	3%	0%	2%	2%	0%
Turn Type	Split	NA	Perm	Split	NA		Prot	NA		Prot	NA	
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4									
Actuated Green, G (s)		9.4	9.4		14.8		8.4	28.4		3.0	23.0	
Effective Green, g (s)		9.4	9.4		14.8		8.4	28.4		3.0	23.0	
Actuated g/C Ratio		0.13	0.13		0.20		0.11	0.39		0.04	0.31	
Clearance Time (s)		4.5	4.5		4.5		4.5	4.5		4.5	4.5	
Vehicle Extension (s)		3.0	3.0		3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		233	195		355		206	707		72	567	
v/s Ratio Prot		c0.10			c0.15		c0.09	0.20		0.03	c0.21	
v/s Ratio Perm			0.02									
v/c Ratio		0.81	0.14		0.75		0.77	0.52		0.83	0.67	
Uniform Delay, d1		31.2	28.5		27.7		31.6	17.4		35.1	22.0	
Progression Factor		1.00	1.00		1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		18.9	0.3		8.4		15.6	2.8		53.2	6.3	
Delay (s)		50.1	28.9		36.0		47.3	20.2		88.3	28.3	
Level of Service		D	C		D		D	C		F	C	
Approach Delay (s)		38.7			36.0			28.2			36.3	
Approach LOS		D			D			C			D	

Intersection Summary			
HCM 2000 Control Delay	34.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	73.6	Sum of lost time (s)	18.0
Intersection Capacity Utilization	59.5%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

APPENDIX G: CRASH DATA

Springbrook and Benjamin

013 Lat	014 Long	117 Severity	000 Crash Id	002 Year	005 Region	007 County1	008 Jurisdiction	015 Street Name	021 Road Characteristics	022 Off Roadway Flag	036 Crash Cause 1
45.32083611	-122.9404111	PDO	1821127	2018	2	Yamhill		SPRINGBROOK RD	CURVE	TRUE	TOO-FAST
45.32069796	-122.9405309	PDO	1991444	2022	2	Yamhill		SPRINGBROOK RD A	INTER	FALSE	TOO-FAST

Springbrook and Haworth

013 Lat	014 Long	117 Severity	000 Crash Id	002 Year	005 Region	007 County1	008 Jurisdiction	015 Street Name	021 Road Characteristics	022 Off Roadway Flag	036 Crash Cause 1
45.30798031	-122.9469402	Possible Injury (C)	1962105	2022	2	Yamhill	Newberg	HAWORTH AVE	INTER	FALSE	NO-YIELD
45.30797406	-122.9469379	Possible Injury (C)	2005264	2022	2	Yamhill	Newberg	HAWORTH AVE	INTER	FALSE	NO-YIELD
45.30798031	-122.9469442	PDO	1869465	2019	2	Yamhill	Newberg	HAWORTH AVE	INTER	FALSE	NO-YIELD
45.30798219	-122.9469442	PDO	1867861	2019	2	Yamhill	Newberg	HAWORTH AVE	INTER	FALSE	NO-YIELD
45.30798136	-122.9469453	PDO	1869300	2019	2	Yamhill	Newberg	HAWORTH AVE	INTER	FALSE	PAS-STOP
45.30798031	-122.9469402	Minor Injury (B)	1964936	2022	2	Yamhill	Newberg	HAWORTH AVE	INTER	FALSE	NO-YIELD
45.30799167	-122.9469444	PDO	1820826	2018	2	Yamhill	Newberg	HAWORTH AVE	INTER	FALSE	PAS-STOP
45.30798889	-122.9469333	PDO	1821040	2018	2	Yamhill	Newberg	HAWORTH AVE	INTER	FALSE	NO-YIELD
45.30798056	-122.9469389	PDO	1821107	2018	2	Yamhill	Newberg	HAWORTH AVE	INTER	FALSE	NO-YIELD
45.30798056	-122.9469389	Minor Injury (B)	1782766	2018	2	Yamhill	Newberg	HAWORTH AVE	INTER	FALSE	RECKLESS
45.308	-122.9469444	PDO	1819916	2018	2	Yamhill	Newberg	SPRINGBROOK RD	INTER	FALSE	NO-YIELD
45.30798031	-122.9469402	Possible Injury (C)	1829551	2019	2	Yamhill	Newberg	HAWORTH AVE	INTER	FALSE	NO-YIELD
45.30798031	-122.9469415	Possible Injury (C)	1886370	2020	2	Yamhill	Newberg	HAWORTH AVE	INTER	FALSE	PAS-STOP
45.30798056	-122.9469389	Possible Injury (C)	1782794	2018	2	Yamhill	Newberg	HAWORTH AVE	INTER	FALSE	NO-YIELD
45.30798056	-122.9469389	Possible Injury (C)	1787844	2018	2	Yamhill	Newberg	HAWORTH AVE	INTER	FALSE	NO-YIELD
45.30798031	-122.9469415	Possible Injury (C)	1889321	2020	2	Yamhill	Newberg	HAWORTH AVE	INTER	FALSE	NO-YIELD
45.30797406	-122.9469379	PDO	1989603	2022	2	Yamhill	Newberg	HAWORTH AVE	INTER	FALSE	NO-YIELD

Springbrook and Benjamin

114 Road Departure Flag	118 Intersection Flag	119 State Highway Flag1	126 Bike / Ped Related	127 Driveway Flag	128 Jurisdiction Complete	011 Hwy No	001 CRASH Date
Yes	No	No	Neither	No	Yamhill County		12/28/2018
No	Yes	No	Neither	No	Yamhill County		10/13/2022

Springbrook and Haworth

114 Road Departure Flag	119 State Highway Flag1	126 Bike / Ped Related	127 Driveway Flag	128 Jurisdiction Complete	011 Hwy No	001 CRASH Date	016 Intersecting Street Name
No	No	Neither	Yes	Newberg		2/11/2022	SPRINGBROOK RD
No	No	Neither	Yes	Newberg		12/18/2022	SPRINGBROOK RD
No	No	Neither	No	Newberg		8/13/2019	SPRINGBROOK RD
No	No	Neither	No	Newberg		4/5/2019	SPRINGBROOK RD
No	No	Neither	No	Newberg		8/7/2019	SPRINGBROOK RD
No	No	Pedestrian	No	Newberg		4/27/2022	SPRINGBROOK RD
No	No	Neither	No	Newberg		11/20/2018	SPRINGBROOK RD
No	No	Neither	No	Newberg		12/6/2018	SPRINGBROOK RD
No	No	Neither	No	Newberg		12/25/2018	SPRINGBROOK RD
No	No	Neither	No	Newberg		1/19/2018	SPRINGBROOK RD
No	No	Neither	Yes	Newberg		8/17/2018	HAWORTH AVE
No	No	Neither	No	Newberg		5/2/2019	SPRINGBROOK RD
No	No	Neither	Yes	Newberg		9/22/2020	SPRINGBROOK RD
No	No	Neither	No	Newberg		2/3/2018	SPRINGBROOK RD
No	No	Neither	Yes	Newberg		5/30/2018	SPRINGBROOK RD
No	No	Neither	Yes	Newberg		12/20/2020	SPRINGBROOK RD
No	No	Neither	No	Newberg		9/8/2022	SPRINGBROOK RD

Springbrook and Benjamin

016 Intersecting Street Name	028 Crash Type	029 Collision Type	031 Weather Conditions	032 Road Surface Conditions	033 Lighting Conditions	034 Traffic Control	019 Mp No	003 Crash Day No
BENJAMIN RD	FIX OBJ	FIX	CLR	DRY	DAY	UNKNOWN		28
	O-STRGHT	SS-M	CLR	DRY	DARK	STOP SIGN	0.310000002	13

Springbrook and Haworth

028 Crash Type	029 Collision Type	031 Weather Conditions	032 Road Surface Conditions	033 Lighting Conditions	034 Traffic Control	118 Intersection Flag	019 Mp No	003 Crash Day No
ANGL-OTH	TURN	CLR	DRY	DAY	STOP SIGN	Yes		11
ANGL-OTH	ANGL	CLR	DRY	DLIT	STOP SIGN	Yes		18
ANGL-OTH	TURN	CLR	DRY	DAY	STOP SIGN	Yes		13
O-1 L-TURN	TURN	RAIN	WET	DAY	STOP SIGN	Yes		5
ANGL-OTH	ANGL	CLR	DRY	DAY	STOP SIGN	Yes		7
PED	PED	CLR	DRY	DAY	STOP SIGN	Yes		27
ANGL-OTH	ANGL	CLR	DRY	DLIT	STOP SIGN	Yes		20
ANGL-OTH	ANGL	CLR	DRY	DLIT	STOP SIGN	Yes		6
ANGL-OTH	ANGL	RAIN	WET	DLIT	STOP SIGN	Yes		25
O-1 L-TURN	TURN	CLD	WET	DLIT	STOP SIGN	Yes		19
ANGL-OTH	ANGL	CLR	DRY	DAY	STOP SIGN	Yes		17
ANGL-OTH	ANGL	CLR	DRY	DAY	STOP SIGN	Yes		2
ANGL-OTH	ANGL	CLR	DRY	DAY	STOP SIGN	Yes		22
ANGL-OTH	ANGL	CLR	DRY	DLIT	STOP SIGN	Yes		3
ANGL-OTH	ANGL	CLR	DRY	DAY	STOP SIGN	Yes		30
ANGL-OTH	ANGL	RAIN	WET	DAY	STOP SIGN	Yes		20
ANGL-OTH	TURN	CLR	DRY	DLIT	STOP SIGN	Yes		8

APPENDIX H: PRELIMINARY SIGNAL WARRANT SPREADSHEETS

Oregon Department of Transportation

Transportation Development Branch

Transportation Planning Analysis Unit

Preliminary Traffic Signal Warrant Analysis[1]

Major Street:	Springbrook Road	**Minor Street:**	Mountainview Drive
Project:	Springbrook Subdivision	**City/County:**	Newberg
Year:	2027	**Alternative:**	0

Preliminary Signal Warrant Volumes

Number of Approach lanes		ADT on major street approaching from both directions		ADT on minor street, highest approaching volume	
Major Street	Minor Street	Percent of standard warrants 100	70	Percent of standard warrants 100	70
Case A: Minimum Vehicular Traffic					
1	1	8850	6200	2650	1850
2 or more	1	10600	7400	2650	1850
2 or more	2 or more	10600	7400	3550	2500
1	2 or more	8850	6200	3550	2500
Case B: Interruption of Continuous Traffic					
1	1	13300	9300	1350	950
2 or more	1	15900	11100	1350	950
2 or more	2 or more	15900	11100	1750	1250
1	2 or more	13300	9300	1750	1250
X	100 percent of standard warrants				
	70 percent of standard warrants[2]				

Preliminary Signal Warrant Calculation

	Street	Number of Lanes	Warrant Volumes	Approach Volumes	Warrant Met
Case A	Major	1	8850	11170	N
	Minor	1	2650	1550	
Case B	Major	1	13300	11170	N
	Minor	1	1350	1550	

Analyst and Date: Reviewer and Date:

[1] Meeting preliminary signal warrants does **not** guarantee that a signal will be installed. When preliminary signal warrants are met, project analysts need to coordinate with Region Traffic to initiate the traffic signal engineering investigation as outlined in the Traffic Manual. Before a signal can be installed, the engineering investigation must be conducted or reviewed by the Region Traffic Manager who will forward signal recommendations to headquarters. Traffic signal warrants must be met and the State Traffic Engineer's approval obtained before a traffic signal can be installed on a state highway.

[2] Used due to 85th percentile speed in excess of 40 mph or isolated community with population of less than 10,000.

Analysis Procedures Manual

Oregon Department of Transportation
Transportation Development Branch
Transportation Planning Analysis Unit

Preliminary Traffic Signal Warrant Analysis[1]

Major Street:	Springbrook Road	**Minor Street:**	Haworth Avenue
Project:	Springbrook Subdivision	**City/County:**	Newberg
Year:	2027	**Alternative:**	0

Preliminary Signal Warrant Volumes

Number of Approach lanes		ADT on major street approaching from both directions		ADT on minor street, highest approaching volume	
Major Street	Minor Street	Percent of standard warrants 100	70	Percent of standard warrants 100	70
Case A: Minimum Vehicular Traffic					
1	1	8850	6200	2650	1850
2 or more	1	10600	7400	2650	1850
2 or more	2 or more	10600	7400	3550	2500
1	2 or more	8850	6200	3550	2500
Case B: Interruption of Continuous Traffic					
1	1	13300	9300	1350	950
2 or more	1	15900	11100	1350	950
2 or more	2 or more	15900	11100	1750	1250
1	2 or more	13300	9300	1750	1250
X	100 percent of standard warrants				
	70 percent of standard warrants[2]				

Preliminary Signal Warrant Calculation

	Street	Number of Lanes	Warrant Volumes	Approach Volumes	Warrant Met
Case A	Major	1	8850	8940	Y
	Minor	1	2650	2710	
Case B	Major	1	13300	8940	N
	Minor	1	1350	2710	

Analyst and Date:	Reviewer and Date:

[1] Meeting preliminary signal warrants does **not** guarantee that a signal will be installed. When preliminary signal warrants are met, project analysts need to coordinate with Region Traffic to initiate the traffic signal engineering investigation as outlined in the Traffic Manual. Before a signal can be installed, the engineering investigation must be conducted or reviewed by the Region Traffic Manager who will forward signal recommendations to headquarters. Traffic signal warrants must be met and the State Traffic Engineer's approval obtained before a traffic signal can be installed on a state highway.

[2] Used due to 85th percentile speed in excess of 40 mph or isolated community with population of less than 10,000.

Analysis Procedures Manual

Appendix E - General Land Use Plans: Preliminary Drawings

3809 NE Springbrook Road Annexation

08/16/2024

- Sheet C201: General Land Use Plan

LDR - R-1

HDR - R-3

URBAN GROWTH BOUNDARY

HDR - R-3

CITY OF NEWBERG LIMITS

OPEN SPACE

Appendix F - Wastewater Capacity Analysis

3809 NE Springbrook Road Annexation

08/16/2024



3J CONSULTING
9600 SW NIMBUS AVENUE, SUITE 100
BEAVERTON, OREGON 97008
PH: (503) 946.9365
WWW.3JCONSULTING.COM

TECHNICAL MEMORANDUM

To: Brett Musick, PE
Senior Engineer
City of Newberg

From: Kathleen Freeman, PE, CFM
Water Resources Project Manager

Cc: Chase Welborn, PE and Aaron Murphy, PE

Date: June 20, 2024



Project: **Springbrook Subdivision**
Project No: **23913**
RE: **Wastewater Downstream Analysis**

The proposed Springbrook Subdivision will be located northwest of the N Springbrook Road and NE Benjamin Road intersection. The site encompasses approximately 18.76 acres and is proposed to consist of 77 R-1 and 27 R-3 zoned lots. To develop the parcel, the City of Newberg requires a downstream analysis of the wastewater system to ensure the added flows will be accommodated. The City's Wastewater Master Plan (WWMP), written in March 2018 with a 2021 addendum, has been utilized to develop an existing wastewater hydraulic model for the conveyance from N Springbrook Road to E 9th Street, utilizing the software program XPSTORM. The existing model was used to add calculated flows from the proposed development. The proposed flow rates were calculated using Table 4-2 of the WWMP. The analysis shows the added flows from the proposed development on the downstream wastewater system will have a negligible effect.

Existing Wastewater Conveyance System

Per the WWMP, the following are evaluation thresholds used to identify deficiencies in infrastructure:

- Minimum 2.0-ft depth between rim elevation and Hydraulic Grade Line (HGL),
- Maximum 85% full depth of pipe, and
- Maximum 1.0-ft depth between HGL and top of pipe (top of pipe = Invert Elevation + Pipe Diameter).
    - In all cases where the HGL is below the top of pipe, surcharge conditions do not exist.
    - When the HGL is above the top of pipe, surcharge conditions exist.

The WWMP shows there are several locations in the system that are outside of these thresholds. Additionally, there are locations where modeling shows out of system flooding.

Model Calibration

The data presented in the WWMP was utilized to create an existing conditions model with the software XPSTORM (see Attached: Figure 5 – Updated System Evaluation). All rim elevations, pipe invert

elevations, pipe diameters and lengths and flow rates were input into the model using data from Appendix D1: Existing System Model Data. The flow rates were input into the XPSTORM model as constant flow at each manhole. We calibrated the model to match the WWMP model by adding known flow depths (See Attached: XPSTORM Wastewater Conveyance Data – Existing and Proposed Conditions to E Fernhill Road). The downstream analysis extended approximately 2.62 miles downstream of the proposed subdivision.

To model proposed flows from the Springbrook Subdivision, Table 4-2 of the WWMP was referenced, which are based on proposed zoning. Additionally, per section 2.3.4 of the City's Public Works Design and Construction Standards, an allowance of 1,000 gpad for inflow and infiltration was added to each calculated flow. Table 1 shows the calculated flow rates for each zone within the proposed Springbrook Subdivision.

Zoning	Flow (gpd)	Flow (cfs)	Add to MH
R-1	27,379	0.0424	wwml92161
R-3	13,168	0.0204	wwml92161
Increase in Flow at wwml92161	**40,546**	**0.0627**	N/A

Table 1 - Wastewater Flows

The flow rate of 0.063 cfs was added to the Avg DWF flow at manhole wwml92161 in the WWMP for proposed conditions. No other adjustments were made to the model.

Conveyance Output

Tables 2 and 3 show the existing and proposed conveyance output for the first seven manholes in the downstream system, regarding the evaluation thresholds (See Attached for entire modeled conveyance output).

From	To	Existing US Freeboard (ft)	Existing DS Freeboard (ft)	Existing [1]y/d0	[3]Existing HGL - Top of Pipe US (ft)	[3]Existing HGL - Top of Pipe DS (ft)
wwml92161	wwml92159	6.23	5.27	0.09	-1.14	-1.13
wwml92159	wwml92158	5.27	7.99	0.10	-1.13	-1.14
wwml92158	wwml92157	7.99	15.25	0.09	-1.14	-1.12
wwml92157	wwml92156	15.25	18.81	0.10	-1.12	-1.16
wwml92156	wwml92147	18.81	18.32	0.16	-1.16	-0.91
wwml92147	wwml92148	18.32	9.96	0.22	-1.16	-1.27
[2]wwml92148	wwml92149	9.96	7.96	0.15	-1.27	-1.26

[1]y/d0 = depth of flow/pipe diameter; Multiply by 100 to get %
[2]Approximately 2,014 ft downstream of project site
[3]Calculation = HGL - Pipe Invert + Pipe Diameter. Negative number signifies the HGL is below top of pipe and surcharge conditions do not exist.

Table 2 – Existing Conveyance Downstream Output

From	To	Proposed US Freeboard (ft)	Proposed DS Freeboard (ft)	Proposed [1]y/d0	[3]Proposed HGL - Top of Pipe US (ft)	[3]Proposed HGL - Top of Pipe DS (ft)
wwml92161	wwml92159	6.18	5.22	0.13	-1.09	-1.07
wwml92159	wwml92158	5.22	7.94	0.14	-1.07	-1.09
wwml92158	wwml92157	7.94	15.20	0.13	-1.09	-1.07
wwml92157	wwml92156	15.20	18.77	0.15	-1.07	-1.12
wwml92156	wwml92147	18.77	18.30	0.17	-1.12	-0.90
wwml92147	wwml92148	18.30	9.95	0.23	-1.15	-1.26
[2]wwml92148	wwml92149	9.95	7.95	0.16	-1.26	-1.25

[1]y/d0 = depth of flow/pipe diameter; Multiply by 100 to get %
[2]Approximately 2,014 ft downstream of project site
[3]Calculation = HGL - Pipe Invert + Pipe Diameter. Negative number signifies the HGL is below top of pipe and surcharge conditions do not exist.

Table 3 – Proposed Conveyance Downstream Output

Evaluation Thresholds

Minimum 2.0-ft Depth Between Rim Elevation and Hydraulic Grade Line (HGL)

The added flow to the existing downstream system has very little change in depth between the rim elevations and HGL. In all cases for the first 2,014 ft of the system, there is a least 2.0-ft.

Maximum 85% Full Depth of Pipe

In all cases, the full depth of pipe is less than 85% full.

Maximum 1.0-ft Depth Between HGL and Top of Pipe

There is very little change between existing and proposed conditions for this threshold. Within the first 2,014 ft, the HGL is below the top of pipe.

Figure 5 WWMP Surcharging Analysis

Figure 5 from the WWMP shows evaluation threshold output at each node with differing colors depending on the hydraulic condition at each manhole (e.g., red manhole signifies potential flooding, etc). An analysis was completed using the output data from Appendix D1 to explain why our model showed no surcharging at manholes while Figure 5 shows surcharging. It was determined that while Figure 5 shows surcharging starting at manhole wwml92150, the output data from Appendix D1, as well as our modeling, did not indicate surcharging. The analysis is represented in the attached Figure 5 WWMP Surcharging Analysis. No assumptions are being made as to why the discrepancy between Figure 5 and the output data from D1 exists.

City's Request to Investigate Flooding at Manhole WWML121103

Per the City' observations, flooding occurs at WWML121103, which combines flows north on Springbrook Road and Fernwood Road to the east. The City requested 3J to investigate whether a change in deflection angle from the force main in Fernwood Road to manhole WWML121103 (at the intersection of Springbrook Road and Fernwood Road) would lessen the head loss enough to result in no flooding at the manhole. We analyzed the system using 0 to 30 degree deflection angles (currently it is at 90 degrees). Additionally, we determined that to decrease the deflection angle, a new

manhole would need to be installed between WWML121027 and WWML121026. There was not a deflection angle that would eliminate the flooding.

It should be noted that the Wastewater Master Plan, dated May 2018 and updated May 2021, showed a negative slope between WWML121103 and WWML121027; however as-builts provided from the City shows this does not occur. The system should be surveyed to determine if a negative slope occurs. Additionally, all pipes downstream of WWML121103 are 15" diameter pipes but the force main entering WWML121103 are dual pipes with diameters of 12" and 6". The added flow from the Fernwood force main contributes to the existing pipe system that is over capacity.

The Wastewater Master Plan identified two alternatives to rectify the flooding, depicted in Table 5-2. It is our opinion that these alternatives are the best solutions for flooding.

Summary
The added flows from the proposed Springbrook Subdivision of 0.063 cfs will have a negligible effect on the downstream system, analyzed approximately 1.76 miles from the project location.

Attachments:

- Springbrook Residential Subdivision
- Figure 5 – Updated System Evaluation (Excerpt from WWMP)
- XPSTORM Wastewater Conveyance Data – Existing Conditions to E 9th Street
- Onsite Wastewater Flow Calculations
- XPSTORM Wastewater Conveyance Data – Proposed Conditions to E 9th Street
- Figure 5 WWMP Surcharging Analysis
- Table 5-2 WWMP: Springbrook Road Alternatives Estimated Costs

- - - - END OF DOCUMENT - - -



3809 NE SPRINGBROOK ROAD, NEWBERG, OREGON, 97132

COUNTY: YAMHILL
PARCEL: 25902 ACCOUNT: R320902300
PARCEL SIZE: 18.76 ACRES (YAMHILL COUNTY TAX RECORDS)

CURRENT ZONING: AF-10 (YAMHILL COUNTY)

PROPOSED ZONING: R-1 AND R-3 (CITY OF NEWBERG)

REQUIRED SETBACKS:

R-1 ZONE	*R-3 ZONE*
FRONT: 15'	FRONT: 12'
GARAGE: 20'	GARAGE: 20'
SIDE: 5'	SIDE: 5'
REAR: 5'	REAR: 15'
CORNER SIDE: 15'	CORNER SIDE: 12'

DENSITY CALCULATIONS:
GROSS SITE AREA: ±830,311 SF (GIS SOURCE)
GROSS R3 ZONING AREA (10% MINIMUM REQUIRED) = ±83,031 SF
Per Newberg Municipal Code 15.250.030-A.1.

TRACTS A AND C ARE OPEN SPACE TRACTS TO BE OWNED AND MAINTAINED BY THE HOA.

TRACT B IS A STORMWATER FACILITY TRACT TO BE OWNED AND MAINTAINED BY THE CITY OF NEWBERG

PROPOSED R1 ZONE

PROPOSED R3 ZONE
±10,686 SF

THE PURPOSE OF THIS PRELIMINARY LAYOUT IS TO SHOW PLANNED LOT DIMENSIONS AND AREAS FOR PLANNING PURPOSES. THIS IS NOT A FINAL LAYOUT AND NOT TO BE USED FOR SURVEY PURPOSES. ALL DIMENSIONS ARE SUBJECT TO CHANGE.

SITE PLAN OVERVIEW
SCHEMATIC LAYOUT 5

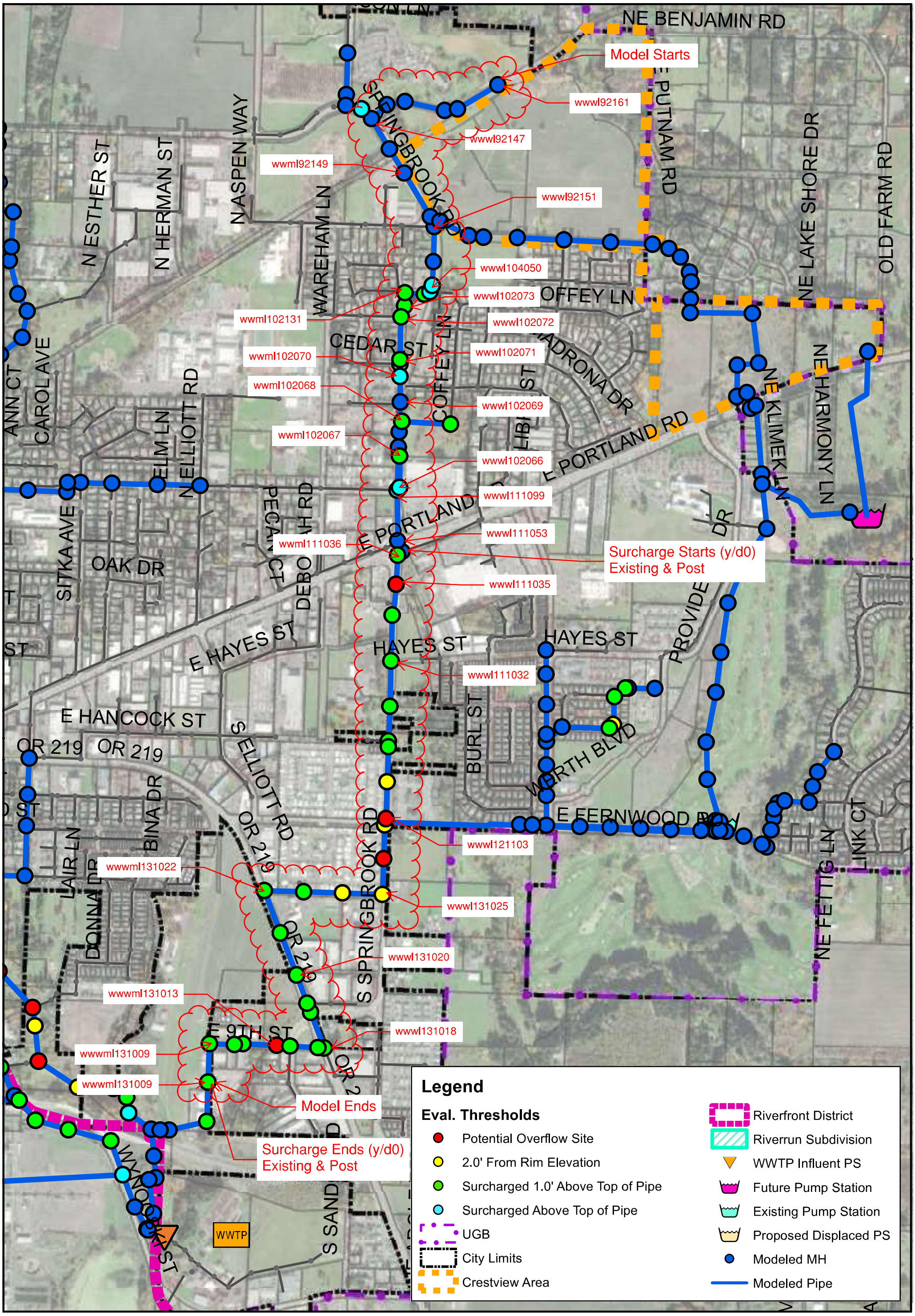
3J CONSULTING
CIVIL ENGINEERING
WATER RESOURCES
COMMUNITY PLANNING
9600 SW NIMBUS AVE., SUITE 100; BEAVERTON, OR 97008

DRAWING BY:	*SRC/JJS*
PREPARED FOR:	*ICHIJO*
PLAN ISSUE DATE:	*DECEMBER 26, 2023*
PLAN ISSUE PURPOSE:	*SCHEMATIC DESIGN*

N W E S
SCALE: 1" = 60'
0 60 120 FT

SPRINGBROOK RESIDENTIAL SUBDIVISION
NEWBERG, OREGON

P:\23913-3809 NE SPRINGBROOK RD SUBDIVISION\CAD\EXHIBITS-ANALYSIS_COORDINATION\2023-12-19 SITE OPTIONS\23913-SITE OPTION 5.DWG



Updated System Evaluation

Wastewater Master Plan Update

Figure 5

City of Newberg, OR

XPSTORM WASTEWATER CONVEYANCE DATA - PROPOSED CONDITIONS TO E 9TH STREET																					
SPRINGBROOK SUBDIVISION DOWNSTREAM ANALYSIS																					
Location			Conduit Properties			Conduit Results						Conduit Profile									
Link	Station		Diameter	Length	Slope	Design Capacity	Qmax/ Qdesign	Max Flow	Max Velocity	Max Flow Depth	y/d0	US Ground Elev.	DS Ground Elev.	US IE	DS IE	US Freeboard	DS Freeboard	US HGL	DS HGL	[1]HGL -Top of Pipe US	[1]HGL - Top of Pipe US
	From	To	ft	ft	%	cfs		cfs	ft/s	ft		ft	ft	ft	ft	ft	ft	ft	ft	ft	ft
wwgm1107	wwml92161	wwml92159	1.25	465.0	0.29	3.48	0.01	0.04	0.93	0.11	0.09	255.92	253.49	249.58	248.10	6.23	5.27	249.7	248.2	-1.14	-1.13
wwgm1108	wwml92159	wwml92158	1.25	128.4	0.27	3.32	0.02	0.05	1.00	0.12	0.10	253.49	255.21	248.10	247.11	5.27	7.99	248.2	247.2	-1.13	-1.14
wwgm1109	wwml92158	wwml92157	1.25	403.4	0.34	3.75	0.01	0.05	1.07	0.11	0.09	255.21	260.95	247.11	245.57	7.99	15.25	247.2	245.7	-1.14	-1.12
wwgm1110	wwml92157	wwml92156	1.25	182.5	0.24	3.17	0.02	0.05	0.97	0.13	0.10	260.95	263.55	245.57	244.65	15.25	18.81	245.7	244.7	-1.12	-1.16
wwgm1111	wwml92156	wwml92147	1.25	203.0	0.51	4.62	0.01	0.05	0.65	0.20	0.16	263.55	262.12	244.65	243.47	18.81	18.32	244.7	243.8	-1.16	-0.91
wwgm1104	wwml92147	wwml92148	1.50	349.7	0.40	6.65	0.10	0.67	2.41	0.34	0.22	262.12	251.71	243.47	241.52	18.32	9.96	243.8	241.8	-1.16	-1.27
wwgm1105	wwml92148	wwml92149	1.50	281.5	1.55	13.06	0.05	0.67	3.88	0.23	0.15	251.71	245.17	241.52	236.97	9.96	7.96	241.8	237.2	-1.27	-1.26
wwgm1106	wwml92149	wwml92150	1.50	500.5	1.41	12.49	0.05	0.67	3.76	0.24	0.16	245.17	241.50	236.97	229.75	7.96	11.55	237.2	229.9	-1.26	-1.30
wwgm1091	wwml92150	wwml92151	1.50	107.8	2.99	18.16	0.04	0.67	4.88	0.20	0.13	241.50	239.75	229.75	225.75	11.55	13.63	229.9	226.1	-1.30	-1.13
wwgm1090	wwml92151	wwml92152	1.50	344.6	0.32	5.94	0.12	0.69	2.26	0.37	0.25	239.75	234.71	225.75	223.96	13.63	10.45	226.1	224.3	-1.13	-1.20
wwgm1131	wwml92152	wwml104050	1.50	237.8	0.56	7.83	0.09	0.69	2.73	0.30	0.20	234.71	232.35	223.96	222.32	10.45	9.61	224.3	222.7	-1.20	-1.08
wwgm1132	wwml104050	wwml104051	1.50	65.3	0.12	3.68	0.19	0.69	2.03	0.42	0.28	232.35	229.69	222.32	222.06	9.61	7.39	222.7	222.3	-1.08	-1.26
wwgm1071	wwml102132	wwml102131	0.83	195.8	0.75	1.87	0.37	0.69	2.74	0.45	0.54	227.75	225.87	220.88	219.28	6.52	6.00	221.2	219.9	-0.48	-0.24
wwgm1070	wwml102131	wwml102073	0.83	126.5	0.58	1.65	0.81	1.33	3.46	0.59	0.71	225.87	225.66	219.28	218.21	6.00	7.00	219.9	218.7	-0.24	-0.38
wwgm1069	wwml102073	wwml102072	0.83	115.9	1.18	2.36	0.57	1.34	4.49	0.45	0.54	225.66	223.35	218.21	216.64	7.00	6.20	218.7	217.2	-0.38	-0.32
wwgm1072	wwml104051	wwml102132	1.50	58.5	1.44	12.59	0.06	0.69	3.82	0.24	0.16	229.69	227.75	222.06	220.88	7.39	6.52	222.3	221.2	-1.26	-1.15
wwgm1129	wwml102072	wwml102071	1.00	423.4	0.52	2.58	0.52	1.35	3.06	0.59	0.59	223.35	220.03	216.64	214.40	6.20	5.02	217.2	215.0	-0.49	-0.39
wwgm1062	wwml102071	wwml102070	1.00	42.2	0.21	1.65	0.82	1.35	3.01	0.61	0.61	220.03	219.80	214.40	214.21	5.02	5.02	215.0	214.8	-0.39	-0.43
wwgm1061	wwml102070	wwml102069	1.00	123.0	0.39	2.23	0.62	1.37	2.61	0.74	0.74	219.80	221.49	214.21	213.72	5.02	7.02	214.8	214.5	-0.43	-0.25
wwgm1060	wwml102069	wwml102068	1.00	254.8	0.21	1.64	0.83	1.37	2.62	0.75	0.75	221.49	219.20	213.72	212.88	7.02	5.94	214.5	213.3	-0.25	-0.62
wwgm1056	wwml102068	wwml102067	1.00	295.6	1.56	4.45	0.31	1.40	5.01	0.39	0.39	219.20	214.51	212.88	208.13	5.94	5.99	213.3	208.5	-0.62	-0.61
wwgm1055	wwml102067	wwml102066	1.00	153.3	1.56	4.45	0.32	1.40	5.01	0.39	0.39	214.51	210.77	208.13	203.23	5.99	7.16	208.5	203.6	-0.61	-0.62
wwgm1054	wwml102066	wwml111099	1.00	425.2	1.66	4.59	0.31	1.40	3.21	0.76	0.76	210.77	202.79	203.23	195.95	7.16	5.86	203.6	196.9	-0.62	-0.02
wwgm1709	wwml111099	wwml111053	1.25	500.2	0.41	4.12	0.86	3.52	3.85	0.98	0.78	202.79	203.84	195.95	193.35	5.86	9.92	196.9	193.9	-0.27	-0.68
wwgm1739	wwml111053	wwml111037	1.25	117.3	2.67	9.80	0.43	4.20	7.67	0.57	0.46	203.84	205.03	193.35	189.43	9.92	15.13	193.9	189.9	-0.68	-0.78
wwgm1740	wwml111037	wwml111036	1.25	53.5	11.56	21.96	0.19	4.22	12.92	6.02	4.82	205.03	203.57	189.43	182.78	15.13	14.19	189.9	189.4	-0.78	5.35
wwgm1710	wwml111036	wwml111035	1.25	289.1	0.48	4.48	0.96	4.22	3.67	6.71	5.37	203.57	188.10	182.78	181.39	14.19	0.00	189.4	188.1	5.35	5.46
wwgm1802	wwml111035	wwml111040	1.25	306.3	0.28	3.40	1.21	4.11	3.26	6.71	5.37	188.10	193.00	181.39	180.54	0.00	5.96	188.1	187.0	5.46	5.25
wwgm1800	wwml111040	wwml111032	1.25	452.8	0.28	3.42	1.20	4.08	3.25	6.42	5.14	193.00	193.30	180.54	179.27	5.96	7.83	187.0	185.5	5.25	4.95
wwgm1799	wwml111032	wwml121031	1.25	450.4	0.28	3.42	1.19	4.06	3.24	6.23	4.98	193.30	190.60	179.27	178.01	7.83	6.69	185.5	183.9	4.95	4.65
wwgm1798	wwml121031	wwml121100	1.25	342.8	0.28	3.35	1.21	4.05	3.23	5.93	4.74	190.60	186.60	178.01	177.06	6.69	3.84	183.9	182.8	4.65	4.45
wwgm1796	wwml121100	wwml121030	1.25	59.7	0.29	3.45	1.20	4.11	3.28	5.68	4.54	186.60	185.90	177.06	176.89	3.84	3.41	182.8	182.5	4.45	4.35
wwgm1795	wwml121030	wwml121029	1.25	347.9	0.60	5.02	0.95	4.62	3.69	6.31	5.05	185.90	182.20	176.89	174.79	3.41	1.11	182.5	181.1	4.35	5.05
wwgm1794	wwml121029	wwml121028	1.25	365.6	0.58	4.93	1.00	4.74	3.78	6.94	5.55	182.20	179.60	174.79	172.66	1.11	0.04	181.1	179.6	5.05	5.65
wwgm1793	wwml121028	wwml121103	1.25	38.1	0.79	5.74	2.22	11.32	9.06	7.38	5.90	179.60	179.74	172.66	172.36	0.04	-0.02	179.6	179.8	5.65	6.15
wwgm1792	wwml121103	wwml121027	1.25	23.1	-0.04	1.34	11.41	4.39	3.51	7.37	5.90	179.74	179.87	172.36	172.17	-0.02	0.10	179.8	179.8	6.15	6.35
wwgm1791	wwml121027	wwml121026	1.25	336.7	0.33	3.73	1.25	4.54	3.63	6.92	5.53	179.87	177.80	172.17	171.05	0.10	0.00	179.8	177.8	6.35	5.50
wwgm1790	wwml121026	wwml131025	1.25	351.3	0.27	3.36	1.39	4.60	3.68	6.80	5.44	177.80	177.79	171.05	169.55	0.00	0.64	177.8	177.2	5.50	6.35
wwgm0580	wwml131025	wwml131024	1.25	397.1	0.35	3.55	1.29	4.58	3.68	7.57	6.05	177.79	178.04	169.55	168.13	0.64	1.71	177.2	176.3	6.35	6.95
wwgm0533	wwml131024	wwml131023	1.25	384.7	0.36	3.56	1.30	4.50	3.62	7.82	6.26	178.04	177.45	168.13	166.71	1.71	2.74	176.3	174.7	6.95	6.75
wwgm0558	wwml131023	wwml131022	1.25	389.7	0.15	2.51	2.57	5.94	5.17	7.85	6.28	177.45	176.99	166.71	165.43	2.74	4.03	174.7	173.0	6.75	6.28
wwgm0520	wwml131022	wwml131021	1.25	449.4	0.36	3.89	1.29	5.01	4.19	7.53	6.03	176.99	174.05	165.43	163.74	4.03	2.93	173.0	171.1	6.28	6.13
wwgm0559	wwml131021	wwml131020	1.25	444.1	0.38	3.87	1.18	4.56	3.66	7.38	5.91	174.05	171.74	163.74	161.93	2.93	2.55	171.1	169.2	6.13	6.01
wwgm0583	wwml131020	wwml131111	1.25	300.8	0.30	3.40	1.30	4.37	3.65	7.26	5.81	171.74	172.52	161.93	160.90	2.55	4.66	169.2	167.9	6.01	5.71
wwgm2119	wwml131111	wwml131019	1.25	95.9	0.28	3.18	1.34	4.26	3.60	6.96	5.57	172.52	173.04	160.90	160.63	4.66	5.51	167.9	167.5	5.71	5.65
wwgm0468	wwml131019	wwml131018	1.25	377.8	0.01	3.72	1.15	4.26	3.45	6.77	5.41	173.04	174.47	160.63	158.73	5.51	8.54	167.5	165.9	5.65	5.95
wwgm1206	wwml131018	wwml131017	1.25	61.3	1.11	6.80	1.48	4.99	4.06	7.51	6.01	174.47	173.93	158.73	157.55	8.54	8.37	165.9	165.6	5.95	6.76
wwgm0479	wwml131017	wwml131014	1.25	277.3	0.27	3.38	1.41	4.60	3.73	8.01	6.41	173.93	167.17	157.55	156.45	8.37	2.75	165.6	164.4	6.76	6.72
wwgm0507	wwml131014	wwml131013	1.25	132.0	0.07	1.65	3.48	5.73	4.52	7.97	6.38	167.17	163.40	156.45	156.32	2.75	0.00	164.4	163.4	6.72	5.83
wwgm0540	wwml131013	wwml131012	1.25	332.9	0.41	3.93	1.37	5.38	4.27	7.08	5.66	163.40	164.21	156.32	154.97	0.00	3.14	163.4	161.1	5.83	4.85
wwgm0482	wwml131012	wwml131011	1.25	85.1	0.44	4.07	1.32	5.38	4.28	5.96	4.77	164.21	165.59	154.97	154.68	3.14	5.20	161.1	160.4	4.85	4.46
wwgm0604	wwml131011	wwml131010	1.25	248.7	0.41	4.01	1.34	5.38	4.29	5.71	4.57	165.59	167.11	154.68	153.52	5.20	8.48	160.4	158.6	4.46	3.86
wwgm0555	wwml131010	wwml131009	1.25	382.6	0.31	3.47	1.55	5.38	4.31	5.11	4.09	167.11	165.55	153.52	152.25	8.48	9.65	158.6	155.9	3.86	2.40

[1]Calculation = HGL - Pipe Invert + Pipe Diameter. Negative number signifies the HGL is below top of pipe and surcharge conditions do not exist.

ONSITE WASTEWATER FLOW CALCULATIONS

BASIN	Zoning	[1]Average Lot Size (ac)	DU/Average Lot Size (DU/ac)	[1]People/ DU	[2]ADWF (gpcd)	Flow (gpad)	[3]I/I (gpad)	Flow + I/I (gpad)	[4]Net Area (ac)	Flow (gpd)	Conversion to cfs	[5]Flow (cfs)	Drains to Node
1	R-1	0.227	4.405	2.69	74.25	880	1,000	1,880	14.564	27,379	1.547E-06	0.0424	wwml92161
3	R-3	0.061	16.393	2.69	99	4,366	1,000	5,366	2.454	13,168	1.547E-06	0.0204	wwml92161
											Total anticipated flow from Springbrook Subdivision	**0.0627**	

[1]See Page 4-6, Table 4-2 of WWMP

[2]Residential flows based on design ADWF per capita value of 99 gpcd & reduced by 25% for R1 Zoning Only: See Page 4-6, Table 4-2 of WWMP

[3]Inflow/Infiltration per City of Newberg's 2015 Design Manual

[4]Allocates 25% of area for roads and other public dedication: See Page 4-6, Table 4-2 of WWMP

[5]Total WW Flow used as constant flow in XPSTORM model

XPSTORM WASTEWATER CONVEYANCE DATA - PROPOSED CONDITIONS TO E 9TH STREET

SPRINGBROOK SUBDIVISION DOWNSTREAM ANALYSIS

Location			Conduit Properties			Conduit Results						Conduit Profile									
Link	Station From	Station To	Diameter	Length	Slope	Design Capacity	Qmax/ Qdesign	Max Flow	Max Velocity	Max Flow Depth	y/d0	US Ground Elev.	DS Ground Elev.	US IE	DS IE	US Freeboard	DS Freeboard	US HGL	DS HGL	[1]HGL -Top of Pipe US	[1]HGL - Top of Pipe US
			ft	ft	%	cfs		cfs	ft/s	ft		ft	ft	ft	ft	ft	ft	ft	ft	ft	ft
wwgm1107	wwml92161	wwml92159	1.25	465.0	0.29	3.48	0.03	0.10	1.26	0.17	0.13	255.92	253.49	249.58	248.10	6.18	5.22	249.7	248.3	-1.09	-1.07
wwgm1108	wwml92159	wwml92158	1.25	128.4	0.27	3.32	0.03	0.11	1.29	0.18	0.14	253.49	255.21	248.10	247.11	5.22	7.94	248.3	247.3	-1.07	-1.09
wwgm1109	wwml92158	wwml92157	1.25	403.4	0.34	3.75	0.03	0.11	1.37	0.16	0.13	255.21	260.95	247.11	245.57	7.94	15.20	247.3	245.8	-1.09	-1.07
wwgm1110	wwml92157	wwml92156	1.25	182.5	0.24	3.17	0.04	0.11	1.25	0.18	0.15	260.95	263.55	245.57	244.65	15.20	18.77	245.8	244.8	-1.07	-1.12
wwgm1111	wwml92156	wwml92147	1.25	203.0	0.51	4.62	0.02	0.11	1.12	0.21	0.17	263.55	262.12	244.65	243.47	18.77	18.30	244.8	243.8	-1.12	-0.90
wwgm1104	wwml92147	wwml92148	1.50	349.7	0.40	6.65	0.11	0.73	2.48	0.35	0.23	262.12	251.71	243.47	241.52	18.30	9.95	243.8	241.8	-1.15	-1.26
wwgm1105	wwml92148	wwml92149	1.50	281.5	1.55	13.06	0.06	0.73	3.99	0.24	0.16	251.71	245.17	241.52	236.97	9.95	7.95	241.8	237.2	-1.26	-1.25
wwgm1106	wwml92149	wwml92150	1.50	500.5	1.41	12.49	0.06	0.73	3.86	0.25	0.17	245.17	241.50	236.97	229.75	7.95	11.54	237.2	230.0	-1.25	-1.29
wwgm1091	wwml92150	wwml92151	1.50	107.8	2.99	18.16	0.04	0.73	5.01	0.21	0.14	241.50	239.75	229.75	225.75	11.54	13.61	230.0	226.1	-1.29	-1.11
wwgm1090	wwml92151	wwml92152	1.50	344.6	0.32	5.94	0.13	0.75	2.32	0.39	0.26	239.75	234.71	225.75	223.96	13.61	10.44	226.1	224.3	-1.11	-1.19
wwgm1131	wwml92152	wwml104050	1.50	237.8	0.56	7.83	0.10	0.75	2.80	0.32	0.21	234.71	232.35	223.96	222.32	10.44	9.59	224.3	222.8	-1.19	-1.06
wwgm1132	wwml104050	wwml104051	1.50	65.3	0.12	3.68	0.21	0.76	2.09	0.44	0.29	232.35	229.69	222.32	222.06	9.59	7.38	222.8	222.3	-1.06	-1.25
wwgm1071	wwml102132	wwml102131	0.83	195.8	0.75	1.87	0.40	0.76	2.81	0.47	0.57	227.75	225.87	220.88	219.28	6.50	5.98	221.2	219.9	-0.46	-0.22
wwgm1070	wwml102131	wwml102073	0.83	126.5	0.58	1.65	0.85	1.39	3.50	0.61	0.73	225.87	225.66	219.28	218.21	5.98	6.99	219.9	218.7	-0.22	-0.37
wwgm1069	wwml102073	wwml102072	0.83	115.9	1.18	2.36	0.60	1.40	4.54	0.46	0.56	225.66	223.35	218.21	216.64	6.99	6.18	218.7	217.2	-0.37	-0.30
wwgm1072	wwml104051	wwml102132	1.50	58.5	1.44	12.59	0.06	0.76	3.92	0.25	0.17	229.69	227.75	222.06	220.88	7.38	6.50	222.3	221.2	-1.25	-1.13
wwgm1129	wwml102072	wwml102071	1.00	423.4	0.52	2.58	0.55	1.42	3.10	0.61	0.61	223.35	220.03	216.64	214.40	6.18	5.00	217.2	215.0	-0.47	-0.37
wwgm1062	wwml102071	wwml102070	1.00	42.2	0.21	1.65	0.86	1.42	3.06	0.63	0.63	220.03	219.80	214.40	214.21	5.00	5.01	215.0	214.8	-0.37	-0.42
wwgm1061	wwml102070	wwml102069	1.00	123.0	0.39	2.23	0.64	1.43	2.61	0.77	0.77	219.80	221.49	214.21	213.72	5.01	6.99	214.8	214.5	-0.42	-0.22
wwgm1060	wwml102069	wwml102068	1.00	254.8	0.21	1.64	0.87	1.43	2.65	0.78	0.78	221.49	219.20	213.72	212.88	6.99	5.93	214.5	213.3	-0.22	-0.61
wwgm1056	wwml102068	wwml102067	1.00	295.6	1.56	4.45	0.33	1.46	5.07	0.39	0.39	219.20	214.51	212.88	208.13	5.93	5.99	213.3	208.5	-0.61	-0.60
wwgm1055	wwml102067	wwml102066	1.00	153.3	1.56	4.45	0.33	1.46	5.08	0.40	0.40	214.51	210.77	208.13	203.23	5.99	7.15	208.5	203.6	-0.60	-0.61
wwgm1054	wwml102066	wwml111099	1.00	425.2	1.66	4.59	0.32	1.47	3.27	0.77	0.77	210.77	202.79	203.23	195.95	7.15	5.85	203.6	196.9	-0.61	-0.01
wwgm1709	wwml111099	wwml111053	1.25	500.2	0.41	4.12	0.87	3.59	3.86	0.99	0.80	202.79	203.84	195.95	193.35	5.85	9.91	196.9	193.9	-0.26	-0.67
wwgm1739	wwml111053	wwml111037	1.25	117.3	2.67	9.80	0.44	4.26	7.70	0.58	0.46	203.84	205.03	193.35	189.43	9.91	15.11	193.9	189.9	-0.67	-0.76
wwgm1740	wwml111037	wwml111036	1.25	53.5	11.56	21.96	0.20	4.28	12.92	6.05	4.84	205.03	203.57	189.43	182.78	15.11	14.19	189.9	189.4	-0.76	5.35
wwgm1710	wwml111036	wwml111035	1.25	289.1	0.48	4.48	0.96	4.28	3.67	6.71	5.37	203.57	188.10	182.78	181.39	14.19	0.00	189.4	188.1	5.35	5.46
wwgm1802	wwml111035	wwml111040	1.25	306.3	0.28	3.40	1.22	4.14	3.28	6.71	5.37	188.10	193.00	181.39	180.54	0.00	5.96	188.1	187.0	5.46	5.25
wwgm1800	wwml111040	wwml111032	1.25	452.8	0.28	3.42	1.20	4.10	3.26	6.42	5.14	193.00	193.30	180.54	179.27	5.96	7.83	187.0	185.5	5.25	4.95
wwgm1799	wwml111032	wwml121031	1.25	450.4	0.28	3.42	1.19	4.07	3.25	6.23	4.98	193.30	190.60	179.27	178.01	7.83	6.69	185.5	183.9	4.95	4.65
wwgm1798	wwml121031	wwml121100	1.25	342.8	0.28	3.35	1.21	4.05	3.23	5.93	4.74	190.60	186.60	178.01	177.06	6.69	3.84	183.9	182.8	4.65	4.45
wwgm1796	wwml121100	wwml121030	1.25	59.7	0.29	3.45	1.20	4.11	3.28	5.68	4.54	186.60	185.90	177.06	176.89	3.84	3.41	182.8	182.5	4.45	4.35
wwgm1795	wwml121030	wwml121029	1.25	347.9	0.60	5.02	0.95	4.62	3.69	6.31	5.05	185.90	182.20	176.89	174.79	3.41	1.11	182.5	181.1	4.35	5.05
wwgm1794	wwml121029	wwml121028	1.25	365.6	0.58	4.93	1.00	4.74	3.78	6.94	5.55	182.20	179.60	174.79	172.66	1.11	0.04	181.1	179.6	5.05	5.65
wwgm1793	wwml121028	wwml121103	1.25	38.1	0.79	5.74	2.22	11.32	9.06	7.38	5.90	179.60	179.74	172.66	172.36	0.04	-0.02	179.6	179.8	5.65	6.15
wwgm1792	wwml121103	wwml121027	1.25	23.1	-0.04	1.34	11.41	4.39	3.51	7.37	5.90	179.74	179.87	172.36	172.17	-0.02	0.10	179.8	179.8	6.15	6.35
wwgm1791	wwml121027	wwml121026	1.25	336.7	0.33	3.73	1.25	4.54	3.63	6.92	5.53	179.87	177.80	172.17	171.05	0.10	0.00	179.8	177.8	6.35	5.50
wwgm1790	wwml121026	wwml131025	1.25	351.3	0.27	3.36	1.39	4.60	3.68	6.80	5.44	177.80	177.79	171.05	169.55	0.00	0.64	177.8	177.2	5.50	6.35
wwgm0580	wwml131025	wwml131024	1.25	397.1	0.35	3.55	1.29	4.58	3.68	7.57	6.05	177.79	178.04	169.55	168.13	0.64	1.71	177.2	176.3	6.35	6.95
wwgm0533	wwml131024	wwml131023	1.25	384.7	0.36	3.56	1.30	4.50	3.62	7.82	6.26	178.04	177.45	168.13	166.71	1.71	2.74	176.3	174.7	6.95	6.75
wwgm0558	wwml131023	wwml131022	1.25	389.7	0.15	2.51	2.57	5.94	5.17	7.85	6.28	177.45	176.99	166.71	165.43	2.74	4.03	174.7	173.0	6.75	6.28
wwgm0520	wwml131022	wwml131021	1.25	449.4	0.36	3.89	1.29	5.01	4.19	7.53	6.03	176.99	174.05	165.43	163.74	4.03	2.93	173.0	171.1	6.28	6.13
wwgm0559	wwml131021	wwml131020	1.25	444.1	0.38	3.87	1.18	4.56	3.66	7.38	5.91	174.05	171.74	163.74	161.93	2.93	2.55	171.1	169.2	6.13	6.01
wwgm0583	wwml131020	wwml131111	1.25	300.8	0.30	3.40	1.30	4.37	3.65	7.26	5.81	171.74	172.52	161.93	160.90	2.55	4.66	169.2	167.9	6.01	5.71
wwgm2119	wwml131111	wwml131019	1.25	95.9	0.28	3.18	1.34	4.26	3.60	6.96	5.57	172.52	173.04	160.90	160.63	4.66	5.51	167.9	167.5	5.71	5.65
wwgm0468	wwml131019	wwml131018	1.25	377.8	0.01	3.72	1.15	4.26	3.45	6.77	5.41	173.04	174.47	160.63	158.73	5.51	8.54	167.5	165.9	5.65	5.95
wwgm1206	wwml131018	wwml131017	1.25	61.3	1.11	6.80	1.48	4.99	4.06	7.51	6.01	174.47	173.93	158.73	157.55	8.54	8.37	165.9	165.6	5.95	6.76
wwgm0479	wwml131017	wwml131014	1.25	277.3	0.27	3.38	1.41	4.60	3.73	8.01	6.41	173.93	167.17	157.55	156.45	8.37	2.75	165.6	164.4	6.76	6.72
wwgm0507	wwml131014	wwml131013	1.25	132.0	0.07	1.65	3.48	5.73	4.52	7.97	6.38	167.17	163.40	156.45	156.32	2.75	0.00	164.4	163.4	6.72	5.83
wwgm0540	wwml131013	wwml131012	1.25	332.9	0.41	3.93	1.37	5.38	4.27	7.08	5.66	163.40	164.21	156.32	154.97	0.00	3.14	163.4	161.1	5.83	4.85
wwgm0482	wwml131012	wwml131011	1.25	85.1	0.44	4.07	1.32	5.38	4.28	5.96	4.77	164.21	165.59	154.97	154.68	3.14	5.20	161.1	160.4	4.85	4.46
wwgm0604	wwml131011	wwml131010	1.25	248.7	0.41	4.01	1.34	5.38	4.29	5.71	4.57	165.59	167.11	154.68	153.52	5.20	8.48	160.4	158.6	4.46	3.86
wwgm0555	wwml131010	wwml131009	1.25	382.6	0.31	3.47	1.55	5.38	4.31	5.11	4.09	167.11	165.55	153.52	152.25	8.48	9.65	158.6	155.9	3.86	2.40

[1]Calculation = HGL - Pipe Invert + Pipe Diameter. Negative number signifies the HGL is below top of pipe and surcharge conditions do not exist.

Figure 5 WWMP Surcharging Analysis			
Node	[1]Surcharging According to Color	[2]Surcharging According WWMP Data Output	[3]Surcharging According to 3J Modeling
wwml92161	No	No	No
wwml92159	No	No	No
wwml92158	No	No	No
wwml92157	No	No	No
wwml92156	No	No	No
wwml92147	No	No	No
wwml92148	No	No	No
wwml92149	No	No	No
wwml92150	Yes	No	No
wwml92151	Yes	No	No
wwml92152	Yes	No	No
wwml104050	Yes	No	No
wwml102132	Yes	No	No
wwml102131	Yes	No	No
wwml102073	Yes	No	No
wwml104051	Yes	No	No
wwml102072	Yes	No	No
wwml102071	Yes	No	No
wwml102070	Yes	No	No
wwml102069	No	No	No
wwml102068	Yes	No	No
wwml102067	Yes	No	No
wwml102066	Yes	No	No
wwml111099	No	No	No
wwml111053	No	No	No
wwml111037	No	No	Yes
wwml111036	Yes	Yes	Yes
wwml111035	Yes	Yes	Yes
wwml111040	Yes	Yes	Yes
wwml111032	Yes	Yes	Yes
wwml121031	Yes	Yes	Yes
wwml121100	Yes	Yes	Yes
wwml121030	Yes	Yes	Yes
wwml121029	Yes	Yes	Yes
wwml121028	Yes	Yes	Yes
wwml121103	Yes	Yes	Yes
wwml121027	Yes	Yes	Yes
wwml121026	Yes	Yes	Yes
wwml131025	Yes	Yes	Yes
wwml131024	Yes	Yes	Yes
wwml131023	Yes	Yes	Yes
wwml131022	Yes	Yes	Yes
wwml131021	Yes	Yes	Yes
wwml131020	Yes	Yes	Yes
wwml131111	Yes	Yes	Yes
wwml131019	Yes	Yes	Yes
wwml131018	Yes	Yes	Yes
wwml131017	Yes	Yes	Yes
wwml131014	Yes	Yes	Yes
wwml131013	Yes	Yes	Yes
wwml131012	Yes	Yes	Yes
wwml131011	Yes	Yes	Yes
wwml131010	Yes	Yes	Yes
[1]Figure 5: Updated System Evaluation from WWMP Update			
[2]WWMP Update: Appendix D1 - Existing System Flow			
[3]XPSTORM Wastewater Conveyance Data: Springbrook Subdivision Downstream Analysis (Existing & Proposed Conditions			

Table 5-2: Springbrook Road Alternatives Estimated Costs

Alternative	Item	Unit	Unit Price	Quantity	Cost
A	Upsize existing pipeline				$ 3,176,000
	Mobilization	%	5	-	$ 158,800
	Subtotal (rounded)				$ 3,335,000
	Contingency	%	30	-	$ 1,000,500
	Subtotal (rounded)				$ 4,336,000
	Engineering and CMS	%	25	-	$ 1,084,000
	Project Total Cost (rounded):				**$5,420,000**
B	Parallel gravity main				$ 1,282,500
	Upsize existing pipeline				$ 915,000
	Subtotal (rounded)				$ 2,198,000
	Mobilization	%	5	-	$ 109,900
	Subtotal (rounded)				$ 2,308,000
	Contingency	%	30	-	$ 692,400
	Subtotal (rounded)				$ 3,001,000
	Engineering (25%) and Soft Costs				$ 810,250
	Project Total Cost (rounded):				**$3,812,000**

Excerpt from WWMP, page 5-7

3J CONSULTING
9600 SW NIMBUS AVENUE, SUITE 100
BEAVERTON, OREGON 97008
PH: (503) 946.9365
WWW.3JCONSULTING.COM

TECHNICAL MEMORANDUM

To: Brett Musick, PE
Senior Engineer
City of Newberg

From: Kathleen Freeman, PE, CFM
Water Resources Project Manager

Cc: Chase Welborn, PE and Aaron Murphy, PE

Date: June 20, 2024



Project: **Springbrook Subdivision**
Project No: **23913**
RE: **Wastewater Downstream Analysis**

The proposed Springbrook Subdivision will be located northwest of the N Springbrook Road and NE Benjamin Road intersection. The site encompasses approximately 18.76 acres and is proposed to consist of 77 R-1 and 27 R-3 zoned lots. To develop the parcel, the City of Newberg requires a downstream analysis of the wastewater system to ensure the added flows will be accommodated. The City's Wastewater Master Plan (WWMP), written in March 2018 with a 2021 addendum, has been utilized to develop an existing wastewater hydraulic model for the conveyance from N Springbrook Road to E 9th Street, utilizing the software program XPSTORM. The existing model was used to add calculated flows from the proposed development. The proposed flow rates were calculated using Table 4-2 of the WWMP. The analysis shows the added flows from the proposed development on the downstream wastewater system will have a negligible effect.

Existing Wastewater Conveyance System

Per the WWMP, the following are evaluation thresholds used to identify deficiencies in infrastructure:

- Minimum 2.0-ft depth between rim elevation and Hydraulic Grade Line (HGL),
- Maximum 85% full depth of pipe, and
- Maximum 1.0-ft depth between HGL and top of pipe (top of pipe = Invert Elevation + Pipe Diameter).
    - In all cases where the HGL is below the top of pipe, surcharge conditions do not exist.
    - When the HGL is above the top of pipe, surcharge conditions exist.

The WWMP shows there are several locations in the system that are outside of these thresholds. Additionally, there are locations where modeling shows out of system flooding.

Model Calibration

The data presented in the WWMP was utilized to create an existing conditions model with the software XPSTORM (see Attached: Figure 5 – Updated System Evaluation). All rim elevations, pipe invert

elevations, pipe diameters and lengths and flow rates were input into the model using data from Appendix D1: Existing System Model Data. The flow rates were input into the XPSTORM model as constant flow at each manhole. We calibrated the model to match the WWMP model by adding known flow depths (See Attached: XPSTORM Wastewater Conveyance Data – Existing and Proposed Conditions to E Fernhill Road). The downstream analysis extended approximately 2.62 miles downstream of the proposed subdivision.

To model proposed flows from the Springbrook Subdivision, Table 4-2 of the WWMP was referenced, which are based on proposed zoning. Additionally, per section 2.3.4 of the City's Public Works Design and Construction Standards, an allowance of 1,000 gpad for inflow and infiltration was added to each calculated flow. Table 1 shows the calculated flow rates for each zone within the proposed Springbrook Subdivision.

Zoning	Flow (gpd)	Flow (cfs)	Add to MH
R-1	27,379	0.0424	wwml92161
R-3	13,168	0.0204	wwml92161
Increase in Flow at wwml92161	**40,546**	**0.0627**	N/A

Table 1 - Wastewater Flows

The flow rate of 0.063 cfs was added to the Avg DWF flow at manhole wwml92161 in the WWMP for proposed conditions. No other adjustments were made to the model.

Conveyance Output

Tables 2 and 3 show the existing and proposed conveyance output for the first seven manholes in the downstream system, regarding the evaluation thresholds (See Attached for entire modeled conveyance output).

From	To	Existing US Freeboard (ft)	Existing DS Freeboard (ft)	Existing [1]y/d0	[3]Existing HGL - Top of Pipe US (ft)	[3]Existing HGL - Top of Pipe DS (ft)
wwml92161	wwml92159	6.23	5.27	0.09	-1.14	-1.13
wwml92159	wwml92158	5.27	7.99	0.10	-1.13	-1.14
wwml92158	wwml92157	7.99	15.25	0.09	-1.14	-1.12
wwml92157	wwml92156	15.25	18.81	0.10	-1.12	-1.16
wwml92156	wwml92147	18.81	18.32	0.16	-1.16	-0.91
wwml92147	wwml92148	18.32	9.96	0.22	-1.16	-1.27
[2]wwml92148	wwml92149	9.96	7.96	0.15	-1.27	-1.26

[1]y/d0 = depth of flow/pipe diameter; Multiply by 100 to get %
[2]Approximately 2,014 ft downstream of project site
[3]Calculation = HGL - Pipe Invert + Pipe Diameter. Negative number signifies the HGL is below top of pipe and surcharge conditions do not exist.

Table 2 – Existing Conveyance Downstream Output

From	To	Proposed US Freeboard (ft)	Proposed DS Freeboard (ft)	Proposed [1]y/d0	[3]Proposed HGL - Top of Pipe US (ft)	[3]Proposed HGL - Top of Pipe DS (ft)
wwml92161	wwml92159	6.18	5.22	0.13	-1.09	-1.07
wwml92159	wwml92158	5.22	7.94	0.14	-1.07	-1.09
wwml92158	wwml92157	7.94	15.20	0.13	-1.09	-1.07
wwml92157	wwml92156	15.20	18.77	0.15	-1.07	-1.12
wwml92156	wwml92147	18.77	18.30	0.17	-1.12	-0.90
wwml92147	wwml92148	18.30	9.95	0.23	-1.15	-1.26
[2]wwml92148	wwml92149	9.95	7.95	0.16	-1.26	-1.25

[1]y/d0 = depth of flow/pipe diameter; Multiply by 100 to get %
[2]Approximately 2,014 ft downstream of project site
[3]Calculation = HGL - Pipe Invert + Pipe Diameter. Negative number signifies the HGL is below top of pipe and surcharge conditions do not exist.

Table 3 – Proposed Conveyance Downstream Output

Evaluation Thresholds

Minimum 2.0-ft Depth Between Rim Elevation and Hydraulic Grade Line (HGL)

The added flow to the existing downstream system has very little change in depth between the rim elevations and HGL. In all cases for the first 2,014 ft of the system, there is a least 2.0-ft.

Maximum 85% Full Depth of Pipe

In all cases, the full depth of pipe is less than 85% full.

Maximum 1.0-ft Depth Between HGL and Top of Pipe

There is very little change between existing and proposed conditions for this threshold. Within the first 2,014 ft, the HGL is below the top of pipe.

Figure 5 WWMP Surcharging Analysis

Figure 5 from the WWMP shows evaluation threshold output at each node with differing colors depending on the hydraulic condition at each manhole (e.g., red manhole signifies potential flooding, etc). An analysis was completed using the output data from Appendix D1 to explain why our model showed no surcharging at manholes while Figure 5 shows surcharging. It was determined that while Figure 5 shows surcharging starting at manhole wwml92150, the output data from Appendix D1, as well as our modeling, did not indicate surcharging. The analysis is represented in the attached Figure 5 WWMP Surcharging Analysis. No assumptions are being made as to why the discrepancy between Figure 5 and the output data from D1 exists.

City's Request to Investigate Flooding at Manhole WWML121103

Per the City' observations, flooding occurs at WWML121103, which combines flows north on Springbrook Road and Fernwood Road to the east. The City requested 3J to investigate whether a change in deflection angle from the force main in Fernwood Road to manhole WWML121103 (at the intersection of Springbrook Road and Fernwood Road) would lessen the head loss enough to result in no flooding at the manhole. We analyzed the system using 0 to 30 degree deflection angles (currently it is at 90 degrees). Additionally, we determined that to decrease the deflection angle, a new

manhole would need to be installed between WWML121027 and WWML121026. There was not a deflection angle that would eliminate the flooding.

It should be noted that the Wastewater Master Plan, dated May 2018 and updated May 2021, showed a negative slope between WWML121103 and WWML121027; however as-builts provided from the City shows this does not occur. The system should be surveyed to determine if a negative slope occurs. Additionally, all pipes downstream of WWML121103 are 15" diameter pipes but the force main entering WWML121103 are dual pipes with diameters of 12" and 6". The added flow from the Fernwood force main contributes to the existing pipe system that is over capacity.

The Wastewater Master Plan identified two alternatives to rectify the flooding, depicted in Table 5-2. It is our opinion that these alternatives are the best solutions for flooding.

Summary
The added flows from the proposed Springbrook Subdivision of 0.063 cfs will have a negligible effect on the downstream system, analyzed approximately 1.76 miles from the project location.

Attachments:

- Springbrook Residential Subdivision
- Figure 5 – Updated System Evaluation (Excerpt from WWMP)
- XPSTORM Wastewater Conveyance Data – Existing Conditions to E 9th Street
- Onsite Wastewater Flow Calculations
- XPSTORM Wastewater Conveyance Data – Proposed Conditions to E 9th Street
- Figure 5 WWMP Surcharging Analysis
- Table 5-2 WWMP: Springbrook Road Alternatives Estimated Costs

- - - - END OF DOCUMENT - - -



3809 NE SPRINGBROOK ROAD, NEWBERG, OREGON, 97132

COUNTY: YAMHILL
PARCEL: 25902 ACCOUNT: R320902300
PARCEL SIZE: 18.76 ACRES (YAMHILL COUNTY TAX RECORDS)

CURRENT ZONING: AF-10 (YAMHILL COUNTY)

PROPOSED ZONING: R-1 AND R-3 (CITY OF NEWBERG)

REQUIRED SETBACKS:

R-1 ZONE	*R-3 ZONE*
FRONT: 15'	FRONT: 12'
GARAGE: 20'	GARAGE: 20'
SIDE: 5'	SIDE: 5'
REAR: 5'	REAR: 15'
CORNER SIDE: 15'	CORNER SIDE: 12'

DENSITY CALCULATIONS:
GROSS SITE AREA: ±830,311 SF (GIS SOURCE)
GROSS R3 ZONING AREA (10% MINIMUM REQUIRED) = ±83,031 SF
Per Newberg Municipal Code 15.250.030-A.1.

TRACTS A AND C ARE OPEN SPACE TRACTS TO BE OWNED AND MAINTAINED BY THE HOA.

TRACT B IS A STORMWATER FACILITY TRACT TO BE OWNED AND MAINTAINED BY THE CITY OF NEWBERG

PROPOSED R1 ZONE

PROPOSED R3 ZONE
±10,686 SF

THE PURPOSE OF THIS PRELIMINARY LAYOUT IS TO SHOW PLANNED LOT DIMENSIONS AND AREAS FOR PLANNING PURPOSES. THIS IS NOT A FINAL LAYOUT AND NOT TO BE USED FOR SURVEY PURPOSES. ALL DIMENSIONS ARE SUBJECT TO CHANGE.

SITE PLAN OVERVIEW
SCHEMATIC LAYOUT 5

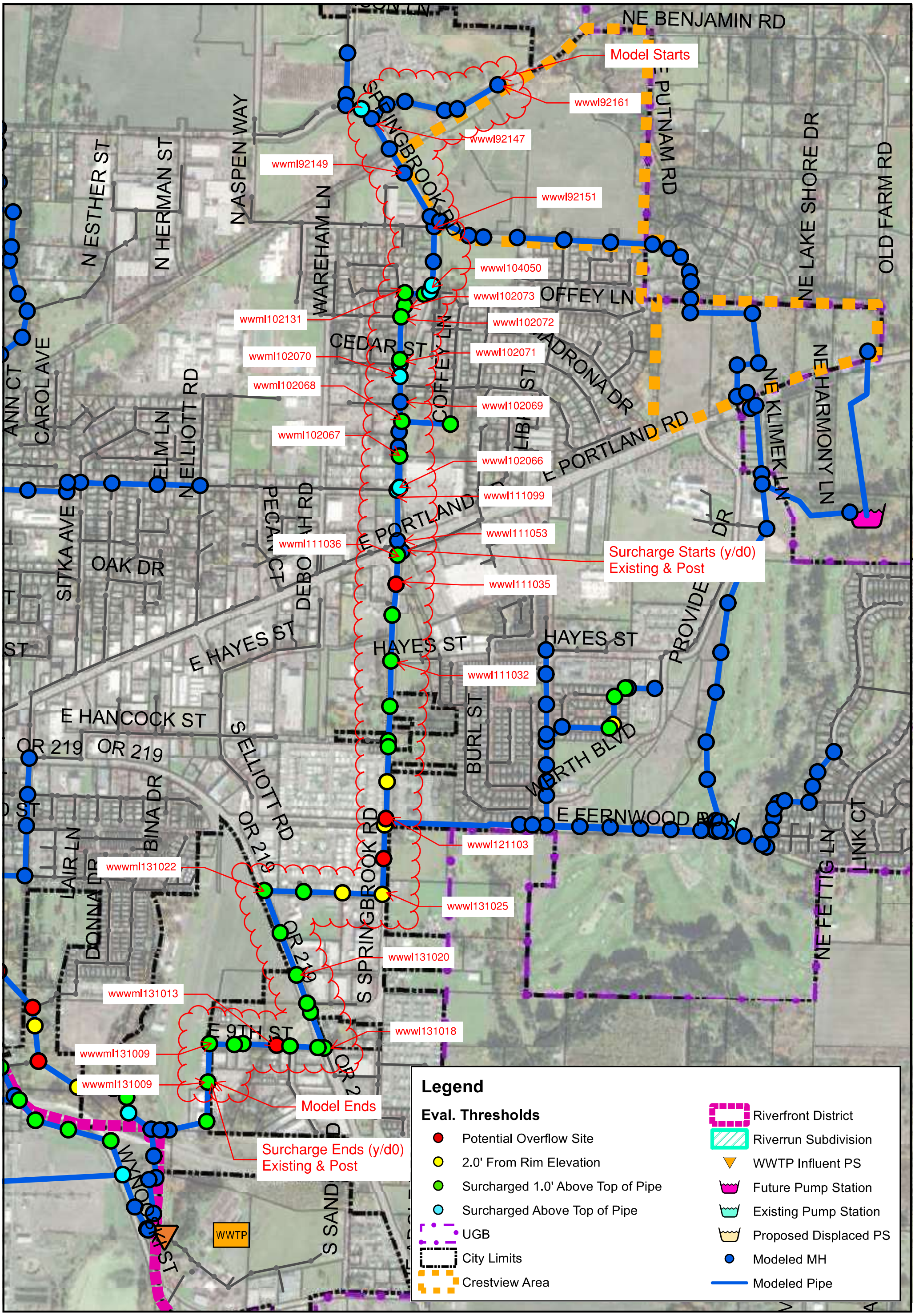
3J CONSULTING
CIVIL ENGINEERING
WATER RESOURCES
COMMUNITY PLANNING
9600 SW NIMBUS AVE., SUITE 100; BEAVERTON, OR 97008

DRAWING BY:	*SRC/JJS*
PREPARED FOR:	*ICHIJO*
PLAN ISSUE DATE:	*DECEMBER 26, 2023*
PLAN ISSUE PURPOSE:	*SCHEMATIC DESIGN*

N W E S
SCALE: 1" = 60'
0 60 120 FT

SPRINGBROOK RESIDENTIAL SUBDIVISION
NEWBERG, OREGON

P:\23913-3809 NE SPRINGBROOK RD SUBDIVISION\CAD\EXHIBITS-ANALYSIS_COORDINATION\2023-12-19 SITE OPTIONS\23913-SITE OPTION 5.DWG



Updated System Evaluation

Wastewater Master Plan Update

Figure 5

City of Newberg, OR

XPSTORM WASTEWATER CONVEYANCE DATA - PROPOSED CONDITIONS TO E 9TH STREET																					
SPRINGBROOK SUBDIVISION DOWNSTREAM ANALYSIS																					
Location			Conduit Properties			Conduit Results						Conduit Profile									
Link	Station		Diameter	Length	Slope	Design Capacity	Qmax/ Qdesign	Max Flow	Max Velocity	Max Flow Depth	y/d0	US Ground Elev.	DS Ground Elev.	US IE	DS IE	US Freeboard	DS Freeboard	US HGL	DS HGL	[1]HGL -Top of Pipe US	[1]HGL - Top of Pipe US
	From	To	ft	ft	%	cfs		cfs	ft/s	ft		ft	ft	ft	ft	ft	ft	ft	ft	ft	ft
wwgm1107	wwml92161	wwml92159	1.25	465.0	0.29	3.48	0.01	0.04	0.93	0.11	0.09	255.92	253.49	249.58	248.10	6.23	5.27	249.7	248.2	-1.14	-1.13
wwgm1108	wwml92159	wwml92158	1.25	128.4	0.27	3.32	0.02	0.05	1.00	0.12	0.10	253.49	255.21	248.10	247.11	5.27	7.99	248.2	247.2	-1.13	-1.14
wwgm1109	wwml92158	wwml92157	1.25	403.4	0.34	3.75	0.01	0.05	1.07	0.11	0.09	255.21	260.95	247.11	245.57	7.99	15.25	247.2	245.7	-1.14	-1.12
wwgm1110	wwml92157	wwml92156	1.25	182.5	0.24	3.17	0.02	0.05	0.97	0.13	0.10	260.95	263.55	245.57	244.65	15.25	18.81	245.7	244.7	-1.12	-1.16
wwgm1111	wwml92156	wwml92147	1.25	203.0	0.51	4.62	0.01	0.05	0.65	0.20	0.16	263.55	262.12	244.65	243.47	18.81	18.32	244.7	243.8	-1.16	-0.91
wwgm1104	wwml92147	wwml92148	1.50	349.7	0.40	6.65	0.10	0.67	2.41	0.34	0.22	262.12	251.71	243.47	241.52	18.32	9.96	243.8	241.8	-1.16	-1.27
wwgm1105	wwml92148	wwml92149	1.50	281.5	1.55	13.06	0.05	0.67	3.88	0.23	0.15	251.71	245.17	241.52	236.97	9.96	7.96	241.8	237.2	-1.27	-1.26
wwgm1106	wwml92149	wwml92150	1.50	500.5	1.41	12.49	0.05	0.67	3.76	0.24	0.16	245.17	241.50	236.97	229.75	7.96	11.55	237.2	229.9	-1.26	-1.30
wwgm1091	wwml92150	wwml92151	1.50	107.8	2.99	18.16	0.04	0.67	4.88	0.20	0.13	241.50	239.75	229.75	225.75	11.55	13.63	229.9	226.1	-1.30	-1.13
wwgm1090	wwml92151	wwml92152	1.50	344.6	0.32	5.94	0.12	0.69	2.26	0.37	0.25	239.75	234.71	225.75	223.96	13.63	10.45	226.1	224.3	-1.13	-1.20
wwgm1131	wwml92152	wwml104050	1.50	237.8	0.56	7.83	0.09	0.69	2.73	0.30	0.20	234.71	232.35	223.96	222.32	10.45	9.61	224.3	222.7	-1.20	-1.08
wwgm1132	wwml104050	wwml104051	1.50	65.3	0.12	3.68	0.19	0.69	2.03	0.42	0.28	232.35	229.69	222.32	222.06	9.61	7.39	222.7	222.3	-1.08	-1.26
wwgm1071	wwml102132	wwml102131	0.83	195.8	0.75	1.87	0.37	0.69	2.74	0.45	0.54	227.75	225.87	220.88	219.28	6.52	6.00	221.2	219.9	-0.48	-0.24
wwgm1070	wwml102131	wwml102073	0.83	126.5	0.58	1.65	0.81	1.33	3.46	0.59	0.71	225.87	225.66	219.28	218.21	6.00	7.00	219.9	218.7	-0.24	-0.38
wwgm1069	wwml102073	wwml102072	0.83	115.9	1.18	2.36	0.57	1.34	4.49	0.45	0.54	225.66	223.35	218.21	216.64	7.00	6.20	218.7	217.2	-0.38	-0.32
wwgm1072	wwml104051	wwml102132	1.50	58.5	1.44	12.59	0.06	0.69	3.82	0.24	0.16	229.69	227.75	222.06	220.88	7.39	6.52	222.3	221.2	-1.26	-1.15
wwgm1129	wwml102072	wwml102071	1.00	423.4	0.52	2.58	0.52	1.35	3.06	0.59	0.59	223.35	220.03	216.64	214.40	6.20	5.02	217.2	215.0	-0.49	-0.39
wwgm1062	wwml102071	wwml102070	1.00	42.2	0.21	1.65	0.82	1.35	3.01	0.61	0.61	220.03	219.80	214.40	214.21	5.02	5.02	215.0	214.8	-0.39	-0.43
wwgm1061	wwml102070	wwml102069	1.00	123.0	0.39	2.23	0.62	1.37	2.61	0.74	0.74	219.80	221.49	214.21	213.72	5.02	7.02	214.8	214.5	-0.43	-0.25
wwgm1060	wwml102069	wwml102068	1.00	254.8	0.21	1.64	0.83	1.37	2.62	0.75	0.75	221.49	219.20	213.72	212.88	7.02	5.94	214.5	213.3	-0.25	-0.62
wwgm1056	wwml102068	wwml102067	1.00	295.6	1.56	4.45	0.31	1.40	5.01	0.39	0.39	219.20	214.51	212.88	208.13	5.94	5.99	213.3	208.5	-0.62	-0.61
wwgm1055	wwml102067	wwml102066	1.00	153.3	1.56	4.45	0.32	1.40	5.01	0.39	0.39	214.51	210.77	208.13	203.23	5.99	7.16	208.5	203.6	-0.61	-0.62
wwgm1054	wwml102066	wwml111099	1.00	425.2	1.66	4.59	0.31	1.40	3.21	0.76	0.76	210.77	202.79	203.23	195.95	7.16	5.86	203.6	196.9	-0.62	-0.02
wwgm1709	wwml111099	wwml111053	1.25	500.2	0.41	4.12	0.86	3.52	3.85	0.98	0.78	202.79	203.84	195.95	193.35	5.86	9.92	196.9	193.9	-0.27	-0.68
wwgm1739	wwml111053	wwml111037	1.25	117.3	2.67	9.80	0.43	4.20	7.67	0.57	0.46	203.84	205.03	193.35	189.43	9.92	15.13	193.9	189.9	-0.68	-0.78
wwgm1740	wwml111037	wwml111036	1.25	53.5	11.56	21.96	0.19	4.22	12.92	6.02	4.82	205.03	203.57	189.43	182.78	15.13	14.19	189.9	189.4	-0.78	5.35
wwgm1710	wwml111036	wwml111035	1.25	289.1	0.48	4.48	0.96	4.22	3.67	6.71	5.37	203.57	188.10	182.78	181.39	14.19	0.00	189.4	188.1	5.35	5.46
wwgm1802	wwml111035	wwml111040	1.25	306.3	0.28	3.40	1.21	4.11	3.26	6.71	5.37	188.10	193.00	181.39	180.54	0.00	5.96	188.1	187.0	5.46	5.25
wwgm1800	wwml111040	wwml111032	1.25	452.8	0.28	3.42	1.20	4.08	3.25	6.42	5.14	193.00	193.30	180.54	179.27	5.96	7.83	187.0	185.5	5.25	4.95
wwgm1799	wwml111032	wwml121031	1.25	450.4	0.28	3.42	1.19	4.06	3.24	6.23	4.98	193.30	190.60	179.27	178.01	7.83	6.69	185.5	183.9	4.95	4.65
wwgm1798	wwml121031	wwml121100	1.25	342.8	0.28	3.35	1.21	4.05	3.23	5.93	4.74	190.60	186.60	178.01	177.06	6.69	3.84	183.9	182.8	4.65	4.45
wwgm1796	wwml121100	wwml121030	1.25	59.7	0.29	3.45	1.20	4.11	3.28	5.68	4.54	186.60	185.90	177.06	176.89	3.84	3.41	182.8	182.5	4.45	4.35
wwgm1795	wwml121030	wwml121029	1.25	347.9	0.60	5.02	0.95	4.62	3.69	6.31	5.05	185.90	182.20	176.89	174.79	3.41	1.11	182.5	181.1	4.35	5.05
wwgm1794	wwml121029	wwml121028	1.25	365.6	0.58	4.93	1.00	4.74	3.78	6.94	5.55	182.20	179.60	174.79	172.66	1.11	0.04	181.1	179.6	5.05	5.65
wwgm1793	wwml121028	wwml121103	1.25	38.1	0.79	5.74	2.22	11.32	9.06	7.38	5.90	179.60	179.74	172.66	172.36	0.04	-0.02	179.6	179.8	5.65	6.15
wwgm1792	wwml121103	wwml121027	1.25	23.1	-0.04	1.34	11.41	4.39	3.51	7.37	5.90	179.74	179.87	172.36	172.17	-0.02	0.10	179.8	179.8	6.15	6.35
wwgm1791	wwml121027	wwml121026	1.25	336.7	0.33	3.73	1.25	4.54	3.63	6.92	5.53	179.87	177.80	172.17	171.05	0.10	0.00	179.8	177.8	6.35	5.50
wwgm1790	wwml121026	wwml131025	1.25	351.3	0.27	3.36	1.39	4.60	3.68	6.80	5.44	177.80	177.79	171.05	169.55	0.00	0.64	177.8	177.2	5.50	6.35
wwgm0580	wwml131025	wwml131024	1.25	397.1	0.35	3.55	1.29	4.58	3.68	7.57	6.05	177.79	178.04	169.55	168.13	0.64	1.71	177.2	176.3	6.35	6.95
wwgm0533	wwml131024	wwml131023	1.25	384.7	0.36	3.56	1.30	4.50	3.62	7.82	6.26	178.04	177.45	168.13	166.71	1.71	2.74	176.3	174.7	6.95	6.75
wwgm0558	wwml131023	wwml131022	1.25	389.7	0.15	2.51	2.57	5.94	5.17	7.85	6.28	177.45	176.99	166.71	165.43	2.74	4.03	174.7	173.0	6.75	6.28
wwgm0520	wwml131022	wwml131021	1.25	449.4	0.36	3.89	1.29	5.01	4.19	7.53	6.03	176.99	174.05	165.43	163.74	4.03	2.93	173.0	171.1	6.28	6.13
wwgm0559	wwml131021	wwml131020	1.25	444.1	0.38	3.87	1.18	4.56	3.66	7.38	5.91	174.05	171.74	163.74	161.93	2.93	2.55	171.1	169.2	6.13	6.01
wwgm0583	wwml131020	wwml131111	1.25	300.8	0.30	3.40	1.30	4.37	3.65	7.26	5.81	171.74	172.52	161.93	160.90	2.55	4.66	169.2	167.9	6.01	5.71
wwgm2119	wwml131111	wwml131019	1.25	95.9	0.28	3.18	1.34	4.26	3.60	6.96	5.57	172.52	173.04	160.90	160.63	4.66	5.51	167.9	167.5	5.71	5.65
wwgm0468	wwml131019	wwml131018	1.25	377.8	0.01	3.72	1.15	4.26	3.45	6.77	5.41	173.04	174.47	160.63	158.73	5.51	8.54	167.5	165.9	5.65	5.95
wwgm1206	wwml131018	wwml131017	1.25	61.3	1.11	6.80	1.48	4.99	4.06	7.51	6.01	174.47	173.93	158.73	157.55	8.54	8.37	165.9	165.6	5.95	6.76
wwgm0479	wwml131017	wwml131014	1.25	277.3	0.27	3.38	1.41	4.60	3.73	8.01	6.41	173.93	167.17	157.55	156.45	8.37	2.75	165.6	164.4	6.76	6.72
wwgm0507	wwml131014	wwml131013	1.25	132.0	0.07	1.65	3.48	5.73	4.52	7.97	6.38	167.17	163.40	156.45	156.32	2.75	0.00	164.4	163.4	6.72	5.83
wwgm0540	wwml131013	wwml131012	1.25	332.9	0.41	3.93	1.37	5.38	4.27	7.08	5.66	163.40	164.21	156.32	154.97	0.00	3.14	163.4	161.1	5.83	4.85
wwgm0482	wwml131012	wwml131011	1.25	85.1	0.44	4.07	1.32	5.38	4.28	5.96	4.77	164.21	165.59	154.97	154.68	3.14	5.20	161.1	160.4	4.85	4.46
wwgm0604	wwml131011	wwml131010	1.25	248.7	0.41	4.01	1.34	5.38	4.29	5.71	4.57	165.59	167.11	154.68	153.52	5.20	8.48	160.4	158.6	4.46	3.86
wwgm0555	wwml131010	wwml131009	1.25	382.6	0.31	3.47	1.55	5.38	4.31	5.11	4.09	167.11	165.55	153.52	152.25	8.48	9.65	158.6	155.9	3.86	2.40

[1]Calculation = HGL - Pipe Invert + Pipe Diameter. Negative number signifies the HGL is below top of pipe and surcharge conditions do not exist.

ONSITE WASTEWATER FLOW CALCULATIONS

BASIN	Zoning	[1]Average Lot Size (ac)	DU/Average Lot Size (DU/ac)	[1]People/ DU	[2]ADWF (gpcd)	Flow (gpad)	[3]I/I (gpad)	Flow + I/I (gpad)	[4]Net Area (ac)	Flow (gpd)	Conversion to cfs	[5]Flow (cfs)	Drains to Node
1	R-1	0.227	4.405	2.69	74.25	880	1,000	1,880	14.564	27,379	1.547E-06	0.0424	wwml92161
3	R-3	0.061	16.393	2.69	99	4,366	1,000	5,366	2.454	13,168	1.547E-06	0.0204	wwml92161
											Total anticipated flow from Springbrook Subdivision	**0.0627**	

[1]See Page 4-6, Table 4-2 of WWMP

[2]Residential flows based on design ADWF per capita value of 99 gpcd & reduced by 25% for R1 Zoning Only: See Page 4-6, Table 4-2 of WWMP

[3]Inflow/Infiltration per City of Newberg's 2015 Design Manual

[4]Allocates 25% of area for roads and other public dedication: See Page 4-6, Table 4-2 of WWMP

[5]Total WW Flow used as constant flow in XPSTORM model

XPSTORM WASTEWATER CONVEYANCE DATA - PROPOSED CONDITIONS TO E 9TH STREET

SPRINGBROOK SUBDIVISION DOWNSTREAM ANALYSIS

Location			Conduit Properties			Conduit Results						Conduit Profile									
Link	Station From	Station To	Diameter	Length	Slope	Design Capacity	Qmax/ Qdesign	Max Flow	Max Velocity	Max Flow Depth	y/d0	US Ground Elev.	DS Ground Elev.	US IE	DS IE	US Freeboard	DS Freeboard	US HGL	DS HGL	[1]HGL -Top of Pipe US	[1]HGL - Top of Pipe US
			ft	ft	%	cfs		cfs	ft/s	ft		ft	ft	ft	ft	ft	ft	ft	ft	ft	ft
wwgm1107	wwml92161	wwml92159	1.25	465.0	0.29	3.48	0.03	0.10	1.26	0.17	0.13	255.92	253.49	249.58	248.10	6.18	5.22	249.7	248.3	-1.09	-1.07
wwgm1108	wwml92159	wwml92158	1.25	128.4	0.27	3.32	0.03	0.11	1.29	0.18	0.14	253.49	255.21	248.10	247.11	5.22	7.94	248.3	247.3	-1.07	-1.09
wwgm1109	wwml92158	wwml92157	1.25	403.4	0.34	3.75	0.03	0.11	1.37	0.16	0.13	255.21	260.95	247.11	245.57	7.94	15.20	247.3	245.8	-1.09	-1.07
wwgm1110	wwml92157	wwml92156	1.25	182.5	0.24	3.17	0.04	0.11	1.25	0.18	0.15	260.95	263.55	245.57	244.65	15.20	18.77	245.8	244.8	-1.07	-1.12
wwgm1111	wwml92156	wwml92147	1.25	203.0	0.51	4.62	0.02	0.11	1.12	0.21	0.17	263.55	262.12	244.65	243.47	18.77	18.30	244.8	243.8	-1.12	-0.90
wwgm1104	wwml92147	wwml92148	1.50	349.7	0.40	6.65	0.11	0.73	2.48	0.35	0.23	262.12	251.71	243.47	241.52	18.30	9.95	243.8	241.8	-1.15	-1.26
wwgm1105	wwml92148	wwml92149	1.50	281.5	1.55	13.06	0.06	0.73	3.99	0.24	0.16	251.71	245.17	241.52	236.97	9.95	7.95	241.8	237.2	-1.26	-1.25
wwgm1106	wwml92149	wwml92150	1.50	500.5	1.41	12.49	0.06	0.73	3.86	0.25	0.17	245.17	241.50	236.97	229.75	7.95	11.54	237.2	230.0	-1.25	-1.29
wwgm1091	wwml92150	wwml92151	1.50	107.8	2.99	18.16	0.04	0.73	5.01	0.21	0.14	241.50	239.75	229.75	225.75	11.54	13.61	230.0	226.1	-1.29	-1.11
wwgm1090	wwml92151	wwml92152	1.50	344.6	0.32	5.94	0.13	0.75	2.32	0.39	0.26	239.75	234.71	225.75	223.96	13.61	10.44	226.1	224.3	-1.11	-1.19
wwgm1131	wwml92152	wwml104050	1.50	237.8	0.56	7.83	0.10	0.75	2.80	0.32	0.21	234.71	232.35	223.96	222.32	10.44	9.59	224.3	222.8	-1.19	-1.06
wwgm1132	wwml104050	wwml104051	1.50	65.3	0.12	3.68	0.21	0.76	2.09	0.44	0.29	232.35	229.69	222.32	222.06	9.59	7.38	222.8	222.3	-1.06	-1.25
wwgm1071	wwml102132	wwml102131	0.83	195.8	0.75	1.87	0.40	0.76	2.81	0.47	0.57	227.75	225.87	220.88	219.28	6.50	5.98	221.2	219.9	-0.46	-0.22
wwgm1070	wwml102131	wwml102073	0.83	126.5	0.58	1.65	0.85	1.39	3.50	0.61	0.73	225.87	225.66	219.28	218.21	5.98	6.99	219.9	218.7	-0.22	-0.37
wwgm1069	wwml102073	wwml102072	0.83	115.9	1.18	2.36	0.60	1.40	4.54	0.46	0.56	225.66	223.35	218.21	216.64	6.99	6.18	218.7	217.2	-0.37	-0.30
wwgm1072	wwml104051	wwml102132	1.50	58.5	1.44	12.59	0.06	0.76	3.92	0.25	0.17	229.69	227.75	222.06	220.88	7.38	6.50	222.3	221.2	-1.25	-1.13
wwgm1129	wwml102072	wwml102071	1.00	423.4	0.52	2.58	0.55	1.42	3.10	0.61	0.61	223.35	220.03	216.64	214.40	6.18	5.00	217.2	215.0	-0.47	-0.37
wwgm1062	wwml102071	wwml102070	1.00	42.2	0.21	1.65	0.86	1.42	3.06	0.63	0.63	220.03	219.80	214.40	214.21	5.00	5.01	215.0	214.8	-0.37	-0.42
wwgm1061	wwml102070	wwml102069	1.00	123.0	0.39	2.23	0.64	1.43	2.61	0.77	0.77	219.80	221.49	214.21	213.72	5.01	6.99	214.8	214.5	-0.42	-0.22
wwgm1060	wwml102069	wwml102068	1.00	254.8	0.21	1.64	0.87	1.43	2.65	0.78	0.78	221.49	219.20	213.72	212.88	6.99	5.93	214.5	213.3	-0.22	-0.61
wwgm1056	wwml102068	wwml102067	1.00	295.6	1.56	4.45	0.33	1.46	5.07	0.39	0.39	219.20	214.51	212.88	208.13	5.93	5.99	213.3	208.5	-0.61	-0.60
wwgm1055	wwml102067	wwml102066	1.00	153.3	1.56	4.45	0.33	1.46	5.08	0.40	0.40	214.51	210.77	208.13	203.23	5.99	7.15	208.5	203.6	-0.60	-0.61
wwgm1054	wwml102066	wwml111099	1.00	425.2	1.66	4.59	0.32	1.47	3.27	0.77	0.77	210.77	202.79	203.23	195.95	7.15	5.85	203.6	196.9	-0.61	-0.01
wwgm1709	wwml111099	wwml111053	1.25	500.2	0.41	4.12	0.87	3.59	3.86	0.99	0.80	202.79	203.84	195.95	193.35	5.85	9.91	196.9	193.9	-0.26	-0.67
wwgm1739	wwml111053	wwml111037	1.25	117.3	2.67	9.80	0.44	4.26	7.70	0.58	0.46	203.84	205.03	193.35	189.43	9.91	15.11	193.9	189.9	-0.67	-0.76
wwgm1740	wwml111037	wwml111036	1.25	53.5	11.56	21.96	0.20	4.28	12.92	6.05	4.84	205.03	203.57	189.43	182.78	15.11	14.19	189.9	189.4	-0.76	5.35
wwgm1710	wwml111036	wwml111035	1.25	289.1	0.48	4.48	0.96	4.28	3.67	6.71	5.37	203.57	188.10	182.78	181.39	14.19	0.00	189.4	188.1	5.35	5.46
wwgm1802	wwml111035	wwml111040	1.25	306.3	0.28	3.40	1.22	4.14	3.28	6.71	5.37	188.10	193.00	181.39	180.54	0.00	5.96	188.1	187.0	5.46	5.25
wwgm1800	wwml111040	wwml111032	1.25	452.8	0.28	3.42	1.20	4.10	3.26	6.42	5.14	193.00	193.30	180.54	179.27	5.96	7.83	187.0	185.5	5.25	4.95
wwgm1799	wwml111032	wwml121031	1.25	450.4	0.28	3.42	1.19	4.07	3.25	6.23	4.98	193.30	190.60	179.27	178.01	7.83	6.69	185.5	183.9	4.95	4.65
wwgm1798	wwml121031	wwml121100	1.25	342.8	0.28	3.35	1.21	4.05	3.23	5.93	4.74	190.60	186.60	178.01	177.06	6.69	3.84	183.9	182.8	4.65	4.45
wwgm1796	wwml121100	wwml121030	1.25	59.7	0.29	3.45	1.20	4.11	3.28	5.68	4.54	186.60	185.90	177.06	176.89	3.84	3.41	182.8	182.5	4.45	4.35
wwgm1795	wwml121030	wwml121029	1.25	347.9	0.60	5.02	0.95	4.62	3.69	6.31	5.05	185.90	182.20	176.89	174.79	3.41	1.11	182.5	181.1	4.35	5.05
wwgm1794	wwml121029	wwml121028	1.25	365.6	0.58	4.93	1.00	4.74	3.78	6.94	5.55	182.20	179.60	174.79	172.66	1.11	0.04	181.1	179.6	5.05	5.65
wwgm1793	wwml121028	wwml121103	1.25	38.1	0.79	5.74	2.22	11.32	9.06	7.38	5.90	179.60	179.74	172.66	172.36	0.04	-0.02	179.6	179.8	5.65	6.15
wwgm1792	wwml121103	wwml121027	1.25	23.1	-0.04	1.34	11.41	4.39	3.51	7.37	5.90	179.74	179.87	172.36	172.17	-0.02	0.10	179.8	179.8	6.15	6.35
wwgm1791	wwml121027	wwml121026	1.25	336.7	0.33	3.73	1.25	4.54	3.63	6.92	5.53	179.87	177.80	172.17	171.05	0.10	0.00	179.8	177.8	6.35	5.50
wwgm1790	wwml121026	wwml131025	1.25	351.3	0.27	3.36	1.39	4.60	3.68	6.80	5.44	177.80	177.79	171.05	169.55	0.00	0.64	177.8	177.2	5.50	6.35
wwgm0580	wwml131025	wwml131024	1.25	397.1	0.35	3.55	1.29	4.58	3.68	7.57	6.05	177.79	178.04	169.55	168.13	0.64	1.71	177.2	176.3	6.35	6.95
wwgm0533	wwml131024	wwml131023	1.25	384.7	0.36	3.56	1.30	4.50	3.62	7.82	6.26	178.04	177.45	168.13	166.71	1.71	2.74	176.3	174.7	6.95	6.75
wwgm0558	wwml131023	wwml131022	1.25	389.7	0.15	2.51	2.57	5.94	5.17	7.85	6.28	177.45	176.99	166.71	165.43	2.74	4.03	174.7	173.0	6.75	6.28
wwgm0520	wwml131022	wwml131021	1.25	449.4	0.36	3.89	1.29	5.01	4.19	7.53	6.03	176.99	174.05	165.43	163.74	4.03	2.93	173.0	171.1	6.28	6.13
wwgm0559	wwml131021	wwml131020	1.25	444.1	0.38	3.87	1.18	4.56	3.66	7.38	5.91	174.05	171.74	163.74	161.93	2.93	2.55	171.1	169.2	6.13	6.01
wwgm0583	wwml131020	wwml131111	1.25	300.8	0.30	3.40	1.30	4.37	3.65	7.26	5.81	171.74	172.52	161.93	160.90	2.55	4.66	169.2	167.9	6.01	5.71
wwgm2119	wwml131111	wwml131019	1.25	95.9	0.28	3.18	1.34	4.26	3.60	6.96	5.57	172.52	173.04	160.90	160.63	4.66	5.51	167.9	167.5	5.71	5.65
wwgm0468	wwml131019	wwml131018	1.25	377.8	0.01	3.72	1.15	4.26	3.45	6.77	5.41	173.04	174.47	160.63	158.73	5.51	8.54	167.5	165.9	5.65	5.95
wwgm1206	wwml131018	wwml131017	1.25	61.3	1.11	6.80	1.48	4.99	4.06	7.51	6.01	174.47	173.93	158.73	157.55	8.54	8.37	165.9	165.6	5.95	6.76
wwgm0479	wwml131017	wwml131014	1.25	277.3	0.27	3.38	1.41	4.60	3.73	8.01	6.41	173.93	167.17	157.55	156.45	8.37	2.75	165.6	164.4	6.76	6.72
wwgm0507	wwml131014	wwml131013	1.25	132.0	0.07	1.65	3.48	5.73	4.52	7.97	6.38	167.17	163.40	156.45	156.32	2.75	0.00	164.4	163.4	6.72	5.83
wwgm0540	wwml131013	wwml131012	1.25	332.9	0.41	3.93	1.37	5.38	4.27	7.08	5.66	163.40	164.21	156.32	154.97	0.00	3.14	163.4	161.1	5.83	4.85
wwgm0482	wwml131012	wwml131011	1.25	85.1	0.44	4.07	1.32	5.38	4.28	5.96	4.77	164.21	165.59	154.97	154.68	3.14	5.20	161.1	160.4	4.85	4.46
wwgm0604	wwml131011	wwml131010	1.25	248.7	0.41	4.01	1.34	5.38	4.29	5.71	4.57	165.59	167.11	154.68	153.52	5.20	8.48	160.4	158.6	4.46	3.86
wwgm0555	wwml131010	wwml131009	1.25	382.6	0.31	3.47	1.55	5.38	4.31	5.11	4.09	167.11	165.55	153.52	152.25	8.48	9.65	158.6	155.9	3.86	2.40

[1]Calculation = HGL - Pipe Invert + Pipe Diameter. Negative number signifies the HGL is below top of pipe and surcharge conditions do not exist.

Figure 5 WWMP Surcharging Analysis			
Node	[1]Surcharging According to Color	[2]Surcharging According WWMP Data Output	[3]Surcharging According to 3J Modeling
wwml92161	No	No	No
wwml92159	No	No	No
wwml92158	No	No	No
wwml92157	No	No	No
wwml92156	No	No	No
wwml92147	No	No	No
wwml92148	No	No	No
wwml92149	No	No	No
wwml92150	Yes	No	No
wwml92151	Yes	No	No
wwml92152	Yes	No	No
wwml104050	Yes	No	No
wwml102132	Yes	No	No
wwml102131	Yes	No	No
wwml102073	Yes	No	No
wwml104051	Yes	No	No
wwml102072	Yes	No	No
wwml102071	Yes	No	No
wwml102070	Yes	No	No
wwml102069	No	No	No
wwml102068	Yes	No	No
wwml102067	Yes	No	No
wwml102066	Yes	No	No
wwml111099	No	No	No
wwml111053	No	No	No
wwml111037	No	No	Yes
wwml111036	Yes	Yes	Yes
wwml111035	Yes	Yes	Yes
wwml111040	Yes	Yes	Yes
wwml111032	Yes	Yes	Yes
wwml121031	Yes	Yes	Yes
wwml121100	Yes	Yes	Yes
wwml121030	Yes	Yes	Yes
wwml121029	Yes	Yes	Yes
wwml121028	Yes	Yes	Yes
wwml121103	Yes	Yes	Yes
wwml121027	Yes	Yes	Yes
wwml121026	Yes	Yes	Yes
wwml131025	Yes	Yes	Yes
wwml131024	Yes	Yes	Yes
wwml131023	Yes	Yes	Yes
wwml131022	Yes	Yes	Yes
wwml131021	Yes	Yes	Yes
wwml131020	Yes	Yes	Yes
wwml131111	Yes	Yes	Yes
wwml131019	Yes	Yes	Yes
wwml131018	Yes	Yes	Yes
wwml131017	Yes	Yes	Yes
wwml131014	Yes	Yes	Yes
wwml131013	Yes	Yes	Yes
wwml131012	Yes	Yes	Yes
wwml131011	Yes	Yes	Yes
wwml131010	Yes	Yes	Yes
[1]Figure 5: Updated System Evaluation from WWMP Update			
[2]WWMP Update: Appendix D1 - Existing System Flow			
[3]XPSTORM Wastewater Conveyance Data: Springbrook Subdivision Downstream Analysis (Existing & Proposed Conditions			

Table 5-2: Springbrook Road Alternatives Estimated Costs

Alternative	Item	Unit	Unit Price	Quantity	Cost
A	Upsize existing pipeline				$ 3,176,000
	Mobilization	%	5	-	$ 158,800
	Subtotal (rounded)				$ 3,335,000
	Contingency	%	30	-	$ 1,000,500
	Subtotal (rounded)				$ 4,336,000
	Engineering and CMS	%	25	-	$ 1,084,000
	Project Total Cost (rounded):				**$5,420,000**
B	Parallel gravity main				$ 1,282,500
	Upsize existing pipeline				$ 915,000
	Subtotal (rounded)				$ 2,198,000
	Mobilization	%	5	-	$ 109,900
	Subtotal (rounded)				$ 2,308,000
	Contingency	%	30	-	$ 692,400
	Subtotal (rounded)				$ 3,001,000
	Engineering (25%) and Soft Costs				$ 810,250
	Project Total Cost (rounded):				**$3,812,000**

Excerpt from WWMP, page 5-7

Appendix G - TVF&R Permit

3809 NE Springbrook Road Annexation

08/16/2024

FIRE CODE / LAND USE / BUILDING REVIEW APPLICATION

Tualatin Valley Fire & Rescue

North Operating Center
11945 SW 70th Avenue
Tigard, OR 97223
Phone: 503-649-8577

South Operating Center
8445 SW Elligsen Rd
Wilsonville, OR 97070
Phone: 503-649-8577

REV 6-30-20

Project Information

Applicant Name: Maski Narita – Springbrook Subdivision

Address: 3800 SW Cedar Hills Blvd, Suite 131

Phone: 503-430-7413

Email: M-narita@ichijouse.com

Site Address: 3809 N Springbrook Rd

City: Newberg, OR 97132

Map & Tax Lot #: 3S2W9 2300

Business Name: Ichijo USA CO

Land Use/Building Jurisdiction: Newberg

Land Use/ Building Permit # N/A

Choose from: Beaverton, Tigard, **Newberg**, Tualatin, North Plains, West Linn, Wilsonville, Sherwood, Rivergrove, Durham, King City, Washington County, Clackamas County, Multnomah County, Yamhill County

Project Description

A 100 lot subdivision located in Newberg Oregon near the intersection of Springbrook Road and Benjamin Road

Permit/Review Type (check one):

- ☒ Land Use / Building Review - Service Provider Permit
- ☐ Emergency Radio Responder Coverage Install/Test
- ☐ LPG Tank (Greater than 2,000 gallons)
- ☐ Flammable or Combustible Liquid Tank Installation (Greater than 1,000 gallons)
  - * Exception: Underground Storage Tanks (UST) are deferred to DEQ for regulation.
- ☐ Explosives Blasting (Blasting plan is required)
- ☐ Exterior Toxic, Pyrophoric or Corrosive Gas Installation (in excess of 810 cu.ft.)
- ☐ Tents or Temporary Membrane Structures (in excess of 10,000 square feet)
- ☐ Temporary Haunted House or similar
- ☐ OLCC Cannabis Extraction License Review
- ☐ Ceremonial Fire or Bonfire (For gathering, ceremony or other assembly)

For Fire Marshal's Office Use Only

TVFR Permit # 2024-0095

Permit Type: SPP-Newberg

Submittal Date: 7-15-24

Assigned To: DPM Arn

Due Date: NA

Fees Due: Ø

Fees Paid: Ø

Approval/Inspection Conditions

(For Fire Marshal's Office Use Only)

This section is for application approval only

[signature] 0450 — 7-15-24

Fire Marshal or Designee — Date

Conditions: 100-lot development to have one point of fire access all homes to be voluntarily sprinklered.

See Attached Conditions: ☒ Yes ☐ No attached email

Site Inspection Required: ☒ Yes ☐ No

This section used when site inspection is required

Inspection Comments:

Final TVFR Approval Signature & Emp ID — Date

LOT 33
5720 SF

LOT 34
5720 SF

LOT 35
5720 SF

LOT 36
5766 SF

LOT 37
5719 SF

LOT 38
5719 SF

LOT 39
5719 SF

LOT 40
5719 SF

LOT 41
4428 SF

TAX LOT 02300
TAX MAP 312.09

LOT 50
5720 SF

LOT 49
5720 SF

LOT 48
5720 SF

LOT 47
5766 SF

LOT 46
5720 SF

LOT 45
5720 SF

LOT 44
5720 SF

LOT 43
5720 SF

LOT 42
4428 SF

STREET B

32.0'

LOT 60
4428 SF

LOT 61
5022 SF

LOT 62
5673 SF

LOT 63
5022 SF

LOT 64
5022 SF

LOT 65
5673 SF

LOT 66
5115 SF

LOT 67
5673 SF

LOT 68
5022 SF

LOT 69
4428 SF

LOT 79
4428 SF

LOT 78
5022 SF

LOT 77
5673 SF

LOT 76
5022 SF

LOT 75
5022 SF

LOT 74
5673 SF

LOT 73
5115 SF

LOT 72
5673 SF

LOT 71
5022 SF

LOT 70
4428 SF

STREET A

32.0'

LOT 87
5081 SF

LOT 88
5074 SF

LOT 89
4074 SF

LOT 90
4070 SF

LOT 91
4065 SF

LOT 92
4061 SF

LOT 93
4057 SF

LOT 94
4052 SF

LOT 95
4048 SF

LOT 96
4043 SF

LOT 97
4039 SF

LOT 98
4035 SF

LOT 99
4030 SF

LOT 100
5375 SF

STREET F

32.0'

LOT 11
4100 SF

LOT 10
4100 SF

LOT 9
4100 SF

LOT 8
4100 SF

LOT 7
4100 SF

LOT 6
4100 SF

LOT 5
4100 SF

LOT 4
4100 SF

LOT 3
4100 SF

LOT 2
4100 SF

LOT 1
4063 SF

32.0'

32.0'

TRACT B
37672 SF

TRACT C
18408 SF

TRACT A
42104 SF

Must have an approved water quality manhole installed prior to stormwater entering the pond.

ROK RD

Appendix H - Water System Analysis Report

3809 NE Springbrook Road Annexation

08/16/2024



GRAYLING ENGINEERS

Technical Memorandum DRAFT

Project: Springbrook Subdivision Booster Pump Station [2409A]

Date: August 14th, 2024

To: Brett Musick, PE
City of Newberg

From: Haillee Nunn, EIT (Grayling)
Kyle Thompson, PE (Grayling)
Jeff Howard, PE (R&W)

Re: Basis of Design

Att: A. Precision Pumping System Enclosure and Building Options
B. Hydrant Test Data

Background, Purpose, and Authorization

The City of Newberg owns and operates the public drinking water system that serves the proposed Springbrook subdivision. The Springbrook subdivision is located at the upper end of the system's highest pressure zone, known as Pressure Zone 1. The 2017 Water Master Plan states that pressure Zone 1 can provide adequate water pressure up to an elevation of 310 feet. The proposed subdivision will have services ranging from 300 feet to 350 feet at the highest elevation. A booster pump station is needed to provide adequate water pressure under normal conditions and fire flow under emergency conditions.

3J Consulting (3J) has requested assistance from Grayling Engineers (Grayling) with developing a pre-design for the booster pump station to serve the subdivision. Grayling has enlisted the help from R&W Engineering (R&W) to determine the power requirements for the pump station. The results and conclusions presented herein will be used in the subsequent final design phase of the project.

Preliminary Reviews

Water Quality

The proposed pump station is not anticipated to have an effect on water quality. However, because the subdivision is on the fringe of the City's water system, a chlorination station could be added in case chlorine residuals are low in the area.

Geotechnical

A preliminary geotechnical review has not been conducted but will be completed during the second phase of work (final design). This review will assess soil conditions to ensure a stable foundation for the pump station and identify any potential challenges such as high water tables or soil instability.

Permitting

The City is the permitting agency for this project. The proposed pump station will require a final plan review and approval by the Oregon Health Authority (OHA). In addition, the following permits are anticipated:

- Trade permits for electrical and mechanical; these will be led by the contractor.

Pump Station Capacity Evaluation

To develop the system design conditions, a hydraulic analysis was completed using WaterCAD by Bentley. The pump station is assumed to be supplied by a 12-inch distribution main from N. Springbrook Road, which currently dead-ends at a fire hydrant near 3898 N. Springbrook Road. A flow test was performed on two hydrants: one at the current dead-end of the main, and another approximately 370 feet to the south, near the intersection of N. Springbrook Road and Allison Lane. The test data, provided by AFP Systems, was utilized to model the existing distribution system supplying the proposed pump station. A system curve was developed for both 20 psi and 50 psi operating pressures for the subdivision; 20 psi is the minimum operating pressure under fire flow conditions, while 50 psi is an assumed operating pressure under normal conditions. [CITY, CONFIRM DISTRIBUTION PRESSURE.]

The evaluation is based on the following design criteria:

- The station must supply 2,000 gpm of fire flow, considering the R-3 zoning for some of the lots, while simultaneously delivering maximum day demand (MDD) and maintaining a minimum pressure of 20 psi in the distribution system,
- 12-inch diameter supply and discharge line,
- 8-inch diameter distribution piping,
- The station must meet peak hour demand (PHD), calculated using Equation 3-1 from the Washington State Department of Health (DOH) Water System Design Manual (WSDM), resulting in a PHD of 134 gpm.

Table 1 lists the design points developed from the hydraulic model. Further evaluation of system head requirements will be performed during the final design phase when more detailed information is available on the layout and size of piping, control valves, and meters within the pump station. All of these contribute to system head losses and the final sizing and selection of pumps for the pump station. To accommodate these losses, a safety factor of 20 feet has been incorporated into the system curves, as illustrated in **Figure 1**.

Table 1. Initial Design Points

Design Point	Flow (gpm)	Head (ft)
1	160	80
2	2,000	85

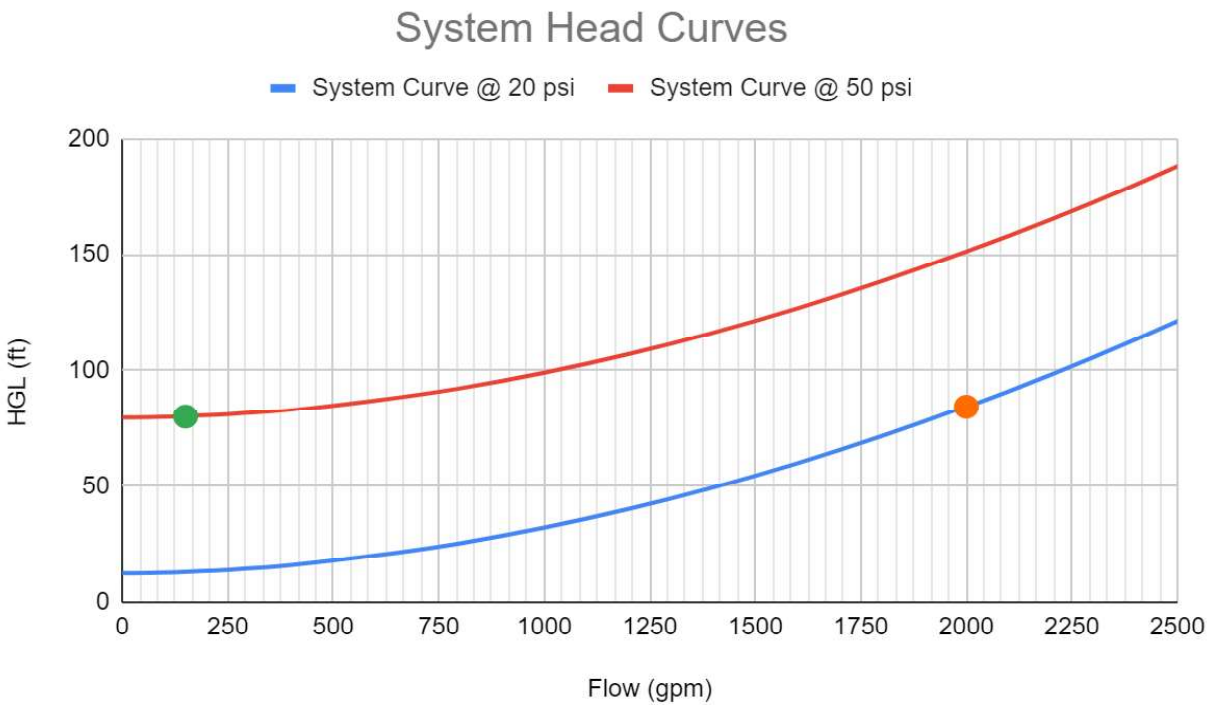


Figure 1. System Head Curves at 20 psi and 50 psi

Configuration Alternatives

Building

There are a variety of alternatives when it comes to housing the pumps and controls, each with its own set of advantages and considerations. Three alternatives, ranging from compact to custom enclosures, are presented below. While these are not the only options for a booster pump station, these are suitable options for this application.

- **Small Enclosure:** This option is cost-effective and quick to install but has limited space for maintenance and future upgrades. The control panel may be mounted inside the enclosure or in a separate enclosure or on a kiosk.



Figure 2. Aluminum Enclosure *(Image from Precision Pumping Systems)*

- **Pre-fabricated Building:** Offers a balance between cost and functionality, providing adequate space and flexibility for internal layouts while being relatively quick to construct. For this system, a building would be approximately 20 feet x 10 feet.



Figure 3. Pre-fabricated building *(Image from Precision Pumping Systems)*

- **Custom Building:** This option allows for the most flexibility in design and space but is the most expensive and time-consuming to construct.



Figure 4. Customized building with generator inside

Attachment A includes additional information regarding the aluminum enclosures and prefabricated buildings as supplied by Precision Pumping Systems.

[CITY, LET'S REVIEW]

Upon review, the City prefers a [TO FOLLOW] building/ enclosure for this application.

Pumps

Selecting the right type of pump is crucial for the efficiency and reliability of the booster pump station. Each type of pump offers different benefits and drawbacks, which must be considered based on the specific requirements of the project. The three pump types most commonly used in drinking water applications are listed below.

- **End Suction Pumps:** End suction pumps are robust and cost-effective but may have lower efficiency compared to other types.



Figure 5. End Suction Pumps *(Image from Precision Pumping Systems)*

- **Vertical Multistage Pumps:** These offer better efficiency and require less space, making them suitable for compact installations. However, they are more expensive than end suction pumps and more susceptible to damage from debris.



Figure 6. Vertical Multistage Pumps (Image from Precision Pumping Systems)

- **Vertical Turbine Pumps:** These provide high efficiency and reliability. They are the most expensive option and require a more complex installation process.



Figure 7. Vertical Turbine Pumps (Image from Precision Pumping Systems)

[CITY, DO YOU HAVE A PREFERENCE ON PUMP TYPE?]

Upon review, the City prefers [TO FOLLOW] pumps for this application.

Pump Configuration

The minimum pump station configuration will consist of two larger pumps, each capable of supplying the required fire flow and a jockey pump to satisfy daily flows. The jockey pump will run most of the time to

meet the PHD and typical flows. Based on the capacity analysis discussed previously, the pumps would be approximately 60 hp and 5 hp, respectively. The skid for this configuration, which includes the electrical control panel, is approximately 8 feet x 17 feet.

The jockey pump ensures that the system maintains efficiency by not relying solely on the larger pumps for regular flow requirements. This approach conserves energy and reduces wear and tear on the larger pumps, which are reserved for emergency fire flow situations. By having dedicated pumps for both fire flow and regular flow, the system is optimized for reliability and performance.

[CITY, CONFIRM APPROACH]

Controls/ Communications

Effective control systems are crucial for the efficient and reliable operation of the booster pump station. The pump station will utilize Supervisory Control and Data Acquisition (SCADA) for monitoring and control. Additionally, Remote Telemetry Units (RTUs) will be integrated into the system, akin to the configuration used at the Oak Knoll Pump Station. This setup ensures consistent and reliable communication, allowing for real-time monitoring and control of the pump station operations from a central location. [CITY, CONFIRM. WHAT ARE YOUR THOUGHTS ON THE CONTROLS USED IN THE OAK KNOLL PUMP STATION? ARE THERE ANY ASPECTS YOU PARTICULARLY LIKE OR DISLIKE?]

Variable Frequency Drives

Variable Frequency Drives (VFDs) are an important component of the control system. They regulate the speed and torque of the pump motors, offering several benefits:

- **Energy Efficiency:** By adjusting the motor speed to match the system demand, VFDs reduce energy consumption and operational costs.
- **System Protection:** VFDs provide smooth start-ups and shut-downs, reducing mechanical stress on the pumps and minimizing water hammer effects.
- **Enhanced Control:** VFDs allow for precise control of flow and pressure, ensuring the system can respond dynamically to changes in demand.
- **Extended Equipment Life:** By reducing wear and tear on the pumps, VFDs can extend the operational lifespan of the equipment.

Integrating VFDs into the control system of the booster pump station will enhance its performance, improve energy efficiency, and reduce maintenance costs, making them a valuable addition to the overall design.

Instrumentation and Valves

Instrumentation is vital for monitoring and controlling the booster pump station to ensure optimal performance and reliability. Several key instruments are typically used in a constant pressure booster pump station:

- **Flow Meter:** Essential for measuring the volume and rate of water being pumped, helping to monitor performance, detect leaks, and ensure accurate billing.
- **Pressure Gauges:** Installed to monitor the pressure within the system, ensuring that the pump station maintains the required pressure levels for both domestic use and fire protection.
- **Control Valves:** Integral for regulating flow and pressure, maintaining system stability, and protecting against pressure surges.

- **Pressure Relief Valves:** These valves automatically release pressure when it exceeds a predetermined limit. They are essential for protecting the system from overpressure conditions.
- **Check Valves:** Check valves prevent backflow and protect the integrity of the system.

Selecting the appropriate instrumentation ensures the pump station operates efficiently, meets regulatory requirements, and provides reliable service to the community.

The City has chosen to include the following instrumentation: [TO FOLLOW].

Power

The power utility service of the subdivision is Portland General Electric (PGE). Preferred power configuration for motors 1 HP and larger is 3-phase, with 480 Volts generally being preferred for motors larger than 20 HP to 25 HP. We have confirmed with PGE that three phase power is available along N. Springbrook Road, which allows for the proposed pump station location to be provided with 480 Volt, 3-phase power. Actual design of the service from the existing overhead lines to the pump station site will be performed by PGE, but it is assumed a primary power line will be extended, underground, from one of the existing power poles along N. Springbrook Road, to a transformer pad (or pad/vault, depending on PGE's requirements) location near the Booster Pump Station. The actual transformer size (kVA-rating) will be by PGE; the transformer pad should have a dimension of 6-ft x 6-ft.

Based on (2) 60HP pumps, (1) 5 HP pump, and various miscellaneous loads (lights, heat, receptacles, controls, etc.), our preliminary calculations indicate a 400 Amp service (at 480 Volts, 3-phase) will be required.

Backup Generator

Ensuring reliable backup power is essential for the continuous operation of the booster pump station. It is assumed that the generator will be natural gas powered, similar to the city's wastewater lift station standards.

Assuming the entire pump station is to be provided with backup power, preliminary calculations indicate a 150 kW generator will be required.

There are a couple of placement options for the generator, each with its own set of considerations:

- **Outside with a Sound Attenuating Enclosure:** Placing the generator outside in a sound attenuating enclosure can effectively reduce noise levels and exhaust issues. This option simplifies maintenance access and it keeps the interior space free for other equipment if a building is chosen to house the pumps. However, it requires adequate outdoor space and consideration of weather protection and security measures.
- **Inside a Building:** Housing the generator inside a building can protect it from environmental elements and potential vandalism. However, this option requires a larger custom building to accommodate the generator and ensure proper ventilation for exhaust and cooling. This increases construction costs and can complicate the internal layout.

[CITY, WOULD YOU LIKE THE GENERATOR OUTSIDE OR INSIDE A BUILDING? IF THE LATTER THE BUILDING MUST BE CUSTOM TO ACCOMMODATE NFPA AND VENTILATION REQUIREMENTS.]

The City has chosen to place the generator [TO FOLLOW].

Preliminary Cost Estimate

The estimated project cost for the proposed Crestview Green Sanitary Pump Station is $XXX,XXX which includes a 30% contingency. The cost estimate represents an opinion of cost only, acknowledging that final costs of individual projects will vary depending on actual labor and material costs, and other factors. The Association for the Advancement of Cost Engineering International (AACE International) classifies cost estimates depending on project definition, end usage, and other factors. The cost estimates presented herein are considered Class 4 with the end usage being concept evaluation. The expected accuracy range for this level of detail is -20 percent to +30 percent.

Estimated costs shown herein are expressed in 2024 dollars. Costs are based on historical data, past projects, and correspondence with contractors. Costs do not include land acquisition in the form of either purchase or easements.

Next Steps

Based on the results of the predesign task described in this memorandum, the anticipated next steps for the project are outlined below.

- Geotechnical investigation site work and design recommendations
- Finalize pump selection
- Complete final design
- Prepare project report for submittal to OHA

ATTACHMENT A

Precision Pumping System Enclosure and Building Options

PPS
Precision Pumping Systems

PRE-PACKAGED PUMP STATION

MARINE GRADE ALUMINUM ENCLOSURES

Protect your pump station from the elements with our marine grade aluminum custom enclosures. These enclosures provide life-extending protections—while eliminating the need to build an expensive pump house.





Features

- 5052 H-32 marine grade aluminum combat corrosion
- Heat fused, polyester TGIC powder coating
- Thickness: .08"
- Removable bolt-down, single or double roll-off lids
- Lift-off lids and detachable panels
- Locking doors prevent vandalism and intrusion
- Low profile dimensions and design
- Non-slip floor matting

Available Options

- Custom colors available
- Interior and exterior lighting
- Heating, air conditioning and insulation
- Ventilation fans to regulate temperature
- Standard and custom designs
- Stainless Steel

Powder Coat Color Options

PPS Green

PPS Beige

PPS BEIGE IS STANDARD UNLESS OTHERWISE SPECIFIED

Available in 12 different sizes (Custom sizes available)



W **24** x D **36** x H **25**



W **32** x D **48** x H **33**



W **32** x D **48** x H **33**



W **48** x D **33** x H **32**



W **66** x D **48** x H **48**



W **96** x D **48** x H **48**



W **96** x D **48** x H **66**



W **96** x D **72** x H **66**



W **200** x D **72** x H **66**



W **96** x D **96** x H **78**



W **120** x D **96** x H **78**



W **200** x D **96** x H **78**





Boise, ID
208.323.5300

Columbia, SC
839.895.5350

PPS
Precision Pumping Systems

GoPPS.com

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SINCE 1972
AND OPERATED

PPS
Precision Pumping Systems

PRE-PACKAGED PUMP STATION

PREFABRICATED ENCLOSURE OPTIONS

PreCast Concrete Buildings







Color Options



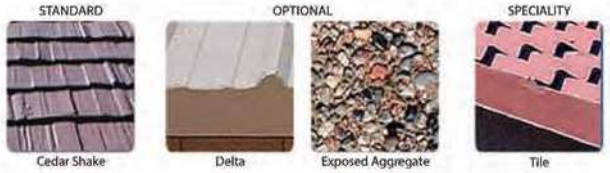
Stone Options



Wall Textures



Roof Textures



Powder Coated Marine Grade Aluminum Enclosures











Composite Buildings

Standard Composite Finish



Composite with Siding and Roofing





Additional Options





Pump Station Prefabricated Enclosure Features & Options

Precast Concrete

- 4" thick steel-reinforced concrete walls
- 5" thick steel-reinforced concrete roof
- Standard and custom designs
- Built to withstand earthquakes, hurricane winds and 120 lb/Ft^2 snow load
- Vandal resistant components
- Widest variety of finishes, textures and colors available
- Shipped ready to use

Available Options

- Custom window and doors
- Ventilation/Heating/Air Conditioning
- Interior and exterior lighting
- Intrusion alarm prevents unauthorized entry and theft
- Non-slip floor matting

Powder Coated Marine Grade Aluminum

- 5052 H-32 marine grade aluminum combat corrosion
- Heat fused, polyester TGIC powder coating
- Removable bolt-down, single or double roll-off lids
- Lift-off lids and detachable panels
- Locking doors prevent vandalism and intrusion
- Low profile dimensions and design
- Non-slip floor matting

Available Options

- Custom colors available
- Interior and exterior lighting
- Heating, air conditioning and insulation
- Ventilation fans to regulate temperature
- Standard and custom designs

Composite

- Non-corrosive, sound reducing composite material
- Secure equipment protection
- Designed to resist damage from impact, chemicals, and environmental conditions
- Arrives fully assembled and generally does not require a building permit
- Locking doors prevent vandalism and intrusion
- Walk-in space for easy service and maintenance access
- New construction or retrofit for existing installations

Available Options

- Thermal insulation
- Interior and exterior lighting
- Roof access hatches
- Custom enclosure colors and finishes
- Standard and custom designs

Boise, ID
208.323.5300

Columbia, SC
839.895.5350

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Precision Pumping Systems

GoPPS.com

FAMILY-OWNED SINCE 1972 AND OPERATED

ATTACHMENT B

Hydrant Test Data

AFP SYSTEMS 19435 SW 129th AVE. Tualatin, OR 97063 (503) 692 9284

AFP Systems Fire Hydrant Test Form

Person conducting inspection: Clinton Crisp, Michael Garcia Date: 6-24-24

Building Name: 3809 NE Springbrook Rd, Newberg, OR, USA

Building Address: Northeast Springbrook Road Newberg OR 97132

Number of hydrants being tested: _____

Contact: _____ Number: _____ Email: _____

	#1	#2	#3	#4	#5
Location of hydrant?	South	North			
Access unobstructed?	Yes	Yes			
Faced correctly?	Yes	Yes			
Set Properly?	Yes	Yes			
Location of residual pressure gauge?	N	S			
Static PSI?	60	63			
Residual PSI?	55	57			
Size of outlet flowed?	2.5	2.5			
Number of outlets flowed?	1	1			
Pitot reading?	37	34			
GPM flowed?	1040	1030			
Threads in good repair?	Yes	Yes			
Lubricated?	Yes	Yes			
Leaking in base, dome, or sleeve when under pressure not present?	Yes	Yes			
Hydrant operates properly?	Yes	Yes			
Operating nut lubricated?	Yes	Yes			
Hydrant drains properly?	Yes	Yes			

If NO Please explain:

_____

_____

_____

_____

_____

AFP SYSTEMS 19435 SW 129th AVE. Tualatin, OR 97063 (503) 692 9284

Corrections made:

_____
_____
_____
_____
_____

Corrections required:

_____
_____
_____
_____
_____

Recommendations:

_____
_____
_____
_____
_____

Who was notified of corrections required if needed? _____

Name: _____ Phone number: _____ Email: _____

AFP systems qualified technician preformed this inspection.

Name: Clinton Crisp

Signature: _____

Title: Service

Questions please call (503) 692 9284 or email Justin@afpsys.com

CS-13948 Received 6/4/2024 County Surveyor

RECORD OF SURVEY

LOCATED IN THE SW 1/4 SECTION 9, T.3S, R.2W., W.M.
YAMHILL COUNTY, OREGON

MAY 29, 2024 SCALE: 1" = 100'

PREPARED FOR 3J CONSULTING

Survey prepared by:
Compass Land Surveyors
4107 International Way, Suite 705
Milwaukie, Oregon 97222
Phone: 503-653-9093
8776 Bnd.dwg

N
W E
S
100' 0' 100'
SCALE: 1" = 100'

LEGEND:

○	DENOTES 5/8" DIAMETER BY 30 INCH LONG IRON ROD WITH A YELLOW PLASTIC CAP STAMPED "COMPASS LAND SURVEYORS", UNLESS NOTED OTHERWISE, SET ON MAY 29, 2024
⊗	DENOTES 5/8" DIAMETER IRON ROD WITH A YELLOW PLASTIC CAP STAMPED "CARDNO WRG INC" (P2)
●	DENOTES MONUMENT FOUND AS NOTED
IR	IRON ROD
IP	IRON PIPE
P	PLAT DIMENSION, SEE REFERENCE SURVEYS
R	RECORD DIMENSION, SEE REFERENCE SURVEYS
YPC	YELLOW PLASTIC CAP
(O.U.)	ORIGIN UNKNOWN
M/M	MONUMENT TO MONUMENT
INSTR.	INSTRUMENT (YAMHILL COUNTY DEED RECORDS)

REFERENCE SURVEYS

R1 CSP 8558
R2 CS 12375
R3 CSP 9350
CS 2805
CS 5703
CS 12764
CRS 393
CSP 8401
CSP 5760
CSP 7599
CSP 6103
CSP 9693

P1 PARTITION PLAT NO. 1996-14
P2 "SPRINGBROOK DISTRICT", VOL 15, PAGE 2
P3 "COUNTRY ESTATES", VOL 10, PAGE 27
"SANDBAK ACRES", VOL 8, PAGE 28
PARTITION PLAT NO. 2017-16

NARRATIVE:

1. PURPOSE: THE PURPOSE OF THIS SURVEY WAS TO LOCATE PARCELS 1 AND 2 AS DESCRIBED IN INSTRUMENT NO. 2002-06401, YAMHILL COUNTY DEED RECORDS, FOR THE OUTBOUNDS OF A PROPOSED SUBDIVISION.

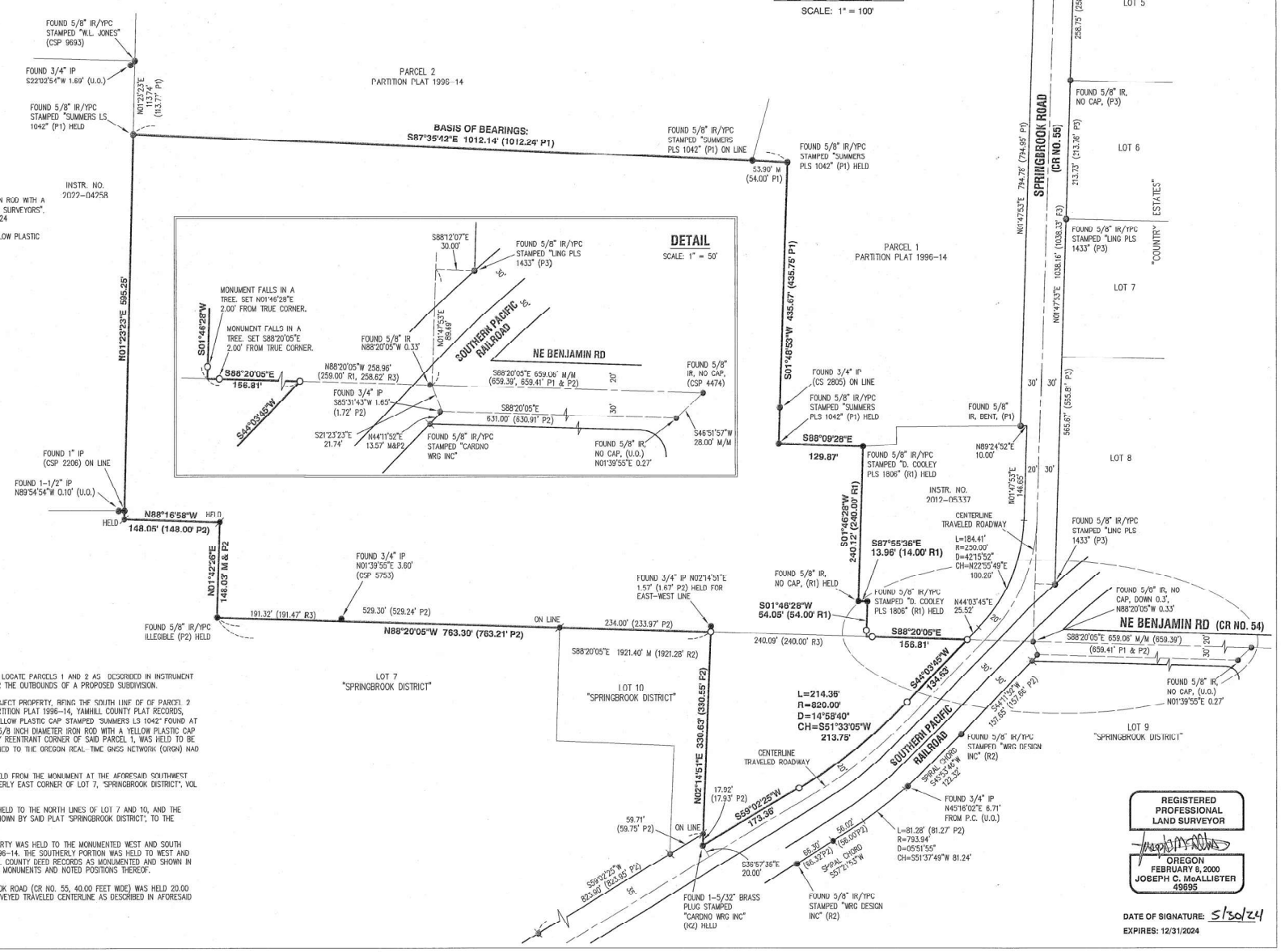
2. BASIS OF BEARINGS: THE NORTH LINE OF THE SUBJECT PROPERTY, BEING THE SOUTH LINE OF OF PARCEL 2 AND THE WESTERLY REENTRANT LINE OF PARCEL 1, PARTITION PLAT 1996-14, YAMHILL COUNTY PLAT RECORDS, BETWEEN THE 5/8 INCH DIAMETER IRON ROD WITH A YELLOW PLASTIC CAP STAMPED "SUMMERS LS 1042" FOUND AT THE SOUTHWEST CORNER OF SAID PARCEL 2 AND THE 5/8 INCH DIAMETER IRON ROD WITH A YELLOW PLASTIC CAP STAMPED "SUMMERS LS 1042", FOUND AT THE WESTERLY REENTRANT CORNER OF SAID PARCEL 1, WAS HELD TO BE S.87°35'42"E., BEING BASED UPON GPS OBSERVATIONS TIED TO THE OREGON REAL TIME GNSS NETWORK (ORGN) NAD 83 (2011) EPOCH 2010.00.

3. THE EAST LINE OF THE SUBJECT PROPERTY WAS HELD FROM THE MONUMENT AT THE AFORESAID SOUTHWEST CORNER OF PARCEL 2 TO THE MONUMENT MOST NORTHERLY EAST CORNER OF LOT 7, "SPRINGBROOK DISTRICT", VOL 15, PAGE 2, YAMHILL COUNTY PLAT RECORDS.

4. THE SOUTH LINE OF THE SUBJECT PROPERTY WAS HELD TO THE NORTH LINES OF LOT 7 AND 10, AND THE EAST LINE OF LOT 10, AS MONUMENTED, NOTED AND SHOWN BY SAID PLAT "SPRINGBROOK DISTRICT", TO THE MONUMENTS AND NOTED POSITIONS THEREOF.

5. THE NORTHERLY EAST LINE OF THE SUBJECT PROPERTY WAS HELD TO THE MONUMENTED WEST AND SOUTH LINES OF AFORESAID PARCEL 1, PARTITION PLAT NO 1996-14. THE SOUTHERLY PORTION WAS HELD TO WEST AND SOUTH LINES OF INSTRUMENT NO. 2012-05337. YAMHILL COUNTY DEED RECORDS AS MONUMENTED AND SHOWN IN CSP-8558, YAMHILL COUNTY SURVEY RECORDS, TO THE MONUMENTS AND NOTED POSITIONS THEREOF.

6. THE NORTHWESTERLY RIGHT OF WAY OF SPRINGBROOK ROAD (CR NO. 55, 40.00 FEET WIDE) WAS HELD 20.00 FEET NORTHWESTERLY OF AND PARALLEL WITH THE SURVEYED TRAVELED CENTERLINE AS DESCRIBED IN AFORESAID INSTRUMENT NO. 2002-06401.



REGISTERED PROFESSIONAL LAND SURVEYOR
OREGON
FEBRUARY 8, 2000
JOSEPH C. McALLISTER
49695

DATE OF SIGNATURE: 5/30/24
EXPIRES: 12/31/2024

LDR - R-1

HDR - R-3

URBAN GROWTH BOUNDARY

HDR - R-3

CITY OF NEWBERG LIMITS

OPEN SPACE

3J CONSULTING
9600 SW NIMBUS AVENUE, SUITE 100
BEAVERTON, OREGON 97008
PH: (503) 946.9365
WWW.3JCONSULTING.COM

MEMORANDUM

To: James Dingwall
Assistant Planner
City of Newberg

From: Sam Huck
Planner

Date: September 17, 2024

Project Name: 3809 NE Springbrook Road Annexation
Project No: ANX24-0001
RE: Additional Finding for NMC 15.250.030(A)(1)

This memorandum has been prepared in response to the request by City Staff to provide an additional finding for NMC 15.250.030(A)(1) discussing how the areas selected for the HDR designation/R-3 zoning are the portions of the property most suitable for high density development.

15.250.030 Quasi-judicial annexation criteria.
Quasi-judicial annexation applications are those filed pursuant to the application of property owners and exclude legislative annexations. The following criteria shall apply to all quasi-judicial annexation requests:

A. The proposed use for the site complies with the Newberg comprehensive plan and with the designation on the Newberg comprehensive plan map. If a redesignation of the plan map is requested concurrent with annexation, the uses allowed under the proposed designation must comply with the Newberg comprehensive plan.

1. Where large LDR or MDR designated parcels or groups of parcels are to be annexed, the applicant(s) shall concurrently apply for a comprehensive plan map amendment to include some HDR-designated/R-3 zoned lands, consistent with the policy of distributing R-3 multifamily housing throughout the community. Such zoning shall be applied to portions of the property that are most suitable for high density development.

For the purposes of this policy, "large" is defined as an area greater than 15 net acres, after subtracting for land in stream corridor overlays. "Some" is defined as 10 percent of the net size of the application.

Finding: The subject property is 19.16 gross acres. After subtracting land in stream corridor overlays, the site is 18.82 net acres, therefore the requirements of this section apply. A portion of the LDR designated parcels will be redesignated through a concurrent

comprehensive plan map amendment and zone change applications to include HDR designated/R-3 zoned lands.

The Applicant proposes approximately 16 percent of the net size of the site as HDR-designated/R-3 zoned lands, as demonstrated in the General Land Use Plan (Sheet C201) provided in Appendix E. This amount of land proposed as HDR-designated/R-3 zoned lands exceeds the requirement for providing 10 percent of net acres by an additional 6 percent, or approximately one and a half acres.

The policy for distributing R-3 housing throughout the community as referenced in this section of code is based on the Location Policies and Mix Policies of the comprehensive plan. These policies encourage R-3 zoning throughout the community. The areas proposed for R-3 zoning in this proposal have been distributed throughout the development site in accordance with these policies.

The Mix Policies section of the Comprehensive Plan and this section of the development code state that R-3 zoning should be applied to portions of the property that are most suitable for high density development. The location of these R-3 zoned lands have been carefully chosen as they are the most suitable in relation to access and visibility in the future development of the site. Nearly two acres out of the approximately three acres of R-3 zoned areas are located nearest to the main road that provides access to the future neighborhood. The Location Policies of the Comprehensive plan provide guidance for where medium and high density areas should be located, stating that such areas should be located for immediate access to collector streets. The location of these areas of proposed R-3 lands were located for proximity to Springbrook Road, which is classified as a Major Collector, and the highest road classification serving the site. The R-3 zoned lands are not located directly abutting Springbrook Road due to topographic constraints for development as the slope of the area on the site abutting Springbrook Road would likely prevent development of any residential dwellings.

The areas that are proposed closest to Springbrook Road are approximately 1.97 acres in size. This area alone exceeds the requirement for providing 10 percent of net acreage as R-3 zoned lands. All other areas proposed as R-3 zoned land are located at street corners of the future development, providing additional R-3 zoning to the community and distributing it throughout the site.

The location of the HDR-designated/R-3 zoned lands have been chosen in accordance with the Newberg Municipal Code and Comprehensive Plan policies.

This standard is met.

Thank you for providing this opportunity to provide an additional finding for NMC 15.250.030(A)(1). Please don't hesitate to reach out with any questions.

Sincerely,



Sam Huck, AICP Candidate
Planner
3J Consulting, Inc.

COMMUNITY DEVELOPMENT
LAND USE APPLICATION REFERRAL

The enclosed material has been referred to you for your information and comment. Any comments you wish to make should be returned to the Community Development Department prior to: October 2, 2024
Please refer questions and comments to: James Dingwall

NOTE: Full size plans are available at the Community Development Department Office.

APPLICANT:	IchiJo USA Co. LTD
REQUEST:	Anex Prop into City/ Amend Comp Plan & Zoning Map for proposed subdivision
SITE ADDRESS:	3809 NE Springbrook
LOCATION:	
TAX LOT:	R3209 02300
FILE NO:	ANX24-0001/ CPMA24-0001/ ZMA24-0001
ZONE:	AF-10(YC Acricultral Farm Use- 10acres) City Comprehensive Plan Designation: R-1(Res Low Density Zone)
HEARING DATE:	10/10/2024

For full Project Information click on the Link Here: FULL APPLICATION

A revised Boundary Survey (Appendix A), General Land Use Plan (Appendix E), and finding for NMC 15.250.030(A)(1) were submitted by the Applicant and are included at the end of the referral materials.

☑ Reviewed, no conflict.

☐ Reviewed; recommend denial for the following reasons:

☐ Require additional information to review. (Please list information required)

☐ Meeting requested.

_____ Comments. (Attach additional pages as needed)

_____ _____

Reviewed By: Date:

_____

Organization:

COMMUNITY DEVELOPMENT
LAND USE APPLICATION REFERRAL

The enclosed material has been referred to you for your information and comment. Any comments you wish to make should be returned to the Community Development Department prior to: October 2, 2024
Please refer questions and comments to: James Dingwall

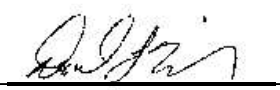
NOTE: Full size plans are available at the Community Development Department Office.

APPLICANT:	IchiJo USA Co. LTD
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HEARING DATE:	10/10/2024

For full Project Information click on the Link Here: FULL APPLICATION

A revised Boundary Survey (Appendix A), General Land Use Plan (Appendix E), and finding for NMC 15.250.030(A)(1) were submitted by the Applicant and are included at the end of the referral materials.

- [✔] Reviewed, no conflict.
- [ ] Reviewed; recommend denial for the following reasons:
- [ ] Require additional information to review. (Please list information required)
- [ ] Meeting requested.
- _____ Comments. (Attach additional pages as needed)



Reviewed By: Date:

City of Newberg - Operations

Organization:

COMMUNITY DEVELOPMENT
LAND USE APPLICATION REFERRAL

The enclosed material has been referred to you for your information and comment. Any comments you wish to make should be returned to the Community Development Department prior to: October 2, 2024
Please refer questions and comments to: James Dingwall

NOTE: Full size plans are available at the Community Development Department Office.

APPLICANT:	IchiJo USA Co. LTD
REQUEST:	Anex Prop into City/ Amend Comp Plan & Zoning Map for proposed subdivision
SITE ADDRESS:	3809 NE Springbrook
LOCATION:	
TAX LOT:	R3209 02300
FILE NO:	ANX24-0001/ CPMA24-0001/ ZMA24-0001
ZONE:	AF-10(YC Acricultral Farm Use- 10acres) City Comprehensive Plan Designation: R-1(Res Low Density Zone)
HEARING DATE:	10/10/2024

For full Project Information click on the Link Here: FULL APPLICATION

A revised Boundary Survey (Appendix A), General Land Use Plan (Appendix E), and finding for NMC 15.250.030(A)(1) were submitted by the Applicant and are included at the end of the referral materials.

_____ Reviewed, no conflict.

_____ Reviewed; recommend denial for the following reasons:

_____ Require additional information to review. (Please list information required)

_____ Meeting requested.

_____ Comments. (Attach additional pages as needed)

Justin Fantz _____ _____

Reviewed By: Date:

_____

Organization:

Fe Bates

From: Fantz, Justin <justin.fantz@ziply.com>
Sent: Tuesday, September 24, 2024 11:19 AM
To: PLANNING
Cc: Fe Bates
Subject: City of Newberg Request for Referral Review: ANX24-0001/CPMA24-0001/ZMA24-0001
Attachments: Referral - ANX24-0001, CPMA24-0001, ZMA24-0001_1.pdf

This email originated from outside the City of Newberg's organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hello,

Ziply Fiber has a vault, Underground path and a aerial lead crossing the frontage of this new subdivision.

Will need more info for the frontage improvements to ensure no conflict.

Thank you,

Justin Fantz OSP Engineer – GF/BF Team Lead
971-387-1590 (M)
Justin.Fantz@ziply.com
ziplyfiber.com

EXHIBIT "G"
PLANNING COMMISSION PUBLIC COMMENTS

James Dingwall

From: Tracie Wagner <trwag260@hotmail.com>
Sent: Tuesday, October 8, 2024 4:01 PM
To: James Dingwall
Subject: ANX24-0001 / CPMA24-0001 / ZMA24-0001 - 3809 NE Springbrook Road Annexation

This email originated from outside the City of Newberg's organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

October 8, 2024
Community Development Planning
414 E First St
Newberg, OR 97132

Dear James Dingwall, Assistant Planner,

We are Scott Huffman and Tracie Wagner, residents of 29505 NE Benjamin Road in Newberg, Oregon. We are writing to express our concerns regarding the proposed annexation of property designated ANX24-0001.

Newberg is cherished for its small-town atmosphere, renowned wineries, and stunning natural surroundings, which contribute to its appeal as a desirable place to live. However, we have specific concerns regarding the proposed annexation:

1. **Compatibility with Surrounding Areas:** According to Page 8 of the 3809 NE Springbrook Road Annexation document, the development is stated to be compatible with the surrounding area. However, the property is currently designated as Low Density Residential (LDR) and is proposed to change to R-1 and R-3. The addition of a 105-home subdivision could significantly alter the look and feel of the neighborhood. We believe the development would be more compatible if it were modeled after Ellis Estates on Bell Road and the Vista Glen subdivision on Ellery Drive, offering larger lot sizes and fewer homes to reduce the environmental impact.

2. **Water Supply Concerns:** The proposed density raises critical questions about the water supply available to Newberg. This annexation would place an additional burden on the city's water supply and on homes near the annexation that depend on wells. It is imperative to clarify how the project plans to secure water resources and what measures will be implemented to ensure that existing residents relying on wells are not negatively impacted.

3. **Traffic Safety Issues:** The traffic report did not adequately address concerns about traffic flow on Springbrook Road. The current access point at Springbrook and Benjamin Road presents visibility issues in both directions. Limited sightlines could lead to accidents, especially as drivers often fail to stop at the stop sign, creating dangerous situations for those who do obey. The increased traffic raises serious safety concerns for accessing Springbrook from Benjamin Road. The speed limit on Benjamin Road is 40 mph with cars traveling at higher speeds and passing although the road is designated as no passing.

Benjamin Road is a country road, does the county have the additional funds to maintain the road with increased traffic? Is there a consideration to lower the speed limit to at least match Springbrook road at 35 mph?

4. **Access and Traffic Flow:** The proposed development has identified a single entry and exit point onto Springbrook Road. Has there been consideration for traffic entering Springbrook Road at Benjamin? Additionally, Benjamin Road is posted as "No Thru Truck Traffic," yet the signs are difficult to see. GPS systems sometimes route drivers through the area, exacerbating traffic issues. If/when construction begins how will trucks traveling through be addressed? The traffic report for Benjamin Road presents numbers that seem low and may not accurately reflect actual traffic flow. Does the study account for projected increased traffic from the completion of the Crestview Crossing development and the homes being built in the Collina subdivision on Mountain View? A thorough review and clarification of these numbers are essential before proceeding with such a significant development.

In conclusion, the safety of our community must be the top priority when considering this annexation. We urge the Newberg Planning Commission to reconsider this proposal, taking into account the pressing traffic concerns, implications for water supply, and the overall impact on our community.

Thank you for considering our concerns as you deliberate on this matter.

Please reply as confirmation of receipt of this message.

Sincerely,

Scott Huffman
Tracie Wagner
503-260-4203

EXHIBIT "H"
PLANNING COMMISSION RESOLUTION 2024-396

PLANNING COMMISSION RESOLUTION 2024-396

A RESOLUTION RECOMMENDING THAT THE CITY COUNCIL APPROVE AN ANNEXATION OF 19.16 ACRES AT 3809 NE SPRINGBROOK ROAD (YAMHILL COUNTY TAX LOT R3209 02300) INTO THE CITY OF NEWBERG AND CHANGE THE ZONING FROM YAMHILL COUNTY ZONING TO CITY OF NEWBERG LOW DENSITY RESIDENTIAL (R-1) ZONING AND APPROVE A COMPREHENSIVE PLAN MAP AND ZONING MAP AMENDMENT TO CHANGE 2.97 ACRES OF CITY OF NEWBERG LOW DENSITY RESIDENTIAL (R-1) ZONING TO CITY OF NEWBERG HIGH DENSITY RESIDENTIAL (R-3) ZONING.

RECITALS

1. Ichijo USA Co. LTD c/o Masaki Narita submitted an application to annex 19.16 acres of property into the City of Newberg pursuant to ORS 222.125 and apply City zoning, amending the zoning from the Yamhill County AF-10 zone to City of Newberg R-1 and R-3 zones.

2. The property has a City of Newberg Comprehensive Plan designation of LDR which corresponds with the R-1 zoning district.

3. As a large parcel to be annexed, 10 percent of the net size of the application must be zoned Residential High Density (R-3) . The applicant has requested 16 percent of the site be zoned R-3.

4. The Newberg Planning Commission held a properly noticed hearing on October 10, 2024, to consider the application. The Commission considered testimony and deliberated.

5. The Newberg Planning Commission finds that the application meets the applicable Newberg Development Code criteria as shown in the findings in Exhibit "B".

6. State law changed with the passage and adoption of Oregon Senate Bill 1573 (2016), which added language to ORS 222.111 that preempts Newberg's requirement that annexations go to a public vote, and instead directs the legislative body of a city to annex properties without a public vote when the properties meet certain requirements, including: being within the urban growth boundary; conforming to the Comprehensive plan of the City; contiguous to city limits; and meeting the City's adopted Development Code criteria for annexation. This property meets those criteria.

The Newberg Planning Commission resolves as follows:

1. The Planning Commission recommends that the City Council annex the property shown and described in Exhibit "A" along with a comprehensive plan map amendment to LDR and HDR and zoning map amendment to R-1 and R-3. Exhibit "A" is hereby adopted and by this reference incorporated.

2. This recommendation is based on the findings shown in Exhibit "B", the findings that the property meets ORS 222.125 and ORS 222.111 criteria as set forth in Recital No. 6 above, and the conditions of approval shown in Exhibit "C". Exhibits "B" and "C" are hereby adopted and by this reference incorporated.

Adopted by the Newberg Planning Commission this October 10, 2024.

ATTEST:

Planning Commission Chair

Planning Commission Secretary

EXHIBIT "A" TO PLANNING COMMISSION RESOLUTION NO. 2024-396
LEGAL DESCRIPTION AND MAP – CITY OF NEWBERG
Annexation, Comprehensive Plan Map Amendment, Zoning Map Amendment
3809 NE Springbrook Road (File Nos. ANX24-0001/CPMA24-0001/ZMA24-0001)

EXHIBIT "A"

Legal Description

PARCEL 1:

Beginning at a point 160 rods North and 46 rods West of the Southeast corner of the Solomon Heater and wife Donation Land Claim in Township 3 South, Range 2 West of the Willamette Meridian in Yamhill County, Oregon; thence running West 400 feet; thence South 300 feet to the center of the County Road and 50 feet North of the center of the railroad track of the Southern Pacific Company; and thence in a Northeasterly direction along the center of said County Road to the Point of Beginning.

PARCEL 2:

A tract of land in Section 9, Township 3 South, Range 2 West of the Willamette Meridian in Yamhill County, Oregon, more particularly described as follows:

Being a part of the Solomon Heater Donation Land Claim, Notification No. 1471, Claim No. 48 in Section 9, Township 3 South, Range 2 West of the Willamette Meridian in Yamhill County, Oregon, and beginning at an iron pipe in the County Road at point 45.23 chains North and 10.00 chains West from the Southeast corner of said Heater Claim; thence North 89°24' West 6.105 chains to a set iron pipe for corner; and the True Point of Beginning of the property herein described; thence North 5.705 chains to a set stake at the Northeast corner of a 3 acre tract; thence North 89°24' West along the North line of said 3 acre tract, 15.356 chains to a stake on division line of said Heater Claim; thence South along the division line of said claim, 11.235 chains to the North line of that certain tract conveyed to Florence Rees Baldwin by Deed recorded in Book 85, Page 383, Deed Records; thence North 89°51' East along the North line of said Baldwin tract and the North line of the Mills tract and the same extended Easterly to the Southerly Southwest corner of that certain tract conveyed by Fred Kincaid et ux. to Elvin Mills et ux., by Deed recorded November 16, 1962 in Film Volume 26, Page 656, Deed and Mortgage Records; thence North 55 feet; thence West 14 feet; thence North 240 feet; thence West 130 feet; thence North 64 feet to the Point of Beginning.

EXCEPTING THEREFROM that certain tract conveyed by Emma O. Kincaid to Springbrook Packing Company, by Deed recorded February 21, 1938 in Book 114, Page 1, Deed Records.

CS - 13948 Received 6/4/2024 County Surveyor

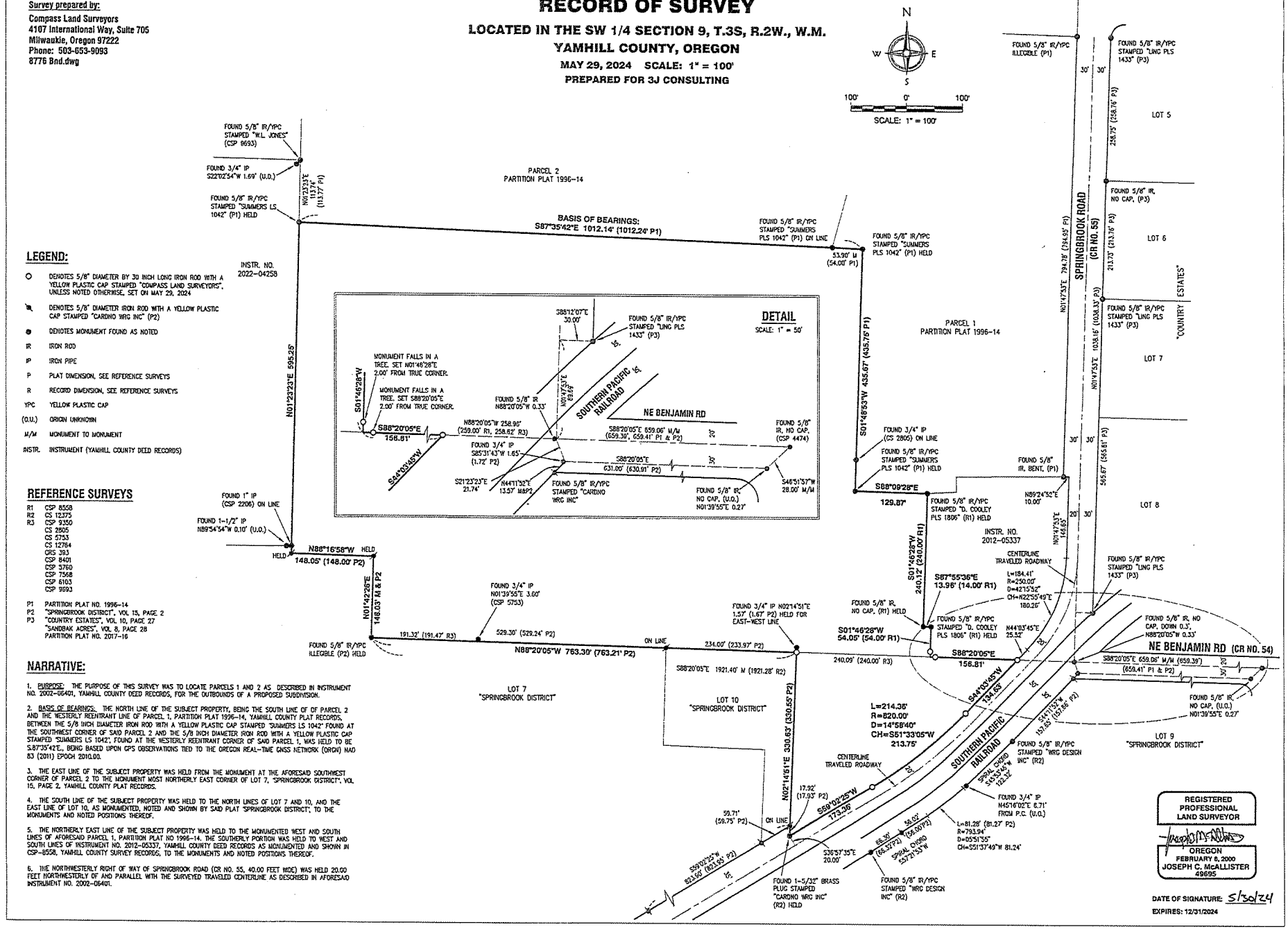
RECORD OF SURVEY

LOCATED IN THE SW 1/4 SECTION 9, T.3S, R.2W., W.M.
YAMHILL COUNTY, OREGON

MAY 29, 2024 SCALE: 1" = 100'

PREPARED FOR 3J CONSULTING

Survey prepared by:
Compass Land Surveyors
4107 International Way, Suite 705
Milwaukie, Oregon 97222
Phone: 503-653-9093
8776 Bnd.dwg



LEGEND:

○	DENOTES 5/8" DIAMETER BY 30 INCH LONG IRON ROD WITH A YELLOW PLASTIC CAP STAMPED "COMPASS LAND SURVEYORS", UNLESS NOTED OTHERWISE, SET ON MAY 29, 2024
⊗	DENOTES 5/8" DIAMETER IRON ROD WITH A YELLOW PLASTIC CAP STAMPED "CARDNO WRG INC" (P2)
●	DENOTES MONUMENT FOUND AS NOTED
IR	IRON ROD
IP	IRON PIPE
P	PLAT DIMENSION, SEE REFERENCE SURVEYS
R	RECORD DIMENSION, SEE REFERENCE SURVEYS
YPC	YELLOW PLASTIC CAP
(O.U.)	ORIGIN UNKNOWN
M/M	MONUMENT TO MONUMENT
INSTR.	INSTRUMENT (YAMHILL COUNTY DEED RECORDS)

REFERENCE SURVEYS

R1 CSP 8558
R2 CS 12375
R3 CSP 9350
CS 2805
CS 5733
CS 12764
CRS 393
CSP 8401
CSP 5760
CSP 7568
CSP 6103
CSP 9693

P1 PARTITION PLAT NO. 1996-14
P2 "SPRINGBROOK DISTRICT", VOL 15, PAGE 2
P3 "COUNTRY ESTATES", VOL 10, PAGE 27
"SANDBAK ACRES", VOL 8, PAGE 28
PARTITION PLAT NO. 2017-16

NARRATIVE:

1. PURPOSE: THE PURPOSE OF THIS SURVEY WAS TO LOCATE PARCELS 1 AND 2 AS DESCRIBED IN INSTRUMENT NO. 2002-06401, YAMHILL COUNTY DEED RECORDS, FOR THE OUTBOUNDS OF A PROPOSED SUBDIVISION.

2. BASIS OF BEARINGS: THE NORTH LINE OF THE SUBJECT PROPERTY, BEING THE SOUTH LINE OF OF PARCEL 2 AND THE WESTERLY REENTRANT LINE OF PARCEL 1, PARTITION PLAT 1996-14, YAMHILL COUNTY PLAT RECORDS, BETWEEN THE 5/8 INCH DIAMETER IRON ROD WITH A YELLOW PLASTIC CAP STAMPED "SUMMERS LS 1042" FOUND AT THE SOUTHWEST CORNER OF SAID PARCEL 2 AND THE 5/8 INCH DIAMETER IRON ROD WITH A YELLOW PLASTIC CAP STAMPED "SUMMERS LS 1042", FOUND AT THE WESTERLY REENTRANT CORNER OF SAID PARCEL 1, WAS HELD TO BE S.87°35'42"E., BEING BASED UPON GPS OBSERVATIONS TIED TO THE OREGON REAL-TIME GNSS NETWORK (ORGN) NAD 83 (2011) EPOCH 2010.00.

3. THE EAST LINE OF THE SUBJECT PROPERTY WAS HELD FROM THE MONUMENT AT THE AFORESAID SOUTHWEST CORNER OF PARCEL 2 TO THE MONUMENT MOST NORTHERLY EAST CORNER OF LOT 7, "SPRINGBROOK DISTRICT", VOL 15, PAGE 2, YAMHILL COUNTY PLAT RECORDS.

4. THE SOUTH LINE OF THE SUBJECT PROPERTY WAS HELD TO THE NORTH LINES OF LOT 7 AND 10, AND THE EAST LINE OF LOT 10, AS MONUMENTED, NOTED AND SHOWN BY SAID PLAT "SPRINGBROOK DISTRICT", TO THE MONUMENTS AND NOTED POSITIONS THEREOF.

5. THE NORTHERLY EAST LINE OF THE SUBJECT PROPERTY WAS HELD TO THE MONUMENTED WEST AND SOUTH LINES OF AFORESAID PARCEL 1, PARTITION PLAT NO 1996-14. THE SOUTHERLY PORTION WAS HELD TO WEST AND SOUTH LINES OF INSTRUMENT NO. 2012-05337, YAMHILL COUNTY DEED RECORDS AS MONUMENTED AND SHOWN IN CSP-8558, YAMHILL COUNTY SURVEY RECORDS, TO THE MONUMENTS AND NOTED POSITIONS THEREOF.

6. THE NORTHWESTERLY RIGHT OF WAY OF SPRINGBROOK ROAD (CR NO. 55, 40.00 FEET WIDE) WAS HELD 20.00 FEET NORTHWESTERLY OF AND PARALLEL WITH THE SURVEYED TRAVELED CENTERLINE AS DESCRIBED IN AFORESAID INSTRUMENT NO. 2002-06401.

REGISTERED PROFESSIONAL LAND SURVEYOR
OREGON
FEBRUARY 8, 2000
JOSEPH C. McALLISTER
49695

DATE OF SIGNATURE: 5/30/24
EXPIRES: 12/31/2024

EXHIBIT "B" TO PLANNING COMMISSION RESOLUTION NO. 2024-396
FINDINGS
Annexation, Comprehensive Plan Map Amendment, Zoning Map Amendment
3809 NE Springbrook Road (File Nos. ANX24-0001/CPMA24-0001/ZMA24-0001)

The Newberg Municipal Code (NMC) criteria and development standards are written in ***italic bold*** font and the findings are written in regular font. The NMC criteria will be presented first, followed by the findings of fact.

Findings of fact with underlined font indicate subsequent inclusion into Conditions of Approval.

A. FINDINGS FOR LAND USE PROCESSES AND PROCEDURES (NMC DIVISION 15.100)

Chapter 15.100 LAND USE PROCESSES AND PROCEDURES

15.100.050 Type III procedure – Quasi-judicial hearing.
[…]

B. Type III actions include, but are not limited to:

> ***[..]***
>
> ***7. Comprehensive plan map amendments: This action is a recommendation to the city council.***
>
> ***8. Zoning map amendments and designation of subdistricts: This action is a recommendation to the city council.***
>
> ***9. Annexation: This action is a recommendation to the city council.***
>
> ***[…]***

Finding: Because this application is for a proposed annexation, comprehensive plan map amendment, and zoning map amendment, it is processed as a Type III action including a recommendation of the Newberg Planning Commission to City Council, and a final decision by the City Council.

C. Planning Commission Decisions and Recommendation Actions.

> ***1. Planning Commission Decision. Development actions shall be decided by the planning commission for those land use actions that require a Type III procedure and do not require the adoption of an ordinance. The decision shall be made after public notice and a public hearing is held in accordance with the requirements of NMC 15.100.090 et seq. A Type III decision may be appealed to the city council by a Type III affected party in accordance with NMC 15.100.160 et seq.***
>
> ***2. Planning Commission Recommendation to City Council. Land use actions that would require the adoption of an ordinance shall be referred to the city council by the planning***

commission together with the record and a recommendation. The recommendation shall be made after public notice and a public hearing is held in accordance with the requirements of NMC 15.100.090 et seq.

Finding: Because the proposed annexation requires the adoption of an ordinance by the Newberg City Council, the Planning Commission decision shall be referred to the City Council together with the record and a recommendation.

D. City Council Action. If a recommendation to the city council is required, the matter shall be reviewed by the city council as a new hearing. The final decision on these actions is made by the city council.

Finding: The recommendation of the Planning Commission shall be reviewed by the City Council as a new hearing for a final decision.

E. The applicant shall provide notice pursuant to NMC 15.100.200 et seq.

Finding: The Applicant submitted an affidavit that the required notice was mailed on February 19, 2024, and posted on the site on February 20, 2024. The City posted notice in four public places and in a newspaper of record on March 28, 2024.

Because the Applicant provided notice pursuant to NMC 15.100.200 et seq., this criterion is met.

F. The hearing body may attach certain conditions necessary to ensure compliance with this code.

Finding: Conditions of approval are attached as Exhibit "C" to Planning Commission Resolution 2024-396.

[…]

B. FINDINGS FOR LAND USE APPLICATIONS (NMC DIVISION 15.200)

Chapter 15.250 ANNEXATIONS

15.250.020 Conditions for annexation.
The following conditions must be met prior to or concurrent with city processing of any annexation request:

A. The subject site must be located within the Newberg urban growth boundary or Newberg urban reserve areas.

Finding: As shown on Attachment 2, the subject property is located entirely within the Newberg Urban Growth Boundary.

Because the subject property is located within the Newberg Urban Growth Boundary, this criterion is met.

B. The subject site must be contiguous to the existing city limits. [Ord. 2745 § 1 (Exh. A), 7-18-11; Ord. 2451, 12-2-96. Code 2001 § 151.261.]

Finding: As shown on Attachment 2, the subject property is contiguous to the existing city limits along its southern boundary.

Because the subject property is contiguous to the existing city limits, this criterion is met.

15.250.030 Quasi-judicial annexation criteria.
Quasi-judicial annexation applications are those filed pursuant to the application of property owners and exclude legislative annexations. The following criteria shall apply to all quasi-judicial annexation requests:

A. The proposed use for the site complies with the Newberg comprehensive plan and with the designation on the Newberg comprehensive plan map. If a redesignation of the plan map is requested concurrent with annexation, the uses allowed under the proposed designation must comply with the Newberg comprehensive plan.

Finding: The Newberg Comprehensive Plan designation of the subject property is Low Density Residential (LDR) and the current uses are a single-family dwelling and agricultural uses. The application does not propose any new use or development at this time. However, it indicates that future development would include residential use, and that a development application will be submitted separately after annexation is complete.

A redesignation of the comprehensive plan map to High Density Residential (HDR) and zoning map amendment to High Density Residential (R-3) on a portion of the subject property is requested concurrent with the application as required by NMC 15.250.030(A)(1), as the subject property is larger than 15 net acres.

Because the proposed comprehensive plan map designations and zoning designations for the site complies with the Newberg Comprehensive Plan and requirements of the Newberg Municipal Code, this criterion is met.

> ***1. Where large LDR or MDR designated parcels or groups of parcels are to be annexed, the applicant(s) shall concurrently apply for a comprehensive plan map amendment to include some HDR-designated/R-3 zoned lands, consistent with the policy of distributing R-3 multifamily housing throughout the community. Such zoning shall be applied to portions of the property that are most suitable for high density development.***
>
> ***For the purposes of this policy, "large" is defined as an area greater than 15 net acres, after subtracting for land in stream corridor overlays. "Some" is defined as 10 percent of the net size of the application.***
>
> **Finding:** The subject property proposed to be annexed is 19.16 gross acres in size. After subtracting land in the stream corridor overlays, the subject property is 18.82 net acres. The applicant is proposing 3.01 net acres of High Density Residential (R-3) zoned land, approximately 16 percent of the net size of the subject property. The above requirement that 10 percent of the net size of the application be designated HDR/R-3 is a minimum requirement. The applicant has proposed 16 percent of the net site be designated HDR/R-3. Staff finds the additional 1.13 acres or 6 percent of the net site, above the 10 percent standard, meets a need for high-density residential uses and may be approved based on the following facts:

The Housing and Residential Land Needs Analysis of the Newberg Comprehensive Plan V. Land Need and Supply indicates that 83 buildable acres of High Density Residential Land are needed (Table V-7) to accommodate 1,467 needed High Density housing dwelling units (Table V-2) between 2026-2040. The proposed comprehensive plan map and zoning map amendments' provision of additional HDR-designated/R-3 zoned land serves to meet this identified need.

The Applicant provided additional findings that the proposed location of the high density residential designation and zoning districts are most suitable for high density development based on the Location Policies of the Newberg Comprehensive Plan, which provide guidance on where medium and high density should be located. The Location Policy I(2)(a) indicates that medium and high density areas should be located for immediate access to collector streets or minor arterials and should not cause traffic to move through low density areas, be easily accessible to arterial streets, and be located near commercial services and public open spaces. The Applicant has indicated the location of the proposed HDR/R-3 lands is proximate to Springbrook Road, a major collector and the higher road classification serving the site.

Because the subject property is larger than 15 net acres, and the Applicant is proposing 10 percent of the net size of the application to be redesignated as HDR-designated/R-3 zoned land, and the additional land proposed as HDR-designated/R-3 zoned land meets the need identified in the Newberg Comprehensive Plan, this criterion is met.

B. An adequate level of urban services must be available, or made available, within three years' time of annexation, except as noted in subsection (E) of this section. An "adequate level of urban services" shall be defined as:

1. Municipal wastewater and water service meeting the requirements enumerated in the Newberg comprehensive plan for provision of these services.

Finding: The Applicant is requesting annexation into the City of Newberg.

The City's online GIS mapping shows there is an existing 15-inch wastewater line in NE Springbrook Road approximately 380 feet southwest of the property. The City's wastewater system master plan shows the system has a capacity issue further south in Springbrook Road. It is modeled from the wastewater line in NE Springbrook Road. Project 12 Springbrook Road Alternative B Parallel Pipe is identified to address the capacity issues.

<u>With future development of the site, the development will be required to provide a downstream wastewater analysis to determine if downstream deficiencies exist that need to be addressed by the development.</u>

The City's online GIS mapping shows there is an existing 12-inch water service line in NE Springbrook Road approximately 380 feet Southwest of the property. This system is in pressure zone 1 which ranges from 80 to 310 feet in elevation. the applicant's design team determined that a portion of the project site is above the elevation served by pressure zone 1. This resulted in

the need for a localized water booster pump station or for a larger regional water pump station and new reservoir as identified in the current Water Master Plan, Projects P-1, R-1 and M-16.

With future development of the site, the development will be required to provide a scoping memo for the water booster pump station design. the City of Newberg is to be provided with a water booster pump station design scoping memo for coordination prior to the development beginning design.

With future development of the site, the development will also be required to extend public water and wastewater lines to and through the development site.

This criterion will be met if the aforementioned condition of approval is adhered to.

2. Roads with an adequate design capacity for the proposed use and projected future uses. Where construction of the road is not deemed necessary within the three-year time period, the city shall note requirements such as dedication of right-of-way, waiver of remonstrance against assessment for road improvement costs, or participation in other traffic improvement costs, for application at the appropriate level of the planning process. The city shall also consider public costs for improvement and the ability of the city to provide for those costs.

Finding: The property has access frontage NE Springbrook Road. It is classified as Major Collector and is under the jurisdiction of Yamhill County. The Southern Pacific Railroad right-of-way is shown adjacent to the public road right-of-way on the City Online GIS. That right-of-way measures approximately 40 feet of public right-of-way and 60 feet of railroad right-of-way. Improvements will require a Yamhill County permit and will need to be built to City of Newberg Standards.

Information regarding existing right-of-way and cross-sections can be seen below and is consistent with the City's Transportation System Plan, Municipal Code and Public Works Design and Construction Standards.

Roadway	Functional Classification	Existing Right-of-way	Existing Pavement Width	Minimum Right-of-way	Minimum Pavement Width	Typical Cross-Section (per Transportation System Plan)
NE Springbrook Road	**Major Collector** (57-feet to 80-feet)	Approx. 40-feet	Approx. 25-feet	60-feet For typical section per TSP.	36-feet	• 1-foot from back of walk to right-of-way** • 5-foot sidewalk • 5.5-foot planter* • 0.5-foot curb • 6-foot bike lane • 12-foot travel lane

				68-feet if parking allowed on one side.		• 12-foot travel lane • 6-foot bike lane • 0.5-foot curb • 5.5-foot planter* • 5-foot sidewalk • 1-foot from back of walk to right-of-way**

*5-foot minimum inclusive of the curb per NMC 15.505.030(G)(8), **Per PWDCS 5.14

With future development of the site, the development will be required to locate the center line of the street based on the dimensions of a major collector and dedicate the amount of additional right-of-way necessary to provide for that full cross section.

With future development of the site, since the existing railroad right-of-way is adjacent to the public road right-of-way, the developer will be required to build full street improvements for NE Springbrook Road. This would include street lighting and is to be consistent with existing street improvements on both sides of NE Springbrook Road southwest of the site.

With future development of the site, the development will be required to complete transportation system mitigations recommended in the Traffic Impact Analysis for the future development.

This criterion will be met if the aforementioned conditions of approval are adhered to.

C. Findings documenting the availability of police, fire, parks, and school facilities and services shall be made to allow for conclusionary findings either for or against the proposed annexation. The adequacy of these services shall be considered in relation to annexation proposals.

Finding: The Applicant's materials indicate that the subject property is developed and located within the Tualatin Valley Fire and Rescue (TVF&R) service area and that TVF&R Station 21 is located at 3100 Middlebrook Drive, approximately 0.8 miles from the subject property. The subject property is also located within the Chehalem Park and Recreation boundary, and Spring Meadow Park located at 3815 Vittoria Way is approximately 1.2 miles from the subject property and the Chehalem Aquatic and Fitness Center located at 1802 Haworth Avenue is approximately 1.8 miles from the subject property. The subject property is within Newberg School District, and police service is available from the Newberg-Dundee Police Department. The City sends the application information to the aforementioned agencies, among others, for comments prior to the

staff report. There are no comments to suggest that City services could not support the addition of the approximately 19.16 acres of land to the city limits.

Other private service providers, including garbage, telephone, postal and internet services, and facilities required to serve future development of the subject property will be determined by the City at the time of development permit review and approval.

It should be noted that the City of Newberg does not do future planning for the Parks District or the School District. However, the City coordinates with those agencies on a regular basis regarding future planning efforts. This type of coordination is typically done at the time of annexation and urban growth boundary expansions, when properties are added to serve the future 20-year urbanizable area, or areas where the city limits is expected to expand to meet growth needs.

Because the availability of police, fire, parks, and school facilities and services has been demonstrated by the Applicant, this criterion is met.

D. The burden for providing the findings for subsections (A), (B) and (C) of this section is placed upon the applicant.

Finding: Because the Applicant submitted adequate information to allow the City to make findings that demonstrate compliance with the applicable criteria, this criterion is met.

E. The city council may annex properties where urban services are not and cannot practically be made available within the three-year time frame noted in subsection (B) of this section, but where annexation is needed to address a health hazard, to annex an island, to address wastewater or water connection issues for existing development, to address specific legal or contract issues, to annex property where the timing and provision of adequate services in relation to development is or will be addressed through legislatively adopted specific area plans or similar plans, or to address similar situations. In these cases, absent a specific legal or contractual constraint, the city council shall apply an interim zone, such as a limited-use overlay, that would limit development of the property until such time as the services become available. [Ord. 2826 § 1 (Exh. A), 5-7-18; Ord. 2745 § 1 (Exh. A), 7-18-11; Ord. 2640, 2-21-06; Ord. 2451, 12-2-96. Code 2001 § 151.262.]

Finding: As indicated in the findings for NMC 15.250.030(B)(1) and (2), urban services can be made available within a three-year time frame. Therefore, this criterion is not applicable.

15.250.040 Quasi-judicial annexation procedures.
All quasi-judicial annexation requests approved by the city council shall be referred to the voters in accordance with the requirements of this code and ORS Chapter 222.

Finding: The passage and adoption of Oregon Senate Bill 1573 (2016) added language to ORS 222.111 that preempts Newberg's requirement that annexations go to a public vote, and instead directs the legislative body of a city to annex property without a public vote when the property meets certain requirements, including:

- Being within the urban growth boundary;

- Subject to the Comprehensive Plan of the City;
- Contiguous to city limits; and
- Meeting the city's adopted Development Code criteria for annexation.

As discussed elsewhere in this staff report, the subject property is located within the City of Newberg's Urban Growth Boundary, contiguous to City limits, and meets the City's adopted Development Code criteria for annexation. As shown on Attachment 2, the subject property is subject to the Comprehensive Plan of the City.

Because the proposed annexation meets these criteria, the legislative body may annex the property without a public vote. The criterion is not applicable.

15.250.050 Application requirements for quasi-judicial annexations.
Applications for quasi-judicial annexations shall be made on forms provided by the planning division and include the following material:

A. Written consent to the annexation signed by the requisite number of affected property owners, electors, or both to conduct an election within the area to be annexed, as provided by state law. The consent shall include a waiver stating that the owner will not file any demand against the city under Measure 49, approved November 6, 2007, that amended ORS Chapters 195 and 197.

Finding: A land use application form was signed by the owner of the subject property and is provided in Attachment 4. An Annexation Consent Form and Measure 49 Waiver signed by the property owners were submitted by the Applicant and provided in Attachment 4.

Because a land use application form, annexation consent form, and Measure 49 waiver were submitted by the Applicant, this criterion is met.

B. Legal description of the property to be annexed and a boundary survey certified by a registered engineer or surveyor.

Finding: A legal description and boundary survey certified by a registered engineer or surveyor was submitted by the Applicant and is provided in Attachment 4.

Because a legal description and boundary survey certified by a registered engineer or surveyor was submitted by the Applicant, this criterion is met.

C. Vicinity map and map of the area to be annexed including adjacent city territory.

A vicinity map and map of the area was submitted by the Applicant and is provided in Attachment 4.

Because a vicinity map and map of the area were submitted by the Applicant, this criterion is met.

D. General land use plan indicating types and intensities of proposed development, transportation corridors (including pedestrian and vehicular corridors), watercourses,

significant natural features, open space, significant stands of mature trees, wildlife travel corridors, and adjoining development.

Finding: A general land use plan showing the types of zoning districts, proposed right of way and proposed centerline, and existing stream corridor was submitted by the Applicant and is provided in Attachment 4.

Because a general land use plan was submitted by the Applicant, this criterion is met.

E. Statement of overall development concept and methods by which physical and related social environment of the site, surrounding area, and community will be enhanced.

Finding: The Applicant provided the following statement of overall development concept and a discussion of the physical and social environment of the site, which is also provided in Attachment 4. Although the statement is not binding on any future land use application, submission of the statement meets the above application requirement.

> "The overall development concept after annexation of the property is for a residential neighborhood. The Applicant intends to use the provisions of the Planned Unit Development Regulations for future development of the site as detailed in Chapter 15.240 of the Newberg Municipal Code.
>
> Upon development of the site, the annexed area will enhance the community with greater access to the surrounding area with an improved right-of-way on the property frontage along NE Springbrook Road. The community will also be provided with a new residential neighborhood that is comprehensively planned with homes that are attractive, energy efficient, and compatible to the surrounding area. By integrating sustainable practices, the development will respect the natural areas adjacent to the site and manage stormwater effectively. The future development will provide new streetscapes and upgraded infrastructure to ensure seamless connectivity and reliability. These measures will foster a visually appealing community neighborhood.
>
> Socially, the subdivision will provide high-quality housing that caters to the needs of its residents. Safety and accessibility will be provided with well-designed and safe crosswalks and routes for individuals with disabilities. Overall, this project is designed to enhance the quality of life for residents in Newberg to create a vibrant and connected community."

Because the Applicant provided a statement of the overall development concept and methods by which the physical and related social environment of the site will be enhanced, this criterion is met.

F. Annexation fees, as set by city council resolution.

Finding: Applicable annexation fees were paid by the Applicant on July 16, 2024.

Because annexation fees, as set by City Council resolution, have been paid, this criterion is met.

G. Statement outlining method and source of financing to provide additional public facilities.

Finding: The Applicant provided the following statement outlining the method and source of financing to provide additional public facilities, which is also provided in Attachment 4.

> "The extension and improvement of public infrastructure and right-of-way infrastructure necessary to serve the future development of the subject property will be financed through a combination of System Development Charges determined at the time of building permit applications, as well as on-site and off-site improvements constructed by a developer that may be conditions of approval through the appropriate land use review process after a development application is submitted."

Because the Applicant provided a statement outlining the method and source of financing to provide additional public facilities, this criterion is met. (Note that the annexation application does not include an application for development or request for system development charge credits. Therefore, it is premature to determine whether system development charge credits would be used to finance any future development.)

H. Comprehensive narrative of potential positive and negative physical, aesthetic, and related social effects of the proposed development on the community as a whole and on the smaller subcommunity or neighborhood of which it will become a part and proposed actions to mitigate such effects.

Finding: The Applicant provided the following narrative of potential positive and negative effects of the proposed annexation:

> "The proposed development after annexation will be a positive community asset. Drawing inspiration from sustainable principles the property owner and developer aims to enhance the natural beauty of the area by integrating modern infrastructure to create an aesthetically pleasing environment. The development will foster a sense of community by providing high-quality housing and promote social interaction and engagement among residents.
>
> While construction may temporarily disrupt the area, the property owner and developer are committed to minimizing inconvenience through careful management practices and clear communication. Safety is a top priority and will be ensured with secure fencing around construction zones and clear signage to protect the community and the construction workers."

Because the Applicant provided a narrative of potential effects, the criterion is met. It is noted that the annexation application does not include an application for development. Therefore, it is premature to evaluate potential impacts of future development or to identify mitigation measures.

I. Concurrent with application for annexation, the property may be assigned one of the following methods for development plan review:

1. A planned unit development approved through a Type III procedure.

2. A development agreement approved by the city council.

3. A contract annexation as provided for in the state statutes. Development plans must be approved and an annexation contract must be signed by the city council in order to use the contract annexation process. [Ord. 2745 § 1 (Exh. A), 7-18-11; Ord. 2693 § 1 (Exh. A(4)), 3-3-08; Ord. 2612, 12-6-04; Ord. 2451, 12-2-96. Code 2001 § 151.264.]

Cross-reference: See ORS 222.111 for annexation eligibility and ORS 222.010 – 222.750, pertaining to annexation procedures.

Finding: No concurrent development applications have been submitted with this annexation request.

Because there is no additional development proposed with this proposed annexation, concurrent development plan review is not required. This criterion is not applicable.

15.250.080 Comprehensive plan and zoning designations.
A. The comprehensive plan map designation of the property at the time of annexation shall be used as a criterion to determine whether or not the proposed request complies with the Newberg comprehensive plan. A redesignation of the comprehensive plan map may be requested concurrent with annexation. The proposed redesignation shall then be used to determine compliance with the Newberg comprehensive plan.

Finding: The Comprehensive Plan map designation of the subject property is Low Density Residential (LDR), and the Applicant has requested to designate 16.14 gross acres of the subject property as the Low Density Residential (R-1) zoning district, which is the appropriate zoning classification per NMC 15.250.080(B) consistent with the Newberg Comprehensive Plan. Because the parcel is larger than 15 acres, NMC 15.250.030(A)(1) requires that the Applicant submit a concurrent comprehensive plan map amendment and zoning map amendment to include some (10 percent of the net size of the application) HDR-designated/R-3 zoned lands, consistent with Comprehensive Plan policy II(I)(3)(y). The Applicant has proposed zoning 3.01 gross acres as High Density Residential (R-3), approximately 16 percent of the net size of the application. See the table below for the gross and net acreage of each zoning designation. The above requirement that 10 percent of the net size of the application be designated HDR/R-3 is a minimum requirement. Staff finds the additional 1.13 acres or 6 percent of the net site, above the 10 percent standard, meets a need for high-density residential uses and may be approved based on the following facts:

The Housing and Residential Land Needs Analysis of the Newberg Comprehensive Plan V. Land Need and Supply indicates that 83 buildable acres of High Density Residential Land are needed (Table V-7) to accommodate 1,467 needed High Density housing dwelling units (Table V-2) between 2026-2040. The proposed comprehensive plan map and zoning map amendments' provision of additional HDR-designated/R-3 zoned land serves to meet this identified need.

Zone	Gross Size (Acre)	Net Size (Acre)
R-1	16.14	15.81
R-3	3.02	3.01

Total	19.16	18.82

Because the proposed comprehensive plan map and zoning map designations comply with the Newberg Comprehensive Plan, this criterion is met.

B. Upon annexation, the area annexed shall be automatically zoned to the corresponding land use zoning classification which implements the Newberg comprehensive plan map designation. The corresponding designations are shown in the table below. The procedures and criteria of NMC 15.302.030 shall not be required.

Comprehensive Plan Classification	*Appropriate Zoning Classification*
OS	***Any zoning classification***
LDR	***R-1***
MDR	***R-2, R-4***
HDR	***R-3, R-4***
COM	***C-1, C-2, or C-3 as determined by the director***
MIX	***C-2, M-1, M-2, or M-E as determined by the director***
IND	***M-1, M-2, M-3, M-4, or AI as determined by the director***
PQ	***Any zoning classification***
P	***CF***

Finding: The Comprehensive Plan map designation of the subject property is Low Density Residential (LDR). Per NMC 15.250.080(B), the appropriate zoning classification is R-1. The Applicant has requested to designate 15.81 net acres of the subject property as the R-1 zoning district, which is the appropriate zoning classification per NMC 15.250.080(B) for consistency with the Newberg Comprehensive Plan. Because the parcel is larger than 15 acres, NMC 15.250.030(A)(1) requires that the Applicant submit a concurrent comprehensive plan map amendment and zoning map amendment to include some (10 percent of the net size of the application) HDR-designated/R-3 zoned lands, consistent with Comprehensive Plan policy II(I)(3)(y). The Applicant has proposed zoning 3.01 net acres as High Density Residential (R-3), approximately 16 percent of the net size of the application. The above requirement that 10 percent of the net size of the application be designated HDR/R-3 is a minimum requirement. Staff finds the additional 1.13 net acres or 6 percent of the site, above the 10 percent standard, meets a need for high-density residential uses and may be approved based on the following facts:

The Housing and Residential Land Needs Analysis of the Newberg Comprehensive Plan V. Land Need and Supply indicates that 83 buildable acres of High Density Residential Land are needed (Table V-7) to accommodate 1,467 needed High Density housing dwelling units (Table V-2)

between 2026-2040. The proposed comprehensive plan map and zoning map amendments' provision of additional HDR-designated/R-3 zoned land serves to meet this identified need.

Because the Applicant has requested that the subject property of the proposed annexation be classified with an appropriate zoning classification for the LDR Comprehensive Plan designation and requested a comprehensive plan map and zoning map amendment to comply with NMC 15.250.230(A)(1), this criterion is met.

C. If a zoning classification is requested by the applicant for other than that described in subsection (B) of this section, the criteria of NMC 15.302.030 shall apply. This application shall be submitted concurrently with the annexation application.

Finding: The Applicant has submitted a concurrent comprehensive plan map and zoning map amendment to zone some of the subject property High Density Residential (R-3) per NMC 15.250.230(A)(1). The criteria of NMC 15.302.030 apply and area addressed elsewhere in this staff report.

D. In the event that the annexation request is denied, the zone change request shall also be denied. [Ord. 2883 § 1 (Exh. A § 1), 6-7-21; Ord. 2747 § 1 (Exh. A § 6), 9-6-11; Ord. 2720 § 1(9), 11-2-09; Ord. 2451, 12-2-96. Code 2001 § 151.267.]

Finding: Because a comprehensive plan map and zoning map amendment were submitted with this application, the Applicant has indicated that they understand that if the annexation is denied these requests shall also be denied.

15.250.090 Coordination.
Annexation requests shall be coordinated with affected public and private agencies, including, but not limited to, Yamhill County, Chehalem Park and Recreation District, Newberg School District, Northwest Natural Gas, Portland General Electric, and, where appropriate, various state agencies. Coordination shall be made by referral of annexation request to these bodies sufficiently in advance of final city action to allow for reviews and recommendations to be incorporated into the city records. [Ord. 2745 § 1 (Exh. A), 7-18-11; Ord. 2451, 12-2-96. Code 2001 § 151.268.]

Finding:

Upon determination that the application for the proposed annexation was complete, the City referred the application materials to affected public and private agencies. This referral included Yamhill County, Chehalem Park and Recreation District, Newberg School District, Northwest Natural Gas, Portland General Electric, the Oregon Department of Transportation, the Oregon Department of Aviation, Tualatin Valley Fire and Rescue, Sportsman Airpark, and other utility providers. Comments received are incorporated into this staff report and addressed in findings where applicable.

Because a referral review of the proposed annexation request was provided by the City to affected public and private agencies sufficiently in advance of final city action to allow for reviews and recommendations to be incorporated into City records, this criterion is met.

C. FINDINGS FOR ZONING DISTRICTS (NMC DIVISION 15.300)

Chapter 15.302 DISTRICTS AND THEIR AMENDMENT

15.302.030 Procedures for comprehensive plan map and zoning map amendments.
This section describes the procedures and criteria that apply to any application to amend the land use designations identified on the comprehensive plan map, zoning map and land use regulations.

A. Type III Plan and Zoning Map Amendments – One Parcel or Small Group of Parcels.

1. Property owners or the city may initiate a map amendment for one parcel or a small group of parcels under the Type III procedure. May be initiated by a resolution of the planning commission or city council. Unlike other Type III procedures, the decision of the planning commission on a Type III plan map amendment shall be in the form of a recommendation to the city council. The city council shall hold another new hearing and make a final decision.

2. Where an application has been denied, no new application for the same purpose shall be filed within one year of the date of the previous denial unless the city council for good cause shall grant permission to do so.

3. Amendment Criteria. The owner must demonstrate compliance with the following criteria:

a. The proposed change is consistent with and promotes the goals and policies of the Newberg comprehensive plan and this code;

b. Public facilities and services are or can be reasonably made available to support the uses allowed by the proposed change;

c. Compliance with the State Transportation Planning Rule (OAR 660-012-0060) for proposals that significantly affect transportation facilities.

4. The property owner who desired to have their property reclassified has the burden of establishing that the requested classification meets the requirements of this section. As part of the application, the property owner requesting a change shall file a waiver stating that the owner will not file any demand against the city under Ballot Measure 49, approved November 6, 2007, that amended ORS Chapters 195 and 197.

5. A traffic study shall be submitted for any proposed change that would significantly affect a transportation facility, or that would allow uses that would increase trip generation in excess of 40 trips per p.m. peak hour. This requirement may be waived by the director when a determination is made that a previous traffic study adequately addresses the proposal and/or when off-site and frontage improvements have already been completed, which adequately mitigate any traffic impacts and/or the proposed use is not in a location, which is adjacent to an intersection, which is functioning at a poor level of service. A traffic study may be required by the director for changes in areas below 40 trips per p.m. peak hour where the use is located immediately adjacent to an intersection functioning at a poor level of service. The traffic study shall be conducted according to the City of Newberg design standards.

[…]

Findings: The findings corresponding to each subsection are as follows:

1. The map amendment for Yamhill County tax lot R3209 02300 was initiated by the property owners of the subject property under the Type III procedure. Because the comprehensive plan map and zoning map amendments were initiated by the property owners in accordance with this code, the criterion is met.

2. No previous application for a zone change of the subject property was denied within the last year prior to the application's submission. The Applicant acknowledges in the application materials that if the application is denied no new application for the same purpose shall be filed within one year of the date of the previous denial unless granted permission by City Council. Because no previous zone change application was denied, this criterion is met.

3. The proposed comprehensive plan map and zoning map change from LDR/R-1 to HDR/R-3 are to comply with NMC 15.250.030(A)(1) to designate 10 percent of proposed annexations larger than 15 acres for high density residential uses consistent with the Newberg Comprehensive Plan policies. The Applicant has also provided responses to applicable goals and policies of the Newberg Comprehensive Plan, included as Attachment 4. The subject property is within Newberg Urban Growth Boundary, and the Applicant has provided findings that public facilities and services will be made available to support the uses allowed by the proposed changes. The Applicant has also provided a Traffic Impact Analysis, included in Attachment 4, demonstrating compliance with the State Transportation Planning Rule. Because the proposed change is consistent with and promotes the goals of the Newberg Comprehensive Plan and this code, public facilities can reasonably be made available to support the uses allowed by the proposed change, and the Applicant has demonstrated compliance with the State Transportation Rule, these criteria are met.

4. The Applicant has provided materials to support findings that the requested classification meets the requirements of this section and submitted a Measure 49 waiver, included in Attachment 4. Because the applicant has provided sufficient material for the City to make findings and a Measure 49 waiver, this criterion is met.

5. A traffic impact analysis has been submitted by the Applicant, which is included in Attachment 4. The analysis demonstrates the impacts to the level of service on four study intersections upon completion of a residential subdivision on the subject property. Because a traffic study has been submitted, this criterion is met.

The criteria are met.

Chapter 15.340 AIRPORT OVERLAY (AO) SUBDISTRICT

15.340.010 Purpose.
A. In order to carry out the provisions of this airport overlay subdistrict, there are created and established certain zones which include all of the land lying beneath the airport imaginary surfaces as they apply to Sportsman Airpark in Yamhill County. Such zones are shown on the

current airport overlay zone map and the displaced threshold approach surface map, prepared by the Newberg engineering department (see Appendix B, Maps 2 and 3).

B. Further, this overlay zone is intended to prevent the establishment of air space obstructions in airport approaches and surrounding areas through height restrictions and other land use controls as deemed essential to protect the health, safety and welfare of the people of the City of Newberg and Yamhill County. [Ord. 2451, 12-2-96. Code 2001 § 151.450.]

Finding: The subject property is within the Conical imaginary surface of Sportsman Airpark as described in NMC 15.340.010(A) and on NMC Title 15 Development Code's Appendix B (Maps 2 and 3). Therefore, any future development will be subject to the procedures and limitations of the Airport Overlay Subdistrict.

In accordance with FAR Part 77.9 and OAR 738-070-0060, future development at this site may be required to undergo aeronautical evaluations by the Federal Aviation Administration (FAA) and Oregon Department of Aviation (ODAV). The aeronautical evaluations are initiated by the Applicant providing separate notices to both the FAA and ODAV to determine if the proposal poses an obstruction to aviation safety. The Applicant should receive aeronautical determination letters from the FAA and ODAV prior to approval of any building permits.

Upon adherence to the aforementioned condition of approval, this criterion will be met.

Chapter 15.342 STREAM CORRIDOR OVERLAY (SC) SUBDISTRICT

15.342.020 Where these regulations apply.
The regulations of this chapter apply to the portion of any lot or development site which is within an SC overlay subdistrict. Unless specifically exempted by NMC 15.342.040, these regulations apply to the following:

A. New structures, additions, accessory structures, decks, addition of concrete or other impervious surfaces;

B. Any action requiring a development permit by this code;

C. Changing of topography by filling or grading;

D. Installation or expansion of utilities including but not limited to phone, cable TV, electrical, wastewater, storm drain, water or other utilities;

E. Installation of pathways, bridges, or other physical improvements which alter the lands within the stream corridor overlay subdistrict. [Ord. 2451, 12-2-96. Code 2001 § 151.466.]

Finding: Approximately 0.34 acres along the eastern portion of the subject property is within the Stream Corridor Overlay Subdistrict. Any future development or redevelopment may be subject to the procedures and limitations of the Stream Corridor Overlay Subdistrict.

Upon adherence to the aforementioned condition of approval, this criterion is applicable.

D. FINDINGS FOR DEVELOPMENT STANDARDS (NMC DIVISION 400)

Chapter 15.430 UNDERGROUND UTILITY INSTALLATION

15.430.010 Underground utility installation.

A. All new utility lines, including but not limited to electric, communication, natural gas, and cable television transmission lines, shall be placed underground. This does not include surface-mounted transformers, connections boxes, meter cabinets, service cabinets, temporary facilities during construction, and high-capacity electric lines operating at 50,000 volts or above.

Finding: No development is proposed with this annexation, comprehensive plan map amendment, and zoning map amendment application.

Because no new development is currently proposed, this criterion is not applicable.

B. Existing utility lines shall be placed underground when they are relocated, or when an addition or remodel requiring a Type II design review is proposed, or when a developed area is annexed to the city.

Finding: Existing utility lines at the subject property are overhead. No development is proposed with this annexation, comprehensive plan map amendment, and zoning map amendment application. If relocated, the existing overhead utility lines on the property shall be placed underground, except where the Community Development Director approves an exception to the requirement to underground utilities.

Upon adherence to the aforementioned condition of approval the criterion is met.

C. The director may make exceptions to the requirement to underground utilities based on one or more of the following criteria:

1. The cost of undergrounding is extraordinarily expensive.

2. There are physical factors that make undergrounding extraordinarily difficult.

3. Existing utility facilities in the area are overhead and are unlikely to be changed.

Finding: At the time of writing this staff report, no request has been received from the Applicant for an exception to NMC 15.430(B)'s utility undergrounding requirement. The Applicant may submit a request to the Community Development Director for an exception to the requirement to underground utilities if one or more of the criteria listed in NMC 15.430(B) are applicable to the subject property. Such request can be made with any future development application.

Because a request has not been made to the Community Development Director to exempt the utility undergrounding requirement, this criterion is not applicable.

CONCLUSION:

Based on the above-mentioned findings and adherence to the above-mentioned conditions of approval, the application meets the criteria of the Newberg Development Code for the

annexation of the subject property into the City of Newberg and the application of the Comprehensive Plan and zoning designations to the property as noted in this staff report.

EXHIBIT "C" TO PLANNING COMMISSION RESOLUTION NO. 2024-396
CONDITIONS OF APPROVAL
Annexation, Comprehensive Plan Map Amendment, Zoning Map Amendment
3809 NE Springbrook Road (File Nos. ANX24-0001/CPMA24-0001/ZMA24-0001)

THE FOLLOWING MUST BE COMPLETED BEFORE THE CITY WILL ISSUE A BUILDING PERMIT:

1. **Urban Services – Municipal Wastewater and Water Service**

   a. With future development of the site, the development will be required to provide a downstream wastewater analysis to determine if downstream deficiencies exist that need to be addressed by the development.

   b. With future development of the site, the development will be required to provide a scoping memo for the water booster pump station design. the City of Newberg is to be provided with a water booster pump station design scoping memo for coordination prior to the development beginning design.

   c. With future development of the site, the development will also be required to extend public water and wastewater lines to and through the development site.

2. **Urban Services – Roads**

   a. With future development of the site, the development will be required to locate the center line of the street based on the dimensions of a major collector and dedicate the amount of additional right-of-way necessary to provide for that full cross section.

   b. With future development of the site, since the existing railroad right-of-way is adjacent to the public road right-of-way, the developer will be required to build full street improvements for NE Springbrook Road. This would include street lighting and is to be consistent with existing street improvements on both sides of NE Springbrook Road southwest of the site.

   c. With future development of the site, the development will be required to complete transportation system mitigations recommended in the Traffic Impact Analysis for the future development.

3. **Stream Corridor Overlay Subdistrict:** Any future development or redevelopment may be subject to the procedures and limitations of the Stream Corridor Overlay Subdistrict.

4. **Underground Utilities:** If relocated, the existing overhead utility lines on the property shall be placed underground except where the Community Development Director approves an exception to the requirement to underground utilities.

Annexation, Comprehensive Plan Map Amendment, and Zoning Map Amendment at 3809 NE Springbrook Road

File No. ANX24-0001 / CPMA24-0001 / ZMA24-0001

City Council Public Hearing

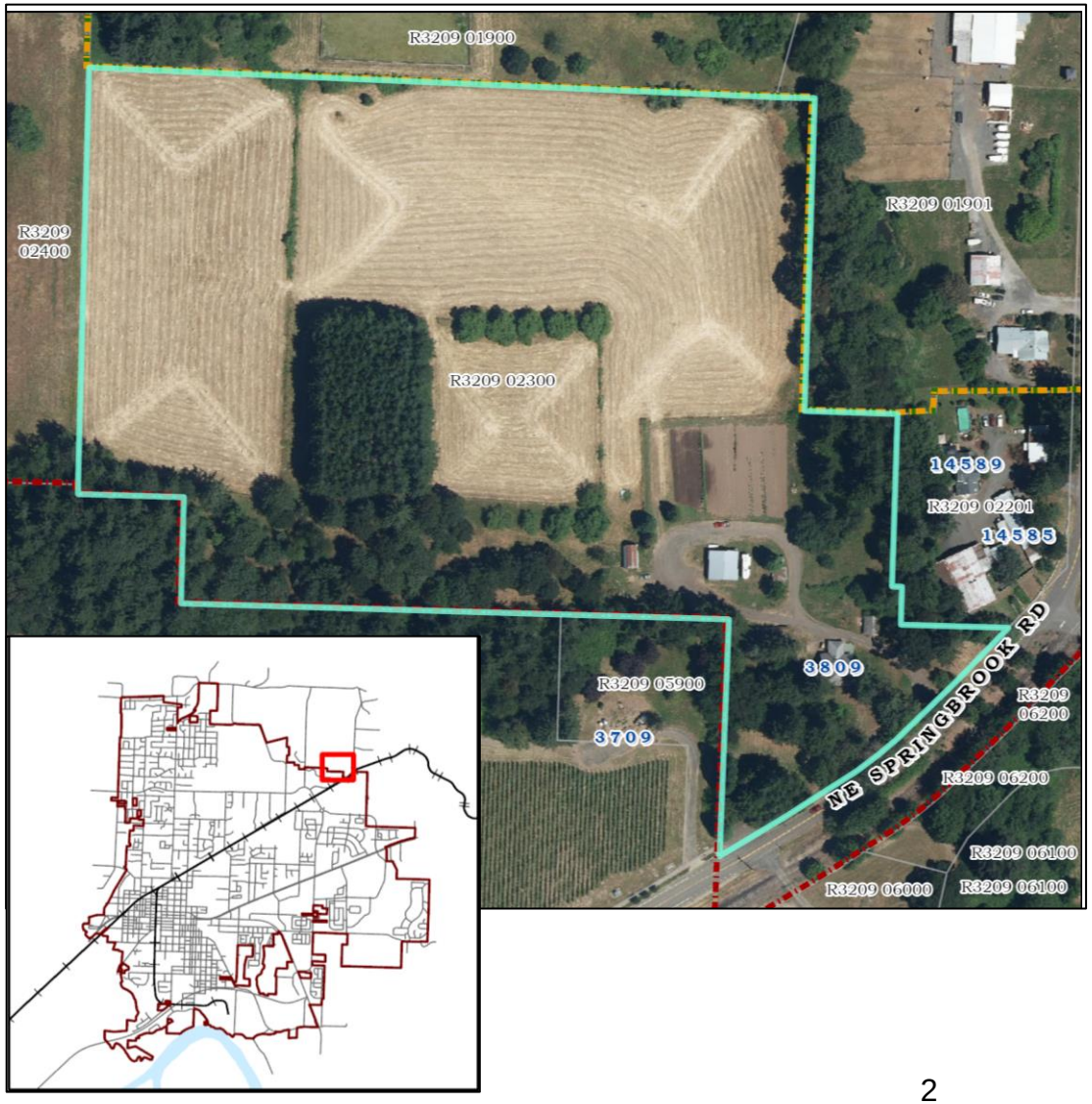
November 4, 2024

City of Newberg

Background

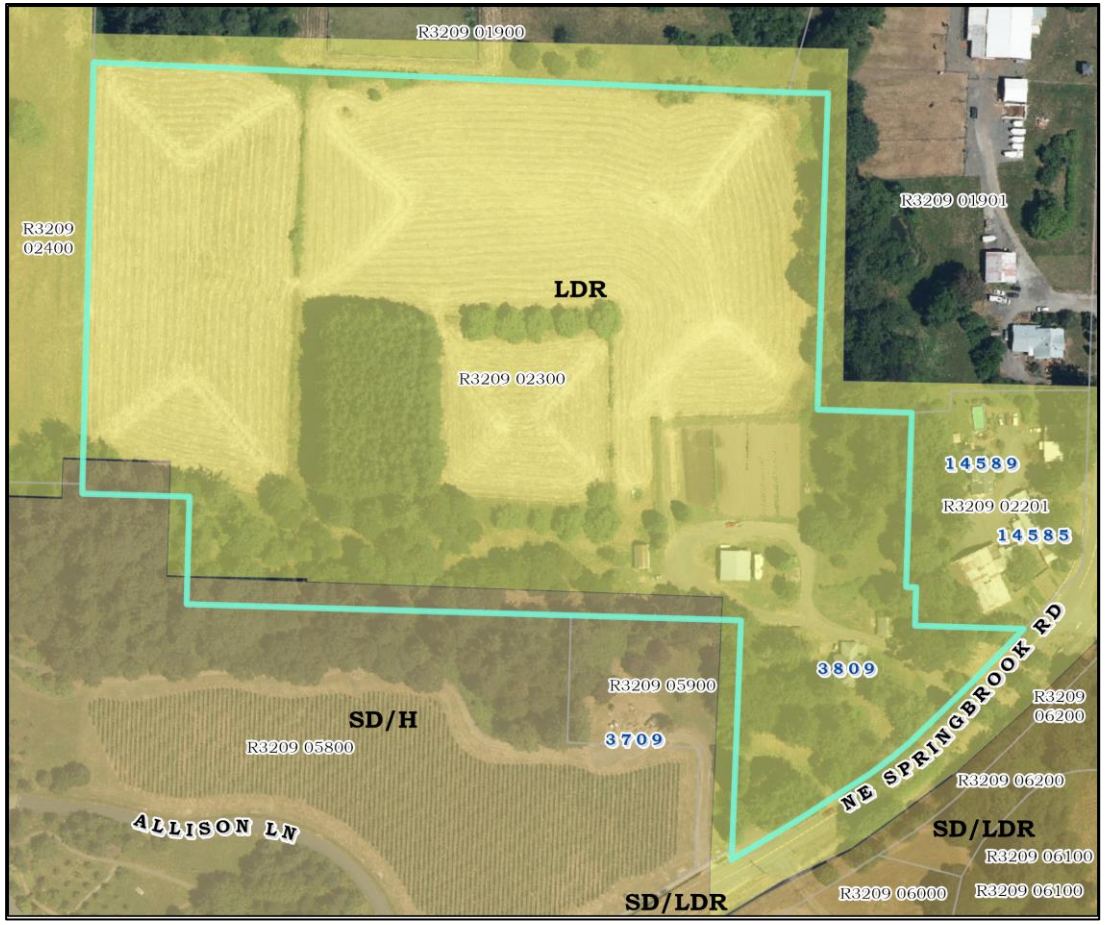
- 3809 NE Springbrook Road

  (R3209 02300)
- Applicant: Ichijo USA Co. LTD
- Owners: Ross D Kerr, Roland G Kerr Jr.
- Request to annex 19.16 acres into the Newberg city limits, Comprehensive Plan Map & Zoning Map amendment of 3.02 gross acres to HDR/R-3.

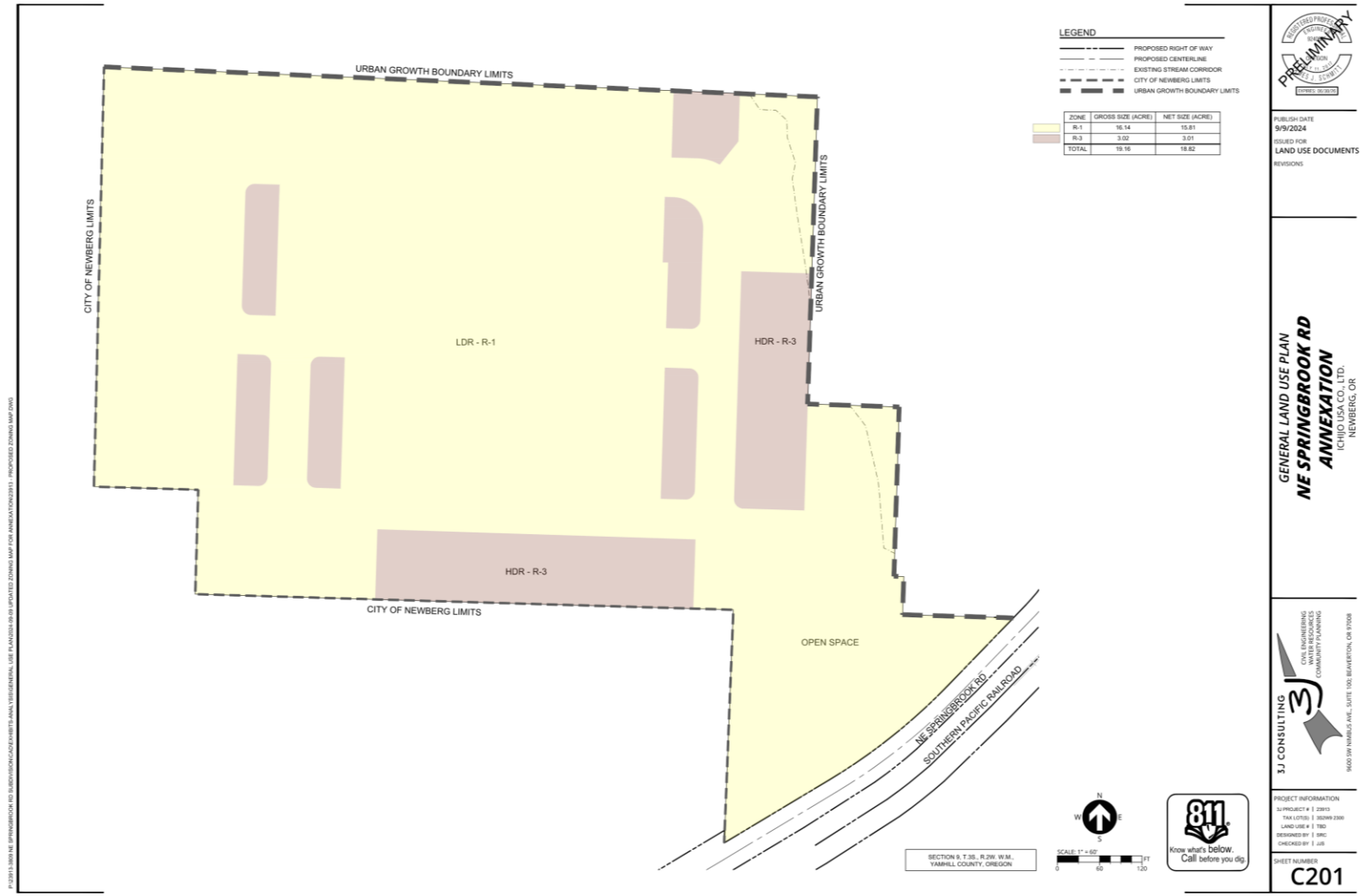


Zoning & Designations

- Comprehensive Plan Designation: Low Density Residential (LDR)
- Proposed Zoning:
  - 16.14 gross acres: Low Density Residential (R-1)
  - 3.02 gross acres: High Density Residential (R-3)
- Airport Overlay Subdistrict
- Stream Corridor (SC) Overlay Subdistrict



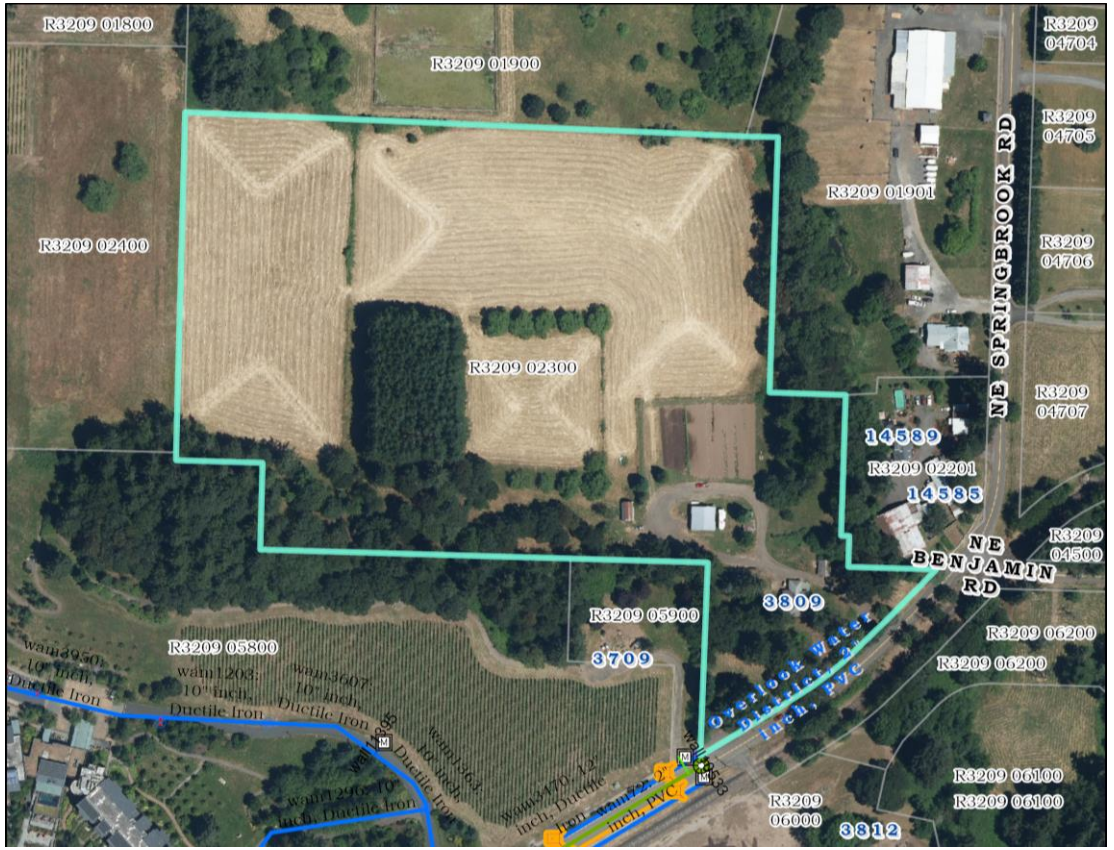
Zoning & Designations



Utilities

- **Water, Wastewater, and Stormwater:** Existing services are available that terminate at N Springbrook Road and can be extended.

- **Overhead Lines**: Property is served by overhead lines.



Process

- 8/28/2024 – The application was deemed complete.
- 9/05/2024 – A PAPA notice was submitted to DLCD.
- 9/17/2024 – The applicant mailed public notice.
- 9/18/2024 – The applicant posted public notice on the site.
- 9/19/2024 – The application was routed for referral review.
- 9/26/2024 – Notice was posted in the *Newberg Graphic* and in four public places.
- 10/10/2024 – Planning Commission Hearing
- 10/17 & 24 /2024 – Notice was posted in the *Newberg Graphic* and in four public places.
- 10/23/2024 – The applicant mailed public notice for the City Council hearing.
- 11/04/2024 – City Council Hearing

Criteria – 15.250.020 Conditions for Annexation

A. The subject site must be located within the Newberg urban growth boundary or Newberg urban reserve area.

Finding: Criterion is met – the subject property is within the UGB.

B. The subject site must be contiguous to the existing city limits

Finding: Criterion is met – the subject property is contiguous on the southern boundary of the proposed annexation area.

Criteria – 15.250.030 Quasi-Judicial Annexation

A. The proposed use for the site complies with the Newberg comprehensive plan and with the designation on the Newberg comprehensive plan map. If a redesignation of the plan map is requested concurrent with annexation, the uses allowed under the proposed designation must comply with the Newberg Comprehensive Plan.

Finding: Criterion is met – The Comprehensive Plan map designation is LDR which corresponds with the requested zoning of R-1. Redesignation of the plan map is being requested per 15.250.030(A).

Criteria – 15.250.030(A) Quasi-Judicial Annexation

1. ***Where large LDR or MDR designated parcels are to be annexed, the applicant(s) shall concurrently apply for a comprehensive plan map to include some HDR-designated/R-3 zoned lands, consistent with the policy of distributing R-3 multifamily housing throughout the community. Such zoning shall be applied to portions of the property that are most suitable for high density development.***

   For the purposes of this policy, "large" is defined as an area greater than 15 net acres, after subtracting for land in stream corridor overlays. "Some" is defined as 10 percent of the net size of the application.

Criteria – 15.250.030(A) Quasi-Judicial Annexation

Finding: Proposed annexation is 19.16 gross acres. The Applicant has proposed approximately 16% as HDR/R-3 land.

Zone	Gross Size (Acre)	Net Size (Acre)
R-1	16.14	15.81
R-3	3.02	3.01
Total	*19.16*	*18.82*

Criteria – 15.250.030 Quasi-Judicial Annexation

B. An adequate level of urban services must be available, or made available, within three years' time of annexation, except as noted in subsection (E) of this section. An adequate level of urban services" shall be defined as:

Criteria – 15.250.030(B) Quasi-Judicial Annexation

1. ***Municipal wastewater and water service meeting the requirements enumerated in the Newberg Comprehensive Plan for provision of these services.***

Finding: Met with conditions of approval. With future development of the site, the development will be required to provide a downstream wastewater analysis to determine if downstream deficiencies exist that need to be addressed by the development.

Criteria – 15.250.030(B) Quasi-Judicial Annexation

1. ***Municipal wastewater and water service meeting the requirements enumerated in the Newberg Comprehensive Plan for provision of these services.***

With future development of the site, the development will be required to provide a scoping memo for the water booster pump station design. The City of Newberg is to be provided with a water pump booster station design scoping memo for coordination prior to the development beginning design.

With future development of the site, the development will also be required to extend public water and wastewater lines to and through the development site.

Criteria – 15.250.030(B) Quasi-Judicial Annexation

2. Roads with an adequate design capacity for the proposed use and projected future uses. Where construction of the road is not deemed necessary within the three-year time period, the city shall note requirements such as dedication of right-of-way, waiver of remonstrance against assessment for road improvement costs, or participation in other traffic improvement costs, for application at the appropriate level of the planning process. The city shall also consider public costs for improvement and the ability of the city to provide for these costs.

Finding: Met with conditions of approval – the subject property has frontage on NE Springbrook Road. With future development of the site, the development will be required to locate the center line of the street based on the dimensions of a full major collector and dedicate the amount of additional right-of-way necessary to provide for that full cross section.

Criteria – 15.250.030(B) Quasi-Judicial Annexation

With future development of the site, since the existing railroad right-of-way is adjacent to the public road right-of-way, the developer will be required to build full street improvements for NE Springbrook Road. This would include street lighting and is to be consistent with existing street improvements on both sides of NE Springbrook Road southwest of the site.

With future development of the site, the development will be required to complete transportation system mitigations recommended in the Traffic Impact Analysis for the future development.

Criteria – 15.250.030 Quasi-Judicial Annexation

C. Findings documenting the availability of police, fire, parks, and school facilities and services shall be made for conclusionary findings wither for or against the proposed annexation. The adequacy of these services shall be considered in relation to annexation proposals.

Finding: Criterion met – Subject property is within the Tualatin Valley Fire and Rescue, Chehalem Park and Recreation, Newberg-Dundee Police Department, and Newberg School District service districts. No comments were received that adequate services could not be provided to the subject property.

Criteria – 15.250.030 Quasi-Judicial Annexation

D. The burden for providing the findings for subsections (A), (B), and (C) of this subsection is placed upon the applicant.

Finding: Criterion met – The applicant submitted adequate information for the City to make findings that demonstrate compliance with the applicable criteria.

Criteria – 15.250.030 Quasi-Judicial Annexation

E. The city council may annex properties where urban services are not and cannot be practically made available within the three-year time frame noted in subsection (B) of this section…

Finding: Criterion is not applicable – Adequate urban services are found to be available within the three-year time frame.

15.302 Districts and Their Amendment

3. Amendment Criteria. The Owner must demonstrate compliance with the following criteria:

a. The proposed change is consistent with and promotes the goals and policies of the Newberg comprehensive plan and this code;

b. Public facilities and services are or can be reasonably made available to support the uses allowed by the proposed change;

c. Compliance with the State Transportation Planning Rule (OAR 660-012-0060) for proposals that significantly affect transportation facilities.

Finding: The proposed change from LDR/R-1 to HDR/R-3 are to comply with NMC 15.250.030(A)(1) and the Comprehensive Plan policies. Findings have been made that public facilities and services can be made available to support the proposed uses, and the Applicant submitted a traffic impact analysis demonstrating compliance with the State Transportation Planning Rule.

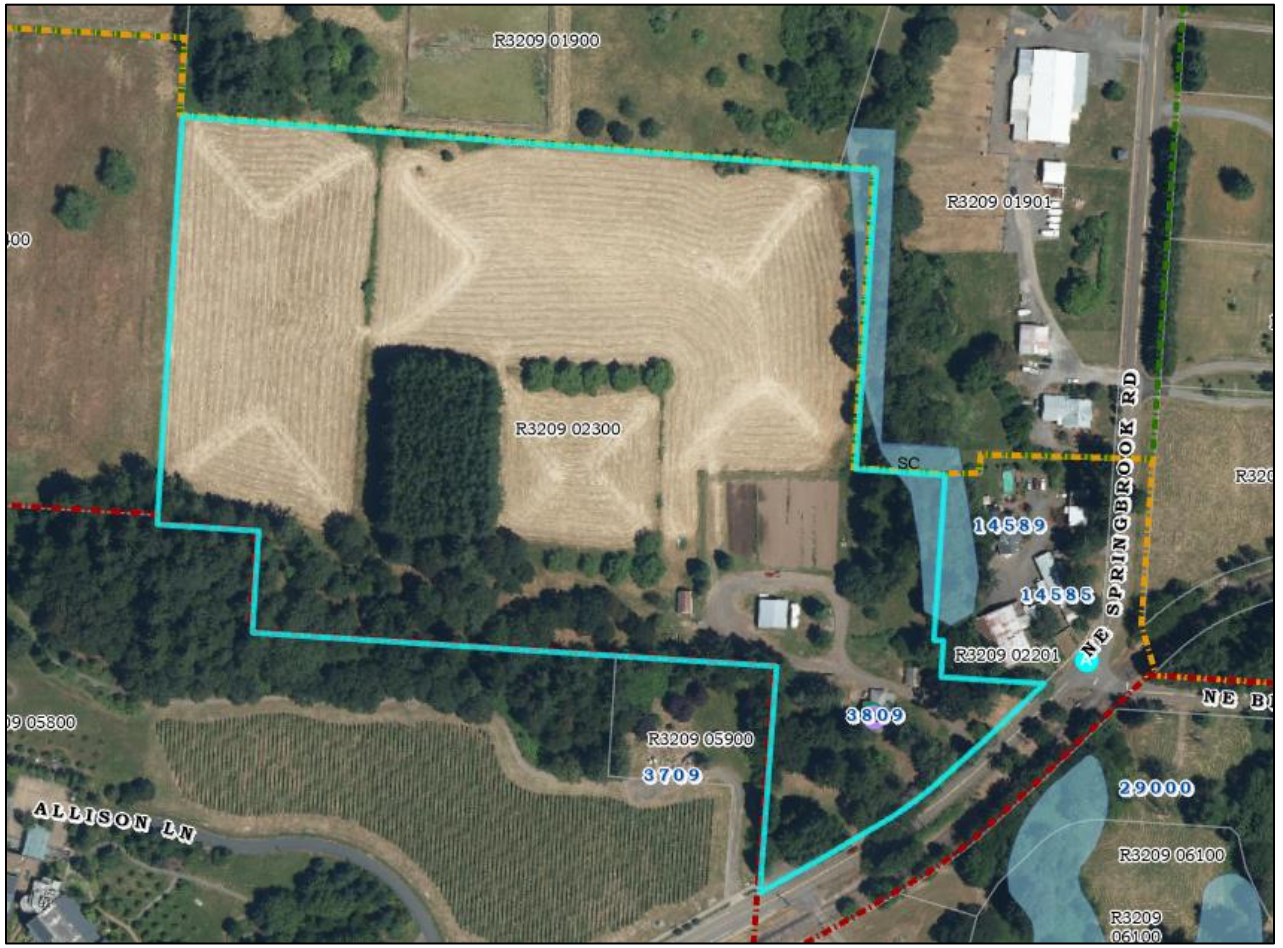
Chapter 15.340 Airport Overlay (AO) Subdistrict

Finding: The subject property is within the Conical imaginary surface of Sportsman Airpark and future development will be subject to the procedures and limitations of the Airport Overlay Subdistrict.

Chapter 15.342 Stream Corridor Overlay Subdistrict

Finding: Approximately 0.34 acres along the eastern portion of the subject property is within the Stream Corridor Overlay. The approval is conditioned that any future development may be subject to the procedures and limitations of the Stream Corridor Overlay Subdistrict.

Chapter 15.342 Stream Corridor Overlay Subdistrict



Findings for Development Standards (NMC Division 400) 15.430.410 Utility Underground Installation

A. All new utility lines, including, but not limited to electric, communication, natural gas, and cable television transmission lines, shall be placed underground. This does not include surface mounted transformers, connections boxes, meter cabinets, service cabinets, temporary facilities during construction, and high-capacity electric lines operating at 50,000 volts or above.

Finding: Criterion is not applicable – no new development is currently proposed with the annexation application.

15.430.410 Utility Underground Installation

B. Existing utility lines shall be placed underground when they are relocated, or when an addition or remodel requiring a Type II design review is proposed, or when a developed area is annexed into the city.

Finding: Criterion met with condition – existing utility lines at the subject property are overhead. As a developed area proposed to be annexed to the city, approval is conditioned that the existing utility lines on the subject property shall be placed underground.

15.430.410 Utility Underground Installation

C. The director may make exceptions to the requirement to underground utilities based on one or more of the following criteria:

1. ***The cost of undergrounding is extraordinarily expensive.***
2. ***There are physical factors that make undergrounding extraordinarily difficult.***
3. ***Existing utility facilities in the area are overhead and are unlikely to be changed.***

Finding: Criterion not applicable – no request has been made to the director to exempt the utility undergrounding requirement.

Staff Recommendation

Move to adopt Ordinance No. 2024-2931 which annexes property at 3809 NE Springbrook Road into the City of Newberg and approves a Comprehensive Plan Map and Zoning Map Amendment as shown in Exhibit “A-1”, based on findings in Exhibit “A-2”, and subject to conditions of approval in Exhibit “A-3”.

Published on *Newberg Oregon* (https://www.newbergoregon.gov)

Submission information

Form: Public Comment for City Meetings [1]
Submitted by Visitor (not verified)
Thu, 10/31/2024 - 3:13pm
50.43.61.34

Date of the meeting you would like to give public comment at (City Council meetings are held on the first and third Monday of the month)
Mon, 11/04/2024

Please let us know the agenda item you will be speaking on, otherwise it will be submitted as a general comment.
8.2. Annexation of 3809 NE Springbrook Road

If you do not have a specific agenda item on which to testify/comment, please identify the subject matter you will comment on.

Name
Sam Huck

Representing (optional, include if speaking on behalf of a third party)
Ichijo USA.

Email Address
[redacted]

Phone Number (optional)
[redacted]

Do not release my contact information in a public records request
Yes/Sí

Is this a public hearing?
Yes/Sí

If this is a public hearing, please choose one of the following
Proponent (for)/Proponente (para)

Mailing Address (optional for general meetings,required for land use hearings)
[redacted]

Would you like to give written or spoken public comment?
Spoken/Oral

If you are giving a spoken comment, please select how you would like to join the meeting
In Person at the Newberg Public Safety Building, 401 E. Third Street

If you are joining by the phone, you will be required to provide a phone number so we may unmute you during the meeting.

If you would like to include a photo or document with your public comment, please attach it here.

function googleTranslateElementInit() { new google.translate.TranslateElement({ pageLanguage: 'en', layout: google.translate.TranslateElement.InlineLayout.SIMPLE }, 'google_translate_element'); }



Source URL:https://www.newbergoregon.gov/node/28961/submission/27821

Links
[1] https://www.newbergoregon.gov/citycouncil/webform/public-comment-city-meetings



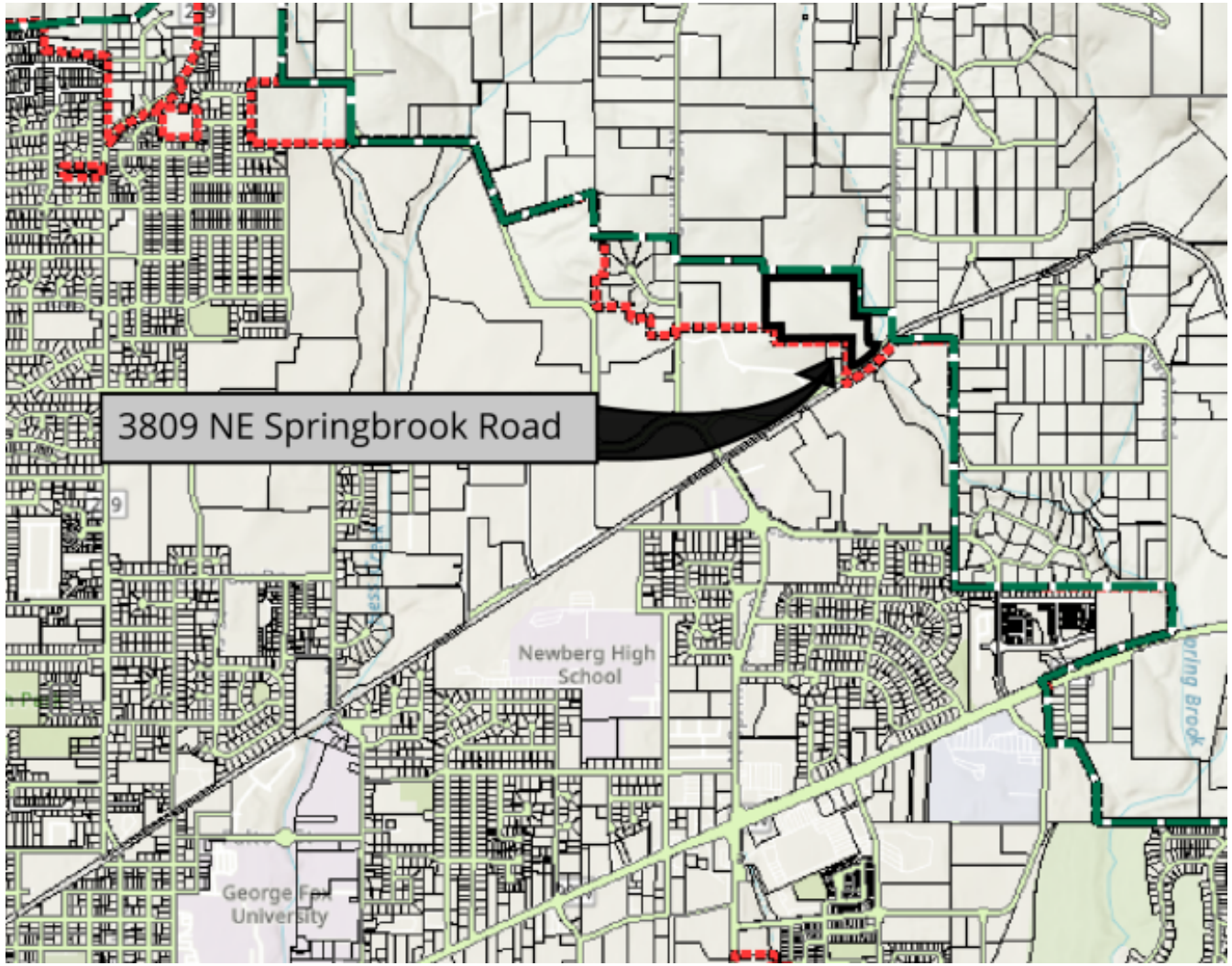
Annexation of 3809 NE Springbrook Road

ANX24-0001, CPMA24-0001, and ZMA24-0001

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CIVIL ENGINEERING | WATER RESOURCES | LAND USE PLANNING

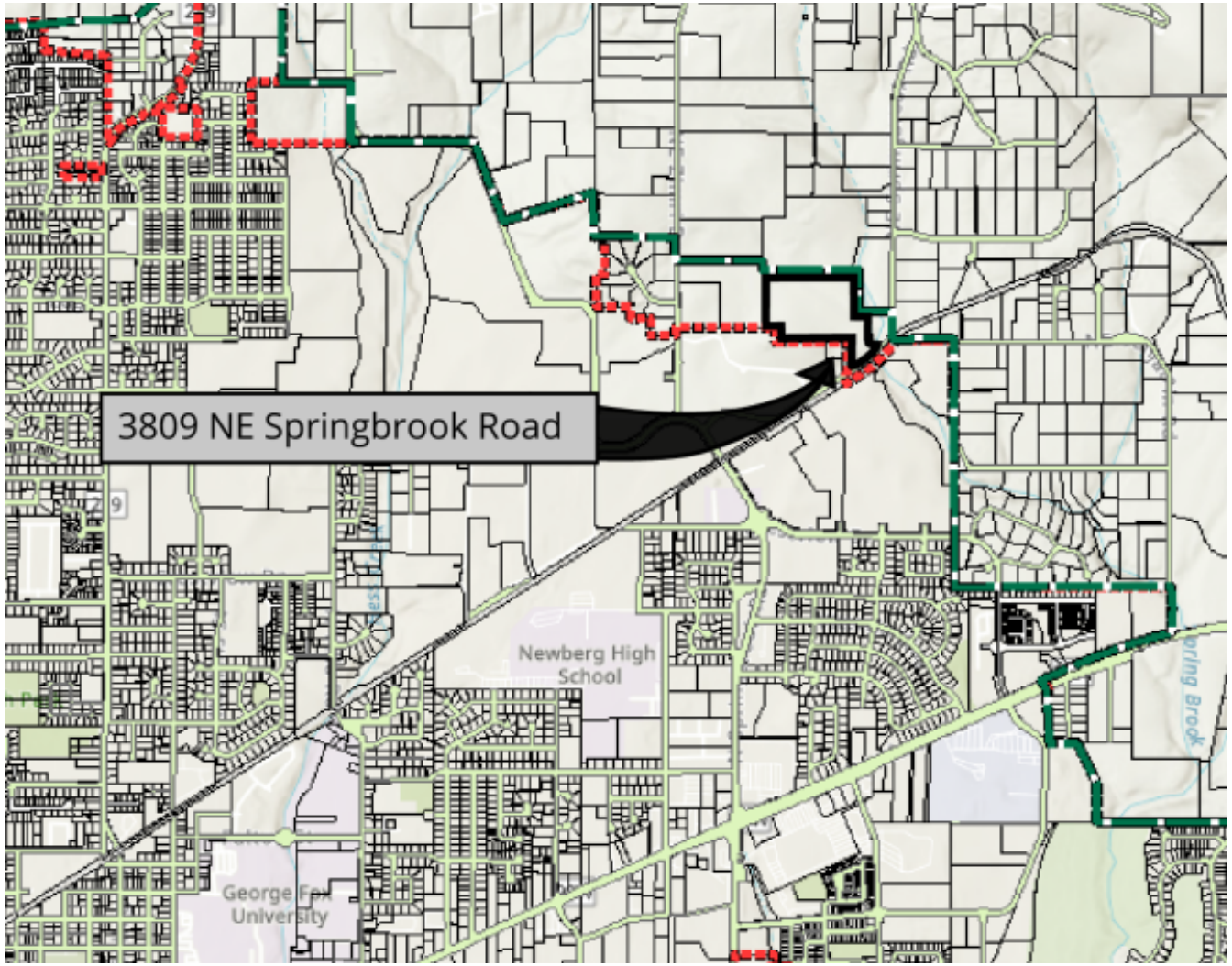
Project Location



Background Information

- 19.16 Acres
- Located at 3809 NE Springbrook Road

Project Location



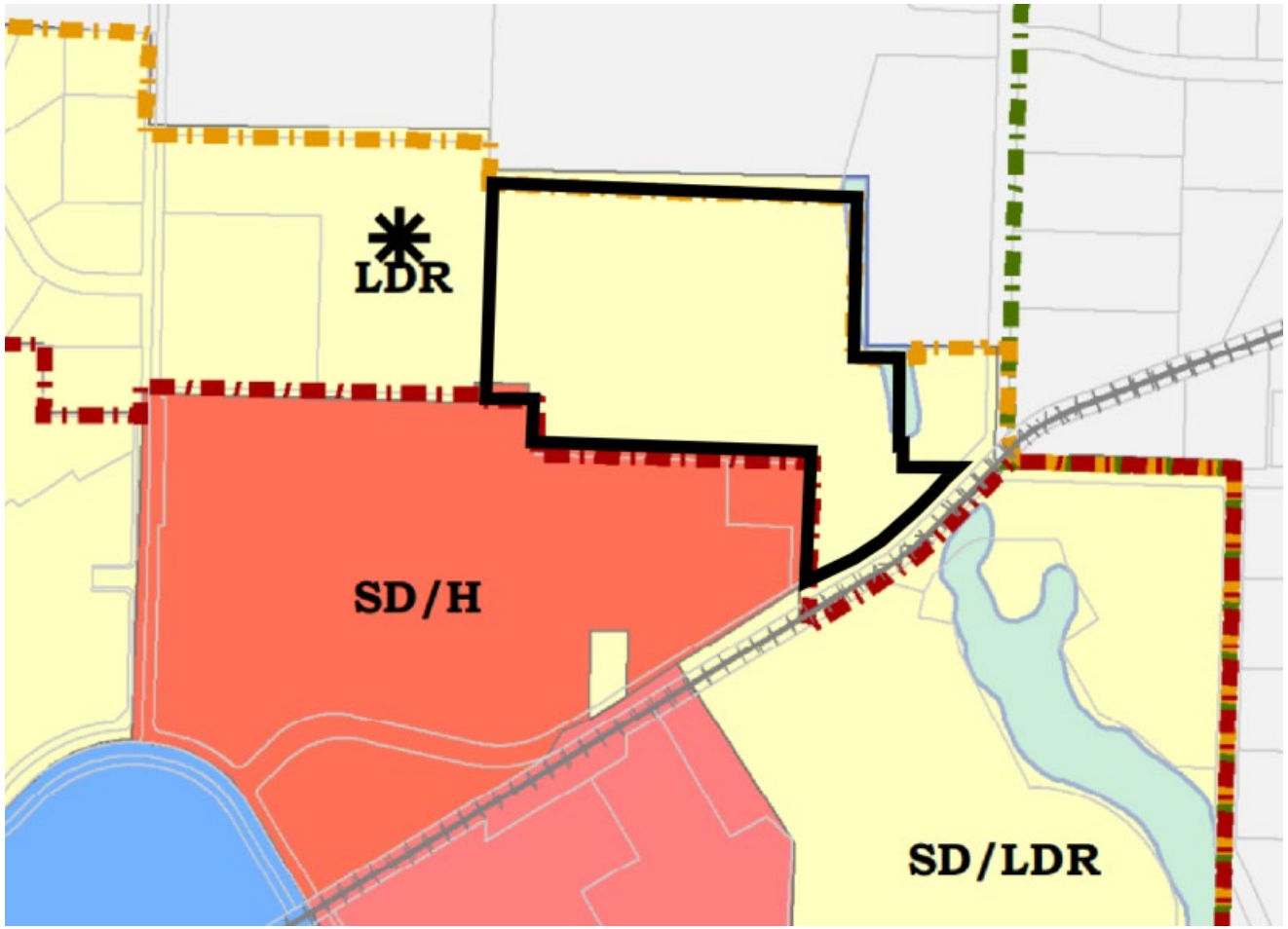
Background Information

- Located at the edge of City Limits
- Inside the Urban Growth Boundary (UGB)

Existing City Limits

Newberg Urban Growth Boundary

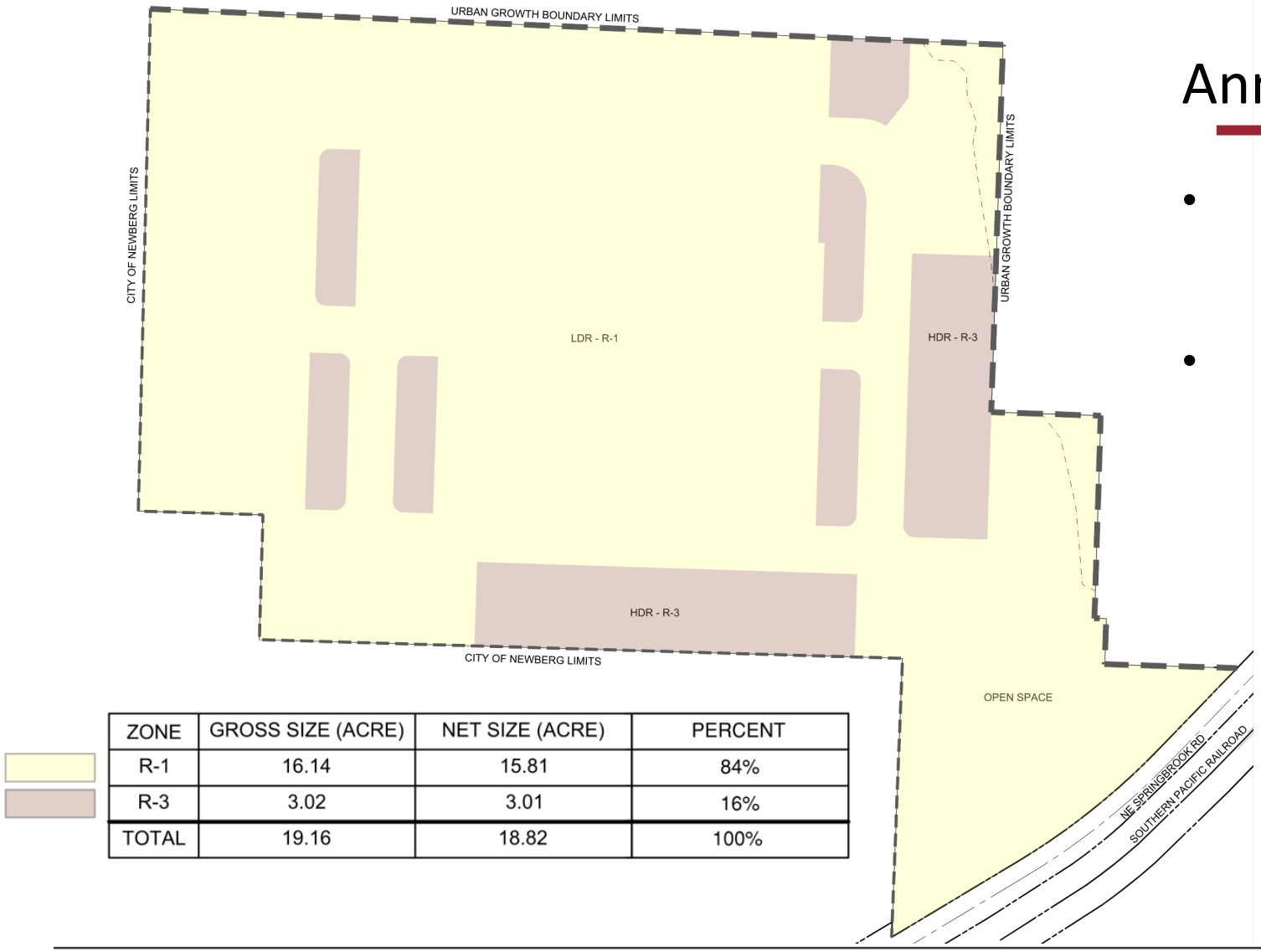
Current Comprehensive Plan Map Designation



Background Information

- Property is surrounded by other Low Density Residential (LDR) zoned properties
- Property is adjacent to the Allison Hotel, zoned Hospitality (H)

Proposed Comp Plan and Zoning Designation



ZONE	GROSS SIZE (ACRE)	NET SIZE (ACRE)	PERCENT
R-1	16.14	15.81	84%
R-3	3.02	3.01	16%
TOTAL	19.16	18.82	100%

Annexation Proposal

- Applicant is requesting annexation and R-1/R-3 zoning
- Future development of the property will allow for key connections for infrastructure for properties located to the west

Existing Utility Connections



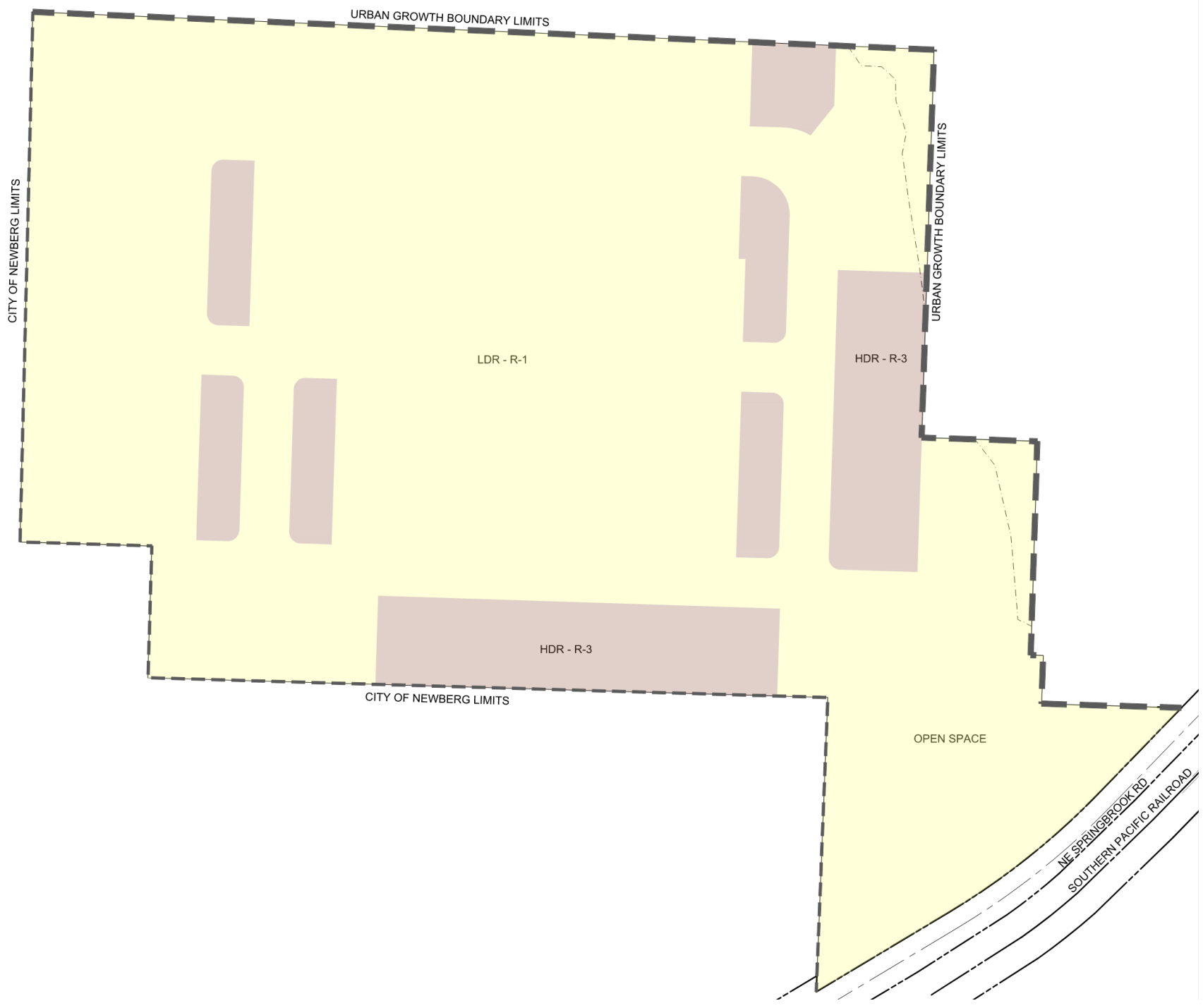


Thank You!

ANX24-0001, CPMA24-0001, and ZMA24-0001

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URBAN GROWTH BOUNDARY LIMITS
CITY OF NEWBERG LIMITS
URBAN GROWTH BOUNDARY LIMITS
LDR - R-1
HDR - R-3
HDR - R-3
CITY OF NEWBERG LIMITS
OPEN SPACE
NE SPRINGBROOK RD
SOUTHERN PACIFIC RAILROAD

REQUEST FOR COUNCIL ACTION

Date Action Requested: (November 4, 2024)

Order ☐ Ordinance ☐ Resolution ☒ Motion ☐ Information ☐ No. 2024-3951	
Subject: **Resolution adopting updated utility billing policies.**	Staff: **Kady Strode** Department: **Finance** File No.
Business Session	Order On Agenda:
Hearing Type: Administrative Public Hearing	

Recommendation: Adopt Resolution No. 2024-3951.

Executive Summary: The Utility Billing policy was previously updated by Council in 2013, however many of the daily practices have changed over the years and the policy needs a revision to match current practices. It is also prudent to review and update policies on a frequent basis.

Fiscal Impact: N/A - no proposed fee changes.

Strategic Assessment: By adopted the revised Utility Billing polices as recommended will allow the Utility Billing department to continue to become more efficient an allow for greater customer service opportunities.

RESOLUTION NO. 2024-3951

A Resolution adopting updated utility billing polices.

Recitals:

1. **WHEREAS**, the utility billing policies should be reviewed on a regular basis.

2. **WHEREAS**, the utility billing policies have been reviewed as presented and are shown in Exhibit A.

The City of Newberg Resolves as Follows:

1. The City Council approves the utility billing policies as attached in Exhibit A, which is hereby adopted and by this reference incorporated.

Effective Date of this resolution is the day after the adoption date, which is: October 8, 2024.
Adopted by the City Council of Newberg, Oregon, this 4th day of November, 2024.

_____
Rachel Thomas, City Recorder
Attest by the Mayor this _____ day of November, 2024.

_____
Bill Rosacker, Mayor

Hours of Operations:

- The Utility Billing department, located in the Public Safety Building. Hours of operation are from 8:00 a.m. to 4:30 p.m. and closed 1:00 p.m. to 2:00 p.m. for lunch.

New Accounts:

- Customers can sign up for service by providing detailed information including 2 forms of government-issued identification, such as a Social Security number, Driver's License, Military ID Card, and/or Passport and a current contact telephone number. This must be done in person or online.
- Non-refundable connection fee of $20.00 will appear on the first billing received by customer.
- If you are a renter, you must indicate that on your application and include your landlord's contact details. All landlords will need to sign an agreement that they are responsible for any unpaid bill left behind by their tenant.

Monthly Billings:

- Meters are read the 25th of the month.
- Utility Billing department does a cursory review of the consumption reports.
- Bills are produced 3-5 days after the meters are read and are produced on the 1st working day of the month. They are mailed from a 3rd party provider.
- The due date of the billing is approximately 30 days after the billing date.
- There is approximately a 10-day grace period before the billing is considered "late."
- A delinquency letter is generated and mailed to customers on the 11th day after the due date and a past due fee of $20.00 will be added to all accounts that have not paid by the end of the grace period.
- One late payment/delinquent fee can be written off per year per account.
- Automated telephone calls are generated to delinquent customers approximately 11 days after the due date and again multiple times prior to shut off (usually 5 times). People can also elect to receive these notifications via text.
- Approximately 10 days after the delinquency letters have been mailed, the accounts that remain delinquent at that time will have their water shut off and an additional shut off fee of $50.00 will be applied to the account.

    - **Example of timeline:**
        - Meter Reading 5/25-5/30
        - Billing Produced 6/1
        - Due Date 6/30
        - Grace Period 7/10
        - Delinquency Letter and $20 fee added 7/11
        - Automated telephone calls made (5) 7/11-20
        - Shut off and $50 fee added 7/21

Shut-offs:

- Water shut-offs are processed once per month. Water shut-off days may vary due to holidays and payment due dates. They are never processed on a Friday to give our customers the opportunity to pay their bill and have their water turned back on before the weekend. This generally occurs on a Tuesday to allow ample time in the week for payment and reconnection.
- The shut-off list is generated the morning of shut-off day and addresses are entered into our workorder system to notify Public Works.
- Minimum balance for shut offs and delinquencies is $35.

- To get reconnected to services they have to pay the $20 delinquent fee, $50 shut off fee, and the past due invoice amount. The $50 shut off fee is related to labor hours for staff time to disconnect then reconnect services and because of this, the fee cannot be waived.
- Special exceptions must be made in writing, preferably emailed to water@newbergoregon.gov and approved by the Finance Director.
- No payments will be taken after 4:30 p.m. in order for our Public Works personnel to complete the turning on process by 5:00 p.m.
- The Public Works Maintenance workers are required to turn off the customer's water, even if the customer says that they are contacting the Utility Billing Department.
- All the customers on the shut-off list must have their water turned off before the Public Works Maintenance workers will begin turning the water back on for customers that have paid to have their water turned back on.

Extensions:

- Accounts may be extended to the 30th of the current month, giving the customer 30 additional days to pay their bill.
- As long as customers pay their billing by the extension due date they will be allowed to continue requesting extensions.
- If someone fails to pay by their extension date, they will not be eligible for another extension for one year.
- When a customer fails to pay their bill by the extension due date, then they will receive notice (in the form of a door hanger) that they have failed their extension and a $20.00 past due charge will be added to the account and that payment will be due by 4:30 p.m. of the following day. If payment is not received by 4:30 p.m. then an additional $50.00 fee will be charged, and the water will be shut off.
- On shut off day if a customer calls requesting an extension, this request must be done in writing, preferably via email at water@newbergoregon.gov and approved by the Finance Director.

NSF Checks:

- When we receive notice from our bank of Non-Sufficient Funds from either a check or a direct payment plan account, the payment will be reversed from the account and a NSF fee charge of $25.00 will be charged to the account. A yellow door hanger will be given to the customer with the total amount due shown on the hanger. Payment will be due by 4:30 p.m. the following day. If payment is not received, then the water will be shut off the next business day.

Collection of Money:

- All bills shall be paid in United States Currency only. Payment by way of any coin that is more than $2 is prohibited. Any payment made with more than 20-$1 bills, 20-$5 bills, and 20-$10 bills will be required to be taken elsewhere for exchange. In the event a customer refuses to exchange coin for currency or exchange currency for bigger bills, the staff can refuse the money.

Closing Accounts:

- Customers can close their accounts by going online or coming in person to complete the application. The customer will simply need to provide a forwarding address or email for the final billing to go to and the last day they wish to have water at the location. The Maintenance Technician will do a final meter reading and provide that number to the Utility Billing Department. Upon receipt of that number the account will be closed and the final bill will be generated and sent to the forwarding address.
- If a renter leaves with a balance owing in excess of $500, the account must go into and remain in the owner's name until the balance is paid. The City will still try and collect from the old tenant, but a new tenant may not move in and put the utilities in their name if the balance owed on that property is in excess of $500.

- If the owner doesn't want to have to request services to go back into their name after a tenant vacates their service address, they would need to complete an interim billing form agreeing to pay for services and consumption between tenants.

Leak Adjustments:

- When a customer has a leak at their home and the leak has been repaired, the customer may request a leak adjustment. The customer must complete a Leak Adjustment form and submit that form along with receipts for the repairs to the Utility Billing Department. Credit is given for a maximum of 2 months of the leak, depending on when the leak occurred.
- The meter at the customer location is read by the Maintenance Technician to make certain there is not a leak. If the meter does not appear to be "spinning,", then the Utility Billing department will prepare a Leak Adjustment Worksheet and the customer will be given a credit that will appear on their next billing.
- Customers may only qualify for a Leak Adjustment once a year.

Winter Averages

- Winter Averaging is figured on the lowest consumption months of the year, which is during the winter.
- The actual meter reading for the consumption of water for the months of November, December January and February (consumption that shows on your December – March billings) are totaled and divided by 4, a minimum of 100 cubic feet is charged. This number is then used during the remaining months of the year when more water is being used, but doesn't necessarily go down the sewer system (April billings – November billings). A cap is placed on the sewer consumption. If less water is consumed, then the sewer is calculated on the actual water consumption amount used.

Equal Pay

- Equal pay is a specialized payment plan that spreads out payments over a year with many advantages such as helping you minimize the impact of seasonal swings of water and sewer consumption.
- Qualifications to enroll:
    - Must have a zero balance before enrolling
    - Must have a good payment history (no more than two late payments and/or services interruptions)
    - Must be enrolled in our Direct Payment Plan or Recurring Payment Plan (Auto Pay)
    - Must reside in residence and have service at the same address for 12 continuous months

Disputes of Bill

- Customers begin with the Utility Billing department if they are disputing their billing. If they don't feel their issue has been resolved then they will be referred to the Finance Director for further assistance.

Utility Assistance Voucher

- The Utility Billing Department has a list of non-profit agencies that customers can receive assistance from in order to pay their water bills. Contact the Utility Billing Department for a copy of the agencies.
- Military and low-income assistance is available through the City of Newberg on limited first come first serve basis in the month of June. Those eligible can receive a $25 per month credit on their bill.

Medical Waivers

- A medical waiver can be granted for individuals or individuals living in the home who suffer from a medical condition deeming necessary to have access to water. Once a medical waiver is in place, the owner will still be responsible for the bill incurred, but the City will not shut off the water due to delinquent payment. The medical waiver is required to be filled out by a doctor or medical practitioner and must be sent back to the Utility Billing department directly from the medical provider's office. If the medical waiver does not have an end date on it, a

new waiver will be required one year from the date it's received in order for it to be renewed. The Utility Billing department will be monitoring all medical waivers.

Payment Plans – up to 24 months

- Customers still need to pay their current bill in addition to the payment plan agreement.
- Customers are only eligible for one payment plan at a time.
- UB Staff will review payments plans due and send reminder to pay. Reminders are usually sent on the 2nd of every month. If not paid by the 5th of the month, then they will be shut off and assessed the $50 shut-off fee.
- If a customer has failed a payment plan and wants a new payment plan or to reinstate their current payment plan, they will need to obtain the approval from the Finance Director.

Collections

- If your closed account has a delinquent balance for more than 100 days you will be sent to collections.
- If your open account with a medical waiver and have a delinquent balance for more than 120 days, you will be sent to collections.

Liens – exceptional circumstances

- If a residential customer accrues an outstanding delinquent municipal services bill in excess of $2,000, utility billing staff will refer the matter to the City Manager for a full review of the circumstances that caused this unusual balance to accrue.
- If a commercial customer accrues an outstanding delinquent balance in excess of $5,000, utility billing staff will refer the matter to the City Manager for a full review of the circumstances that caused this unusual balance to accrue.
- If the City Manager finds that it is warranted, the customer shall be given 60 days notice to remediate the account or a lien shall be recorded against their property for the balance owed.
- This may, at the City Managers discretion, require review by the City Attorney.

REQUEST FOR COUNCIL ACTION

Date Action Requested: (December 2, 2024)

Order ☐ Ordinance ☐ Resolution ☒ Motion ☐ Information ☐ No. 2024-3947	
Subject: **Resolution to declare the City's intent to prepare and adopt a biennial budget process as required by ORS 294.323(1).**	Staff: **Kady Strode** Department: **Finance** File No.
Business Session	Order On Agenda:
Hearing Type: Administrative	

Recommendation: Adopt Resolution No. 2024-3947.

Executive Summary: ORS 294.323(1) states that the governing body of a municipal corporation may, by resolution, provide that the budget and budget documents for the municipal corporation be prepared for a period of 24 months. ORS 294.323(2) states that a governing body shall certify to the assessor for each fiscal year of the budget period the ad valorem property tax amount or rate for the ensuing fiscal year. Additionally, ORS 294.414(6) requires that appointive positions on the Budget Committee that prepares a biennial budget must be appointed to four-year terms, with one-fourth of the terms ending each year, as near as practical. The Oregon Department of Revenue's Local Budgeting Manual advises that if a local government adopts a biennial budget period, there will be a period of transition from fiscal year budgets to biennial budgets, and during this period, appointive members of the Budget Committee may be reappointed for terms shorter than four years to establish the staggered schedule with one-fourth of the terms ending each year.

Fiscal Impact: The City's budget will now be prepared in two-year increments instead of one-year increments.

Strategic Assessment: Moving to a biennial budget will allow for better alignment of our capital projects planning and spending, align with the State's budget for known PERS rates, provide a longer-term outlook and planning capability, and frees up staff capacity for focus on other Council initiatives.

Budget Committee appointments will move to a four-year staggered term per ORS 294.414(6). In order to appropriately stagger the committee terms, appointive members whose terms end on December 31st, 2025 will be reappointed to serve one additional one-year term ending on December 31st, 2026 in order to align with the new committee appointment structure.

RESOLUTION NO. 2024-3947

A Resolution to declare the City's intent to prepare and adopt a biennial budget process as required by ORS 294.323(1).

Recitals:

1. WHEREAS, ORS 294.323(1) allows local governments to adopt biennial budgets via resolution, and

2. WHEREAS, the City deems it appropriate to develop its budget for a period of 24 months to better align capital projects planning and spending, to align with the State of Oregon's budget for known PERS rates, to provide a longer-term outlook and planning capability, and to create additional staff capacity;

3. WHEREAS, ORS 294.323(2) requires that when a governing body of a municipal corporation prepares a biennial budget, the governing body shall certify to the assessor for each fiscal year of the budget period the ad valorem property tax amount or rate for the ensuing fiscal year, and

4. WHEREAS, ORS 294.414(6) requires that the positions on the Budget Committee must be appointed to four-year terms.

5. WHEREAS, the Oregon Department of Revenue's Local Budgeting Manual advises that if a local government adopts a biennial budget period, there will be a period of transition from fiscal year budgets to biennial budgets. During this period, appointive members of the Budget Committee already serving may serve out their three-year terms. New members or members who are reappointed to another term may receive four-year terms. However, the governing body may decide to appoint some of these new or returning members for shorter terms or to shorten the terms of sitting members to less than three years to establish the staggered schedule with one-fourth of the terms ending each year.

The City of Newberg Resolves as Follows:

Section 1. Pursuant to ORS 294.323(1), the City hereby elects to adopt a biennial budget beginning FY 2025-2027 and continuing thereafter.

Section 2. The City will annually certify to the assessor the ad valorem property tax amount or rate for the ensuing fiscal year.

Section 3. The appointive members serving on the Budget Committee will move to four-year staggered terms with one-fourth of the terms ending each year, as near as practical. In order to appropriately stagger the terms to align with this new structure, appointive members whose terms end on December 31st, 2025 will be reappointed to serve one additional one-year term ending on December 31st, 2026 in order to align with the new committee appointment structure.

Effective Date of this resolution is the day after the adoption date, which is: December 3, 2024.
Adopted by the City Council of Newberg, Oregon, this 2nd day of December 2024.

_____
Rachel Thomas, City Recorder
Attest by the Mayor this _____ day of December, 2024.

_____
Bill Rosacker, Mayor

REQUEST FOR COUNCIL ACTION

Date Action Requested: December 2, 2024

Order ☐ Ordinance ☒ Resolution ☐ Motion ☐ Information ☐ No. 2024-2932	
Subject: AN ORDINANCE AMENDING THE NMC TO REFLECT CHANGE FROM ANNUAL BUDGET PERIOD TO A 24-MONTH BUDGET PERIOD	Staff: Kady Strode Department: Finance
Business Session	Order On Agenda:
Hearing Type: Legislative ☒ Quasi-Judicial ☐ Administrative ☐ Not Applicable ☐	

Recommendation:

Motion to approve Ordinance 2024-2928, by title only, amending the Newberg Municipal Code to reflect change from an annual budget to a 24-month budget period.

Executive Summary:

ORS 294.323(1) states that the governing body of a municipal corporation may, by resolution, provide that the budget and budget documents for the municipal corporation be prepared for a period of 24 months. The City Council has adopted a biennial budget by Resolution No. 2024-3947 in accordance with ORS 294.323(1). The City Council desires to update the Newberg Municipal Code to implement this resolution and change certain City processes to reflect a biennial budget process.

Fiscal Impact:

N/A

Council Goals:

ORDINANCE NO. 2024-2932

AN ORDINANCE AMENDING THE NMC TO CHANGE THE ANNUAL BUDGET PERIOD TO A 24-MONTH BUDGET PERIOD

Recitals:

1. The Newberg Municipal Code currently reflects an annual budget period.

2. ORS 294.323(1) states that the governing body of a municipal corporation may, by resolution, provide that the budget and budget documents for the municipal corporation be prepared for a period of 24 months.

3. On December 2, 2024, the City Council adopted Resolution No. 2024-3947, which established a 24-month budget period,

4. The Newberg Municipal Code should be revised to reflect and implement the 24-month budget period,

The City of Newberg Ordains as Follows:

1. **Ordinance Amendment.** The following sections of the Newberg Municipal Code ("NMC") are amended as shown in Exhibit "A" (the "Ordinance Amendment"):

    a. NMC 2.05.010
    b. NMC 2.15.080.B.3
    c. NMC 2.15.180
    d. NMC 2.15.200.C, D
    e. NMC 2.35.270.B.8
    f. NMC 3.25.050.A
    g. NMC 3.25.080.H
    h. NMC 3.30.010.B.3
    i. NMC 3.30.020
    j. NMC 13.05.140.B
    k. NMC 13.10.240.D.1
    l. NMC 13.10.240.D.2
    m. NMC 13.20.040.D.2

2. **Implementation.** The City Manager is authorized to take appropriate actions to implement the requirements of the Ordinance Amendment.

Effective Date of this ordinance is 30 days after the adoption date, which is: January 2, 2025.
Adopted by the City Council of Newberg, Oregon, this 2nd day of December 2024, by the following votes: **AYE:** **NAY:** **ABSTAIN:**

_____
Rachel Thomas, City Recorder

Attest by the Mayor this _____ day of _____, 2024.

_____
Bill Rosacker, Mayor

Biennial Budget Discussion

City of Newberg

What is a Biennial Budget?

Oregon Budget Law (ORS 294.323) provides option for budgeting for a 12-month annual fiscal year or 24-month biennial budget period



Cities Already On Biennial Budgets

- Albany
- Ashland
- Bend
- Florence
- Lake Oswego
- Milwaukee
- Oregon City
- Prineville
- Sandy
- West Linn
- Medford
- Klamath Falls
- Hillsboro
- Eugene

Why Move to a Biennial Budget?

- Better alignment of our capital projects spending
- Longer-term outlook and planning
- Frees up staff capacity to focus on other Council initiatives
- Aligns with elected official terms
- Time and money saving for document production
- Flexibility in budget management
- Aligns our budget with the State's budget (PERS rates)
- Aligns our budget with CBA negotiations

What's Different?

What's the Same?

SAME

- Annual levy of property taxes by City Council
- Supplemental budgets (just fewer of them)
- Annual audit
- Budget Committee process will remain the same for approving 2-years

DIFFERENT

- 2-year budget allows for more flexibility of spending
- One budget document produced every 2 years
- Annual budget process is every two years with a mid-point check in meeting with the Budget Committee
- Budget Committee members will be appointed to 4-year terms vs. 3-year terms

Changes to the Budget Process

- Budget Committee will meet like normal during odd years to approve the biennial budget (BN 2025-27)
- During even years, there will be a mid-point check in meeting with the Budget Committee to discuss any changes necessary going into the second year of the biennium
- Property taxes will need to be levied each year by City Council regardless of annual or biennial budget
- State Shared Revenues can be certified 2-years at a time during the biennial budget process

Proposed Budget Calendar

BCR Kickoff Meeting with Departments	November 2024
BCRs due to Finance	January 2025
BCR Meetings with Departments	January 2025
Property Tax Increase Discussion held with City Council	February 3, 2025
Public Notice for Budget Committee Meetings Published	April 3, 2025 & April 10, 2025
Public Notice for NURA Budget Committee Meeting Published	April 17, 2025 & April 24, 2025
Financial Forecast Budget Committee Meeting	April 22, 2025
Biennial Budget distributed to committee members	April 25, 2025
First Biennial Budget Committee Meeting	April 29, 2025
NURA Biennial Budget Committee Meeting	May 5, 2025
Second Biennial Budget Committee Meeting	May 6, 2025
Public Notice for State Shared Revenues Published	April 24, 2025
NURA Biennial Budget distributed to committee members	April 30, 2025
Third Biennial Budget Committee Meeting	May 13, 2025
Biennial Budget Approved by Budget Committee	May 13, 2025
Property Tax Levy Approved by Budget Committee	May 13, 2025
LB-1 Public Notice Published in Newberg Graphic	May 22, 2025
UR-1 Public Notice Published in the Newberg Graphic	May 22, 2025
Public Notice for State Shared Revenues Published	May 22, 2025
Biennial Budget to City Council for Adoption	June 2, 2025
Property Tax Levy for FY 2025-26 Adopted by City Council	June 2, 2025
NURA Biennial Budget to NURA for Adoption	June 2, 2025
LB-50 Submission to the County	July 15, 2025
UR-50 Submission to the County	July 15, 2025

FY 25-26 Mid-Point Budget Calendar

Budget Committee Mid-Point Check In	May 2026
Property Tax Levy for FY 2026-27 Adopted by City Council	June 2026
Supplemental Budget #1 to City Council	June 2026

How Do We Transition to a Biennium?

- City Council needs to pass a resolution and change all relevant municipal code
- City will develop a transition plan (aka Operation Quadratic)
- Significant upfront staff time to make the move operationally
- Education of department heads to budget 2 years vs. 1 year
- Budget Committee terms will change from 3-year appointments to 4-year appointments
- Financial forecast will move to 4-year forecast



Questions?

