Planning Commission Meeting

7PM
Public Safety Building
401 E Third St
Hybrid: Instructions To Join Electronically At Www.Newbergoregon.Gov
Email Comments To: Fe.Bates@Newbergoregon.Gov
January 9, 2025

1. **CALL MEETING TO ORDER**

2. **ROLL CALL**

3. **INTRODUCTION OF NEW COMMISSIONERS**

4. **ELECTION OF NEW CHAIR AND VICE CHAIR**

5. **PUBLIC COMMENTS**
   (5-minute maximum per person - for items not on the agenda)

6. **CONSENT CALENDAR**
   a. **12/12/24 Planning Commission Meeting Minutes**

7. **QUASI-JUDICIAL PUBLIC HEARINGS**
   (complete registration form to give testimony - 5-minute maximum per person except for principals, unless otherwise set by majority motion of the Planning Commission).
   a. **CUP24-0007: Conditional Use Permit to use a single-family dwelling as a vacation rental at 315 W Lindgren Dr.**
   CUP24-0007 Staff Report.pdf
   Attachment 1. Application and Supplemental Materials.pdf
   Attachment 2. Agency Referral Comments.pdf

   b. **CUP24-0008: Conditional Use Permit to use a single-family dwelling as a vacation rental at 510 N School St.**
   CUP24-0008 Staff Report.pdf
   Attachment 1. Application and Supplemental Materials.pdf
   Attachment 2. Agency Referral Comments.pdf

   c. **CUP24-0004/DR224-0006/MISC124-0018: Conditional Use, Design Review & Stream Corridor Overlay Permit to Develop the West Branch Apartment Development on the corner of Hayes and Springbrook.**
   CUP24-0004/DR224-0006/MISC124-0018 Staff Report.pdf
   Planning Commission Order 2025-03 (Proposed).pdf
   Exhibit A. Conditional Use Permit CUP24-0004 Findings.pdf

Exhibit B. Design Review DR224-0006 Findings.pdf
Exhibit C. Stream Corridor \u0026 Flood Hazard MISC124-0018 Findings.pdf
Exhibit D. Conditions of Approval (Recommended).pdf
Attachment 1. Application Materials (Bookmarked).pdf
Attachment 2. Agency Comments.pdf
Attachment 3. Public Comments.pdf
Attachment 4. Historic Site Record - 99W Drive-in Movie Theatre.pdf

8. LEGISLATIVE PUBLIC HEARINGS

(complete registration form to give testimony - 5-minute maximum per person except for principals, unless otherwise set by majority motion of the Planning Commission).

a. DCA24-0002: Code Maintenance Package (Legislative)

DCA24-0002 Code Maintenance Staff Report
Exhibit A-1. Code Maintenance Amendments
Exhibit A-2 Findings.pdf
Exhibit B - Native Plant Guide Linn SWCS 2005.pdf
Exhibit C - Expirations and Extensions Analysis.pdf
Exhibit D - Code Maintenance Guide 07-30-2024.pdf

9. ITEMS FROM STAFF

a. Anticipated Schedule of Planning Commission Activities

10. ITEMS FROM COMMISSIONERS

11. ADJOURNMENT

ACCOMMODATION OF PHYSICAL IMPAIRMENTS:

In order to accommodate persons with physical impairments, please notify the Community Development Department Office Assistant II of any special physical or language accommodations you may need as far in advance of the meeting as possible as and no later than 48 business hours prior to the meeting. To request these arrangements, please contact the Office Assistant at (503) 537-1240. For TTY services please dial 711.

Planning Commission Meeting

December 12, 2024

CALL MEETING TO ORDER

Meeting called to order at 7:00 p.m.

ROLL CALL

Commissioners Present:

Jason Dale (Chair)
Abby Seits (Student)
Randy Rickert
Jose Villalpando(via Zoom-late)
Kriss Wright(via Zoom)

Commissioners Absent:

Linda Newton-Curtis (Vice Chair)
Layne Quinn

City Council Representative:

Glenn Cloyd (Absent)

Staff Present:

Planning Manager: Clay Downing
Assistant Planner: James Dingwall
Associate Planner: Jeremiah Cromie
Community Development Director: Scot Siegel
Administrative Assistant: Fé Bates

PUBLIC COMMENTS

None

CONSENT CALENDAR

Approve10/10/2024 & 11/14/2024 Planning Commission Meeting Minutes

Action:	Approve the minutes for October 10 & November 14 2024
Motion:	Commissioner Wright
Second:	Commissioner Seits
Voice Vote:	Unanimous Yes

QUASI-JUDICIAL PUBLIC HEARINGS

CUP24-0006: Conditional Use Permit to use a single-family dwelling as a vacation rental at 3950 N Bruce Drive.

Assistant Planner Dingwall presented the Staff report to the Planning Commission and answered Commissioners questions about it.

Chair opened the floor Public Testimony:
PROPONENT: Applicant Kristen Collette testified in person and Joel Collette testified via Zoom to the Commissioners regarding the application and answered questions from Planning Commissioners.

Chair Closed the Public Testimony and asked for final comments from Staff:
Staff recommended approval of CUP24-0006: a conditional use permit to use a single-family dwelling as a vacation rental home at 3950 N Bruce Drive

Chair Opened the floor for Planning Commissioners' deliberation:
After discussion the Planning Commission chose to:

Action: Approve CUP24-0006 as a vacation rental home at 3950 N Bruce Drive
Motion: Commissioner Seits
Second: Commissioner Rickert
Roll Call Vote: 4 Yes ; 2 Absent ; __ Abstained; 1 Unable to vote due to technical difficulties.

LEGISLATIVE PUBLIC HEARINGS

(*CONTINUED)* DCA19-0008/CPMA19-0002/ZMA19-0002: Craft Industrial Comprehensive Plan Map, Zoning & Development Code Amendments (Legislative)

Associate Planner Cromie presented the staff report to the Planning Commission and answered Commissioners' questions about it.

Chair opened the floor Public Testimony: Received Testimony from Steve Waldroup about concern of the restrictions the new district would have on his existing business located off N. Grant adjacent to the railroad. Commission received Testimony off the audio due to the person making the Testimony being unable to go up to the stand and microphone.

Chair Closed the Public Testimony and asked for final comments from Staff:
Staff Recommends approving RES2024-397 which recommends City Council adopt the Craft Industrial Comprehensive Plan Map, Zoning & Development Code Amendments. Commissioners asked Staff for suggestions to the situation that was brought up with the public testimony and what could be done to try to accommodate the existing business.

Chair Opened the floor for Planning Commissioners' deliberation:
Commissioners deliberated the best options for the Craft Industrial Comprehensive Plan while considering the existing business that may be negatively affected by the change.

Action: Recommend City Council adopting RES2024-397 for a Craft Industrial Comprehensive Plan Map, Zoning & Development Code Amendments with amendments to allow use of warehouse storage and distribution for properties that are rail-oriented.
Motion: Commissioner Wright
Second: Commissioner Villalpando
Roll Call Vote: 4 Yes ; 2 Absent ; __ Abstained

WORK SESSION

2025 Planning Division Proposed Work Plan

Associate Planner Cromie presented an update on the 2024 Planning Division Work Plan and updates that will be presented to the City Council. Cromie requested Planning Commission Commissioners' provide input related to projects being considered by the Community Development Department's Planning Division including clarification on the list typically included in the Forward-Looking Calendar portion of the Commission's materials.

Planning Manager Downing asked the Commission about the Prior Discussion project list and if they could elaborate on some of the items on the list. He stated that existing Planning staff does not have historical knowledge of why items on the list were put there and what exactly it is referring to. Commissioner Wright and Chair Dale shared some insight on some of the items. Planning Manager Clay Downing requested that if they could think of anything else to please email him.

(*CONTINUED)* DCA24-0002: Code Maintenance Package

Community Development Director Scot Siegel continued reviewing the proposed Development code maintenance amendments to Newberg Municipal Code (NMC), Title 15 Development Code to the commission and received input on some of the items.

ITEMS FROM STAFF

Planning Manager Clay Downing reviewed with the Commission the anticipated schedule of land use projects for the upcoming months.

Planning Manager Clay Downing updated the commission of the results from the outreach events that took place for the various Vacation Rental Open Houses.

ITEMS FROM COMMISSIONERS

None

ADJOURNMENT

Meeting adjourned at _9:25_ p.m.

Attest:

Jason Dale, Planning Commission Chair	Fé Bates, Office Assistant

PLANNING COMMISSION STAFF REPORT
VACATION RENTAL CONDITIONAL USE PERMIT
315 W LINDGREN DR

HEARING DATE:	January 9, 2025
FILE NO:	CUP24-0007
REQUEST:	Conditional use permit approval for use of a single-family dwelling as a vacation rental home
LOCATION:	315 W Lindgren DR
TAX LOT:	R3219DC 03701
APPLICANTS/OWNERS:	Rick and Susan DeMatei
ZONE:	Medium Density Residential (R-2)
PLAN DISTRICT:	Riverfront District

ATTACHMENTS:

Planning Commission Order 2025-01 with:
- Exhibit "A": Findings
- Exhibit "B": Conditions of Approval

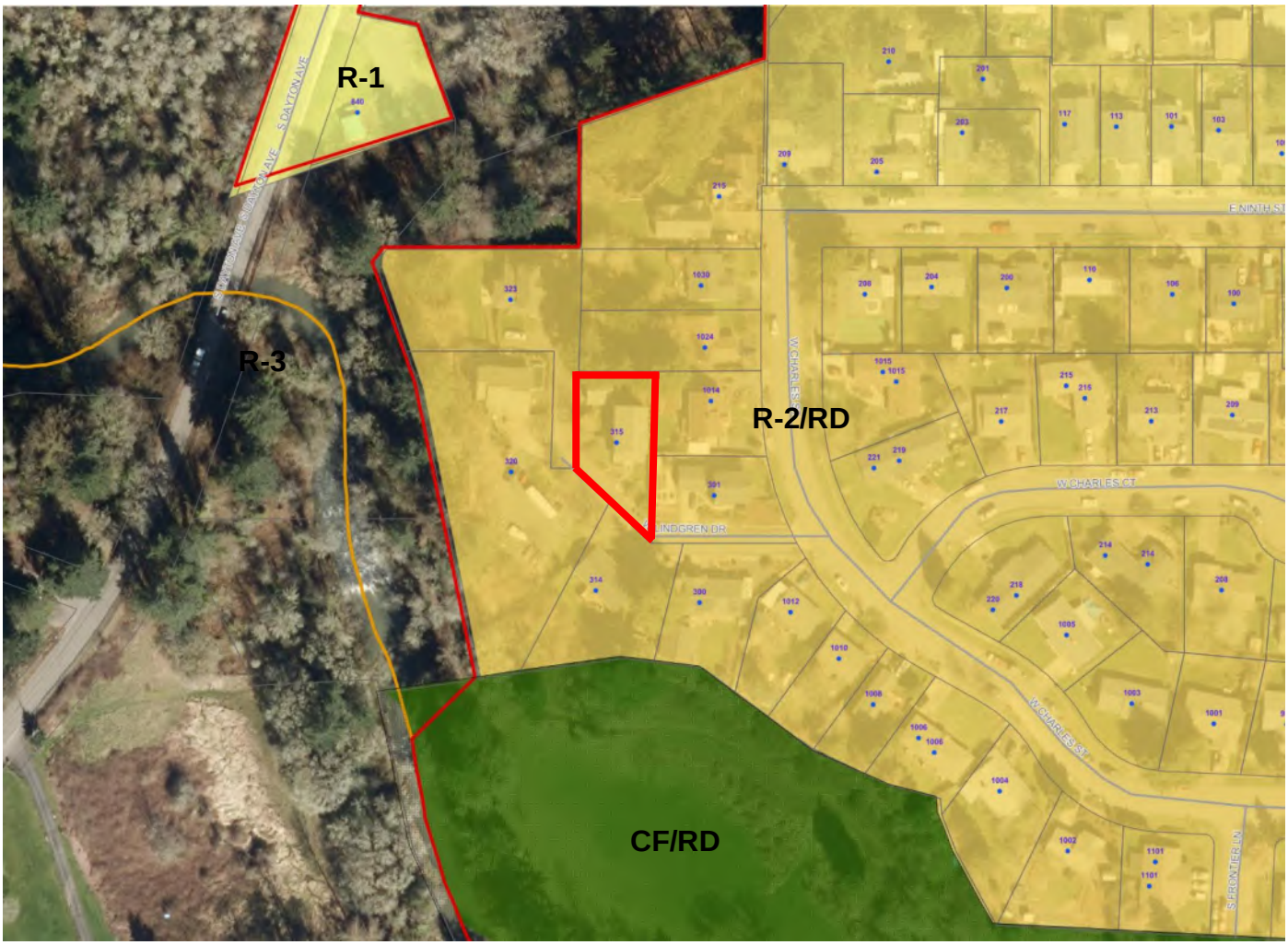
Attachment 1: Application
Attachment 2: Agency Comments

A. **DESCRIPTION OF APPLICATION:** Rick and Susan DeMatei (Applicants) are requesting a Conditional Use Permit (CUP) approval to use an existing six-bedroom home as a vacation rental located at 315 W Lindgren Drive. The Applicant has stated that guests will have access to one parking space within the garage and two in the driveway. This is further discussed in the Findings (Exhibit A) and in the Conditions of Approval (Exhibit B). The application will have an occupancy limit of twelve people and enforced quiet hours between 10:00 p.m. and 7:00 a.m. The subject property is zoned R-2/RD (Medium Density Residential/Riverfront District). Attachment 1 contains the submitted application materials.

B. **LOCATION:** 315 W Lindgren DR

AERIAL MAP

ZONING MAP


R-1
R-3
R-2/RD
CF/RD
S DAYTON AVE
W CHARLES ST
W CHARLES CT
F NINTH ST
LINDGREN DR
S FRONTIER LN

UTILITIES MAP

C. SITE INFORMATION:

1. Location: 315 W Lindgren DR
2. Total Lot Size: 9,898 square feet
3. Topography: Raised and retained, flat residential lot
4. Current Land Uses: Single family residential
5. Natural Features: None
6. Adjacent Land Uses:
    a. North: Single-family residential
    b. South: Single-family residential and parkland
    c. East: Single-family residential

d. West: Single-family residential

7. Adjacent Zoning:

   a. North: Medium Density Residential/Riverfront District (R-2/RD)

   b. South: Medium Density Residential/Riverfront District (R-2/RD)

   c. East: Medium Density Residential/Riverfront District (R-2/RD)

   d. West: Medium Density Residential/Riverfront District (R-2/RD)

8. Access and Transportation: Access to the vacation rental will occur via W Lindgren Drive, which is classified as a local street in the City's Transportation System Plan.

9. Utilities:

   Water: The City's GIS identifies a 4-inch water main located running south and west of the subject property on W Lindgren Drive, which provides a connection to the residence via an existing 4-inch service lateral.

   Wastewater: The City's GIS identifies an 8-inch wastewater main located running south and east of the subject property on W Lindgren DR, with an existing 4-inch lateral connecting to the residence.

   Stormwater: The City's GIS indicates that an 8-inch stormwater pipe runs along the west side of the house with an inlet grate located at the westernmost corner of the subject property at the end of W Lindgren Drive.

   Overhead Lines: The property is served by underground power lines. Any new overhead utility connections to the property must be undergrounded. See Newberg Municipal Code (NMC) 15.430.010 for exception provisions.

D. **PROCESS:** This CUP request is a Type III application and follows the procedures in NMC Section Code 15.100.050. The Planning Commission will hold a quasi-judicial public hearing on the application. The Commission will make a decision on the application based on the criteria listed in the attached findings. The Planning Commission's decision is final unless appealed. Important dates related to this application are as follows:

11/8/24:	The Community Development Director deemed the application complete.
12/19/24:	The Applicant mailed notice to the property owners within 500 feet of the site.
12/19/24:	The Applicant posted notice on the site.

12/31/25: The *Newberg Graphic* published notice of the Planning case.

12/31/25: Commission hearing and notice was posted in four public places.

1/9/25: The Planning Commission will hold a quasi-judicial public hearing to consider the application.

E. **AGENCY COMMENTS:** On November 13, 2024, the application was routed to several public agencies and City departments for review and comment. Comments and recommendations from City departments have been incorporated into the findings and conditions of approval. As of the writing of this report, the City received the following responses from the referral agencies listed below which are also provided in Attachment 2:

1. City Manager: Reviewed, no conflict
2. Community Development Director: Reviewed, no conflict.
3. Public Works: Engineering: Reviewed, no conflict.
4. Finance: Reviewed, no conflict. Comment: "Utility Billing $100.57 current balance".
5. Public Works, Compliance: Reviewed, no conflict.
6. Public Works Director: Reviewed, no conflict.
7. Waste Management: Reviewed, no conflict.
8. ODOT: Reviewed, no conflict.

F. **PUBLIC COMMENTS:** As of the writing of this report, no public comments have been received related to this proposal.

G. **ANALYSIS:** The proposed vacation rental will be compatible with the surrounding residential uses and neighborhood based on the proposed use, size, operating characteristics, and scope. The characteristics of a vacation rental are not dissimilar from other rented and owned dwellings. The maximum occupancy is regulated by the number of bedrooms – two guests per bedroom. Therefore, the maximum number of guests in the single-family dwelling is twelve (12) based on the current six bedrooms in the home. Staff analysis indicates that a total of three off-street parking spaces exist for rental occupants' use.

H. **PRELIMINARY STAFF RECOMMENDATION:** The preliminary staff recommendation is made in the absence of public hearing testimony and may be modified after the close of the public hearing. At the time this report was drafted, staff recommends the following motion:

Move to adopt Planning Commission Order 2025-01, which approves the requested conditional use permit with the attached conditions of approval in Exhibit "B".

PLANNING COMMISSION ORDER 2025-01

AN ORDER APPROVING CONDITIONAL USE PERMIT CUP24-0007 FOR A VACATION RENTAL HOME AT 315 W LINDGREN STREET, YAMHILL COUNTY TAX LOT R3219DC 03701.

RECITALS

1. Rick and Susan DeMatei applied for a conditional use permit for a vacation rental home at 315 W Lindgren DR, Yamhill County Tax Lot R3219DC 03701.

2. After proper notice, the Newberg Planning Commission held a public hearing on January 9th, 2025, to consider the application.

3. The Newberg Planning Commission finds that the application meets the applicable Newberg Municipal Code criteria as shown in the findings in Exhibit "A".

The Newberg Planning Commission orders as follows:

1. Conditional Use Permit Application CUP24-0007 is hereby approved, subject to the conditions contained in Exhibit "B". Exhibit "B" is hereby adopted and by this reference incorporated.

2. The findings shown in Exhibit "A" are hereby adopted. Exhibit "A" is hereby adopted and by this reference incorporated.

3. This order shall be effective on January 24th, 2025, unless appealed prior to this date.

4. This order shall expire one year after the effective date above if the applicant does not commence use of the home as a vacation rental unless an extension is granted per Newberg Development Code 15.225.100.

Adopted by the Newberg Planning Commission this 9th day of January 2025.

ATTEST:

Planning Commission Chair

Planning Commission Secretary

List of Exhibits:

Exhibit "A": Findings

Exhibit "B": Conditions of Approval

Exhibit "A" to Planning Commission Order 2025-01
Findings – File CUP24-0007
Vacation Rental at 315 W Lindgren DR

Formatting notes: The Newberg Municipal Code (NMC) criteria 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. Finding of fact with underlined font indicate subsequent inclusion in Exhibit "B" Conditions of Approval.

I. Conditional Use Permit Criteria That Apply – NMC Section 15.225.060.

A. The location, size, design and operating characteristics of the proposed development are such that it can be made reasonably compatible with and have minimal impact on the livability or appropriate development of abutting properties and the surrounding neighborhood, with consideration to be given to harmony in scale, bulk, coverage and density; to the availability of public facilities and utilities; to the generation of traffic and the capacity of surrounding streets, and to any other relevant impact of the development.

Finding: The vacation rental would occur in an existing six-bedroom, single-family dwelling located near Ewing Young Park. The Applicant has proposed to use the dwelling as a short-term vacation rental with a maximum occupancy of twelve people. The Applicant intends to manage the property including bookings, house cleaning, weekly trash collection, and yard maintenance via Lifestyle Properties, LLC.

The proposed vacation rental use is similar to a residential use in design and operating characteristics. Because the home has six bedrooms, it is eligible to host a maximum of twelve occupants. There currently exist three off-street parking spaces at the subject property. See findings for NMC15.445.330(A) for more information regarding the required number of parking spaces. There are R-2/RD designated properties located to the north, south, east, and west of the subject property. A vacation rental use is compatible with the surrounding residential neighborhood and would effectively function no differently than the existing residential uses in the surrounding area. This criterion is met.

B. The location, design, and site planning of the proposed development will provide a convenient and functional living, working, shopping or civic environment, and will be as attractive as the nature of the use and its location and setting warrants.

Finding: According to the application materials, the location of the dwelling is attractive for a vacation rental due to its proximity to estate wineries, local parks, downtown Newberg, and surrounding amenities. A vacation rental is a compatible use with other residential uses because its operating characteristics are similar in size and scope to a long-term rental (longer than 30-

days) or owner-occupied dwelling. This criterion is met.

C. The proposed development will be consistent with this code.

Finding: The vacation rental standards are addressed in the findings below. If the proposed project complies with the standards of Article VII. Vacation Rentals (NMC Sections 15.445.300 through 15.445.350) the application will be consistent with code requirements.

II. Applicable Criteria - NMC 15.445.300 Vacation Rental Homes

15.445.310 Where allowed.
Vacation rental homes are permitted in areas shown on Chapter 15.305 NMC. The vacation rental home must be a structure approved for occupancy as a single-family dwelling unit.

Finding: The subject property is zoned R-2/RD. The table below is an excerpt from NMC Chapter 15.305, which states that vacation rental homes are permitted as a conditional use in the R-2 zone. The owner has applied for a conditional use permit for the proposed vacation rental home. The structure was previously approved for occupancy as a single-family dwelling unit.

Use	R-1	R-2	R-3	R-4	RP	C-1	C-2	C-3
Vacation rental home	C	C	S	S	S	S(13)	S(13)	S(13)

This criterion is met.

15.445.320 Registration required.
Prior to use or advertising for use of a dwelling as a vacation rental home, the owner or operator shall register the vacation rental home with the city on forms provided by the director. The registration shall include such information required by the director, including the name and contact information for the owner, operator and a local contact.

Finding: As required by NMC 15.445.320, prior to the use of the home as a vacation rental the owner or Applicant will be required to register the vacation rental home with the City and will be required to pay the transient lodging tax. This criterion will be met with the adherence to the aforementioned condition of approval.

15.445.330 Standards.
A. The vacation rental home shall provide a minimum of two parking spaces on the site that are available for use of the rental occupants.

B. The applicant shall provide for regular refuse collection.

C. The vacation rental home may not be occupied by more than two rental occupants per bedroom, up to a maximum of 15 people.

D. The premises of the vacation rental home may not include any occupied recreational vehicle, trailer, tent or temporary shelter during the rental occupancy.

Finding: The Applicant has proposed that the vacation rental will:

A. Provide three off-street parking spaces at the subject property, one in the garage and two in the driveway.

B. Maintain weekly garbage collection every Tuesday by Waste Management that is to be picked up in front of the home.

C. Offer a vacation rental in an existing six-bedroom single family home with a maximum occupancy of twelve people.

D. Guest contracts shall not allow recreational vehicles, trailers, tents, or temporary shelters during the rental occupancy.

These criteria will be met with the adherence to the aforementioned conditions of approval.

15.445.340 Registration posting.
The applicant shall post the vacation rental home registration within the dwelling adjacent to the front door. At a minimum, the posting will contain the following information:

A. The name of the operator and a telephone number where the operator may be reached.

B. The telephone number for the police department.

C. The maximum number of occupants permitted to stay in the dwelling.

D. The standards for the rental occupancy.

E. The solid waste collection day.

Finding: The Applicant has acknowledged the requirements listed in NMC Section 15.445.340 and has stated that they will comply with these requirements. Prior to the use of the home as a vacation rental and during the use of the home as a vacation rental, the Applicant is required to post the required information for NMC 15.445.040(A-E) by the front door of the vacation rental.

Owner Name: Rick and Susan DeMatei
Operator/Manager Phone Number: Lifestyle Properties, (971)832-3399
In the event of an emergency, call: 911 | Non-Emergency Police #: (503) 538-8321
Max Number of Guests: Twelve (12)
Trash Pick-Up Day: Tuesdays
City of Newberg Vacation Rental Standards:

- Each vacation rental home shall provide a minimum of two parking spaces on the site that are available for use of the rental occupants.

- The Applicant shall provide for regular refuse collection.
- The vacation rental home may not be occupied by more than two rental occupants per bedroom, up to a maximum of twelve people.
- The premises of the vacation rental home may not include any occupied recreational vehicle, trailer, tent, or temporary shelter during the rental occupancy.

The requirements of NMC Section 15.445.040 will be met with adherence to the aforementioned conditions of approval.

> ***15.445.350 Complaints and revocation of registration.***
> ***If the city receives two or more written complaints within a one-year period regarding a vacation rental home occupancy, and the issues have not been resolved through the code enforcement officer, the city manager may schedule a hearing to consider revoking the vacation rental home registration. The hearing may be conducted by the city manager, or other such hearings officer as the city manager may appoint for this purpose. The city manager shall notify the owner and operator of the hearing, those submitting written complaints, and may invite others to submit testimony at the hearing. After hearing the facts, the city manager may do any of the following:***
>
> > ***A. Revoke the registration for noncompliance with the standards in this section. If this permit is revoked, the premises may not be used as a vacation rental home for a period of two years, or a period of lesser time as determined by the hearings officer.***
> >
> > ***B. Impose additional conditions necessary to fulfill the purpose of this section.***
> >
> > ***C. Establish a probationary period to monitor compliance.***
> >
> > ***D. Dismiss the complaint.***
> >
> > ***E. Refer the matter to the code enforcement officer for citation in municipal court or other appropriate jurisdiction.***
>
> ***The hearings officer's decision may be appealed to the planning commission by the applicant, owner, or person filing the written complaint within 14 calendar days of the date of the decision in the manner provided in NMC 15.100.170.***

Finding: The City will follow the procedures listed above in the event complaints are received about the vacation rental home. The Applicant's narrative acknowledges Section 15.445.050 complaints and revocation of registration. The Applicant has indicated they understand the potential for an approval to be revoked if the requirements for operating a vacation rental are not adhered to.

III. CONCLUSION:

Based on the above-mentioned findings, the application meets the required criteria within the Newberg Municipal Code, subject to completion of and adherence to the attached conditions of approval in Exhibit “B”.

Exhibit "B" to Planning Commission Order 2025-01
Conditions of Approval – File CUP24-0007
Vacation Rental Home at 315 W Lindgren DR

THE FOLLOWING MUST BE ACCOMPLISHED PRIOR TO USE AS A VACATION RENTAL AND ADHERED TO IN ORDER TO CONTINUE THE USE OF A VACATION RENTAL:

1. **Transient Lodging Tax:** Prior to the use of the home as a vacation rental the owner or Applicant will be required to register the vacation rental home with the City of Newberg and will be required to pay the transient lodging tax.

2. **Parking**: Provide three off-street parking spaces at the subject property, one in the garage and two in the driveway.

3. **Refuse Collection:** Maintain weekly garbage collection every Tuesday by Waste Management that is to be picked up in front of the home.

4. **Maximum Occupancy**: Offer a vacation rental in an existing six-bedroom single family home with a maximum occupancy of twelve (12) people.

5. **Temporary Occupancy Limits**: Guest contracts shall not allow recreational vehicles, trailers, tents, or temporary shelters during the rental occupancy.

6. **Posting:** Prior to the use of the home as a vacation rental and during the use of the home as a vacation rental, the Applicant is required to post the required information for NMC 15.445.040(A-E) by the front door of the vacation rental.

   Operator/Manager Name: Rick and Susan DeMatei

   Operator/Manager Phone Number: Lifestyle Properties, (971)832-3399

   In the event of an emergency, call: 911 | Non-Emergency Police #: (503) 538-8321

   Max Number of Guests: Twelve (12)

   Trash Pick-Up Day: Tuesdays

   City of Newberg Vacation Rental Standards:
   - Each vacation rental home shall provide a minimum of two parking spaces on the site that are available for use of the rental occupants.
   - The Applicant shall provide for regular refuse collection.
   - The vacation rental home may not be occupied by more than two rental occupants per bedroom, up to a maximum of 12 people.

- The premises of the vacation rental home may not include any occupied recreational vehicle, trailer, tent, or temporary shelter during the rental occupancy.

Attachment 1: Application

VACATION RENTALS AND BED AND BREAKFAST
CONDITIONAL USE PERMIT CHECKLIST

The following items must be submitted with each application. Incomplete applications will not be processed. Incomplete or missing information may delay the review process. Check with the Planning Division regarding additional requirements for your project.

Submit one (1) digital copy of the application form to Planning@newbergoregon.gov with the following documentation:

☑ **FEES**

☑ **PUBLIC NOTICE INFORMATION** – Draft of mailer notice and sign; mailing list of all properties within 500'. *(This can be requested from a title company.)*

☑ **CURRENT TITLE REPORT** (within 60 days)

☑ **WRITTEN CRITERIA RESPONSE -** Address the criteria listed on page 21 and 15.445.330 Vacation Rental Home standards or 15.445.010 Bed and Breakfast Establishments standards.

☑ **PROJECT STATEMENT -** Provide a written statement that addresses the operational data for the project, including hours of operation, number of employees, traffic information, odor impacts, and noise impacts.

☑ **EXISTING PROPERTY MAP -** Make sure the maps are at least 8 ½ x 11 inches in size and the scale is standard. An aerial picture of the property can be used as the existing property map (such as Google Maps). Where applicable, include the following information in the map(s) (information may be shown on multiple pages):

- ☑ ***Site Features:*** Indicate the location and footprint of all on-site buildings and other facilities such as mail delivery, and trash disposal.
- ☑ ***Off-Street Parking:*** Show proposed vehicular parking spaces and how the spaces meet the off-street parking requirements.
- ☑ ***Signs and Graphics:*** Show the location, size, colors, materials, and lighting of all exterior signs, graphics or other informational or directional features.
- ☑ ***Other:*** Show any other site elements which will assist in the evaluation of the site and the project.

SHORT TERM RENTAL APPLICATION

File #: CUP24-0007

TYPES – PLEASE CHECK ONE:

☑ **Vacation Rental Permit**

☐ **Bed and Breakfast**

APPLICANT INFORMATION:

APPLICANT: Rick and Susan DeMatei

ADDRESS: 4446 Finch Court CITY: Napa STATE: CA ZIP: 94558

EMAIL ADDRESS: susan@wineglassmarketing.cc PHONE: 707-225-7178 MOBILE: 530-796-1428

OWNER *(if different from above)*: _____ PHONE: _____

ADDRESS: _____ CITY: _____ STATE: _____ ZIP: _____

GENERAL INFORMATION:

PROJECT LOCATION: 315 W Lindgren DR Newberg, OR 97132

PROJECT DESCRIPTION/USE: Permit for Short Term Vacation Rental

MAP/TAX LOT NO. (i.e.3200AB-400): Map No: R3219DC 03701 LOT SIZE: 9898 SQ. FT. ☑ ACRE ☐

ZONING: R2-RD EXISTING HOUSE SQ. FT: 2720

CURRENT USE: Residential

SURROUNDING USES:

NORTH: Residential SOUTH: Residential

EAST: Residential WEST: Residential

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

General Checklist: ☑ Fees ☑ Public Notice Information ☑ Current Title Report*(60 days)* ☑ Filled out Criteria Form ☑ Owner Signature ☑ 1 -Digital Copy of Full Application Packet ☑ Project Statement

The Application Packet can be submitted to *Planning@newbergoregon.gov* or at 414 E First St., Newberg OR. 97132

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.

Applicant Signature 10/7/24 Date

Owner Signature 10/7/24 Date

Susan DeMatei
Print Name

Rick DeMatei
Print Name

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 CONDITIONAL USE PERMIT – VACATION RENTAL

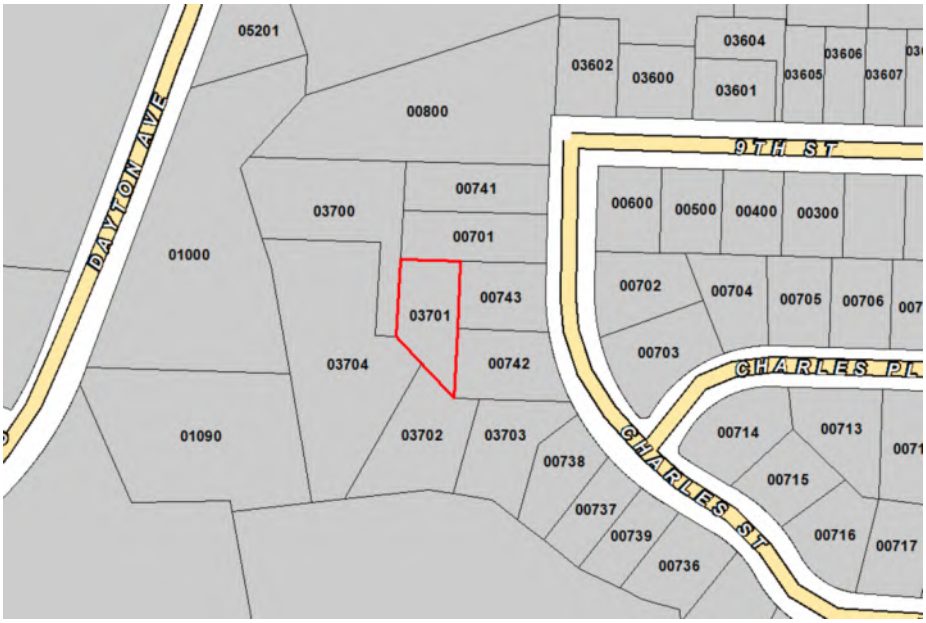
A property owner in your neighborhood submitted an application to the City of Newberg for a conditional use permit to use their home as a short-term vacation rental. The Newberg Planning Commission will hold a hearing on ***(insert date)*** at 7 p.m. at the Newberg Public Safety Building, 401 E Third 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 by testifying before the Planning Commission. For more details about giving comments, please see the back of this sheet.

This application would allow for the approval of a conditional use for a year-round Vacation Rental that will be managed by a management company, Lifestyle Properties LLC, in Newberg. The management company will be on call locally for issues and coordinate a cleaning service and a building maintenance manager. We plan on offering the house to discerning, up-scale guests. We are in the process of improving the building and also hired a gardener to maintain the yard and curb appeal.

The house has six bedrooms, so larger groups may be attracted to the property. We have cleared out the garage, so in the listings and with the management company, we will stipulate that guests can park one in the garage, two in the driveway, and at *maximum* two spaces *directly* in front of the house. Any additional cars will be directed to park on Charles Street. Furthermore, we will note that this is a private drive, that all other areas are off limits, and all local noise ordinances will be enforced.

We plan to visit and stay at the property regularly and also make our cell phones available for any issues. Our intent is to communicate continuously with our neighbors and respect the residents of this neighborhood.

APPLICANT:	***Rick and Susan DeMatei***
TELEPHONE:	***707-225-7178***
PROPERTY OWNER:	***Rick and Susan DeMatei***
LOCATION:	***315 W Lindgren DR, Newberg OR 97132***
TAX LOT NUMBER:	***R3219DC 03701***



We are mailing you information about this project because you own land within 500 feet of the proposed conditional use. We invite you to send any written comments for or against the proposal within 20 days from the date this notice is mailed. We invite you to participate in the land use hearing scheduled before the Planning Commission. If you wish to participate in the hearing, you or a representative may do so in person. Oral testimony typically is 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: ***(staff will provide)***
City of Newberg
Community Development Department
PO Box 970
Newberg, OR 97132

All written comments must be turned in by 4:30 p.m. on ***(20 days from mailing date).*** 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. Application material can also be accessed at https://www.newbergoregon.gov/planning under the "Current Planning Projects" 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 503-537-1240.

Any issue which might be raised in an appeal of this case to the Land Use Board of Appeals (LUBA) must be raised during the public hearing process. 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 a conditional use and a vacation rental approval are found in Newberg Development Code Sections 15.225.060 and 15.445.300 – 350.

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 decision at the end of the public hearing process. If you participate in the public hearing process, either by testifying during the public hearing, or by sending in written comments, you will be sent information about any decision made by the City relating to this project.

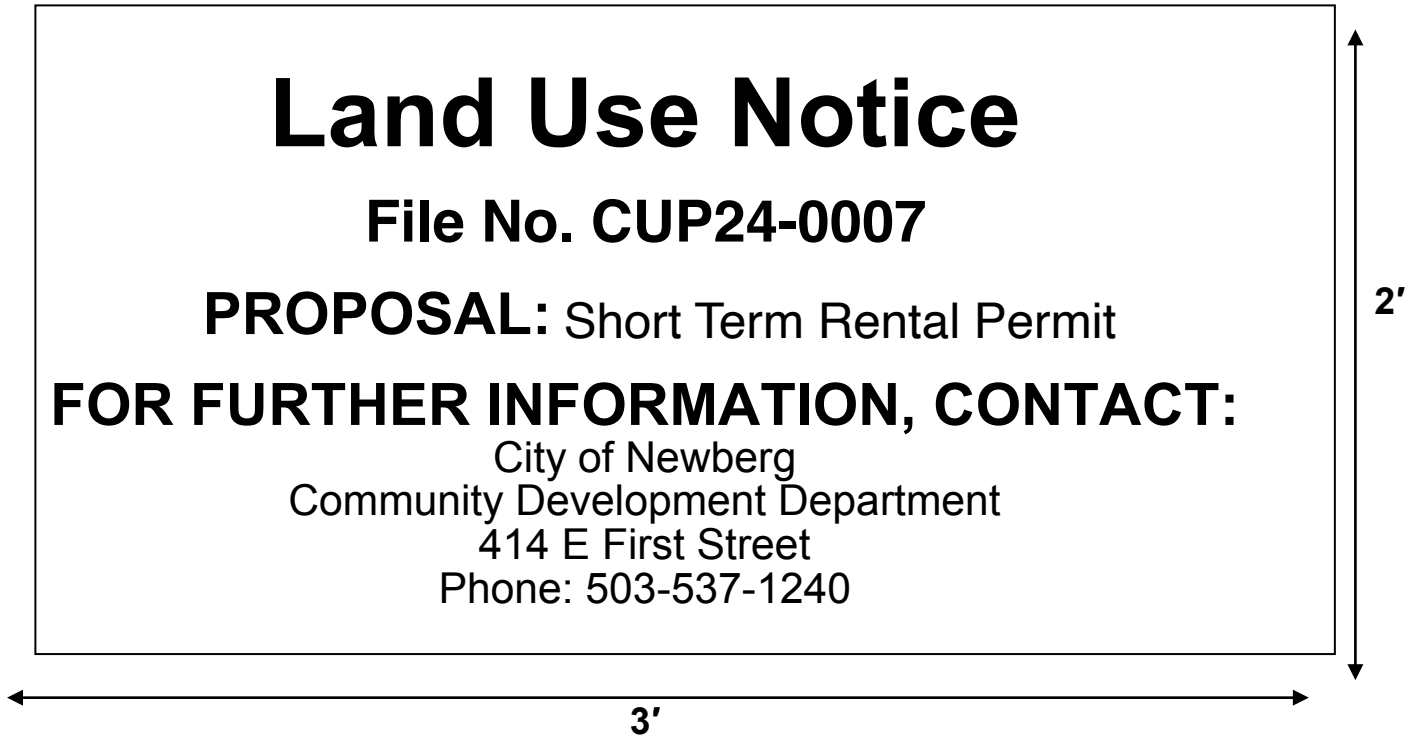
Date Mailed: ***Date notice is mailed***

***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 TTY services please dial 711.

first name	*last name*	*address*	*city*	*state*	zip
AMANDA	KASKIE	1002 CHARLES ST	NEWBERG	OR	97132
ROBERT	TODD	1003 CHARLES ST	NEWBERG	OR	97132
DEBORA	WARNER	1004 CHARLES ST	NEWBERG	OR	97132
DAVID AND CASSANDRA	ALLEN	1005 CHARLES ST	NEWBERG	OR	97132
SEAN AND MOLLY	ROBERTSON	1010 CHARLES ST	NEWBERG	OR	97132
JOSE	LEON-BECERRA	1012 CHARLES ST	NEWBERG	OR	97132
TIMOTHY AND SANDRA	OLMSTEAD	1014 CHARLES ST	NEWBERG	OR	97132
JEFFREY AND KATHREEN	TAYLOR	1024 CHARLES ST	NEWBERG	OR	97132
VICTOR AND GAYLE	KENNEY	1030 CHARLES ST	NEWBERG	OR	97132
STERLING	PARKER	10460 NE STEVENSON RD	NEWBERG	OR	97132
CHRISTOPHER AND AMBER	PUCCI	106 W 8TH ST	NEWBERG	OR	97132
TYLOR AND BRIA	WOLTER	106 W 9TH ST	NEWBERG	OR	97132
MARK AND SARAH	STAPLES-KELLEY	110 W 8TH ST	NEWBERG	OR	97132
SETH AND SAMANTHA	URBAN	113 W 9TH ST	NEWBERG	OR	97132
NORMAN	WOOLEN	1008 CHARLES ST	NEWBERG	OR	97132
CHEHALEM PARK RECREATION DISTRICT		1802 HAWORTH AVE	NEWBERG	OR	97132
TAYLOR AND PAUL	HARRIS	200 W 9TH ST	NEWBERG	OR	97132
BARRY	HAGEN	203 W 9TH ST	NEWBERG	OR	97132
COREY	BINGHAM	204 W 9TH ST	NEWBERG	OR	97132
MITCHEL	WRIGHT	205 W 9TH ST	NEWBERG	OR	97132
KAREN	FAULKNER	208 W 9TH ST	NEWBERG	OR	97132
JOSE AND GUADALUPE	ESCAMILLA	209 W 9TH ST	NEWBERG	OR	97132
CONNOR	LADER	210 W 8TH ST	NEWBERG	OR	97132
ROCIO AND JAVIER	BOLANOS	213 CHARLES PL	NEWBERG	OR	97132
THOMAS AND DONNA	ROSHAK	215 W 9TH ST	NEWBERG	OR	97132
KAYDI	WILLIAMS	215 CHARLES PL	NEWBERG	OR	97132
CORINNE	RICE	217 CHARLES PL	NEWBERG	OR	97132
BRET AND SERENA	MARTIN	1015 CHARLES ST	NEWBERG	OR	97132
ELIZABETH	MCLEOD	117 W 9TH ST	NEWBERG	OR	97132
MATTHEW	COOPER	24730 NE DAYTON AVE	NEWBERG	OR	97132
POINTE	WILLOW	214 CHARLES PL	NEWBERG	OR	97132
MICHAEL AND LAURA	BOQUIST HOFFMANN	300 LINDGREN CT	NEWBERG	OR	97132
BRETT AND BRENDA	FOTIS	301 W LINDGREN DR	NEWBERG	OR	97132
ROY	RENNIE	314 LINDGREN CT	NEWBERG	OR	97132
AARON AND LAURA	RAUCH	323 W LINDGREN DR	NEWBERG	OR	97132
CITY	NEWBERG	840 DAYTON AVE	NEWBERG	OR	97132
RICK AND SUSAN	DEMATEI	315 LINDGREN CT	NEWBERG	OR	97132
CHEHALEM PARK RECREATION DISTRICT		535 NE 5TH ST	MCMINNVILLE	OR	97128
RICHARD AND STEPHANIE	MADDOCK JOHNSON	201 W 9TH ST	NEWBERG	OR	97132
JULIE	CRAWFORD	110 W 9TH ST	NEWBERG	OR	97132
PROPERTIES	JJAMM	218 CHARLES PL	NEWBERG	OR	97132
PROPERTIES	JJAMM	219 CHARLES PL	NEWBERG	OR	97132
JOSE AND ELIZABETH	ANGUIANO	802 DAYTON AVE	NEWBERG	OR	97132
JOE AND KIMBERLY	JOHNSON	806 DAYTON AVE	NEWBERG	OR	97132
CLIFFORD	MORGAN	809 NE DAYTON AVE	NEWBERG	OR	97132
MICHAEL AND ASHLEY	WRIGHT	830 NE DAYTON AVE	NEWBERG	OR	97132
PAUL AND LAURA WEBER	WEBER	9900 NE MEADOW LOOP RD	NEWBERG	OR	97132
TIMOTHY AND NATALIE	RAPP	320 LINDGREN DR	NEWBERG	OR	97132
HOUSING AUTHORITY OF YAMHILL COUNTY		1006 CHARLES ST	NEWBERG	OR	97132

CITY OF NEWBERG
SAMPLE POSTED NOTICE



Notice must be white with black letters, and must be landscape orientation, as shown above.
The notice must be lettered using block printing or a “sans-serif” font, such as Arial.

FIRST AMERICAN TITLE 4191320

After recording return to:
DeMatei Family Trust
4446 Finch Court
Napa, CA 94558

Until a change is requested all tax statements shall be sent to the following address:
DeMatei Family Trust
4446 Finch Court
Napa, CA 94558

File No.: 1032-4191320 (ko)
Date: August 06, 2024

THIS SPACE RESERVED FOR RECORDER'S USE

Yamhill County Official Records **202408400**
DMR-DDMR
Stn=3 SUTTONS **09/06/2024 11:01:04 AM**
2Pgs $10.00 $11.00 $5.00 $60.00 **$86.00**

I, Keri Hinton, County Clerk for Yamhill County, Oregon, certify that the instrument identified herein was recorded in the Clerk records.

Keri Hinton - County Clerk

STATUTORY WARRANTY DEED

Christopher C. Levin and Emily R. Levin, as tenants by the entirety, Grantor, conveys and warrants to **Rick D DeMatei and Susan M. DeMatei, Trustees of the DeMatei Family Trust dated March 22, 2019, and any amendments thereto**, Grantee, the following described real property free of liens and encumbrances, except as specifically set forth herein:

LEGAL DESCRIPTION: Real property in the County of Yamhill, State of Oregon, described as follows:

Parcel 2 of PARTITION PLAT NO. 97-53 recorded August 7, 1997 in Volume 4, Page 455, Records of Plats for Yamhill County, Oregon.

TOGETHER WITH a private reciprocal driveway access and public utility easement as delineated on the recorded Partition Plat.

Subject to:

1. Covenants, conditions, restrictions and/or easements, if any, affecting title, which may appear in the public record, including those shown on any recorded plat or survey.
2. The **2024-2025** Taxes, a lien not yet payable.

The true consideration for this conveyance is **$655,000.00**. (Here comply with requirements of ORS 93.030)

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

Dated this 3 day of September, 2024.

Christopher C. Levin

Emily R. Levin

STATE OF Oregon)
)ss.
County of Yamhill)

This instrument was acknowledged before me on this 3 day of September 2024 by **Christopher C. Levin and Emily R. Levin.**

OFFICIAL STAMP
KATELYN ANN OLHEISER
NOTARY PUBLIC - OREGON
COMMISSION NO. 1049580
MY COMMISSION EXPIRES JULY 07, 2028

Notary Public for Oregon
My commission expires: July 7, 2028

First American Title Insurance Company

775 NE Evans Street
McMinnville, OR 97128
Phn - (503)376-7363
Fax - (866)800-7294

Order No.: 1032-4191320
September 03, 2024

FOR QUESTIONS REGARDING YOUR CLOSING, PLEASE CONTACT:

KATIE OLHEISER**,** Escrow Officer/Closer
Phone: (503)538-7361 - Fax: (866)800-7290 - Email:kolheiser@firstam.com
First American Title Insurance Company
515 E Hancock, Newberg, OR 97132

FOR ALL QUESTIONS REGARDING THIS PRELIMINARY REPORT, PLEASE CONTACT:

Clayton Carter, Title Officer
Phone: (503)376-7363 - Fax: (866)800-7294 - Email: ctcarter@firstam.com

Preliminary Title Report

This report is for the exclusive use of the parties herein shown and is preliminary to the issuance of a title insurance policy and shall become void unless a policy is issued, and the full premium paid.

Please be advised that any provision contained in this document, or in a document that is attached, linked or referenced in this document, that under applicable law illegally discriminates against a class of individuals based upon personal characteristics such as race, color, religion, sex, sexual orientation, gender identity, familial status, disability, national origin, or any other legally protected class, is illegal and unenforceable by law.

County Tax Roll Situs Address: 315 Lindgren Ct, Newberg, OR 97132

2021 ALTA Owners Standard Coverage	Liability	$ 655,000.00	Premium	$	1,583.00
2021 ALTA Owners Extended Coverage	Liability	$	Premium	$	
2021 ALTA Lenders Standard Coverage	Liability	$	Premium	$	
2021 ALTA Lenders Extended Coverage	Liability	$ 394,500.00	Premium	$	442.00
Endorsement 9.10, 22 & 8.1			Premium	$	100.00
Govt Service Charge			Cost	$	25.00
Other			Cost	$	

Proposed Insured Lender: Tomo Mortgage, LLC, ISAOA/ATIMA

Proposed Borrower: DeMatei Family Trust

We are prepared to issue Title Insurance Policy or Policies of First American Title Insurance Company, a Nebraska Corporation in the form and amount shown above, insuring title to the following described land:

The land referred to in this report is described in Exhibit A attached hereto.

and as of August 02, 2024 at 8:00 a.m., title to the fee simple estate is vested in:

Christopher C. Levin and Emily R. Levin, as tenants by the entirety

Subject to the exceptions, exclusions, and stipulations which are ordinarily part of such Policy form and the following:

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 (of existing improvements located on the subject 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.

The exceptions to coverage 1-5 inclusive as set forth above will remain on any subsequently issued Standard Coverage Title Insurance Policy.

In order to remove these exceptions to coverage in the issuance of an Extended Coverage Policy the following items are required to be furnished to the Company; additional exceptions to coverage may be added upon review of such information:

A. Survey or alternative acceptable to the company
B. Affidavit regarding possession
C. Proof that there is no new construction or remodeling of any improvement located on the premises. In the event of new construction or remodeling the following is required:
   i. Satisfactory evidence that no construction liens will be filed; or
   ii. Adequate security to protect against actual or potential construction liens;
   iii. Payment of additional premiums as required by the Industry Rate Filing approved by the Insurance Division of the State of Oregon

6. Water rights, claims or title to water, whether or not shown by the public record.

7. Any claim to (a) ownership of or rights to minerals and similar substances, including but not limited to ores, metals, coal, lignite, oil, gas, uranium, clay, rock, sand, and gravel located in, on, or under the Land or produced from the Land, whether such ownership or rights arise by lease, grant, exception, conveyance, reservation, or otherwise; and (b) any rights, privileges, immunities, rights of way, and easements associated therewith or appurtenant thereto, whether or not the interests or rights excepted in (a) or (b) appear in the Public Records.

8. Taxes for the fiscal year 2024-2025 a lien due, but not yet payable

9. City liens, if any, of the City of Newberg.

   Note: There are no liens as of August 08, 2024. All outstanding utility and user fees are not liens and therefore are excluded from coverage.

10. Easement on the recorded plat/partition as follows: Private reciprocal driveway access easement.

11. Easement for public utilities as delineated on said plat.

12. Covenants, conditions, restrictions and/or easements; but deleting any covenant, condition or restriction indicating a preference, limitation or discrimination based on race, color, religion, sex, handicap, family status, or national origin to the extent such covenants, conditions or restrictions violate Title 42, Section 3604(c), of the United States Codes:
Recording Information: August 07, 1997, Instrument No. 199713285, Deed and Mortgage Records

Addendum thereto recorded August 07, 1997, Instrument No. 199713286, Deed and Mortgage Records.

Addendum thereto recorded May 11, 1999, Instrument No. 199909965, Deed and Mortgage Records.

13. Easement, including terms and conditions contained therein:
Granted to: the Engnell Family Trust, Richard A. Engnell and Margaret Donovan, Co-Trustees
For: Storm drainage
Recorded: August 07, 1997
Recording Information: Instrument No. 199713287, Deed and Mortgage Records

14. Deed of Trust and the terms and conditions thereof.
Grantor/Trustor: Christopher C Levin and Emily R Levin, as Tenants By The Entirety
Grantee/Beneficiary: Mortgage Electronic Registration Systems, Inc., MERS solely as a nominee for Broker Solutions, Inc.dba New American Funding, its successors and assigns
Trustee: AmeriTitle, Inc.
Amount: $366,300.00
Recorded: April 08, 2020
Recording Information: Instrument No. 202005701, Deed and Mortgage Records

15. Deed of Trust and the terms and conditions thereof.
Grantor/Trustor: Christopher C. Levin and Emily Levin, husband and wife
Grantee/Beneficiary: Hometap Investment Partners II, L.P., a Delaware limited partnership, and its successors and assigns
Trustee: Ameritite, Inc.
Amount: $33,000.00
Recorded: August 10, 2021
Recording Information: Instrument No. 202116382, Deed and Mortgage Records

16. The terms and provisions contained in the document entitled "Memorandum of Option Purchase Agreement"
Recorded: August 10, 2021
Recording No.: Instrument No. 202116383, Deed and Mortgage Records

17. Financing Statement, indicating a Security Agreement
Debtor: Emily Levin and Christopher C. Levin
Secured Party: Hometap Investment Partners II, L.P.
Recorded: August 10, 2021
Recording Information: Instrument No. 202116384, Deed and Mortgage Records

18. Deed of Trust and the terms and conditions thereof.

Grantor/Trustor:	Christopher C. Levin and Emily R. Levin, husband And wife
Grantee/Beneficiary:	Secretary of Housing and Urban Development
Trustee:	Ameritite, Inc.
Amount:	$32,513.63
Recorded:	December 27, 2022
Recording Information:	Instrument No. 202216050, Deed and Mortgage Records

Note: This Deed of Trust/Mortgage may be a part of the HAMP program. Notwithstanding any demand supplied by the existing lender of the first Deed of Trust/Mortgage, we will require a separate demand from HUD in order to facilitate the payoff of this lien.

- END OF EXCEPTIONS -

NOTE: According to the public record, the following deed(s) affecting the property herein described have been recorded within 24 months of the effective date of this report: NONE

NOTE: We find no matters of public record against DeMatei Family Trust that will take priority over any trust deed, mortgage or other security instrument given to purchase the subject real property as established by ORS 18.165.

Note: In order to insure a transaction involving the herein named trust, we will need to be provided a Certification of Trust pursuant to ORS 130.800 through ORS 130.910.

NOTE: Taxes for the year 2023-2024 PAID IN FULL

Tax Amount:	$4,136.40
Map No.:	R3219DC 03701
Property ID:	509551
Tax Code No.:	29.52

Situs Address as disclosed on Yamhill County Tax Roll:

315 Lindgren Ct, Newberg, OR 97132

THANK YOU FOR CHOOSING FIRST AMERICAN TITLE!
WE KNOW YOU HAVE A CHOICE!

RECORDING INFORMATION

Filing Address: **Yamhill County**
777 Commercial Street SE, Suite 100
Salem, OR 97301

Recording Fees: $ **81.00** for the first page
$ **5.00** for each additional page

cc: DeMatei Family Trust
cc: Christopher C. Levin and Emily R. Levin
cc: Tomo Mortgage, LLC
2200 Atlantic Street, 5th Floor, Stamford, CT 06902
cc: Additional Information Required, Additional Information Required
Additional Information Required,
cc: Christina Jacobsen, Cascade Hasson Sotheby's International COMMISSION CHECKS AND CLOSING STATEMENTS
1500 NE Irving St Suite 110, Portland, OR 97232

Exhibit "A"

Real property in the County of Yamhill, State of Oregon, described as follows:

Parcel 2 of PARTITION PLAT NO. 97-53 recorded August 7, 1997 in Volume 4, Page 455, Records of Plats for Yamhill County, Oregon.

TOGETHER WITH a private reciprocal driveway access and public utility easement as delineated on the recorded Partition Plat.

First American Title

R3219DC 03701
315 W Lindgren Dr
Newberg, OR 97132

Taxlot

Subject Taxlot

8/6/2024

First American Title Insurance Company makes no express or implied warranty respecting the information presented and assumes no responsibility for errors or omissions. FIRST AMERICAN, the Eagle logo, and FIRST AMERICAN TITLE INSURANCE COMPANY are trademarks owned by First American Financial Corporation. Information is provided by Home Junction. https://www.homejunction.com/ School information is copyrighted and provided by GreatSchools.org. https://www.greatschools.org

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

FILE #: _____

VACATION RENTALS CRITERIA FORM

NOTE TO APPLICANTS - PROVIDE THIS INFORMATION WITH A TYPE II or TYPE III LAND USE APPLICATION AND A BUSINESS LICENSE APPLICATION.
For questions on this form, please contact the Planning Division at 503-537-1240 or email: planning@newbergoregon.gov.

SITE INFORMATION:

Address: 315 W Lindgren DR Newberg, OR 97132	
Applicant Name: Rick and Susan DeMatei	
Mailing Address: 4446 Finch Court Napa	State/Zip: CA 94558
Phone: 707-225-7178	Email: susan@wineglassmarketing.com
This is a single-family house: ☑ Yes ☐ No	House Type: _____

FUTURE REQUIREMENTS:

Initial to commit to meeting these requirements if the vacation rental application is approved.

RD I/we will register and pay the transient lodging tax each year.

RD I/we will post the vacation rental home registration that contains the information listed in the Development Code in 15.445.340.

RD I/we understand the complaint process and revocation of registration listed in the Development Code in 15.445.350.

GENERAL INFORMATION:

Provide a brief description of your proposed vacation rental including how it will be rented out.

Our intention is to increase the value of the property with upgrades including a new roof, HVAC, water heat the kitchen and bathrooms. In addition we will be landscaping the yard which has been in decay. Our goal i offer a high-quality STR for groups traveling to Newberg. This lovely classic Craftsman house has 6 bedroo yard and will appeal to groups loloking for quiet, luxury gatherings. We live in CA but travel to OR frequently on business and expect to stay at Lindgren frequently and plan to move there in 3-4 years. We have hired Lifestlye Properties, LLC out of Newberg as a luxury vacation management company who will host and maintain the property. We have arranged for maintenance and landscaping to continue throughou the year as well as all utilities and garbage collection. We have applied for a business permit and will be paying the lodging tax to the city of Newberg.

VACATION RENTALS CRITERIA:

Provide a brief response to the criteria listed below from the Newberg Development Code in 15.445.330.

1. The vacation rental home shall provide a minimum of two parking spaces on the site that are available for use of the rental occupants. Please state where those parking spaces will be located.

There is space for one-to-two cars in the separate garage and two in the driveway.

2. The applicant shall provide for regular refuse collection. Please state the location and collection day.

We have already set up garbage collection through Waste Management and the pickups are Tuesdays.

3. The vacation rental home may not be occupied by more than two rental occupants per bedroom, up to a maximum of 15 people. Please state how you'll meet this criterion.

We will post at the rental that because the single family dwelling has six bedrooms, the maximum number o

occupants at the vacation rental is 12 (two persons per bedroom) per Newberg Municipal Code.

We will also enforce it with our management company, Lifestyle Properties.

4. The premises of the vacation rental home may not include any occupied recreational vehicle, trailer, tent or temporary shelter during the rental occupancy. Please state how you'll meet this criterion.

We will post at the rental that "any occupied recreational vehicle, trailer, ent or temporary shelter during

rental occupancy is prohibited on the premises"

We will also enforce it with our management company, Lifestyle Properties.

CONDITIONAL USE CRITERIA:

Provide a brief response to the criteria listed below from the Newberg Development Code in 15.225.060.

1. The location, size, design and operating characteristics of the vacation rental are such that it can be made reasonably compatible with and have minimal impact on the livability or appropriate development of abutting properties and the surrounding neighborhood, with consideration to be given to the generation of traffic and the capacity of surrounding streets, and to any other relevant impact of the use.

We have taken the time to meet with our neighbors and discuss their indivisual needs. They all have personal preferences for parking, yardwork, sound, etc. We have included their desires for limitations in our planned listing for the property. Lindgren is a private road and it is our intent to keep the street quiet and peaceful for not only the residence but our renters. The yard is largely fenced and withdrawn from the road and we plan on buidling out a quiet garden in the back so that our guests do not linger on the private road or bother our neighbors. We have also cleaned out the garage to ensure it can be used for visiting cars.

2. The proposed vacation rental will provide a convenient and functional living, working, shopping or civic environment, and will be as attractive as the nature of the use and its location and setting warrants.

This house is unique, built in 1909 at 10th street in Dundee and moved to this location in the 1990s. In its c it is a bit of a mix of generational influences and chopped up renovations. We have hired a local contractor to restore it back to its single family home layout in the Craftsman style. We are hiring all local workmen, landscapers, and building materials. We want this to be a showpiece of quality and atrractive to visitors and the neighbors. We are planning on ultimately moving there as our business in California slows over next few years. Should we eventually sell the property it will leave our hands much better than the condition in which we found it.

Other/Continued Response Section:

We own a Wine Marketing business and work with many Oregon wineries. But we also need to be in California for our clients in the Napa/Sonoma area. It is our hope that the STR can bridge our need to travel to Oregon frequenly, but not be able to afford a full sencond time home in your city. It is our every intention to be a part of the community and be a good business owner and neighbor.

Project Statement – 315 W Lindgren DR, Newberg

It is our intent to take the existing property located at 315 W Lindgren DR and make it a high-end Short Term Rental.

This will involve upgrades to the property that have been left in disrepair including:

- New Roof
- Updated HVAC assessment
- New Water Heater
- Upgraded Bathrooms
- Remodeled Kitchen
- Updated landscaping

We will address these deferred maintenance items from October to December 2024 and have alerted the neighbors in person to possible construction noise. Their reaction is mostly joyous, as someone is attending to the neglected house on the street.

In February of 2025, we hope to have the permit to offer the property for short-term rentals. We have hired Lifestyle Properties, LLC, as the local management company. They have a team of people managing multiple buildings in Newberg, and we have found them to be conscientious and very attentive. They will "host" the property, which means they will be responsible for renting the property via the internet and attending to the guest's needs during their stay. They will also be on-site for issues, and we will give our neighbors their information as well as our personal cell phones.

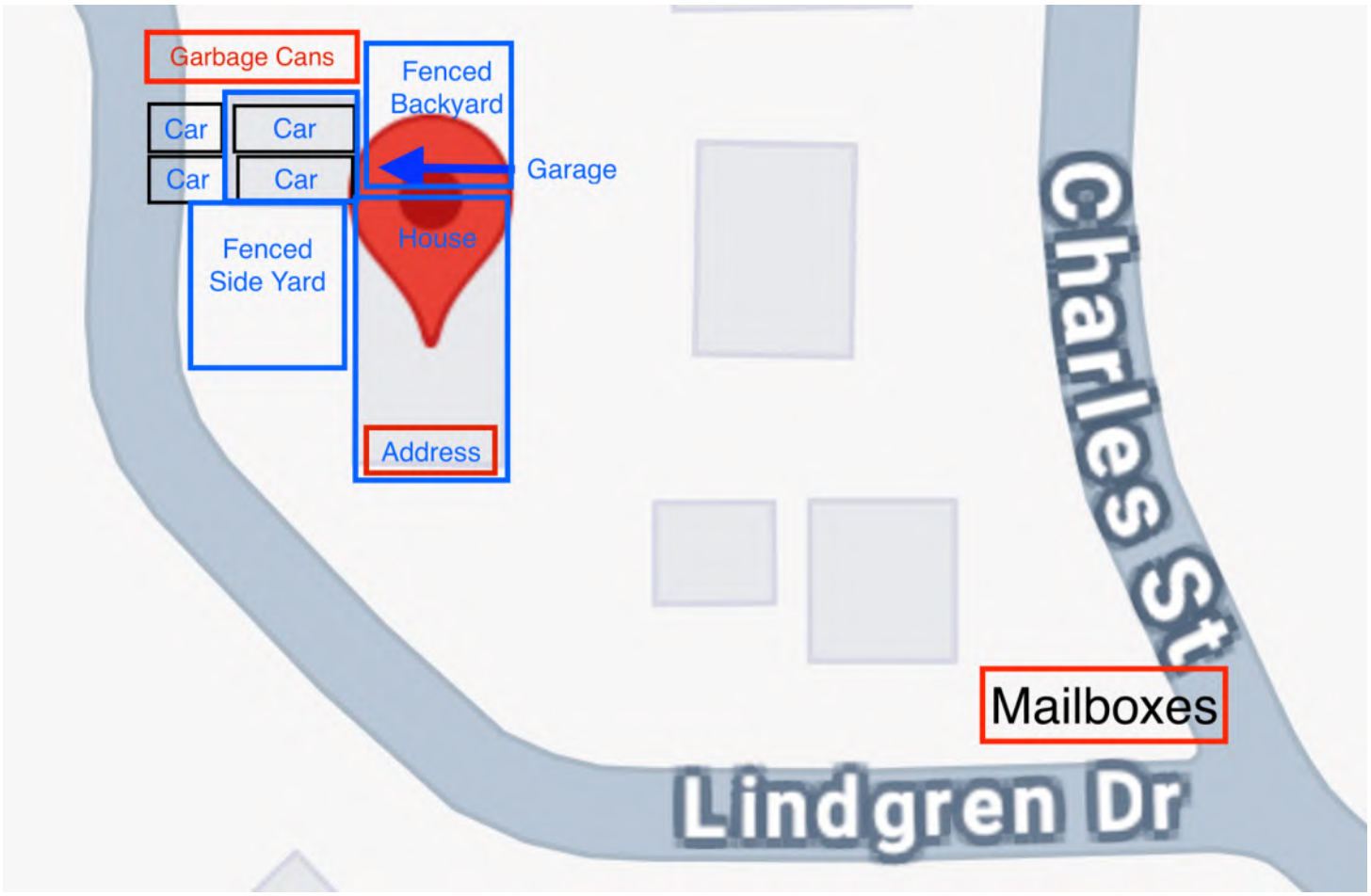
When guests check out, Lifestyle Properties, LLC will be responsible for cleaning the property, although we are hiring a gardener to maintain the landscaping in addition.

In our listing, we will post guidelines for parking and noise. We plan on offering three to four parking spaces (one to two in our garage and two in the driveway.) This is a private drive, so we will point out our neighbors' landmarks and give strict notice not to park on their property.

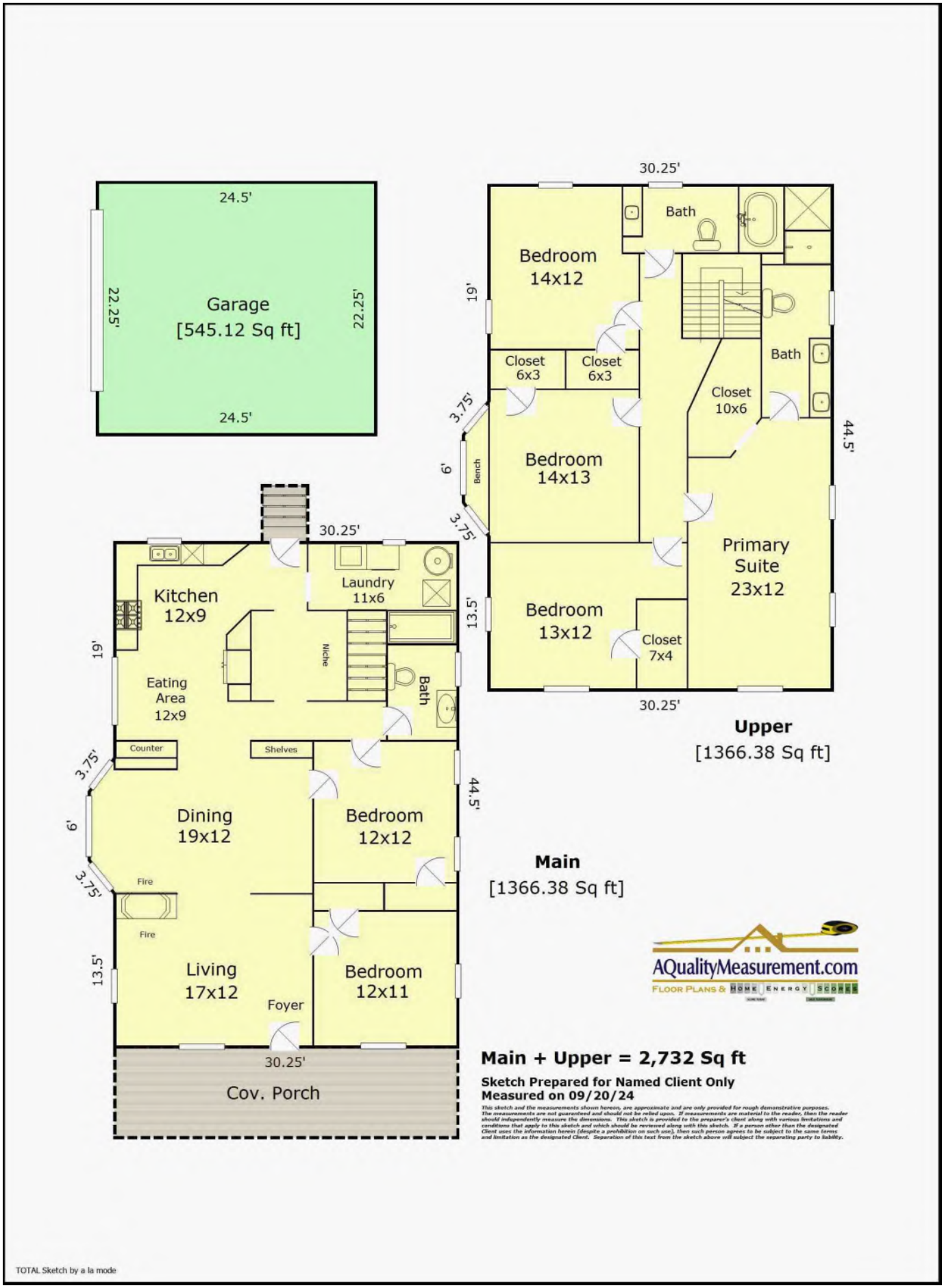
We plan on allowing pets, but both the side and rear yards are fenced. We will only allow up to two dogs, and dogs cannot be left unattended. We will stipulate that dogs should not be walked in our neighbors' yards and that dog droppings should be picked up. Part of the gardener's job will also be to remove any dog feces.

We observe a need for high-end rentals suitable for groups in Newberg. We aim to fill that need and charge a premium for this property, which must, therefore, be in a luxury state. We intend only to improve the property and the value of the neighborhood.

315 W Lindgren CT Existing Property Map



315 Windgren Dr, Newberg, OR 97132



Attachment 2: Agency Comments

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: November 27, 2024
Please refer questions and comments to: Leanne Cromie

NOTE: Additional information can be viewed on our website at:

APPLICANT: Rick and Susan DeMatei

REQUEST: Vacation Rental

SITE ADDRESS: 315 W LINDGREN DR

TAX LOT: R3219DC 03701

FILE NO: CUP24-0007

ZONE: R-2(Res Med Density Zone)

HEARING DATE: January 9, 2025

For full Project Information click on the Link Here: CUP24-0007 Full Application

☐ Reviewed, no conflict.

☐ Reviewed; recommend denial for the following reasons:

☐ Require additional information to review. (Please list information required)

☐ Meeting requested.

☑ Comments: Verify adequate parking for 12 guests, as the lot does not have street frontage.

Reviewed By: _____ Date: 11/13/24

Organization: _____

COMMUNITY DEVELOPMENT
LAND USE APPLICATION REFERRAL

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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)

Reviewed By:

11/14/24
Date:

Will Worthey CM
Organization:

COMMUNITY DEVELOPMENT
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☐ 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:

12/2/25
Date:

CON PW Engineering
Organization:

COMMUNITY DEVELOPMENT
LAND USE APPLICATION REFERRAL

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Please refer questions and comments to: Leanne Cromie

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ZONE: R-2(Res Med Density Zone)

HEARING DATE: January 9, 2025

For full Project Information click on the Link Here: CUP24-0007 Full Application

☑ Reviewed, no conflict. Utility Billing $100.57 current balance

☐ Reviewed; recommend denial for the following reasons:

☐ Require additional information to review. (Please list information required)

☐ Meeting requested.

☐ Comments. (Attach additional pages as needed)

Barbara Davis — Reviewed By:

11/13/24 — Date:

Finance — Organization:

Leanne Wagener

From: SCOTT Brion <Brion.SCOTT@odot.oregon.gov>
Sent: Wednesday, November 13, 2024 1:57 PM
To: Fe Bates
Cc: James Dingwall; Leanne Wagener
Subject: RE: -3- City of Newberg Referral Review Request: CUP24-0006, CUP24-0007 & CUP24-0008

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.

Hi Fe,

No comments or objections to any of the three.

Thanks,

Brion Scott, PE
Development Review Coordinator
ODOT - Region 2 - Area 3
885 Airport Road SE, Building P Salem, OR 97301
(503) 871-1411
Brion.Scott@odot.oregon.gov

From: Fe Bates <Fe.Bates@newbergoregon.gov>
Sent: Wednesday, November 13, 2024 10:56 AM
Cc: Fe Bates <Fe.Bates@newbergoregon.gov>; James Dingwall <James.Dingwall@newbergoregon.gov>; Leanne Wagener <Leanne.Wagener@newbergoregon.gov>
Subject: -3- City of Newberg Referral Review Request: CUP24-0006, CUP24-0007 & CUP24-0008

This message was sent from outside the organization. Treat attachments, links and requests with caution. Be conscious of the information you share if you respond.

Good Day,

Attached are 3 Referrals for your review:

- CUP24-0006: Vacation Rental
- CUP24-0007: Vacation Rental
- CUP24-0008: Vacation Rental

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 November 27, 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.*

COMMUNITY DEVELOPMENT
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TAX LOT: R3219DC 03701

FILE NO: CUP24-0007

ZONE: R-2(Res Med Density Zone)

HEARING DATE: January 9, 2025

For full Project Information click on the Link Here: CUP24-0007 Full Application

☑ 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:

11/13/24
Date:

City of Newberg - Operations
Organization:

COMMUNITY DEVELOPMENT
LAND USE APPLICATION REFERRAL

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☐ Meeting requested.

☐ Comments. (Attach additional pages as needed)

Reviewed By:

11/13/24
Date:

Public Works Director, City of Newberg
Organization:

Leanne Wagener

From: Brown, Jason <JBrown2@wm.com>
Sent: Wednesday, November 13, 2024 12:03 PM
To: Fe Bates
Cc: James Dingwall; Leanne Wagener
Subject: RE: -3- City of Newberg Referral Review Request: CUP24-0006, CUP24-0007 & CUP24-0008

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.

Good afternoon,

Wm does not see any issues providing carts are curb/road side on collection day.

Thanks

From: Fe Bates <Fe.Bates@newbergoregon.gov>
Sent: Wednesday, November 13, 2024 10:56 AM
Cc: Fe Bates <Fe.Bates@newbergoregon.gov>; James Dingwall <James.Dingwall@newbergoregon.gov>; Leanne Wagener <Leanne.Wagener@newbergoregon.gov>
Subject: [EXTERNAL] -3- City of Newberg Referral Review Request: CUP24-0006, CUP24-0007 & CUP24-0008

Good Day,

Attached are 3 Referrals for your review:

- CUP24-0006: Vacation Rental
- CUP24-0007: Vacation Rental
- CUP24-0008: Vacation Rental

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 November 27, 2024 to Planning@newbergoregon.gov .

Thank you,

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Fé Bates
Community Development
Administrative Assistant
City of Newberg

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PLANNING COMMISSION STAFF REPORT
VACATION RENTAL CONDITIONAL USE PERMIT
510 N SCHOOL ST

HEARING DATE:	January 9, 2025
FILE NO:	CUP24-0008
REQUEST:	Conditional use permit approval for use of a single-family dwelling as a vacation rental home
LOCATION:	510 N School ST
TAX LOT:	R3218DD 06700
APPLICANTS/OWNERS:	James Leoni Jr.
ZONE:	Medium Density Residential (R-2)
PLAN DISTRICT:	Riverfront District

ATTACHMENTS:

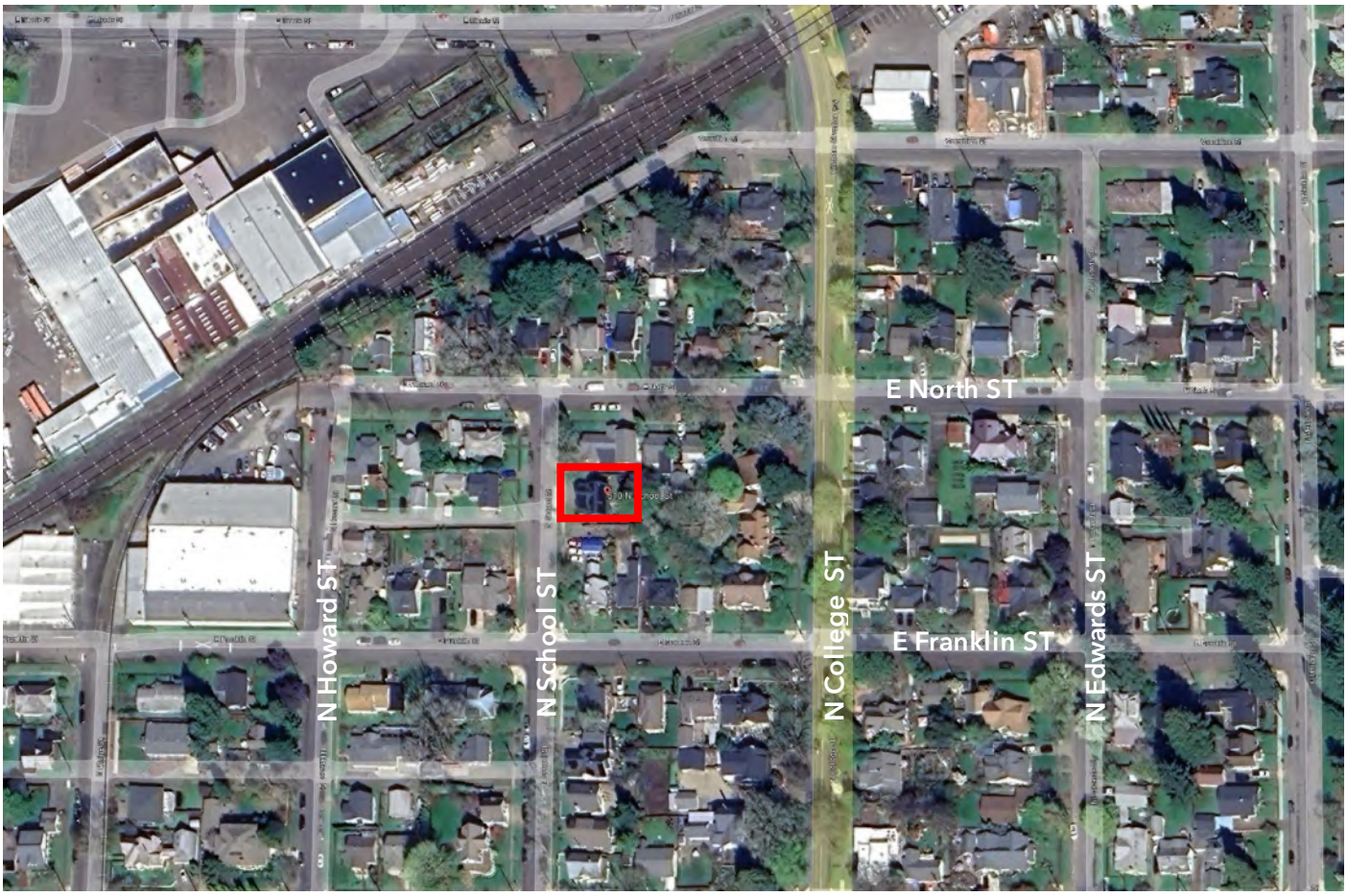
Planning Commission Order 2025-02 with:
- Exhibit "A": Findings
- Exhibit "B": Conditions of Approval

Attachment 1: Application
Attachment 2: Agency Comments

A. **DESCRIPTION OF APPLICATION:** James Leoni Jr. (Applicant) is requesting a Conditional Use Permit (CUP) approval to use an existing four-bedroom home as a vacation rental located at 510 N School Street. The Applicant has stated that guests will have access to one parking space within the garage and two in the driveway. This is further discussed in the Findings (Exhibit A) and in the Conditions of Approval (Exhibit B). The application will have an occupancy limit of eight people and enforced quiet hours between 10:00 p.m. and 7:00 a.m. The subject property is zoned R-2 (Medium Density Residential). Attachment 1 contains the submitted application materials.

B. **LOCATION:** 510 N School ST

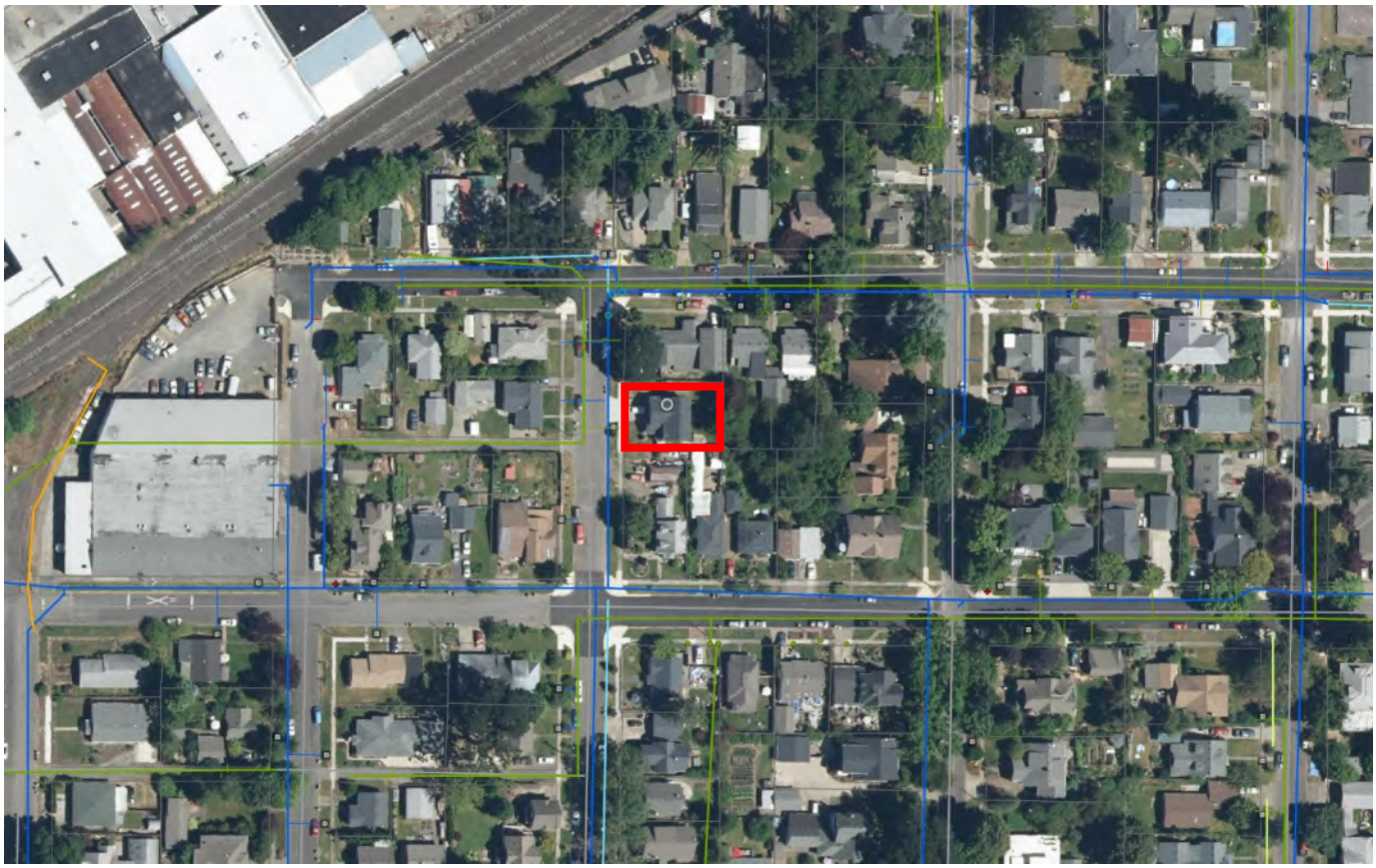
AERIAL MAP



ZONING MAP

M-2
R-2
R-3
E NORTH ST
E FRANKLIN ST
ALLEY
N HOWARD ST
N SCHOOL ST
N COLLEGE ST
N EDWARDS ST
N BLAINE ST

UTILITIES MAP



C. SITE INFORMATION:

1. Location: 510 N School ST
2. Total Lot Size: 5,401 square feet
3. Topography: Flat residential lot
4. Current Land Uses: Single family residential
5. Natural Features: None
6. Adjacent Land Uses:
    a. North: Single-family residential
    b. South: Single-family residential and parkland
    c. East: Single-family residential

d. West: Single-family residential

7. Adjacent Zoning:

   a. North: Medium Density Residential

   b. South: Medium Density Residential

   c. East: Medium Density Residential

   d. West: Medium Density Residential

8. Access and Transportation: Access to the vacation rental will occur via N School Street, which is classified as a local street in the City's Transportation System Plan.

9. Utilities:

   Water: The City's GIS identifies an 8-inch water main located running along N School ST, which provides a connection to the residence via an ¾-inch existing service lateral.

   Wastewater: The City's GIS identifies a 6-inch wastewater main located running along N School ST, with an existing lateral connecting to the residence.

   Stormwater: The City's GIS indicates that storm lines and drains are at various locations some blocks away from the subject property. It is unclear from City mapping to which storm inlet(s) that rainwater drains from the property, however the nearest location are the inlets at the intersection of E Franklin ST and N Howard ST.

   Overhead Lines: The property is served by overhead power lines connected to the west side of N School ST. Any new overhead utility connections to the property must be undergrounded. See Newberg Municipal Code (NMC) 15.430.010 for exception provisions.

D. **PROCESS:** This CUP request is a Type III application and follows the procedures in NMC Section Code 15.100.050. The Planning Commission will hold a quasi-judicial public hearing on the application. The Commission will make a decision on the application based on the criteria listed in the attached findings. The Planning Commission's decision is final unless appealed. Important dates related to this application are as follows:

   11/8/24: The Community Development Director deemed the application complete.

   12/14/24: The Applicant mailed notice to the property owners within 500 feet of the site.

12/16/24: The Applicant posted notice on the site.

12/31/25: The *Newberg Graphic* published notice of the Planning case.

12/31/25: Commission hearing and notice was posted in four public places.

1/9/25: The Planning Commission will hold a quasi-judicial public hearing to consider the application.

E. **AGENCY COMMENTS:** On November 13, 2024, the application was routed to several public agencies and City departments for review and comment. Comments and recommendations from City departments have been incorporated into the findings and conditions of approval. As of the writing of this report, the City received the following responses from the referral agencies listed below which are also provided in Attachment 2:

1. City Manager: Reviewed, no conflict
2. Community Development Director: Reviewed, no conflict.
3. Public Works: Engineering: Reviewed, no conflict.
4. Finance: Reviewed, no conflict.
5. Public Works, Compliance: Reviewed, no conflict.
6. Public Works Director: Reviewed, no conflict.
7. Police Department: Reviewed, no conflict.
8. Waste Management: Reviewed, no conflict.
9. ODOT: Reviewed, no conflict.

F. **PUBLIC COMMENTS:** As of the writing of this report, no public comments have been received related to this proposal.

G. **ANALYSIS:** The proposed vacation rental will be compatible with the surrounding residential uses and neighborhood based on the proposed use, size, operating characteristics, and scope. The characteristics of a vacation rental are not dissimilar from other rented and owned dwellings. The maximum occupancy is regulated by the number of bedrooms – two guests per bedroom. Therefore, the maximum number of guests in the single-family dwelling is eight (8) based on the current four bedrooms in the home. Staff analysis indicates that a total of three off-street parking spaces exist for rental occupants' use.

H. **PRELIMINARY STAFF RECOMMENDATION:** The preliminary staff

recommendation is made in the absence of public hearing testimony and may be modified after the close of the public hearing. At the time this report was drafted, staff recommends the following motion:

Move to adopt Planning Commission Order 2025-02, which approves the requested conditional use permit with the attached conditions of approval in Exhibit "B".

PLANNING COMMISSION ORDER 2025-02

AN ORDER APPROVING CONDITIONAL USE PERMIT CUP24-0008 FOR A VACATION RENTAL HOME AT 510 N SCHOOL STREET, YAMHILL COUNTY TAX LOT R3218DD 06700.

RECITALS

1. James Leoni Jr. applied for a conditional use permit for a vacation rental home at 510 N School ST, Yamhill County Tax Lot R3218DD 06700.

2. After proper notice, the Newberg Planning Commission held a public hearing on January 9th, 2025, to consider the application.

3. The Newberg Planning Commission finds that the application meets the applicable Newberg Municipal Code criteria as shown in the findings in Exhibit "A".

The Newberg Planning Commission orders as follows:

1. Conditional Use Permit Application CUP24-0008 is hereby approved, subject to the conditions contained in Exhibit "B". Exhibit "B" is hereby adopted and by this reference incorporated.

2. The findings shown in Exhibit "A" are hereby adopted. Exhibit "A" is hereby adopted and by this reference incorporated.

3. This order shall be effective on January 24th, 2025, unless appealed prior to this date.

4. This order shall expire one year after the effective date above if the applicant does not commence use of the home as a vacation rental unless an extension is granted per Newberg Development Code 15.225.100.

Adopted by the Newberg Planning Commission this 9th day of January 2025.

ATTEST:

Planning Commission Chair

Planning Commission Secretary

List of Exhibits:

Exhibit "A": Findings

Exhibit "B": Conditions of Approval

Exhibit "A" to Planning Commission Order 2025-02
Findings – File CUP24-0008
Vacation Rental at 510 N School ST

Formatting notes: The Newberg Municipal Code (NMC) criteria 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. Finding of fact with underlined font indicate subsequent inclusion in Exhibit "B" Conditions of Approval.

I. Conditional Use Permit Criteria That Apply – NMC Section 15.225.060.

A. The location, size, design and operating characteristics of the proposed development are such that it can be made reasonably compatible with and have minimal impact on the livability or appropriate development of abutting properties and the surrounding neighborhood, with consideration to be given to harmony in scale, bulk, coverage and density; to the availability of public facilities and utilities; to the generation of traffic and the capacity of surrounding streets, and to any other relevant impact of the development.

Finding: The vacation rental would occur in an existing four-bedroom, single-family dwelling located three blocks north of downtown Newberg. The Applicant has proposed to use the dwelling as a short-term vacation rental with a maximum occupancy of eight people. The Applicant intends to manage the property including bookings, house cleaning, weekly trash collection, and yard maintenance.

The proposed vacation rental use is similar to a residential use in design and operating characteristics. Because the home has four bedrooms, it is eligible to host a maximum of eight occupants. There currently exist three off-street parking spaces at the subject property. See findings for NMC15.445.330(A) for more information regarding the required number of parking spaces. There are R-2 designated properties located to the north, south, east, and west of the subject property. A vacation rental use is compatible with the surrounding residential neighborhood and would effectively function no differently than the existing residential uses in the surrounding area. This criterion is met.

B. The location, design, and site planning of the proposed development will provide a convenient and functional living, working, shopping or civic environment, and will be as attractive as the nature of the use and its location and setting warrants.

Finding: According to the application materials, the location of the dwelling is attractive for a vacation rental due to its proximity to estate wineries, local parks, downtown Newberg, and surrounding amenities. A vacation rental is a compatible use with other residential uses because its operating characteristics are similar in size and scope to a long-term rental (longer than 30-

days) or owner-occupied dwelling. This criterion is met.

C. The proposed development will be consistent with this code.

Finding: The vacation rental standards are addressed in the findings below. If the proposed project complies with the standards of Article VII. Vacation Rentals (NMC Sections 15.445.300 through 15.445.350) the application will be consistent with code requirements.

II. Applicable Criteria - NMC 15.445.300 Vacation Rental Homes

15.445.310 Where allowed.
Vacation rental homes are permitted in areas shown on Chapter 15.305 NMC. The vacation rental home must be a structure approved for occupancy as a single-family dwelling unit.

Finding: The subject property is zoned R-2. The table below is an excerpt from NMC Chapter 15.305, which states that vacation rental homes are permitted as a conditional use in the R-2 zone. The owner has applied for a conditional use permit for the proposed vacation rental home. The structure was previously approved for occupancy as a single-family dwelling unit.

Use	R-1	R-2	R-3	R-4	RP	C-1	C-2	C-3
Vacation rental home	C	C	S	S	S	S(13)	S(13)	S(13)

This criterion is met.

15.445.320 Registration required.
Prior to use or advertising for use of a dwelling as a vacation rental home, the owner or operator shall register the vacation rental home with the city on forms provided by the director. The registration shall include such information required by the director, including the name and contact information for the owner, operator and a local contact.

Finding: As required by NMC 15.445.320, prior to the use of the home as a vacation rental the owner or Applicant will be required to register the vacation rental home with the City and will be required to pay the transient lodging tax. This criterion will be met with the adherence to the aforementioned condition of approval.

15.445.330 Standards.
A. The vacation rental home shall provide a minimum of two parking spaces on the site that are available for use of the rental occupants.

B. The applicant shall provide for regular refuse collection.

C. The vacation rental home may not be occupied by more than two rental occupants per bedroom, up to a maximum of 15 people.

D. The premises of the vacation rental home may not include any occupied recreational vehicle, trailer, tent or temporary shelter during the rental occupancy.

Finding: The Applicant has proposed that the vacation rental will:

A. Provide three off-street parking spaces at the subject property, one in the garage and two in the driveway.

B. Maintain weekly garbage collection every Monday by Waste Management that is to be picked up in front of the home.

C. Offer a vacation rental in an existing four-bedroom single family home with a maximum occupancy of eight people.

D. Guest contracts shall not allow recreational vehicles, trailers, tents, or temporary shelters during the rental occupancy.

These criteria will be met with the adherence to the aforementioned conditions of approval.

15.445.340 Registration posting.
The applicant shall post the vacation rental home registration within the dwelling adjacent to the front door. At a minimum, the posting will contain the following information:

A. The name of the operator and a telephone number where the operator may be reached.

B. The telephone number for the police department.

C. The maximum number of occupants permitted to stay in the dwelling.

D. The standards for the rental occupancy.

E. The solid waste collection day.

Finding: The Applicant has acknowledged the requirements listed in NMC Section 15.445.340 and has stated that they will comply with these requirements. Prior to the use of the home as a vacation rental and during the use of the home as a vacation rental, the Applicant is required to post the required information for NMC 15.445.040(A-E) by the front door of the vacation rental.

Operator/Manager Name: James Leoni Jr.
Operator/Manager Phone Number: (707) 529-5997
In the event of an emergency, call: 911 | Non-Emergency Police #: (503) 538-8321
Max Number of Guests: Eight (8)
Trash Pick-Up Day: Mondays
City of Newberg Vacation Rental Standards:

- Each vacation rental home shall provide a minimum of two parking spaces on the site that are available for use of the rental occupants.

- The Applicant shall provide for regular refuse collection.
- The vacation rental home may not be occupied by more than two rental occupants per bedroom, up to a maximum of 8 people.
- The premises of the vacation rental home may not include any occupied recreational vehicle, trailer, tent, or temporary shelter during the rental occupancy.

The requirements of NMC Section 15.445.040 will be met with adherence to the aforementioned conditions of approval.

> ***15.445.350 Complaints and revocation of registration.***
> ***If the city receives two or more written complaints within a one-year period regarding a vacation rental home occupancy, and the issues have not been resolved through the code enforcement officer, the city manager may schedule a hearing to consider revoking the vacation rental home registration. The hearing may be conducted by the city manager, or other such hearings officer as the city manager may appoint for this purpose. The city manager shall notify the owner and operator of the hearing, those submitting written complaints, and may invite others to submit testimony at the hearing. After hearing the facts, the city manager may do any of the following:***
>
> > ***A. Revoke the registration for noncompliance with the standards in this section. If this permit is revoked, the premises may not be used as a vacation rental home for a period of two years, or a period of lesser time as determined by the hearings officer.***
> >
> > ***B. Impose additional conditions necessary to fulfill the purpose of this section.***
> >
> > ***C. Establish a probationary period to monitor compliance.***
> >
> > ***D. Dismiss the complaint.***
> >
> > ***E. Refer the matter to the code enforcement officer for citation in municipal court or other appropriate jurisdiction.***
>
> ***The hearings officer's decision may be appealed to the planning commission by the applicant, owner, or person filing the written complaint within 14 calendar days of the date of the decision in the manner provided in NMC 15.100.170.***

Finding: The City will follow the procedures listed above in the event complaints are received about the vacation rental home. The Applicant's narrative acknowledges Section 15.445.050 complaints and revocation of registration. The Applicant has indicated they understand the potential for an approval to be revoked if the requirements for operating a vacation rental are not adhered to.

III. CONCLUSION:

Based on the above-mentioned findings, the application meets the required criteria within the Newberg Municipal Code, subject to completion of and adherence to the attached conditions of approval in Exhibit “B”.

Exhibit "B" to Planning Commission Order 2025-02
Conditions of Approval – File CUP24-0008
Vacation Rental Home at 510 N School ST

THE FOLLOWING MUST BE ACCOMPLISHED PRIOR TO USE AS A VACATION RENTAL AND ADHERED TO IN ORDER TO CONTINUE THE USE OF A VACATION RENTAL:

1. **Transient Lodging Tax:** Prior to the use of the home as a vacation rental the owner or Applicant will be required to register the vacation rental home with the City of Newberg and will be required to pay the transient lodging tax.

2. **Parking**: Provide three off-street parking spaces at the subject property, one in the garage and two in the driveway.

3. **Refuse Collection:** Maintain weekly garbage collection every Monday by Waste Management that is to be picked up in front of the home.

4. **Maximum Occupancy**: Offer a vacation rental in an existing four-bedroom single family home with a maximum occupancy of eight (8) people.

5. **Temporary Occupancy Limits**: Guest contracts shall not allow recreational vehicles, trailers, tents, or temporary shelters during the rental occupancy.

6. **Posting:** Prior to the use of the home as a vacation rental and during the use of the home as a vacation rental, the Applicant is required to post the required information for NMC 15.445.040(A-E) by the front door of the vacation rental.

   Operator/Manager Name: James Leoni Jr.

   Operator/Manager Phone Number: (707) 529-5997

   In the event of an emergency, call: 911 | Non-Emergency Police #: (503) 538-8321

   Max Number of Guests: Eight (8)

   Trash Pick-Up Day: Mondays

   City of Newberg Vacation Rental Standards:
   - Each vacation rental home shall provide a minimum of two parking spaces on the site that are available for use of the rental occupants.
   - The Applicant shall provide for regular refuse collection.
   - The vacation rental home may not be occupied by more than two rental occupants per bedroom, up to a maximum of 8 people.

- The premises of the vacation rental home may not include any occupied recreational vehicle, trailer, tent, or temporary shelter during the rental occupancy.

Attachment 1: Application

SHORT TERM RENTAL APPLICATION

File #: CUP24-0008

TYPES – PLEASE CHECK ONE:
- [x] Vacation Rental Permit
- [ ] Bed and Breakfast

APPLICANT INFORMATION:

APPLICANT: James Leoni Jr.
ADDRESS: 510 N. School St. CITY: Newberg STATE: OR ZIP: 97132
EMAIL ADDRESS: jfleonijr@gmail.com PHONE: MOBILE: (707) 529-5997

OWNER *(if different from above)*: PHONE:
ADDRESS: CITY: STATE: ZIP:

GENERAL INFORMATION:

PROJECT LOCATION: 510 N School St. Newberg, OR 97132
PROJECT DESCRIPTION/USE: Short term rental
MAP/TAX LOT NO. (i.e.3200AB-400): R3218DD 06700 LOT SIZE: 6700 SQ. FT. [x] ACRE [ ]
ZONING: R-2 Medium Density Residental EXISTING HOUSE SQ. FT: 1729
CURRENT USE: Residental
SURROUNDING USES:
NORTH: Residential SOUTH: Residental
EAST: Residental WEST: Residental

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

General Checklist: [ ] Fees [ ] Public Notice Information [ ] Current Title Report*(60 days)* [ ] Filled out Criteria Form [ ] Owner Signature
[ ] 1 -Digital Copy of Full Application Packet [ ] Project Statement

The Application Packet can be submitted to *Planning@newbergoregon.gov* or at 414 E First St., Newberg OR. 97132

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.

Applicant Signature 10/14/24 Date
James Leoni
Print Name

Owner Signature 10/14/24 Date
James Leoni
Print Name

Project Statement: 510 N School St

This project will be family run Short Term Rental. While we have no biologic children, my wife and I are proud foster parents. We hope that we can leave a legacy to these foster children we have helped to raise and aim to do this with Real Estate. We love to bring our family down to the Willamette Wine Country and hope to make this home comfortable for families to stay in while they visit.

The only employees will be the cleaning crew that cleans the house between guest stays.

There will be posted and mandatory quiet hours between 10pm and 7am every day.

I suspect there to be about a 40-50% occupancy rate which should help keep traffic to a minimum. Additionally, there is garage parking and two driveway parking spots that can be used by tenants.

I do not believe there should be any odor impacts to the area as there will be regular cleaning of the home as well as regular trash service every Monday.

City of Newberg

FILE #: _____

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

VACATION RENTALS CRITERIA FORM

NOTE TO APPLICANTS - PROVIDE THIS INFORMATION WITH A TYPE II or TYPE III LAND USE APPLICATION AND A BUSINESS LICENSE APPLICATION.
For questions on this form, please contact the Planning Division at 503-537-1240 or email: planning@newbergoregon.gov.

SITE INFORMATION:

Address:	510 N. School St. Newberg, OR 97132
Applicant Name:	James Leoni
Mailing Address:	6811 50th Ave NE — State/Zip: Seattle, WA 98115
Phone:	(707)529-5997 — Email: TandRFamilyRentals@gmail.com
This is a single-family house:	☒ Yes ☐ No — House Type: Residential Single-family.

FUTURE REQUIREMENTS:

Initial to commit to meeting these requirements if the vacation rental application is approved.

N I/we will register and pay the transient lodging tax each year.

N I/we will post the vacation rental home registration that contains the information listed in the Development Code in 15.445.340.

N I/we understand the complaint process and revocation of registration listed in the Development Code in 15.445.350.

GENERAL INFORMATION:

Provide a brief description of your proposed vacation rental including how it will be rented out.

I plan to post the home to be listed on AirBnB. The home is to be intended for the modern family with pets or a group of friends looking to get away from their daily lives and enjoy the beauties of the Willamette Valley wine country.

VACATION RENTALS CRITERIA:

Provide a brief response to the criteria listed below from the Newberg Development Code in 15.445.330.

1. The vacation rental home shall provide a minimum of two parking spaces on the site that are available for use of the rental occupants. Please state where those parking spaces will be located.

There are two parking spots in front of the garage. There is also space in the garage to park.

2. The applicant shall provide for regular refuse collection. Please state the location and collection day.

Garbage will be kept on the side of the house behind the fence and will be colleted by NorthWest Waste Management every Monday morning.

3. The vacation rental home may not be occupied by more than two rental occupants per bedroom, up to a maximum of 15 people. Please state how you'll meet this criterion.

I will set a limit on home occupants to 8. There are 4 bedrooms in the house. The outside of the home will be monitored by cameras.

4. The premises of the vacation rental home may not include any occupied recreational vehicle, trailer, tent or temporary shelter during the rental occupancy. Please state how you'll meet this criterion.

There is no space for a recreational vehicle or trailer. It will state in the agreement that these are not allowed. The home will be monitored with outdoor cameras to ensure this is being upheld.

CONDITIONAL USE CRITERIA:

Provide a brief response to the criteria listed below from the Newberg Development Code in 15.225.060.

1. The location, size, design and operating characteristics of the vacation rental are such that it can be made reasonably compatible with and have minimal impact on the livability or appropriate development of abutting properties and the surrounding neighborhood, with consideration to be given to the generation of traffic and the capacity of surrounding streets, and to any other relevant impact of the use.

The vacation rental is located at 510 N School St. Newberg, OR 97132. It is a single family residental home. I plan to host a maximum of 8 people in this 4- bedroom house. There will be multiple onsite places to park so not to fill the street with traffic and parties will not be permitted at the home. Quiet hours from 10p-7a will be enforced to keep the area quiet.

2. The proposed vacation rental will provide a convenient and functional living, working, shopping or civic environment, and will be as attractive as the nature of the use and its location and setting warrants.

I will maintain a clean and well-groomed vacation rental that will maintain the beauty and the charm of the street. I plan to do this with regular upkeep of the front and frequent visits to ensure the house remains beautiful.

Other/Continued Response Section:

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

115 N College St., Ste 2, Newberg, OR 97132
(503)542-1400 FAX (866)454-4637

PRELIMINARY REPORT

ESCROW OFFICER: MaryJane Hendrix
MaryJane.Hendrix@ticortitle.com
503-542-1410

TITLE OFFICER: Deborah Clark

ORDER NO.: 471824133626
LENDER REF.: 22114918809
Supplement 4: Eff Date/City Lien/Taxes

TO: Ticor Title Company of Oregon
115 N College St., Ste 2
Newberg, OR 97132

ESCROW LICENSE NO.: 201208074
OWNER/SELLER: William H. Effingham and Ana B. Effingham
BUYER/BORROWER: James Leoni, Jr.
PROPERTY ADDRESS: 510 N School Street, Newberg, OR 97132

EFFECTIVE DATE: October 4, 2024, 08:00 AM

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

	AMOUNT	PREMIUM
ALTA Owner's Policy 2021 **Owner's Standard**	$ 525,000.00	$ 1,388.00
OTIRO Endorsement No. 110		$ 0.00
ALTA Loan Policy 2021 **Extended Lender's** **Proposed Insured:** Easy Street Capital, LLC, ISAOA/ATIMA	$ 420,000.00	$ 457.00
OTIRO 209.10-06 - Restrictions, Encroachments, Minerals - Current Violations (ALTA 9.10-06)		$ 100.00
OTIRO 208.1 - Environmental Protection Lien (ALTA 8.1 - 2021)		$ 0.00
OTIRO 222-06 - Location (ALTA 22-06)		$ 0.00
Government Lien Search		$ 25.00

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:

   William H. Effingham and Ana B. Effingham, as tenants by the entirety

4. THE LAND REFERRED TO IN THIS REPORT IS SITUATED IN THE CITY OF NEWBERG, 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

Lot 24, Block 17, CENTRAL ADDITION TO THE TOWN OF NEWBERG, in the City of Newberg, County of Yamhill and State of Oregon.

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. Unpaid Property Taxes are as follows:

Fiscal Year:	2024-2025
Amount:	$3,375.78, plus interest, if any
Levy Code:	29.0
Account No.:	46596
Map No.:	R3218DD06700

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.

7. City Liens, if any, in favor of the City of Newberg. None found as of October 10, 2024.

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

9. A deed of trust to secure an indebtedness in the amount shown below,

Amount:	$315,793.00
Dated:	April 19, 2021
Trustor/Grantor:	William H. Effingham and Ana B. Effingham, as tenants by the entirety
Trustee:	First American Title Insurance Company
Beneficiary:	Mortgage Electronic Registration Systems, Inc., as nominee for Freedom Mortgage Corporation
MIN No.:	1000730-0129622007-0
Recording Date:	June 9, 2021
Recording No:	202111740

NOTE: Based on recitals in the trust deed or an assignment of the trust deed, it appeared that Freedom Mortgage Corporation was the then owner of the indebtedness secured by the trust deed. It may be possible, for a MERS trust deed, to obtain information regarding the current owner of the indebtedness and the servicer, if any, by contacting MERS at 888-679-6377 or through the MERS website.

10. [Intentionally Deleted]

11. 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.

To remove this item, the Company will require an affidavit and indemnity on a form supplied by the Company.

12. 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.

To remove this item, the Company will require an affidavit and indemnity on a form supplied by the Company.

ADDITIONAL REQUIREMENTS/NOTES:

A. [Intentionally Deleted]

B. Note: There are no matters against the party(ies) shown below which would appear as exceptions to coverage in a title insurance product:

Parties: James Leoni, Jr.

C. In addition to the standard policy exceptions, the exceptions enumerated above shall appear on the final ALTA Policy unless removed prior to issuance.

D. 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.

E. 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.

F. Note: There are NO conveyances affecting said Land recorded within 24 months of the date of this report.

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. 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.

I. 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 may be applied.

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

J. 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.

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. 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.

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 CONDITIONAL USE PERMIT – VACATION RENTAL

A property owner in your neighborhood submitted an application to the City of Newberg for a conditional use permit to use their home as a short-term vacation rental. The Newberg Planning Commission will hold a hearing on ***(insert date)*** at 7 p.m. 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 by testifying before the Planning Commission. For more details about giving comments, please see the back of this sheet.

This application would allow for the approval of a conditional use to for a Vacation Rental that will be ***(briefly describe the scope of Operational data; this should include hours/months of operation, if there will be employees or a management company involved, amount of provided parking and locations, how many occupants are allowed)***

APPLICANT:	***James Leoni***
TELEPHONE:	***707-529-5997***
PROPERTY OWNER:	***James Leoni***
LOCATION:	***510 N School St, Newberg, OR 97132***
TAX LOT NUMBER:	R3218DD 06700

We are mailing you information about this project because you own land within 500 feet of the proposed conditional use. We invite you to send any written comments for or against the proposal within 20 days from the date this notice is mailed. We invite you to participate in the land use hearing scheduled before the Planning Commission. If you wish to participate in the hearing, you or a representative may do so in person. Oral testimony typically is 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: ***(staff will provide)***
City of Newberg
Community Development Department
PO Box 970
Newberg, OR 97132

All written comments must be turned in by 4:30 p.m. on ***(20 days from mailing date).*** 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. Application material can also be accessed at https://www.newbergoregon.gov/planning under the "Current Planning Projects" 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 503-537-1240.

Any issue which might be raised in an appeal of this case to the Land Use Board of Appeals (LUBA) must be raised during the public hearing process. 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 a conditional use and a vacation rental approval are found in Newberg Development Code Sections 15.225.060 and 15.445.300 – 350.

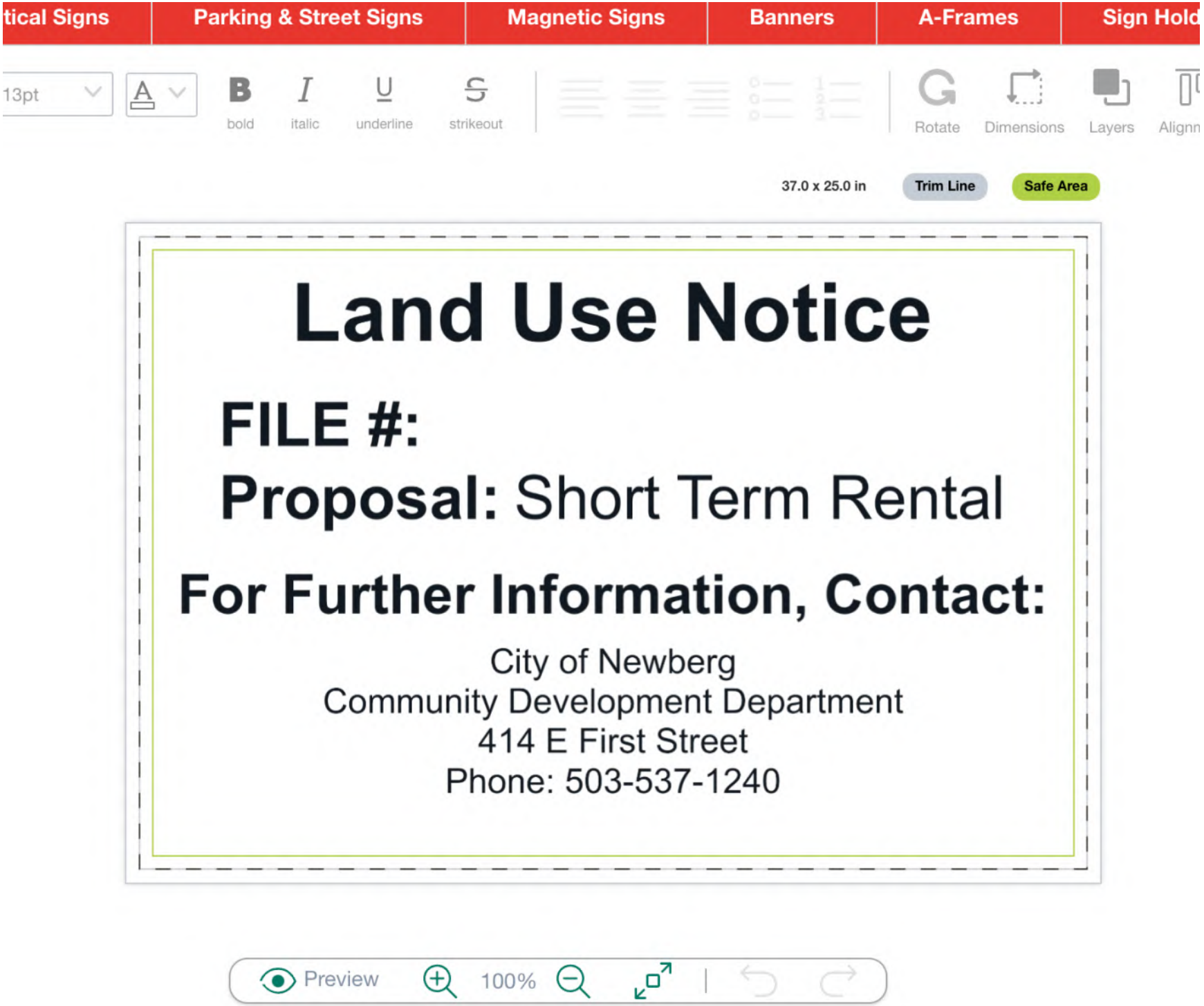
Prior to the conclusion of the initial evidentiary hearing, any participant may request an opportunity to present additional evidence, arguments or testimony regarding the application through a continuance or extension of the record. Failure of an issue to be raised in the hearing, in person or by letter, 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 decision at the end of the public hearing process. If you participate in the public hearing process, either by testifying during the public hearing, or by sending in written comments, you will be sent information about any decision made by the City relating to this project.

Date Mailed: ***Date notice is mailed***

***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 TTY services please dial 711.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Parking & Street Signs
Magnetic Signs
Banners
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Sign Hold
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underline
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Rotate
Dimensions
Layers
Alignn
37.0 x 25.0 in
Trim Line
Safe Area
Land Use Notice
FILE #:
Proposal: Short Term Rental
For Further Information, Contact:
City of Newberg
Community Development Department
414 E First Street
Phone: 503-537-1240
Preview
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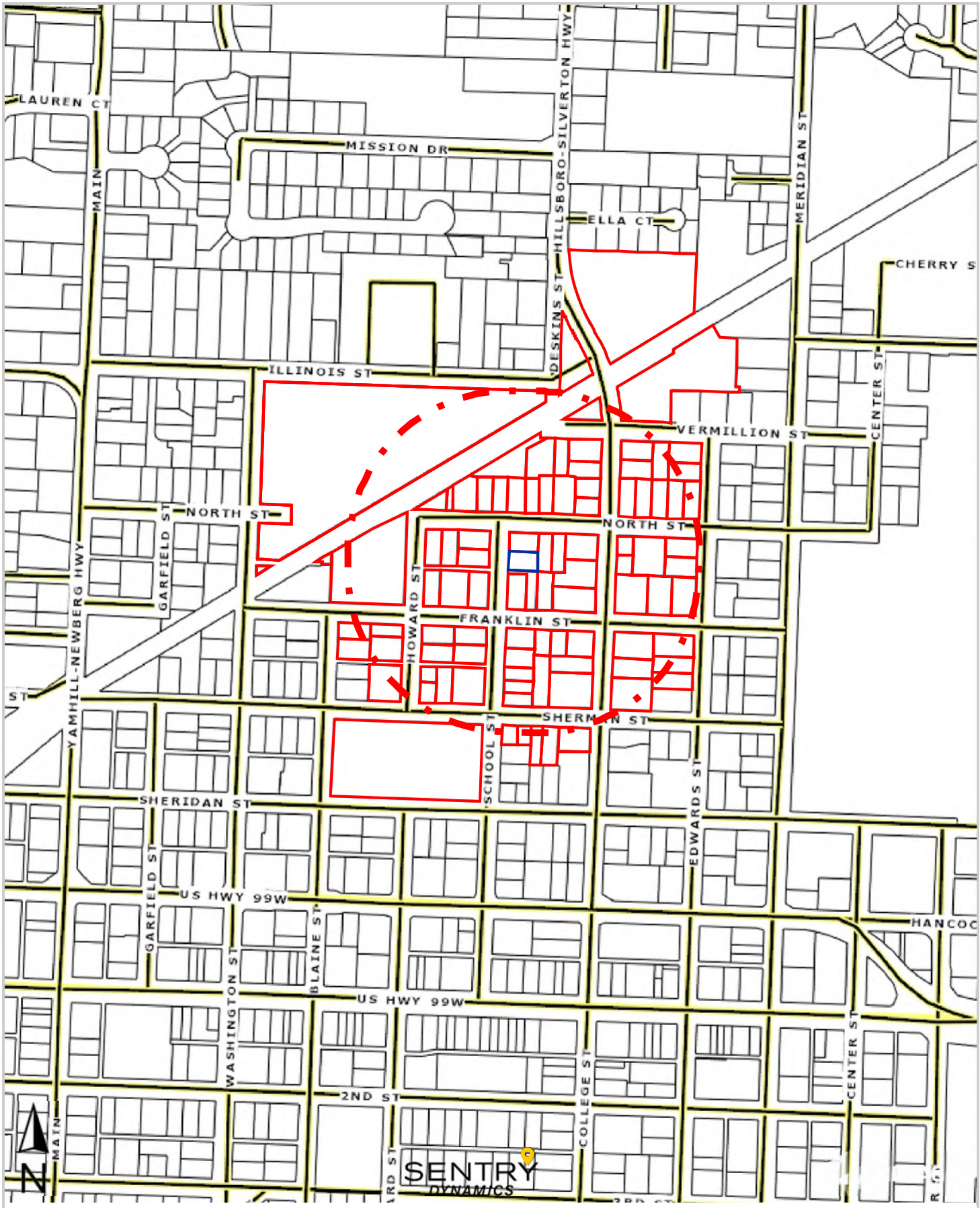

TICOR TITLE™

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.

510 N School St - Newberg

ParcelId	BathTtlCt	BedCt	FinTtlSqFt	LotSqFt	OwnerAddr	OwnerCityNm	OwnerNm	OwnerNm2	OwnerNm2First	OwnerNm2Last	OwnerNmFirst	OwnerNmLast	OwnerState	OwnerZIP	SiteAddr	SiteCity	SiteState	SiteZIP	YrBlt	ZoneCd
276953	1	3	1014	5000	2403 SE Elliott Ave	Portland	Wise, Nellie A				Nellie	Wise	OR		400 E Franklin St	Newberg	OR	97132	1979	R-2
45132	0	0	0	111758	535 NE 5th St	McMinnville	Oregon State Of					Oregon State Of	OR	97128	730 N College St	Newberg	OR	97132	0	M-2
45212	0	0	0	58461	PO Box 907	Newberg	Olson, Micah	Olson, Christine	Christine	Olson	Micah	Olson	OR	97132	700 N College St	Newberg	OR	97132	0	M-2
45230	0	0	0	48787	PO Box 532	Newberg	Slate Properties LLC					Slate Properties LLC	OR	97132	501 N Howard St Unit B	Newberg	OR	97132	0	M-2
45276	1	2	828	5998	607 E Franklin St	Newberg	Land, Janet A				Janet	Land	OR	97132	607 E Franklin St	Newberg	OR	97132	1950	R-2
45310	0	0	0	4221	535 NE 5th St	McMinnville	Oregon State Of					Oregon State Of	OR	97128		Newberg	OR	97132	0	M-2
45338	0	0	0	243500	23500 SW Scholls Ferry Rd	Hillsboro	Newberg Industrial Park LLC					Newberg Industrial Park LLC	OR	97123	500 E Illinois St	Newberg	OR	97132	0	M-2
45472	2	4	1700	6298	412 N Blaine St	Newberg	Marvin, Gwen M				Gwen	Marvin	OR	97132	412 N Blaine St	Newberg	OR	97132	1945	R-2
45490	1	1	528	3406	503 E North St	Newberg	Wilson, Holly M				Holly	Wilson	OR	97132	503 E North St	Newberg	OR	97132	1922	R-2
45515	0	0	0	3497	503 E North St	Newberg	Wilson, Holly M				Holly	Wilson	OR	97132		Newberg	OR	97132	0	R-2
45542	1	3	902	5401	5407 SW Spring Hill Rd	Gaston	Ware, Ariana N	Ware, Mitchell	Mitchell	Ware	Ariana	Ware	OR	97119	515 E North St	Newberg	OR	97132	1905	R-2
45551	6	5	4970	11303	PO Box 1060	Newberg	LLP Properties LLC					LLP Properties LLC	OR	97132	401 N Howard St	Newberg	OR	97132	1911	R-2
45560	1	2	564	7300	413 N Howard St	Newberg	Laarman, Christopher J				Christopher	Laarman	OR	97132	413 N Howard St	Newberg	OR	97132	1945	R-2
45579	1.5	3	1120	5898	601 E North St	Newberg	Forbes, Timothy W				Timothy	Forbes	OR	97132	601 E North St	Newberg	OR	97132	1996	R-2
45588	1	2	864	3998	415 N Howard St	Newberg	Wilson, Andrea J				Andrea	Wilson	OR	97132	415 N Howard St	Newberg	OR	97132	1955	R-2
45597	1	3	912	4543	603 E North St	Newberg	Pierce, Richard II	Mach, Marisa	Marisa	Mach	Richard	Pierce II	OR	97132	603 E North St	Newberg	OR	97132	1895	R-2
45604	1	2	912	5266	607 E North St	Newberg	Reichelt, Craig				Craig	Reichelt	OR	97132	607 E North St	Newberg	OR	97132	1937	R-2
45613	1	2	816	5649	502 E Franklin St	Newberg	MacIntyre, Patricia A				Patricia	MacIntyre	OR	97132	502 E Franklin St	Newberg	OR	97132	1948	R-2
45622	1	2	1085	8076	609 E North St	Newberg	Breen, Elizabeth C				Elizabeth	Breen	OR	97132	609 E North St	Newberg	OR	97132	1939	R-2
45631	2	3	1396	4194	601 N College St	Newberg	Carlson, Lisa M				Lisa	Carlson	OR	97132	601 N College St	Newberg	OR	97132	1937	R-2
45640	1	3	2026	4586	607 N College St	Newberg	Otto, Lauren G				Lauren	Otto	OR	97132	607 N College St	Newberg	OR	97132	1938	R-2
45659	2.5	3	1670	5649	410 N Howard St	Newberg	Dittman, Charles	Dittman, Mary Lou	Mary Lou	Dittman	Charles	Dittman	OR	97132	410 N Howard St	Newberg	OR	97132	1946	R-2
45668	1	2	833	5135	611 N College St	Newberg	Bond, Ashley R	Messer, Matthew R	Matthew	Messer	Ashley	Bond	OR	97132	611 N College St	Newberg	OR	97132	1937	R-2
45677	2	5	3224	7061	Attn: Doug Bartlett / Ycap	McMinnville	Yamhill Community Action Partnership					Yamhill Community Action Partnership	OR	97128	615 N College St	Newberg	OR	97132	1937	R-2
45686	1	2	1056	5009	612 Vermillion St	Newberg	Eilert, Samantha R	Eilert, Ian T	Ian	Eilert	Samantha	Eilert	OR	97132	612 Vermillion St	Newberg	OR	97132	1944	R-2
45695	1	2	1452	2400	2950 Crater Ln	Newberg	Francis Enterprises Inc					Francis Enterprises Inc	OR	97132	406 N Howard St	Newberg	OR	97132	1928	R-2
45702	1	2	1264	9513	606 Vermillion St	Newberg	Rice, Cliff G				Cliff	Rice	OR	97132	606 Vermillion St	Newberg	OR	97132	1940	R-2
45711	1	2	1835	3249	Attn: Brian Francis	Newberg	Francis Enterprises Inc					Francis Enterprises Inc	OR	97132	503 E Sherman St	Newberg	OR	97132	1928	R-2
45720	1	2	1838	5649	PO Box 3236	Newberg	Artajo, Marcia G				Marcia	Artajo	OR	97132	505 E Sherman St	Newberg	OR	97132	1928	R-2
45739	2.5	3	1818	11303	515 E Sherman St	Newberg	Gentry, Roger Trustee				Roger	Gentry	OR	97132	515 E Sherman St	Newberg	OR	97132	1908	R-2
45748	1	2	820	5797	Attn Christian Petersen	Newberg	School Street LLC					School Street LLC	OR	97132	411 N School St	Newberg	OR	97132	1945	R-2
45757	2	3	1393	5501	415 N School St	Newberg	Arnold, Bruce A	Arnold, Teresa L	Teresa	Arnold	Bruce	Arnold	OR	97132	415 N School St	Newberg	OR	97132	1908	R-2
45766	1	2	1292	5401	414 N School St	Newberg	Jones, Tamara A				Tamara	Jones	OR	97132	414 N School St	Newberg	OR	97132	1940	R-2
45775	1	4	1542	5401	406 N School St	Newberg	Macy, Amy J	Macy, Nathan A	Nathan	Macy	Amy	Macy	OR	97132	406 N School St	Newberg	OR	97132	1906	R-2
45784	1	3	1982	3598	8150 SW 191st Pl	Beaverton	McCombs, Colleen L				Colleen	McCombs	OR	97007	404 N School St	Newberg	OR	97132	1908	R-2
45793	2	3	2038	3598	402 N School St	Newberg	Mehler, David	Mehler, Sally	Sally	Mehler	David	Mehler	OR	97132	402 N School St	Newberg	OR	97132	1908	R-2
45800	2.5	3	2164	3598	400 N School St	Newberg	Chlumak, Martin H	Chlumak, Emily A	Emily	Chlumak	Martin	Chlumak	OR	97132	400 N School St	Newberg	OR	97132	1908	R-2
45819	1	2	946	8001	403 N College St	Newberg	Russo, Antonio	Russo, Connie	Connie	Russo	Antonio	Russo	OR	97132	605 E Sherman St	Newberg	OR	97132	1952	R-2
45828	2.5	3	2646	14792	403 N College St	Newberg	Russo, Antonio	Russo, Constance K	Constance	Russo	Antonio	Russo	OR	97132	403 N College St	Newberg	OR	97132	1905	R-2
45837	3.5	4	3714	6725	PO Box 280	Gaston	Bingham Betsy Trust					Bingham Betsy Trust	OR	97119	409 N College St	Newberg	OR	97132	1920	R-2
45846	2	3	3265	6760	180 Canyon Lakes Way	San Ramon	Troiani, Martin A	Troiani, Laurie A	Laurie	Troiani	Martin	Troiani	CA	94582	415 N College St	Newberg	OR	97132	1903	R-2
45855	2	3	1014	3998	608 E Franklin St	Newberg	Fitzgerald, Patricia				Patricia	Fitzgerald	OR	97132	608 E Franklin St	Newberg	OR	97132	1932	R-2
45864	1	2	922	3998	606 E Franklin St	Newberg	Tallman, Brett M	Samples, Maryanne K	Maryanne	Samples	Brett	Tallman	OR	97132	606 E Franklin St	Newberg	OR	97132	1904	R-2
45873	2	5	1608	10001	414 N College St	Newberg	Gaidos, Mark F				Mark	Gaidos	OR	97132	414 N College St	Newberg	OR	97132	1904	R-2
45882	1.5	4	2268	7501	410 N College St	Newberg	Rohr, Richard A	Rohr, Donna A	Donna	Rohr	Richard	Rohr	OR	97132	410 N College St	Newberg	OR	97132	1925	R-2
45891	4.5	4	3174	11456	16380 NE Chehalem Dr	Newberg	Payton Beverly K Trustee Of					Payton Beverly K Trustee Of	OR	97132	600 Vermillion St Unit A	Newberg	OR	97132	1999	R-2
45908	1	2	1010	6006	614 N College St	Newberg	Fields, Darrell R	Fields, Roxanna M	Roxanna	Fields	Darrell	Fields	OR	97132	614 N College St	Newberg	OR	97132	1920	R-2
45917	1	3	1258	5767	610 N College St	Newberg	St Cyr, Russell D	St Cyr, Stephanie J	Stephanie	St Cyr	Russell	St Cyr	OR	97132	610 N College St	Newberg	OR	97132	1954	R-2
45935	2.5	3	3000	12501	400 N College St	Newberg	Sutherland, Traci	Sutherland, Richard M	Richard	Sutherland	Traci	Sutherland	OR	97132	400 N College St	Newberg	OR	97132	1930	R-2
45962	2	3	1040	6250	405 N Edwards St	Newberg	Buhler, Gary R				Gary	Buhler	OR	97132	405 N Edwards St	Newberg	OR	97132	1979	R-2
45980	1.5	2	1525	6250	411 N Edwards St	Newberg	Forbes, Ryan P	Forbes, Emily L	Emily	Forbes	Ryan	Forbes	OR	97132	411 N Edwards St	Newberg	OR	97132	1908	R-2
46006	2	3	1826	8751	415 N Edwards St	Newberg	Lynch, Bryan	Ann, Marie	Marie	Ann	Bryan	Lynch	OR	97132	415 N Edwards St	Newberg	OR	97132	1930	R-2
46051	1	3	1281	5919	4205 NE Riverside Lp	McMinnville	Perez, Pedro R	Perez, Peter C	Peter	Perez	Pedro	Perez	OR	97128	600 N College St	Newberg	OR	97132	1905	R-2
46079	1	2	886	5915	705 E North St	Newberg	Payne, Thomas A	Payne, Leah L	Leah	Payne	Thomas	Payne	OR	97132	705 E North St	Newberg	OR	97132	1954	R-2
46088	1.5	4	1918	5915	717 E Sheridan St	Newberg	Morrison, Betty M Trustee				Betty	Morrison	OR	97132	707 E North St	Newberg	OR	97132	1914	R-2
46122	1	3	918	5911	711 E North St	Newberg	Wheelhouse, Alexa	Wheelhouse, Tanner	Tanner	Wheelhouse	Alexa	Wheelhouse	OR	97132	711 E North St	Newberg	OR	97132	1956	R-2
46168	3	4	2040	5906	715 E North St	Newberg	Olson, Silas R	Olson, Catherine G	Catherine	Olson	Silas	Olson	OR	97132	715 E North St	Newberg	OR	97132	1909	R-2
46195	2	4	2236	6494	615 N Edwards St	Newberg	Stevens, Daniel				Daniel	Stevens	OR	97132	615 N Edwards St	Newberg	OR	97132	1944	R-2
46220	1.5	3	1376	5889	704 Vermillion St	Newberg	Wright, Tammy				Tammy	Wright	OR	97132	704 Vermillion St	Newberg	OR	97132	1964	R-2
46355	2	4	2151	7501	315 N College St	Newberg	Gann, Sean	Gann, Elizabeth	Elizabeth	Gann	Sean	Gann	OR	97132	315 N College St	Newberg	OR	97132	1901	R-2
46373	2	3	1292	5998	610 E Sherman St	Newberg	Kubik, Rachael L	Bonnett, Caleb J	Caleb	Bonnett	Rachael	Kubik	OR	97132	610 E Sherman St	Newberg	OR	97132	1910	R-2
46391	2.5	3	1764	4138	PO Box 845	Newberg	Holman, Kathleen A				Kathleen	Holman	OR		606 E Sherman St	Newberg	OR	97132	2020	R-2
46408	1	2	1392	2879	20805 NE Highway 240	Newberg	Fox Trustee For					Fox Trustee For	OR	97132	314 N School St	Newberg	OR	97132	1950	R-2
46471	2	3	3288	5998	515 N Edwards St	Newberg	Hoffman, Timothy L	Hoffman, Lori	Lori	Hoffman	Timothy	Hoffman	OR	97132	515 N Edwards St	Newberg	OR	97132	1904	R-2
46480	2.5	3	2136	5998	4318 N Sagewood Cir	Mesa	North Edwards Dp LLC					North Edwards Dp LLC	AZ	85207	511 N Edwards St	Newberg	OR	97132	1909	R-2
46499	1.5	3	1482	12000	704 E North St	Newberg	Van Marter, Patricia A				Patricia	Van Marter	OR	97132	704 E North St	Newberg	OR	97132	1890	R-2
46505	2	3	1732	3001	514 N College St	Newberg	Athon, Stacie	Willis, Cody	Cody	Willis	Stacie	Athon	OR	97132	514 N College St	Newberg	OR	97132	1927	R-2
46514	1	2	1942	3001	510 N College St	Newberg	Vargas, Jose F				Jose	Vargas	OR	97132	510 N College St	Newberg	OR	97132	1927	R-2
46523	3.5	4	4050	12000	414 N Meridian St	Newberg	George Fox University					George Fox University	OR	97132	701 E Franklin St	Newberg	OR	97132	1912	R-2
46532	1	3	2656	8999	709 E Franklin St	Newberg	Rupp, Richard	Lynch, Erin	Erin	Lynch	Richard	Rupp	OR	97132	709 E Franklin St	Newberg	OR	97132	1913	R-2
46541	2	5	3432	8999	20280 SW Seely Ln	Sherwood	James Family Investments LLC					James Family Investments LLC	OR	97140	501 N Edwards St	Newberg	OR	97132	1911	R-2
46550	1	4	2656	8001	511 N College St	Newberg	Forbes, Ryan	Forbes, Emily	Emily	Forbes	Ryan	Forbes	OR	97132	511 N College St	Newberg	OR	97132	1930	R-2
46569	1	3	1036	4800	PO Box 382	Newberg	Pereda, Nabor	Pereda, Maria	Maria	Pereda	Nabor	Pereda	OR	97132	610 E North St	Newberg	OR	97132	1923	R-2
46578	1	2	789	5340	PO Box 382	Newberg	Pereda, J Nabor	Pereda, Maria	Maria	Pereda	Nabor	Pereda	OR	97132	606 E North St	Newberg	OR	97132	1923	R-2
46587	2	6	1209	5401	20280 SW Seely Ln	Sherwood	James Family Investments LLC					James Family Investments LLC	OR	97140	514 N School St	Newberg	OR	97132	1929	R-2
46603	1	2	808	4473	PO Box 382	Newberg	Pereda, Nobor	Pereda, Maria	Maria	Pereda	Nobor	Pereda	OR	97132	605 E Franklin St	Newberg	OR	97132	1940	R-2
46612	1	2	710	6324	429 S Lincoln St	Newberg	Harker, Gary G	Harker, Shane B	Shane	Harker	Gary	Harker	OR	97132	603 E Franklin St	Newberg	OR	97132	1900	R-2
46621	4	4	3509	10088	2361 NW Anthony Ct	McMinnville	Romasco Living Trust					Romasco Living Trust	OR	97128	503 N College St	Newberg	OR	97132	1960	R-2
46630	3	5	3878	10049	507 N College St	Newberg	Irwin R Thomas & Christine S Trustees Of					Irwin R Thomas & Christine S Trustees (	OR	97132	507 N College St	Newberg	OR	97132	1946	R-2
46649	1	2	900	5649	515 N School St	Newberg	Putman, Tiffany				Tiffany	Putman	OR	97132	515 N School St	Newberg	OR	97132	1910	R-2
46658	1	2	1048	5649	511 N School St	Newberg	Navejas, Nancy Y				Nancy	Navejas	OR	97132	511 N School St	Newberg	OR	97132	1964	R-2
46667	1.5	2	936	5649	504 E North St	Newberg	d'Auray, Nicole				Nicole	d'Auray	OR	97132	504 E North St	Newberg	OR	97132	1913	R-2
46676	1	2	871	5649	415 N Howard St	Newberg	Davey, Sari I	Davey, Fred E	Fred	Davey	Sari	Davey	OR	97132	500 E North St	Newberg	OR	97132	1905	R-2
46685	2	3	1454	5649	501 E Franklin St	Newberg	Hoover, Holly T				Holly	Hoover	OR	97132	501 E Franklin St	Newberg	OR	97132	1910	R-2
46694	2	3	1285	10171	505 E Franklin St	Newberg	Corum Cindy Living Trust					Corum Cindy Living Trust	OR	97132	505 E Franklin St	Newberg	OR	97132	1910	R-2
46701	1.5	3	1470	6777	515 E Franklin St	Newberg	Gonzalez, Jessica P				Jessica	Gonzalez	OR	97132	515 E Franklin St	Newberg	OR	97132	1910	R-2
46710	1	2	1076	2522	PO Box 382	Newberg	Pereda, Conrado				Conrado	Pereda	OR	97132	604 E Sherman St	Newberg	OR	97132	1925	R-2
46792	0	0	0	111077	535 NE 5th St	McMinnville	Chehalem Park & Recreation District					Chehalem Park & Recreation District	OR	97128	415 E Sheridan St	Newberg	OR	97132	0	I
484282	2	3	1104	5497	607 N Edwards St	Newberg	Fitzgerald, Dennis L	Fitzgerald, Lori R	Lori	Fitzgerald	Dennis	Fitzgerald	OR	97132	607 N Edwards St	Newberg	OR	97132	1991	R-2
501241	1	2	858	7405	509 E North St	Newberg	Rose, Troy E				Troy	Rose	OR	97132	509 E North St	Newberg	OR	97132	1929	R-2
504196	1.5	3	1120	5401	4020 203rd Ave NE	Sammamish	North Fox LLC					North Fox LLC	WA	98074	517 E North St	Newberg	OR	97132	1996	R-2
533458	0	0	0	0	500 E Illinois St	Newberg	Ppm Technologies LLC Holdings LLC					Ppm Technologies LLC Holdings LLC	OR	97132			OR		0	
800291	0	0	0	0											500 E Illinois St	Newberg	OR		0	

Attachment 2: Agency Comments

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: November 27, 2024
Please refer questions and comments to: Leanne Cromie

NOTE: Additional information can be viewed on our website at:

APPLICANT: James Leoni JR

REQUEST: Vacation Rental

SITE ADDRESS: 510 N School St

TAX LOT: R3218DD 06700

FILE NO: CUP24-0008

ZONE: R-2(Res Med Density Zone)

HEARING DATE: January 9, 2025

For full Project Information click on the Link Here: CUP24-0008 Full Application

---

☑ 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: 11/13/24

Organization: _____

COMMUNITY DEVELOPMENT
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☐ Meeting requested.

☐ Comments. (Attach additional pages as needed)

Reviewed By: Will Worthey CM

Date: 11/14/24

Organization:

COMMUNITY DEVELOPMENT
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☐ Meeting requested.

☐ Comments. (Attach additional pages as needed)

Reviewed By:

12/2/24
Date:

CON PW Engineering
Organization:

COMMUNITY DEVELOPMENT
LAND USE APPLICATION REFERRAL

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---

☑ Reviewed, no conflict. Utility Billing $0.00 Current

☐ Reviewed; recommend denial for the following reasons:

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☐ Meeting requested.

☐ Comments. (Attach additional pages as needed)

Barbara Davis — Reviewed By:

11/13/24 — Date:

Finance — Organization:

Leanne Wagener

From: SCOTT Brion <Brion.SCOTT@odot.oregon.gov>
Sent: Wednesday, November 13, 2024 1:57 PM
To: Fe Bates
Cc: James Dingwall; Leanne Wagener
Subject: RE: -3- City of Newberg Referral Review Request: CUP24-0006, CUP24-0007 & CUP24-0008

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.

Hi Fe,

No comments or objections to any of the three.

Thanks,

Brion Scott, PE
Development Review Coordinator
ODOT - Region 2 - Area 3
885 Airport Road SE, Building P Salem, OR 97301
(503) 871-1411
Brion.Scott@odot.oregon.gov

From: Fe Bates <Fe.Bates@newbergoregon.gov>
Sent: Wednesday, November 13, 2024 10:56 AM
Cc: Fe Bates <Fe.Bates@newbergoregon.gov>; James Dingwall <James.Dingwall@newbergoregon.gov>; Leanne Wagener <Leanne.Wagener@newbergoregon.gov>
Subject: -3- City of Newberg Referral Review Request: CUP24-0006, CUP24-0007 & CUP24-0008

This message was sent from outside the organization. Treat attachments, links and requests with caution. Be conscious of the information you share if you respond.

Good Day,

Attached are 3 Referrals for your review:

- CUP24-0006: Vacation Rental
- CUP24-0007: Vacation Rental
- CUP24-0008: Vacation Rental

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 November 27, 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.*

COMMUNITY DEVELOPMENT
LAND USE APPLICATION REFERRAL

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APPLICANT: James Leoni JR

REQUEST: Vacation Rental

SITE ADDRESS: 510 N School St

TAX LOT: R3218DD 06700

FILE NO: CUP24-0008

ZONE: R-2(Res Med Density Zone)

HEARING DATE: January 9, 2025

For full Project Information click on the Link Here: CUP24-0008 Full Application

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☐ 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:

11/13/24
Date:

Newberg-Dundee Police Department
Organization:

COMMUNITY DEVELOPMENT
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SITE ADDRESS: 510 N School St

TAX LOT: R3218DD 06700

FILE NO: CUP24-0008

ZONE: R-2(Res Med Density Zone)

HEARING DATE: January 9, 2025

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☐ Meeting requested.

☐ Comments. (Attach additional pages as needed)

Reviewed By:

11/13/24
Date:

City of Newberg - Operations
Organization:

COMMUNITY DEVELOPMENT
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REQUEST: Vacation Rental

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☐ Meeting requested.

☐ Comments. (Attach additional pages as needed)

Reviewed By:

11/13/24
Date:

Public @Works Director, City of Newberg
Organization:

Leanne Wagener

From: Brown, Jason <JBrown2@wm.com>
Sent: Wednesday, November 13, 2024 12:03 PM
To: Fe Bates
Cc: James Dingwall; Leanne Wagener
Subject: RE: -3- City of Newberg Referral Review Request: CUP24-0006, CUP24-0007 & CUP24-0008

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.

Good afternoon,

Wm does not see any issues providing carts are curb/road side on collection day.

Thanks

From: Fe Bates <Fe.Bates@newbergoregon.gov>
Sent: Wednesday, November 13, 2024 10:56 AM
Cc: Fe Bates <Fe.Bates@newbergoregon.gov>; James Dingwall <James.Dingwall@newbergoregon.gov>; Leanne Wagener <Leanne.Wagener@newbergoregon.gov>
Subject: [EXTERNAL] -3- City of Newberg Referral Review Request: CUP24-0006, CUP24-0007 & CUP24-0008

Good Day,

Attached are 3 Referrals for your review:

- CUP24-0006: Vacation Rental
- CUP24-0007: Vacation Rental
- CUP24-0008: Vacation Rental

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 November 27, 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

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PLANNING COMMISSION STAFF REPORT
FILE NO. CUP24-0004/DR224-0006/MISC124-0018
Conditional Use Permit, Design Review, and Stream Corridor Overlay Review for Corner of Springbrook and Hayes (West Branch Apartments)

FILE NO:	CUP24-0004, DR224-0006 and MISC124-0018
REQUEST:	96-unit multi-family building in a commercial zone, small encroachment into stream corridor for stormwater pipes and outfall
LOCATION:	Intersection of N Springbrook Rd and E Hayes Street
TAX LOT:	R3216 02017 and R3216 02025
APPLICANT:	DMKS LLC
APPLICANT REP:	AKS Engineering and Surveying
OWNER:	Werth Family LLC
ZONE:	C-2 (Community Commercial)/SP Special District (Springbrook Oaks)
PLAN:	COM (Commercial)/SP Special District (Springbrook Oaks)
OVERLAY:	Stream Corridor, Special Flood Hazard, Airport Inner Horizontal Surface, Marijuana Exclusion Zone

CONTENTS

Planning Commission Order 2025-03 with:

Exhibit A – Conditional Use Permit Application Findings
Exhibit B – Design Review Application Findings
Exhibit C – Stream Corridor Overlay and Special Flood Hazard Findings
Exhibit D – Conditions of Approval

ATTACHMENTS:

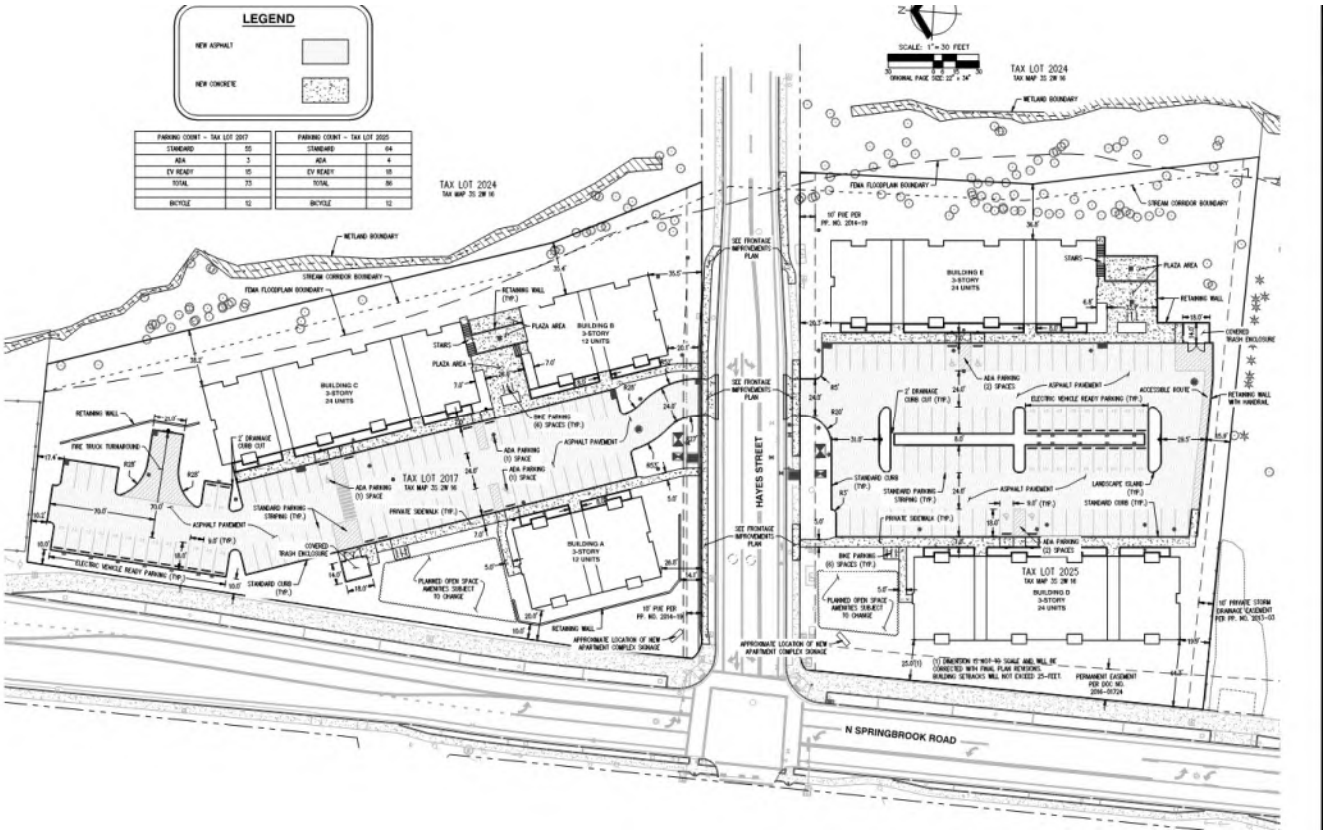
Attachment 1: Application and Supplemental Materials
Attachment 2: Agency Comments
Attachment 3: Public Comments
Attachment 4: Historic Site Record - 99W Drive-in Movie Theatre (Oregon State Historic Preservation Office)

APPLICATION INFORMATION
West Branch Apartments
Conditional Use Permit, Design Review, and Stream Corridor
CUP24-0004/DR224-0006/MISC124-0018

DESCRIPTION OF APPLICATION:

DMKS LLC (Applicant) requests approval of a Design Review, Conditional Use Permit, and Stream Corridor Review to construct a 96-unit multifamily building with supporting site utilities and elements within the Community Commercial (C-2) zoning district. Due to the subject property's C-2 zoning, a conditional use permit is required for approval of a residential building in a commercial zone as well as stream corridor encroachment and restoration application for stormwater pipes requiring the application to be processed using Type III and Type I procedures respectively. The combined 4.59 acres of the property is proposed to contain five three-story multifamily buildings which are proposed to consist of 96 two-bedroom units. The two properties will also support the required parking, landscaping, outdoor common areas, storm water facilities, pedestrian pathways, trash enclosures, and exterior lighting requirements. The application also addresses the specific site and building design elements that are required for a multifamily project. Public improvement requirements have also been reviewed.

Applicants' Site Plan



Aerial Photo of Site

West Branch Proposed Apartments
(Corner of Springbrook/Hayes)

N
W E
S

Subject Properties
Taxlots

0 250 500 Feet

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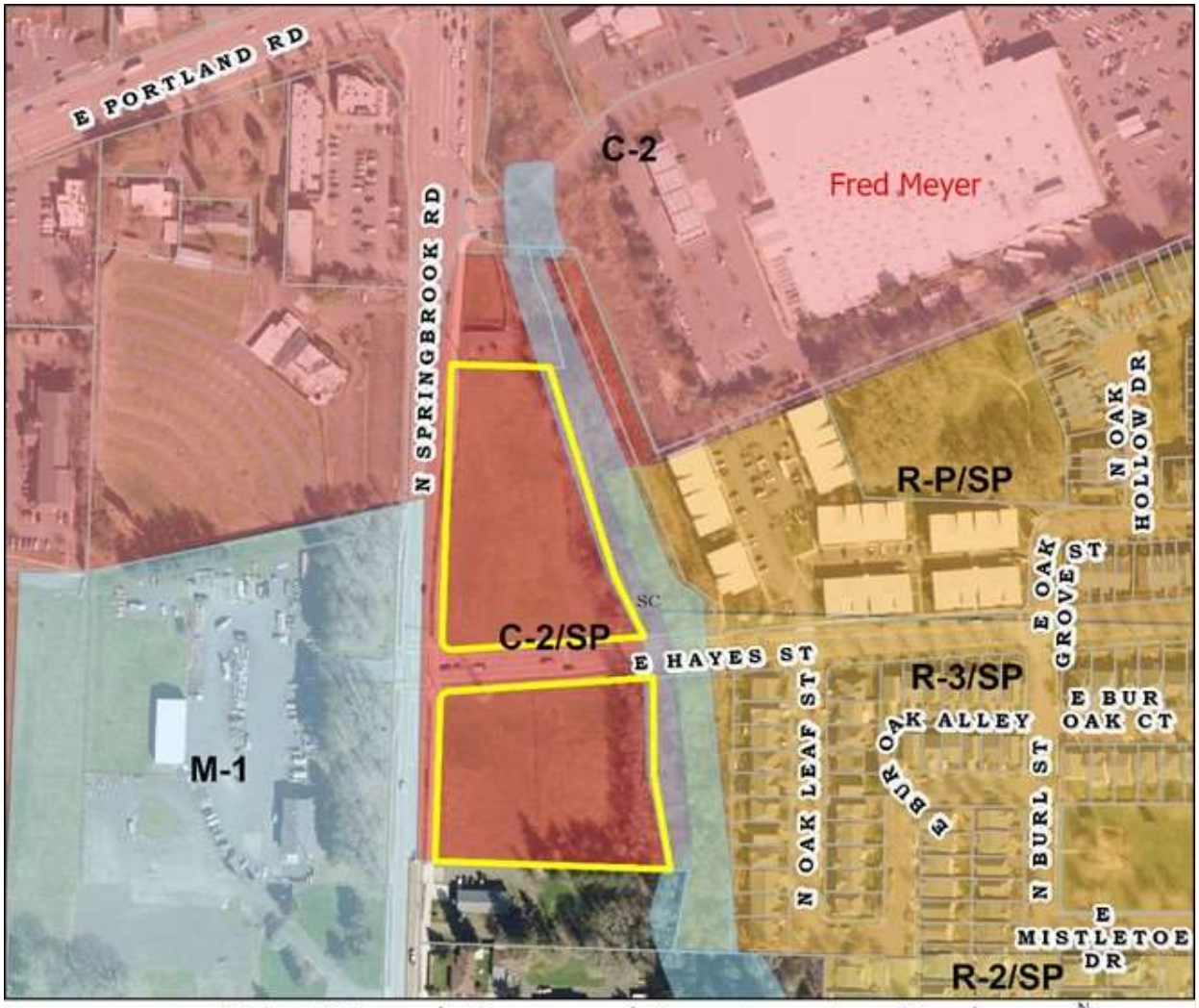
The map is created from various data sources and is subject to change without notice.
This map is intended for general planning purposes only.
Map updated: 9/21/2023

Zoning Map



West Branch Proposed Apartments - Zoning
(Corner of Springbrook/Hayes)

N
W
E
S

Subject Properties
Taxlots
ZONING
C-2 Community Commercial
C-2/SP Community Commercial/Specific Plan
M-1 Limited Industrial District
R-2/SP Specific Plan
R-3/SP Specific Plan
R-P/SP Specific Plan
Stream Corridor

0 250 500 Feet

City of Newberg

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Springbrook Oaks Specific Plan Map

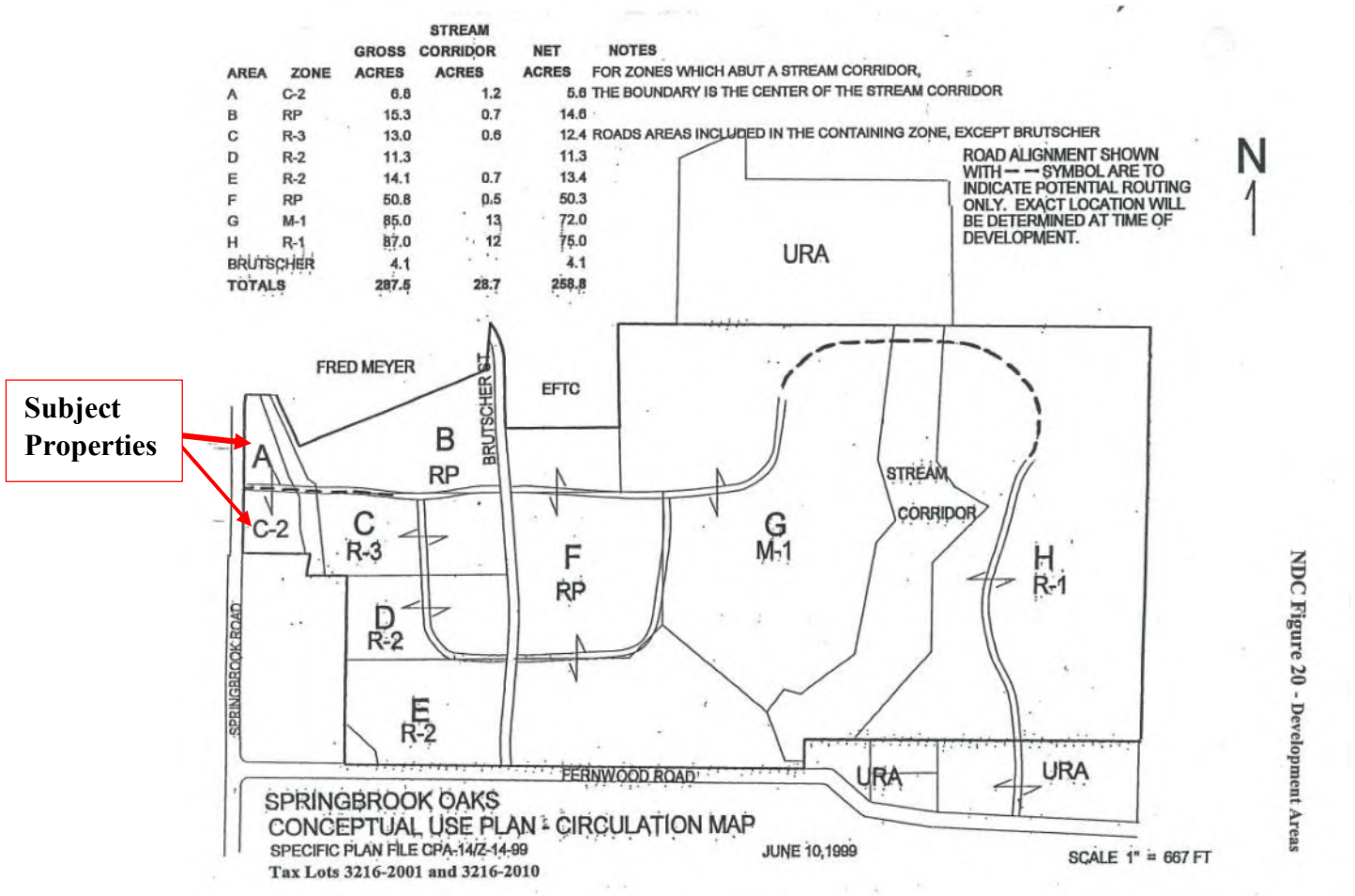
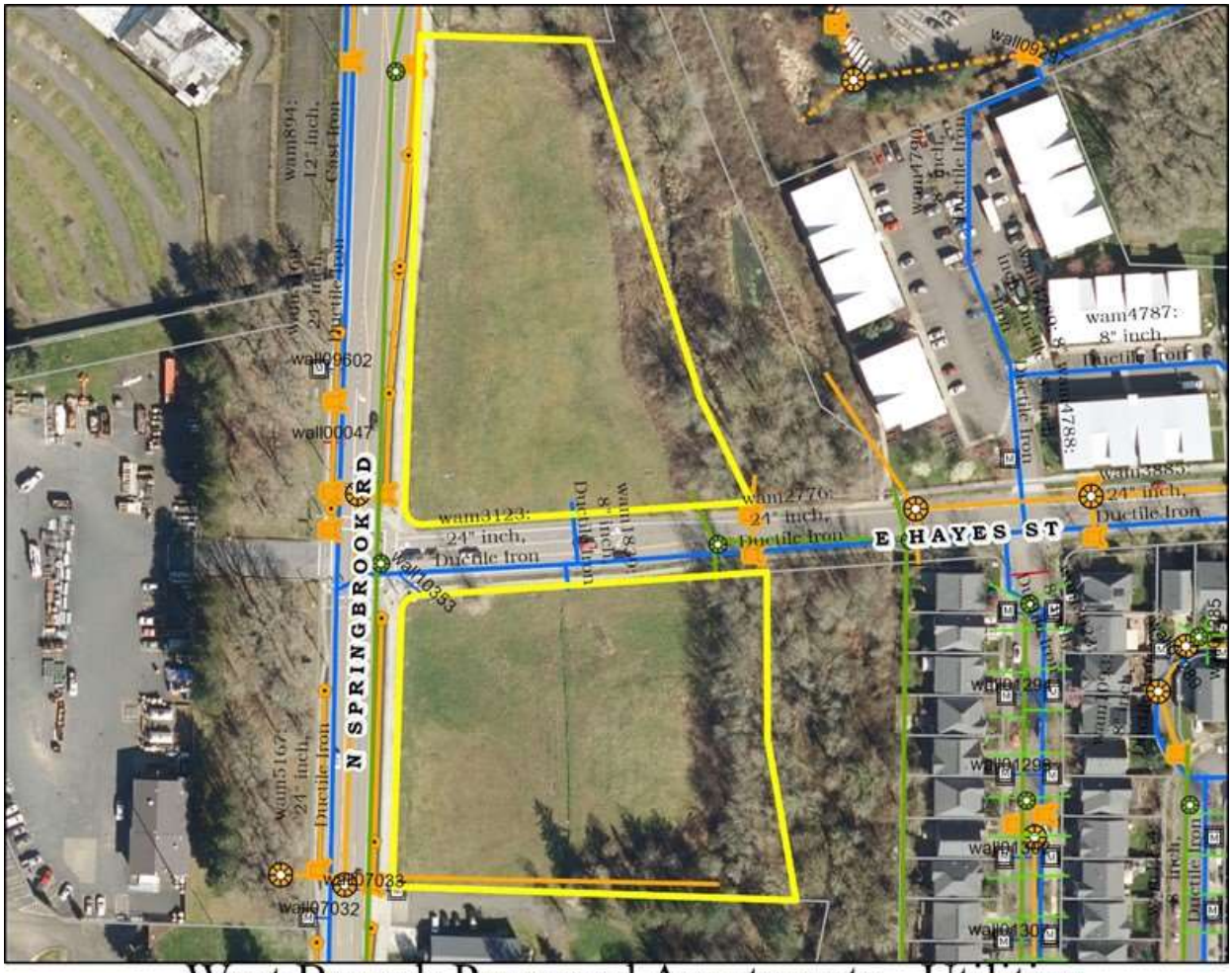


Figure 1. Springbrook Oaks Specific Plan Map from August 2, 1999. Subsequent Ordinances modified areas F and G that do not show Area A, in which the subject property is located, clearly.

Site Utilities Map



West Branch Proposed Apartments - Utilities (Corner of Springbrook/Hayes)

- Subject Properties
- Taxlots
- Sewer Manholes
- Sewer Laterals
- Gravity Main
- Storm CleanOut
- Storm Manhole
- Active Storm Inlet
- Collector Storm Pipe
- Collector Storm Pipe - Pvt
- Water Quality Swale
- Storm Basin
- Water Meter
- Water Valves
- CITY OF NEWBERG, Potable Main
- Hydrant Lateral
- Service Lateral

N W E S

0 150 300 Feet

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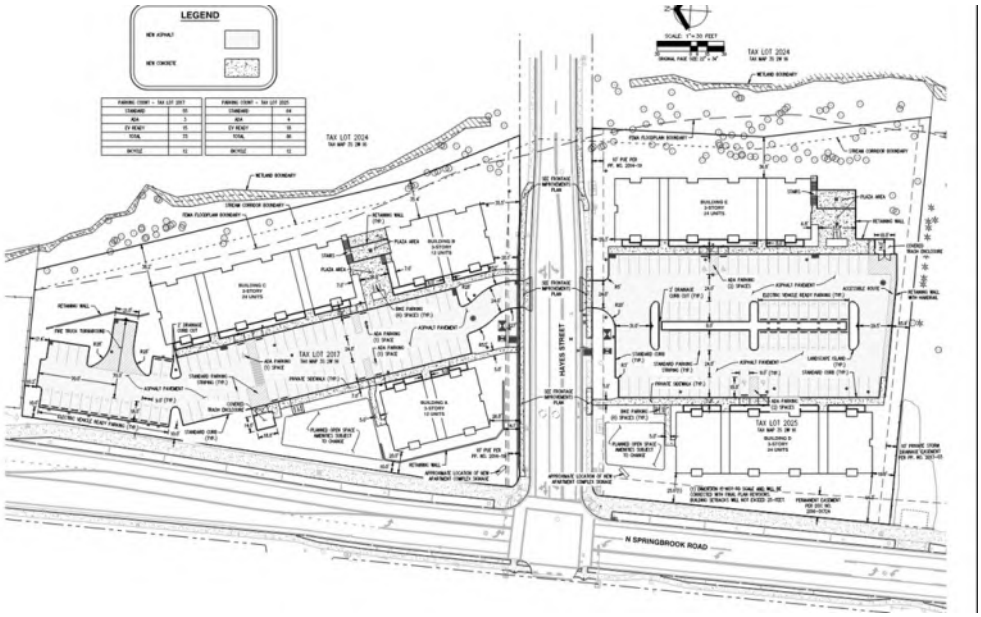
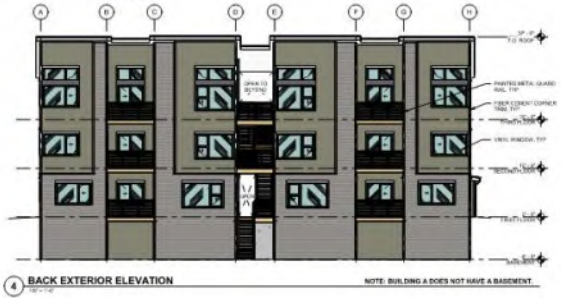
Site Plan & Elevations





SITE INFORMATION:

1. **Location:** The project site, tax lots R3216 02017 and R3216 02025, are corner lots located at the intersection of E Hayes Street and N Springbrook Road. The site is in the C-2 / Community Commercial zone and is currently a vacant, sloping field. The subject properties have approximately 315 feet of frontage along E Hayes Street and approximately 710 feet of frontage along N Springbrook Road.

2. **Size:** +/- 4.59 acres (199,940 sq. ft.)

3. **Current Land Uses:** Vacant

4. **Natural Features**: Grass field, Springbrook Creek and trees along east property edge.

5. **Adjacent Land Uses:**
    a. North: Vacant, Stormwater Pond
    b. South: Commercial/Institutional, Newberg Grange
    c. East: West Fork of Springbrook Creek, Residential (Oak Grove Apartment Complex)
    d. West: Industrial, Portland General Electric Yard

6. **Zoning:** The following zoning districts abut the subject property:

    a. North: C-2 /SP Community Commercial/Specific Plan
    b. East: RP /SP Residential Professional/Specific Plan
    c. South: Unincorporated
    d. West: M-1 Light Industrial and C-2 Community Commercial

7. **Access and Transportation:** Tax Lots R3216 02017 and R3216 02025 have frontage on N Springbrook Road and E Hayes Street. N Springbrook Road is a Major Arterial. E Hayes Street is a Major Collector. The proposed building will take access off E Hayes Street because it has a lower functional classification. Additionally, the access must be at the furthest east end of the property without being in the stream corridor section to minimize impact to the N Springbrook Road/E Hayes Street intersection.

8. **Utilities:**

    a. Water: The City's online GIS mapping and the submitted preliminary plans show that there is an existing 24-inch water line located in Hayes Street and an 8-inch water line serving the property on each side of the street.

    b. Wastewater: The City's online GIS mapping and the submitted preliminary plans show that there is an existing 8-inch wastewater line in Hayes Street with 8-inch wastewater service laterals extended to the property on each side of the street. The 8-inch line in Hayes Street flows

to the Fernwood Lift Station. There is also a 15-inch wastewater line in N Springbrook. Capacity issues with the wastewater system in this area are identified in the Wastewater Master Plan.

c. Stormwater: The City's GIS mapping and the submitted preliminary plans show that there are several nearby stormwater lines which all drain to West Fork of Springbrook Creek located on the east side the property.

d. Overhead Lines: Any new connection the property will need to be undergrounded. Existing overhead lines will need to be undergrounded. See NMC 15.430.010(C) for exception provisions.

PROCESS: This Type III Design Review, Type III Conditional Use Permit and Type I Stream Corridor Encroachment application will follow the procedures in Newberg Development Code 15.100.050. The Planning Commission will hold a quasi-judicial public hearing on the applications. The Commission will make a decision on the applications based on the criteria listed in the attached findings. The Planning Commission's decisions are final unless appealed. Important dates related to this application are as follows:

1. 11/19/2024: The Community Development Director deemed the application complete.
2. 12/06/2024: The Applicant posted notice on the site.
3. 12/06/2024: The Applicant mailed notice to the property owners within 500 feet of the site.
4. 12/19/2024: The *Newberg Graphic* published notice of Planning Commission hearing and notice was posted in four public places.
5. 01/09/2025: The Planning Commission will hold a quasi-judicial public hearing to consider the applications.

AGENCY COMMENTS:

The applications were routed to several public agencies for review and comment (Attachment 2). 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. Community Development Director: Reviewed, no conflict.
2. City Manager: Reviewed, no conflict.
3. Police Department: Reviewed, no conflict.

4. Public Works Director: Comment:
"*If Approved, construction plans for all public utility and Public ROW elements to be reviewed and approved by the City of Newberg Engineering Department prior to permitting and construction*"

Staff Response: Construction plans for utilities and right-of-way would be reviewed and have to be approved by the engineering department prior to permits being issued.

5. Public Works Maintenance Superintendent:
   1. *Street trees near driveway should be revaluated for site line issues assuming the tee is at full maturity*
   2. *Subsurface stormwater is private*
   3. *Catch basins should be located as close as possible to Trash bins to minimize tracking.*
   4. *There should be an oil and floatable sediment separator prior to stormwater leaves the facility.*

Staff Response: Site utility work and such issues will be required to adhere to the Public Works Design and Construction standards that will be addressed at a later staged in development in coordination with between Public Works Engineering, Community Development and Building Division. Street tree issues within the vision clearance area can be seen in the findings for NMC 15.410.060

6. Waste Management: Reviewed, no conflict.

7. Tualatin Valley Fire & Rescue (TVFR): Reviewed, said they have approved their design.

8. Portland General Electric (PGE): Reviewed, No conflict, mentioned PGE Work Order M3818524 which is to tie in power to the site.

9. Oregon Department of Aviation (ODAV): Reviewed and had comments.

"The proposed development may be required to undergo aeronautical evaluations by the FAA and ODAV and that they can used the FAA's Notice Criteria Tool to determine which proposed structures, including cranes used during construction, warrant a notice of construction filing. If they need to, separate notices are required to be provided to FAA and ODAV. The determination letter from the FAA and ODAV should be received prior to the permit of any building permits.

The height of any new structures, trees, and other planted vegetation should not penetrate FAR Part 77 Imaginary Surfaces, as determined by the FAA and ODAV"

Staff Response: Findings for this can be seen in the airport overlay subdistrict in NMC 15.340 and height findings in NMC 15.415 seen elsewhere in this staff report. The Applicant will need to comply with all FAA and ODAV standards.

10. Finance: Reviewed, no conflict.

11. Ziply Fiber: Reviewed and said they have no conflict but they have a manhole and duct run on the south side of E Hayes that turns S. onto N Springbrook.

12. Oregon Department of Transportation (ODOT): Provided comments that N Springbrook Road is under ODOT jurisdiction and that there is no proposals to occupy the road during construction. They said if the Applicant needs to occupy the highway or if the City requires improvements on Springbrook, that they will need to contact District 3 permits.

    ODOT also reviewed the provided Transportation Impact Analysis (TIA) provided and did not have any comments on it.

13. Engineering: Review and provided numerous comments which have been incorporated into the staff report in particular the findings for Public Improvements seen in findings for NMC 15.505.

14. Public Works Compliance: Reviewed, no conflict

PUBLIC COMMENTS:

Staff received over 30 public comments related to this proposal (Attachment 3). The following items were mentioned in multiple comments:

1. **Lighting –** Concerns over lighting and ambient lighting affecting the drive-in across N Springbrook Road

Staff Response: *The Applicant provided an exterior lighting plan in their application package but did not provide how the proposed lighting would affect the drive-in or other properties in the neighborhood. Findings related to lighting can be found in the findings for NMC 15.225.060(A), NMC 15.425 and NMC 15.505.030(U). Recommended Conditions related to lighting issues including light trespass can be seen in Exhibit D.*

2. **Wetlands –** Concerns over the possible development of the apartments in wetlands and ecologically sensitive areas.

Staff Response: *The Applicant conducted a wetland delineation for the site that was approved by the Department of State Lands (Regulating Agency for Wetlands in Oregon). The delineation showed that no development is proposed in the delineated wetlands (roughly the creek area). The only disturbance to any ecologically sensitive area is inside*

the City's stream corridor and FEMA's floodplain boundary for two stormwater pipes of which the Applicant will be required to restore using plantings and native soils and will be required to obtain a floodplain development permit as can be seen in the findings in Exhibit C and recommend conditions in Exhibit D.

3. **Traffic –** Concerns over the traffic impacts of the proposed development and that N Springbrook Road already is very congested.

Staff Response: *The Applicant provided a transportation impact study that was reviewed by the Oregon Department of Transportation and City of Newberg's Engineering team. Both found that the impact study was adequate and that the only mitigation required was for a proportionate share of funding go to the funding of the City of Newberg's Transportation System Plan I09 project for a stoplight at E Haworth Avenue and N Springbrook Road intersection.*

ANALYSIS:

The proposed project to construct a 96-unit multifamily development. Based on the subject property and the proposed project, review of application will rely on applicable criteria related to a Design Review, Conditional Use Procedures, and Stream Corridor review.

Because the proposed project requires a conditional use permit, the application will be reviewed under Conditional Use Procedure criteria pursuant to NMC 15.225 and must be processed using a Type III procedure which includes final decision by the Newberg Planning Commission. The Design Review portion of the application will be reviewed pursuant to provisions within NMC 15.220. In addition to the design review and conditional use permit, the proposed project requests to extend a private stormwater facility into a portion of the property located within the City's Stream Corridor Overlay (SC) Subdistrict which requires review of regulations pursuant to NMC 15.342. Finally, the subject property is located within Area A of the Springbrook Oaks Specific Plan which is referenced within NMC 15.342. As noted within NMC 15.342.020(B), new construction subject to site design review is required to meet the special development and design standards of the Springbrook Oaks Specific Plan.

The findings of this report use the City's applicable to evaluate the required building design elements for multifamily projects, public improvements, parking, landscaping, outdoor common areas, stormwater facilities, pedestrian pathways, trash enclosures, exterior lighting, and other requirements. The application materials also address specific site and building design elements that are required for a multifamily project.

It is noteworthy to recall that, pursuant to NMC 15225.010(B), the purpose of conditional use permit review is to "determine that the characteristics of any such use shall be reasonably compatible with the type of uses permitted in surrounding areas, and for the further purpose of stipulating such conditions as may be reasonable so that the basic purposes of this code shall be served." Further, the City's conditional use procedures also state that:

> *[C]ertain types of uses require special consideration prior to their being permitted in a particular district. The reasons for requiring such special consideration involves, among other things, the size of the area required for the full development of such uses, the nature of the traffic problems incidental to operation of the use, the effect such uses have on any adjoining land uses and on the growth and development of the community as a whole.*

As provided earlier in this staff report, the proposed project has received more than 30 public comments, many of which related to potential impacts to the 99W Drive-in Movie Theatre (99W Drive-in), traffic, and nearby wetlands. Regarding wetland impacts, the Applicant conducted a wetland delineation for the site that was approved by Oregon's Department of State Lands. The delineation showed that no development is proposed in the delineated wetlands (roughly the creek area). As shown in the findings elsewhere in this staff report, the only disturbance to any ecologically sensitive area will be that of two proposed stormwater pipes for which the Applicant will be required to restore disturbed areas using plantings and native soils. Further, the Applicant will be required to obtain a floodplain development permit. Regarding potential traffic impacts, The Applicant provided a transportation impact study that was reviewed by the Oregon Department of Transportation and City of Newberg's Engineering team. Both found that the impact study was adequate and that the only mitigation required was for a proportionate share of funding go to the funding of the City of Newberg's Transportation System Plan I09 project for a stoplight at E Haworth Avenue and N Springbrook Road intersection.

Regarding potential impacts to 99W Drive-in, multiple commentors expressed concern over light trespass and ambient lighting from street lights, parking area lighting, and new buildings' windows negatively impacting the viability and future of the existing operation. Located at 3110 Portland Road, the 99W Drive-in is located less than 250 feet from the subject property. The 99W Drive-in opened in 1953, and although it is not included in the City's Historic Resources Inventory as a designated historic landmark, the site was listed in the National Register of Historic Places in 2015. As noted in the Oregon State Historic Preservation Office's Historic Site Record (Attachment 4):

> *…The theatre is a distinct property type of the Modern era, which, in this case, displays modest influences of the Googie style. The elements direct the user to and into the site, setting the tone for the outdoor movie experience. The other buildings and structure are more utilitarian, supporting the functions of the theater. The theater was building by J.T. (Ted) Francis and opened July 31, 1953. The sign, ticket booth, projection booth, and concession stand are all original to the theater grounds, which cover approximately 4.5 acres…*

Regarding eligibility for listing in the National Register of Historic Places, the documentation states that it was eligible for listing based on its reflection of family entertainment trends in the post-World War II era; possessing a rare, remaining, intact example of a drive-in theater; and being an example of mid-century entertainment and car culture. Based on preliminary review, only four drive-in movie theaters continue to operate within the entire state of Oregon. Potential

impacts are discussed in findings for the conditional use permit pursuant to NMC 15.225 and elsewhere as applicable.

PRELIMINARY STAFF RECOMMENDATION: The preliminary staff recommendation is made in the absence of public hearing testimony and may be modified after the close of the public hearing. At the time this report was drafted, staff recommends the following motion:

Move to adopt Planning Commission Order 2025-03, which approves the requested conditional use permit, design review and stream corridor applications with the attached conditions of approval in Exhibit D.

PLANNING COMMISSION ORDER 2025-03

AN ORDER APPROVING CONDITIONAL USE PERMIT CUP24-0004, DESIGN REVIEW DR224-0006 AND STREAM CORRIDOR REVIEW MISC124-0018 FOR A 96-UNIT MULTIFAMILY BUILDING COMPLEX WITHIN THE COMMUNITY COMMERCIAL ZONE/SPECIFIC PLAN (C-2/SP) ON YAMHILL COUNTY TAX LOTS R3216 02017 AND R3216 02025

RECITALS

1. DMKS LLC applied for a conditional use permit with an accompanying design review and stream corridor review for construction of a 96-unit multifamily development within the Community Commercial / Specific Plan (C-2 /SP) Zone, Yamhill County tax lots R3216 02017 and R3216 02025.

2. After proper notice, the Newberg Planning Commission held a public hearing on January 9, 2025, to consider the application. The Commission considered testimony and deliberated.

3. The Newberg Planning Commission finds that the applications, as conditioned in Exhibit "D", meet the applicable Newberg Municipal Code criteria as shown in the findings in Exhibit "A", Exhibit "B" and Exhibit "C".

The Newberg Planning Commission orders as follows:

1. Conditional Use Permit Application CUP24-0004 is hereby approved, subject to the conditions contained in Exhibit "D". Exhibit "D" is hereby adopted and by this reference incorporated.

2. Design Review Application DR224-0006 is hereby approved, subject to the conditions contained in Exhibit "D". Exhibit "D" is hereby adopted and by this reference incorporated.

3. Stream Corridor Application MISC124-0018 is hereby approved, subject to the conditions contained in Exhibit "D". Exhibit "D" is hereby adopted and by this reference incorporated.

4. The findings shown in Exhibit "A" are hereby adopted. Exhibit "A" is hereby adopted and by this reference incorporated.

5. The findings shown in Exhibit "B" are hereby adopted. Exhibit "B" is hereby adopted and is by this reference incorporated.

6. The findings shown in Exhibit "C" are hereby adopted. Exhibit "C" is hereby adopted and is by this reference incorporated.

7. The overall density shall be no more than 21 dwelling units per acre on the combined tax lots of R3216 02017 and R3216 02025.

8. The overall height for all structures shall be no more than 37 feet on tax lots R3216 02017 and R3216 02025.

9. This order shall be effective on January 24, 2025, unless appealed prior to this date.

10. This order shall expire one year after the effective date above if the Applicant does not obtain building permits and start construction by that time, unless an extension is granted per Newberg Development Code 15.220.020.

11. The conditional use permit shall expire one year after the effective date above, unless an extension is granted per Newberg Development Code 15.225.100.

Adopted by the Newberg Planning Commission this 9th day of January 2025.

ATTEST:

Planning Commission Chair

Planning Commission Secretary

List of Exhibits:

Exhibit "A": Conditional Use Permit Findings

Exhibit "B": Design Review Findings

Exhibit "C": Stream Corridor and Special Flood Hazard Area Findings

Exhibit "D": Conditions of Approval

EXHIBIT "A" FOR PLANNING COMMISSION ORDER 2025-03
FINDINGS FOR CUP24-0004
Conditional Use Permit for Corner of N Springbrook Road and E Hayes Street (West Branch Apartments)

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 in Exhibit "D"

15.225.060 General conditional use permit criteria – Type III.

A conditional use permit may be granted through a Type III procedure only if the proposal conforms to all the following criteria:

A. The location, size, design and operating characteristics of the proposed development are such that it can be made reasonably compatible with and have minimal impact on the livability or appropriate development of abutting properties and the surrounding neighborhood, with consideration to be given to harmony in scale, bulk, coverage and density; to the availability of public facilities and utilities; to the generation of traffic and the capacity of surrounding streets, and to any other relevant impact of the development.

Finding: The project site, tax lots R3216 02017 and R3216 02025, are located within the Community Commercial/Specific Plan (C-2/SP) zone. Per NMC 15.302.032, which describes the purpose of each zoning district, the C-2 zone should be consistent with the commercial (COM) and mixed use (MIX) designation of the Newberg Comprehensive Plan.

The development is similar in size and operating characteristics to the apartment complex located across the creek to the east of the subject property. It has appropriate screening with the existing landscaping to the east. Developments in this area possess similar heights of approximately 30-40 feet. The proposed maximum height of any structure on the properties is 37 feet. To keep the consistency with development in the surrounding area, the maximum height for any structure shall be no more than 37 feet on tax lots R3216 02017 and R3216 02025.

Compatibility concerns related to potential lighting impacts exist due to the proximity of the 99W Drive-in Theatre (99W Drive-in) which is located across Springbrook Road to the west of the subject property. It is unclear how the proposed exterior lighting may affect the 99W Drive-in's ability to continue operation as lights may produce incompatible glare and/or additional ambient light. Additionally, as a landmark on the National Historic Register, maintaining compatibility with the 99W Drive-in is desirable to ensure that the proposed development does not negatively impact or lead to the elimination of a community institution that possesses cultural value. The application materials do not address how the proposed development's lighting will be compatible with the surrounding neighborhood. Further, the application materials do not describe lighting impacts past the property line of the subject property. Therefore, the application

materials do not show the extent to which light trespass extends beyond the subject property.

Because the extent to which the proposed development will negatively impact the surrounding neighborhood is unknown, the Applicant shall provide an updated lighting analysis and photometric plan showing that 0.0 footcandles of light trespass extend past any property line.

The Applicant shall take actions to mitigate light trespass and glare to the surrounding neighborhood including, but not limited to, the use of exterior luminaries that are fully shielded, full cut-off, and downward-facing to minimize off-site light trespass, night sky pollution and shining lights onto surrounding properties.

Street lighting may be required from the proposed development as can be seen in the findings for NMC 15.505.030(U). As a lighting analysis was not done for streetlights with the submittal. Because a street lighting analysis was not included in the application submittal, the Applicant shall provide a lighting analysis on the public improvement permit which includes:

- An analysis of street lighting along Springbrook Road and Hayes Steet frontages demonstrating that the existing lighting along the project site's frontages meet city standards or plans to install additional PGE Option A streetlights necessary to meet City standards will be required with the public works improvements permit application.

- Street lighting analysis will need to extend to the center line of the street for all frontages, unless otherwise coordinated with, or directed by, the City Engineer.

- An analysis to determine, and address any potential lighting trespass and glare onto properties on the west side of Springbrook will also be required.

The lot coverage is not dissimilar to other developments in the surrounding neighborhood that are zoned residential. The lot and parking coverage of the proposed project would be approximately 66% which does not exceed the combined maximum lot and parking coverage allowed for the adjacent High Density Residential (R-3) zone which is 70%.

The transportation impact analysis provided in the application materials indicates that the existing streets can accommodate the generation of traffic except for the N Springbrook Road/E Haworth Avenue intersection. At this location, mitigation of a proportionate share of a stoplight to be constructed at the intersection of Haworth and Springbrook as seen in the City's Transportation Plan will be required. With this mitigation, the development will have minimal impact regarding the generation of traffic. Full findings for the generation of traffic can be seen elsewhere in this staff report under findings for NMC 15.220.050(B)(10) and NMC 15.505.030(F).

The proposed use is allowed pursuant to and as discussed in the finding for NMC 15.305, but requires that the density is stated on the conditional use permit. The Springbrook Oaks Specific Plan does not specify a maximum density for residential uses in Area A pursuant to and as discussed in the finding for NMC 15.346.070(B)(8)(a). To ensure consistency with the Springbrook Oaks Specific Plan and as required by NMC 15.305, the permitted density shall be

no more than 21 dwelling units per acre on the combined two tax lots R3216 02017 and R3216 02025.

There are adequate public facilities and utilities in the surrounding neighborhood to serve the development as seen in the findings for public improvements in NMC 15.505.

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

B. The location, design, and site planning of the proposed development will provide a convenient and functional living, working, shopping or civic environment, and will be as attractive as the nature of the use and its location and setting warrants.

Finding: This site is located in the C-2/SP zone which has a variety of shopping, retail, and restaurant locations within close proximity to this development. E Portland Road (Hwy 99W) is located roughly 1000 feet to the north of the lots, which provides convenient access to infrastructure that supports working opportunities.

The proposed design of the building and site layout will provide on-site parking, outdoor common areas, and in unit storage facilities, all contributing to functional living.

The project has shown to meet the minimum required site design and building elements required for multifamily units. Including thoughtful landscaping and variation in building color. Staff find that this meets the intent to create a development that is attractive as the nature of the use and its location warrant.

This criterion is met.

C. The proposed development will be consistent with this code.

Finding: The findings in Exhibits B and C show that the proposed development can meet the applicable criteria for the Design Review and Stream Corridor requirements set forth in the Newberg Development Code subject to conditions of approval.

This criteria will be met with adherence to conditions of approval noted in Exhibits B and C.

CONCLUSION:

Based on the above findings, the project will meet the criteria required within the Newberg Development Code for Conditional Use Permits, subject to completion of the attached conditions in Exhibit “D” and staff recommends approval of the Conditional Use Permit to the Planning Commission.

EXHIBIT "B" FOR PLANNING COMMISSION ORDER 2025-03
FINDINGS FOR DR224-0006
Design Review for Corner of N Springbrook Road and E Hayes Street (West Branch Apartments)

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 CHAPTER 15.100)

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:

1. An appeal of a Type I or Type II decision: This action of the planning commission is a final decision unless appealed to the city council.

2. Conditional use permits: This action is a final decision unless appealed.

3. Planned unit developments: This action is a final decision unless appealed.

4. Substantial change to the exterior appearance of a historic landmark: This action is final unless appealed.

5. Establishment of a historic landmark: This is a final decision by the planning commission, unless appealed.

6. Establishment of a historic landmark subdistrict: This is a recommendation to the city council.

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.

10. Subdivisions, including middle housing land divisions, with certain conditions requiring them to be processed using the Type III process, pursuant to NMC 15.235.030(A).

11. Multifamily dwellings in the R-2, RP or C-4 zone not meeting the objective process requirements of NMC 15.220.060.

12. Multifamily dwellings in the R-1, R-4 or C-2 zone (conditional use permit also required).

13. Multifamily dwellings in the C-3 zone along Hancock Street (conditional use permit also required).

Finding: The application was deemed to be a Type III application per NMC 15.100.050(B)(12), as it is a multi-family dwelling in a C-2/SP zone and a decision shall be made by the Planning Commission with a conditional use permit. This is in conjunction with the Type III Conditional Use Permit and Type I Stream Corridor Application processed collectively under 15.100.080(B). A Notice of Decision shall be provided to the Applicant and all others entitled to notice including anyone providing written or oral testimony.

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.

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 Type III Conditional Use Permit and Design Review are decided by the Planning Commission as it does not require an adoption of an ordinance for approval. City Council would only hear the application if the Planning Commission's decision was appealed. The Planning Commission will hold a public hearing on this application and proper notice has been given as seen elsewhere in this staff report.

This criterion is met.

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

Finding: The Applicant mailed and posted notice complying with NMC 15.100.200 on December 6, 2024. An affidavit of noticing was received by the Community Development Department on December 6, 2024.

Because the Applicant provided noticing pursuant to the requirements of NMC 15.100.200, the criteria is met.

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

Finding: The Planning Commission may attach conditions necessary for compliance.

G. If the application is approved, the director shall issue a building permit when the Applicant has complied with all of the conditions and other requirements of this code.

Finding: If the application were to be approved, building permits would be required and the Applicant would need to demonstrate all conditions were met to get approval.

H. If a Type III application is denied, or if the Applicant wishes to make substantive modifications to an approved application, the Applicant may modify the application after the planning commission hearing and request a new planning commission hearing to consider the application. An application so modified shall be considered a new application for purposes of the 120-day time limit for processing applications in accordance with NMC 15.100.100 and state statutes. The Applicant shall acknowledge in writing that this is a new application for purposes of the 120-day rule. The city council shall establish a fee for such a reconsideration or modification by resolution. Application of this provision is limited to three times during a continuous calendar year. [Ord. 2913 § 2 (Exh. B § 3), 4-17-23; Ord. 2912 § 1 (Exh. A § 3), 5-1-23; Ord. 2813 § 1 (Exh. A § 5), 9-5-17; Ord. 2590, 11-6-03; Ord. 2565, 4-1-02; Ord. 2451, 12-2-96. Code 2001 § 151.024.]

Finding: If the application were to be denied or the Applicant wishes to make substantive modifications, they could request a new Planning Commission hearing to consider the application, but it would be treated as a new application.

B. FINDINGS FOR SITE DESIGN REVIEW APPLICATIONS (NMC CHAPTER 15.220)

Chapter 15.220 SITE DESIGN REVIEW

15.220.020 Site design review applicability.

A. Applicability of Requirements. Site design review shall be required prior to issuance of building permits or commencement of work for all improvements noted below. Site design review permits shall be processed as either Type I or Type II, as noted below.

1. Type I.

[…]

2. Type II.

[…]

3. Type III.

a. Multifamily dwellings in the R-2, RP or C-4 zone not meeting the objective process requirements of NMC 15.220.060.

b. Multifamily dwellings in the R-1, R-4 or C-2 zone (conditional use permit also required).

c. Multifamily dwellings in the C-3 zone along Hancock Street (conditional use permit also required).

Finding: The proposed project requests construction of a 96-unit multi-family dwelling in the C-2/SP zone which also requires a conditional use permit. The Applicant has applied for both conditional use permit and design review.

The criterion is met.

15.220.050 Criteria for design review.
[…]

B. Type II or III. The following criteria are required to be met in order to approve a Type II or III design review request:

1. Design Compatibility. The proposed design review request incorporates an architectural design which is the same as existing or proposed uses and structures in the surrounding area. This shall include, but not be limited to, building architecture, materials, colors, roof design, landscape design, and signage.

2. Parking and On-Site Circulation. Parking areas shall meet the requirements of NMC 15.440.010. Parking studies shall be required to determine if adequate parking and circulation are provided for uses not specifically identified in NMC 15.440.010. Provisions shall be made to provide on-site circulation without using the public streets as part of the parking lot circulation pattern. Parking areas shall be designed so that vehicles can efficiently enter and exit the public streets with a minimum impact on the functioning of the public street.

3. Setbacks and General Requirements. The proposal shall comply with NMC 15.415.010 through 15.415.060 dealing with height restrictions, public access, residential development standards and home occupations; and NMC 15.405.010 through 15.405.040 and 15.410.010 through 15.410.070 dealing with setbacks, coverage, vision clearance, and yard requirements.

4. Landscaping Requirements. The proposal shall comply with NMC 15.420.010 dealing with landscape requirements and landscape screening.

5. Signs. Signs shall comply with NMC 15.435.010 et seq. dealing with signs.

6. Manufactured Dwelling, Mobile Home and RV Parks. Manufactured dwelling and mobile home parks shall also comply with the standards listed in NMC 15.445.075 through 15.445.100 in addition to the other clear and objective criteria listed in this

section. RV parks also shall comply with NMC 15.445.170 in addition to the other criteria listed in this section.

7. Zoning District Compliance. The proposed use shall be listed as a permitted or conditionally permitted use in the zoning district in which it is located as found in NMC 15.305.010 through 15.336.020. Through this site review process, the director may make a determination that a use is determined to be similar to those listed in the applicable zoning district, if it is not already specifically listed. In this case, the director shall make a finding that the use shall not have any different or more detrimental effects upon the adjoining neighborhood area than those specifically listed.

8. Subdistrict Compliance. Properties located within subdistricts shall comply with the provisions of those subdistricts located in NMC 15.340.010 through 15.348.060.

9. Alternative Circulation, Roadway Frontage Improvements and Utility Improvements. New developments shall provide for access for vehicles and pedestrians to adjacent properties which are currently developed or will be developed in the future. This may be accomplished through the provision of local public streets or private access and utility easements. At the time of development of a parcel, provisions shall be made to develop the adjacent street frontage in accordance with city street standards and the standards contained in the transportation plan. At the discretion of the city, these improvements may be deferred through use of a deferred improvement agreement or other form of security.

10. Traffic Study Improvements. If a traffic study is required, improvements identified in the traffic study shall be implemented as required by the director. [Ord. 2913 § 2 (Exh. B § 6), 4-17-23; Ord. 2889 § 2 (Exh. B § 6), 12-6-21; Ord. 2763 § 1 (Exh. A § 7), 9-16-13; Ord. 2747 § 1 (Exh. A § 5), 9-6-11; Ord. 2451, 12-2-96. Code 2001 § 151.194.]

Findings: The review criteria for NMC 15.220.050(B) are addressed as noted below:

1. **Design Compatibility:** The proposed project is a multi-family residential building within the C-2 Community Commercial zone. The current lots are a vacant grass field with some shrubs and trees on the east end of the property in or near the creek. The surrounding uses to these lots are an eclectic mix of commercial (Fred Meyer and Drive-In) to the northeast and northwest, a community building (Fernwood Grange) that is currently unincorporated to the south, a mix of apartments and single family homes to the east and light industrial to the west (PGE Contractor Yard). The Applicant's narrative states that the proposed multi-family building has been designed to have a predominant architectural style of a contemporary aesthetic across both commercial and residential use types that are complementary to the surrounding area. The design is also fairly similar to the apartments located to the east and across the creek from the proposed development.

   In regard to materials, colors, and landscape design the Applicant's narrative and design drawings show that this building will incorporate residential details to meet the requirements of NMC 15.220.060. Some of those elements include a hip roof with eaves, lap siding, and changes in color to create variation.

This criterion is met.

2. **Parking and On-Site Circulation**: See findings for NMC 15.440 and NMC 15.505 which are provided elsewhere in this staff report.

3. **Setbacks and General Requirements:** See findings for NMC 15.415.010 through 15.415.060 dealing with height restrictions and public access; and NMC 15.405.010 through 15.405.040 and 15.410.010 through 15.410.070 dealing with setbacks, coverage, vision clearance, and yard requirements which are provided elsewhere in this staff report.

4. **Landscaping Requirements:** See findings for NMC 15.420.010 through NMC 15.420.020 dealing with landscape requirements and landscape screening which is provided elsewhere in this staff report.

5. **Signs:** See findings for 15.435.010 et seq. dealing with sign requirements which are provided elsewhere in this staff report.

6. **Manufactured Dwellings, Mobile Homes, and RV Parks:** The proposed building is not a Manufactured Dwelling, Mobile Home, or RV Park. This criterion is not applicable.

7. **Zoning District Compliance:** See findings for NMC 15.305, NMC 15.340 and NMC 15.342 which are provided elsewhere in this staff report.

8. **Subdistrict Compliance:** The subject property is within the Airport Overlay Subdistrict and Stream Corridor Overlay Subdistrict. See findings for NMC 15.340.050 and NMC 15.342 which are provided elsewhere in this staff report.

9. **Alternative Circulation, Roadway Frontage Improvements, and Utility Improvements:**

   The submitted materials show that the project site is served by existing public improvements. Most required public improvements were constructed as part of a previous project. New public roadways and utility improvements are not proposed, and except for street lighting and sidewalks, none are required.

   The plans do show proposed driveway locations, existing and proposed water service laterals and existing wastewater service laterals at the site. All improvements reviewed under this application are identified in the NMC 15.505 section specific to them and are conditioned to comply with the Public Works Design and Construction Standards in those sections. Evaluations of other utility and circulation improvements of the project are also identified in sections NMC 15.430 and NMC 15.440 respectively.

   This criterion will be met with adherence to standards within NMC 15.430, 15.440, and 15.505 which are provided elsewhere in this staff report.

10. **Traffic Study Improvements:**

The submitted materials include a traffic study dated July 8, 2024. The traffic study identified that the N Springbrook Road/E Haworth Avenue intersection is functioning below the City's level of service standard and that trips from the proposed development would continue to degrade the performance of the existing stop-controlled intersection.

Project I09 in the City's 2016 Transportation System Plan (TSP) calls for installing a traffic signal and left turn lanes on E Haworth, at the N Springbrook Road/E Haworth Avenue intersection with an estimated cost of $400,000 (2016 dollars). The traffic study notes that 8 AM trips out of a total 1259 AM trips and 9 PM trips out of a total of 1589 PM trips are being added to the Springbrook Road/Haworth Avenue intersection as a direct result of the development. A Traffic Impact Fee was developed to capture the proportional impact of the development on public facilities and services.

Because the Applicant's development is adversely impacting the N Springbrook Road/E Haworth Avenue intersection, the Applicant will be required to pay a Traffic Impact Fee for the Springbrook Road/Haworth Avenue intersection which is being assessed based on the proportional impact of the development on public facilities and services. The following formula was used to develop a Traffic Impact Fee to capture the proportional impact of the development based on the most significant AM or PM proportional volume contribution:

(8 AM trips directly proportional to the development)/(1259 AM peak hour total trips through the intersection)*($400,000 for the TSP cost of an intersection upgrade) = $2,542 Traffic Impact Fee.

The Traffic Impact Fee of $2,542 is to be paid at the time of, or prior to, building permit issuance.

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

15.220.060 Additional requirements for multifamily residential projects.

The purpose of this section is to ensure that multifamily residential containing five or more units meet minimum standards for good design, provide a healthy and attractive environment for those who live there, and are compatible with surrounding development.

A. Review Process. Two review processes are available for review of multifamily residential development: objective and discretionary. An Applicant may choose which process to use. The objective process uses clear and objective standards that do not require the use of discretionary decision-making. The discretionary process uses design guidelines that are more subjective in nature and are intended to provide the Applicant with more design flexibility. Regardless of the review process, the Applicant must demonstrate how the applicable standards or guidelines are being met.

As part of the discretionary site design review process, an Applicant for a new multifamily residential project must demonstrate that some of the following site and building design elements, each of which has a point value, have been incorporated into the design of the project. At least 14 points are required for smaller multifamily projects with five to eight units and at least 20 points are required for multifamily projects with nine or more units. For more

information and illustrations of each element, refer to the Newberg Residential Development Design Guidelines (July 1997).

A project may be reviewed using only one of the two review processes. For example, a project may not use some of the objective standards and some of the discretionary guidelines for one application. Pursuant to Chapters 15.100 and 15.220 NMC:

1. A Type II review is required for:

a. Projects in zones R-2, R-3, RP, AR, C-3 (except along Hancock Street), C-4, and I following the objective process.

b. Projects in zones R-3, AR, C-3 (except along Hancock Street), and I following the discretionary process.

2. A Type III site design review is required for:

a. Projects in zones R-2, RP and C-4 following the discretionary process.

b. Projects in zones R-1, R-4, C-2, C-3 (Hancock Street) (conditional use permit also required).

B. Design Guidelines and Standards. Applicable guidelines and standards for multi-unit and congregate housing are located in Table 15.220.060(B). These standards should not be interpreted as requiring a specific architectural style.

Finding: Because the project is in the C-2 zone, it is subject to the Type III review process pursuant to NMC 15.220.060(A)(2). Per the Applicant's materials, the Applicant has chosen to use the *discretionary process* for the additional requirements for muti-family developments. Because the application materials indicate selection of the *discretionary process* and only one of the two available processes may be used during review, the project must demonstrate that some of the following site and building design elements - each of which has a point value - have been incorporated into the design of the project.

As the project is over nine (9) units, a total of twenty (20) points are required for approval. Findings for the design elements and point scoring can be seen in the 4th column in the table below in NMC 15.220.060(B).

Table 15.220.060(B): Multifamily Residential Design Guidelines and Standards

Design Element	*Design Guideline (Discretionary Process) Projects with 5 – 8 dwelling units must obtain 14 points, projects with 9 or more dwelling units must obtain 20 points.*	**Findings For NMC 15.220.060(B)**	**Points Scored by Project**
Site Design Elements			
1. Private and Shared Recreation Areas	***Consolidate green space to increase visual impact and functional utility. This applies to larger projects which collectively have a significant amount of open space areas which can be consolidated into children's play areas, gardens, and/or dog-walking areas (three points).***	The project proposes two large open space amenity areas on both tax lots R3216 02017 and R3216 02025 which are intended to be either playground or other resident amenities. This criterion is met and receives three (3) points.	3
2. Site Vegetation	***Preserve existing natural features, including topography, water features, and/or native vegetation (three points).***	The existing natural features near the creek are being preserved and only minimal impacts for stormwater pipes will intrude into natural areas. Current street trees on N Springbrook Road will also be maintained. This criterion is met and receive three (3) points.	3
3. Building Setbacks	***Use the front setback to build a street edge by orienting building(s) toward the street with a relatively shallow front yard (12 to 15 feet for two-story buildings) to create a more "pedestrian-friendly" environment (three points).***	The front setbacks for all buildings proposed are at least 20 feet as seen in the site plan on sheet P06. This criterion is not met and receives zero (0) points.	0
4. Vehicle Parking	***Place parking lots to the sides and/or back of projects so that front yard areas can be used for landscaping and other "pedestrian-friendly" amenities (three points).***	There is parking towards the front on N Springbrook Road as seen on sheet P06 with only the minimal required landscaping which is not used for pedestrian amenities. This criterion is not met and receives zero (0) points.	0

Design Element	*Design Guideline (Discretionary Process) Projects with 5 – 8 dwelling units must obtain 14 points, projects with 9 or more dwelling units must obtain 20 points.*	**Findings For NMC 15.220.060(B)**	**Points Scored by Project**
5. Multiple Building Groupings	***Create "outdoor" rooms in larger projects by grouping buildings to create well-defined outdoor spaces (two points).***	Outdoor plaza/courtyard areas are provided between Buildings B and C as seen on the Applicant's Site Plan on sheet P06. Buildings are logically grouped together within the site while meeting other code requirements. This criterion is met and receives two (2) points.	2
6. Landscaping	***Provide good-quality landscaping. Provide coordinated site landscaping sufficient to give the site its own distinctive character, including the preservation of existing landscaping and use of native species (two points).***	The Applicant's landscape plan on sheet P11 shows quality landscaping including trees, shrubs and groundcover that will also complement the existing vegetation near the creek that will remain in place. This criterion is met and receives two (2) points.	2
7. Parking Vegetation Buffer	***Landscape at the edges of parking lots to minimize visual impacts upon the street and surrounding properties (two points).***	Landscaping is provided at the edge of all parking lots as seen on sheet P11 which will help to minimize the visual impacts on the street and surrounding properties. This criterion is met and receives two (2) points.	2
8. Street Trees	***Use street trees and vegetative screens at the front property line to soften visual impacts from the street and provide shade (one point).***	There are ample street trees as seen on the Applicant's landscape plan on sheet P11 that will soften visual impact and provide shade. This criterion is met and receives one (1) point.	1
9. Outdoor Furnishings	***Use site furnishings to enhance open space. Provide communal amenities such as benches, playground equipment, and fountains to enhance the outdoor environment (one point).***	The Applicant's narrative talks about constructing a covered patio or similar amenity in the shared open space north of Building A, but there is conflicting information within plan sheets of whether a playground would be built or not. No alternate or additional plans submitted show benches, playground equipment, fountains, or anything of that nature.	0

Design Element	***Design Guideline (Discretionary Process) Projects with 5 – 8 dwelling units must obtain 14 points, projects with 9 or more dwelling units must obtain 20 points.***	**Findings For NMC 15.220.060(B)**	**Points Scored by Project**
		Therefore, this criterion is not met and receives zero (0) points.	
10. Fencing	***Keep fences neighborly by keeping them low, placing them back from the sidewalk, and using compatible building materials (one point).***	The Applicant is not proposing fences on the property other than in their storage area. Therefore, this criterion is not applicable and can't receive any points, resulting in zero (0) points received.	0
11. Entrance Building Materials	***Use entry accents such as distinctive building or paving materials to mark major entries to multifamily buildings or to individual units (one point).***	The Applicant's materials in their site plan on sheet P06 and Architectural Drawings do not show distinctive building or paving materials to mark major entries to multifamily buildings or to individual units. Therefore, this criterion is not met and receives zero (0) points.	0
12. Outdoor Lighting	***Use appropriate outdoor lighting which enhances the nighttime safety and security of pedestrians without causing glare in nearby buildings (one point).***	While the Applicant provided an exterior lighting plan, it does not detail how the safety and security of pedestrians would work and does not mention how the lights would not cause glare. Therefore, this criterion is not met and receives zero (0) points.	0

Design Element	***Design Guideline (Discretionary Process) Projects with 5 – 8 dwelling units must obtain 14 points, projects with 9 or more dwelling units must obtain 20 points.***	**Findings For NMC 15.220.060(B)**	**Points Scored by Project**
Building Design Elements			
1. Building Orientation and Entrances	***Orient buildings toward the street. For attached single-family and smaller multifamily projects, this means orienting individual entries and porches to the street. In larger projects with internal circulation and grounds, this means that at least 10 percent of the units should have main entries which face the street rather than be oriented toward the interior (three points).***	The Applicant's provided plans show all buildings having entries oriented towards the interior as seen in sheet P06. Therefore, this criterion is not met and receives zero (0) points.	0
2. Building Height	***Respect the scale and patterns of nearby buildings by reflecting the architectural styles, building details, materials, and scale of existing buildings (three points).***	The design as seen in the Applicant's architectural drawings are like those in the near vicinity including the apartment (Oak Grove) across the creek from the development that has metal roofing, the 3 stories and has multiple buildings on the property. This criterion is met and receives three (3) points.	3
3. Building Articulation	***Break up large buildings into bays by varying planes at least every 50 feet (three points).***	As seen in the Applicant's provided architectural details, the building planes are broken up at least every 50 feet to avoid continuous wall planes. This criterion is met and receives three (3) points.	3
4. Building Facade Design	***Provide variation in repeated units of large multifamily projects so that these projects have recognizable identities. Elements such as color; porches, balconies, and windows; railings; and building materials and form, either alone or in combination, can be used to create this variety (three points).***	As seen in the Applicant's provided architectural details, variation in the building façade is provided by changes in material types and color and varying window sizes are provided. This criterion is met and receives three (3) points.	3

5. Building Materials	***Use some or all of the following materials in new buildings: wood or wood-like siding applied horizontally or vertically as board and batten; shingles, as roofing, or on upper portions of exterior walls and gable ends; brick at the base of walls and chimneys; wood or wood-like sash windows; and wood or wood-like trim (one point for each material described above).***	The Applicant shows that the siding would be fiber cement lap siding in their architectural plans as well as a standing seam metal roofing. Therefore, this criterion is not met and receives zero (0) points.	0
6. Architectural Elements	***Incorporate architectural elements of one of the city's historical styles (Queen Anne, Dutch colonial revival, colonial revival, or bungalow style) into the design to reinforce the city's cultural identity. Typical design elements which should be considered include, but are not limited to, "crippled hip" roofs, Palladian-style windows, roof eave brackets, dormer windows, and decorative trim boards (two points).***	The Applicant did not incorporate any of the City's historical styles into their development. Therefore, this criterion is not met and receives zero (0) points.	0
7. Carports and Garages	***Keep garages and carports secondary to the building by placing them to the side or back of units and/or using architectural designs, materials, and landscaping to buffer visual impacts from the street (two points).***	The Applicant is not proposing garages or carports as part of the project. Therefore, this criterion is not applicable and cannot receive any points, resulting in zero (0) points received.	0
8. Front Porches	***Provide a front porch at every main entry as this is both compatible with the city's historic building pattern and helps to create an attractive, "pedestrian-friendly" streetscape (two points).***	As seen in the Applicant's provided architectural drawings and site plan, there are no front porches proposed for any main entry. Therefore, this criterion is not met and receives zero (0) points.	0
9. Roofs	***Use sloped roofs at a pitch of 3:12 or steeper. Gable and hip roof forms are preferable (two points).***	A gable and hip roof are not being proposed for this project. The sloped roof is approximately 1.5:12 pitch which is gentler than 3:12 pitch. Therefore, this criterion is not met and receives zero (0) points.	0

Finding: The total points scored from the discretionary process are 22, which is greater than the 20 points required to meet the discretionary standards for multi-family dwellings. Therefore, the criteria for the additional requirements for multi-family dwellings are met.

15.220.070 Additional requirements for development in the C-2 zoning district.

The purpose of this section is to ensure that development in the C-2 zoning district is designed to promote pedestrian and bicycle uses and improve aesthetics and compatibility. An Applicant for a new development or redevelopment within the C-2 zoning district, which is subject to the site design review process, must demonstrate that the following site and building design elements have been incorporated into the design of the project. Exceptions to these additional development requirements may be granted if the requirements would result in construction that is out of character with surrounding development. Applicants for redevelopment of a designated landmark will not be subject to these additional requirements, except for requirements regarding parking and service drives.

A. Building Entrances. Each building on a lot shall have a primary pedestrian entrance oriented to the primary street. "Oriented to a street" means that the building entrance faces the street or is connected to the street by a direct and convenient pathway not exceeding 60 feet in length. "Primary street" means the street which has the highest estimated volume of pedestrian traffic. This requirement does not apply to buildings that are located behind other buildings on the lot such that 50 percent or more of their building frontage is blocked by the front building, as measured by sight lines that are perpendicular to the street right-of-way. Such rear buildings shall have a primary entrance oriented to an internal sidewalk or pedestrian pathway system which is internally connected and provides a connection to the primary street.

B. Parking and Service Drives. No off-street parking or service drives shall be placed within the required front yard setback. No off-street parking shall be placed between the front property line of the primary street, as defined in subsection (A) of this section, and the building. This requirement does not apply to buildings that are located behind other buildings on the lot such that 50 percent or more of their building frontage is blocked by the front building, as measured by sight lines that are perpendicular to the street right-of-way.

C. Exceptions. The review body may approve exceptions to the above, provided there are no reasonable alternatives that would allow access to or parking on the lot.

D. Building Mass. Where building elevations are oriented to the street in conformance with subsection (A) of this section, architectural features such as windows, pedestrian entrances, building offsets, projections, detailing, change in materials or similar features, shall be used to break up and articulate large building surfaces and volumes.

E. Corner Lots. Buildings on corner lots shall have their primary entrance oriented to the street corner, or within 40 feet of the street corner (i.e., as measured from the lot corner). In this case, the street corner shall provide an extra-wide sidewalk or plaza area with landscaping, seating or other pedestrian amenities. The building corner shall provide architectural detailing or beveling to add visual interest to the corner.

F. Pedestrian-Scale Building Entrances. Recessed entries, canopies, and/or similar features shall be used at the entries to buildings in order to create a pedestrian scale.

G. Windows.

1. On commercial building facades facing a public street, windows shall comprise a minimum of 40 percent of the ground floor facade. For large-scale buildings and developments meeting the standards under subsection (H) of this section, windows shall comprise a minimum of 20 percent of the ground floor facade.

2. For large-scale buildings and developments meeting the standards under subsection (H) of this section, 50 percent of all required window area shall allow view into an active space. An "active space" is defined as any area within a building that is used for shopping, dining, office space, and so forth. Merchandise display windows with displays that change at least semi-annually shall be considered an active space. Examples of areas that are considered nonactive spaces are storage and mechanical equipment areas, and windows that are obscured by shelving or material affixed to the window.

Findings: The additional design review requirements for the C-2 zone do not apply to this project as it is required to meet the additional requirements for multi-family dwellings (NMC 15.220.060) instead that otherwise conflict with this code section.

This criterion is not applicable.

C. FINDINGS FOR ZONING DISTRICTS (NMC DIVISION 15.300)

Chapter 15.305 ZONING USE TABLE

15.305.020 Zoning use table – Use districts.

#	Use	C-2	Notes and Special Use Standards
Def.	*Dwelling, Multifamily*	*C(4)*	*Subject to lot or development site area requirements of NMC 15.405.010*
(4) The permitted density shall be stated on the conditional use permit.			

Finding: The proposed use of a multi-family dwelling is allowed in the C-2 district with a conditional use permit. Newberg's Comprehensive Plan identifies target residential development densities for areas with a residential land use. However, because the subject property is zoned C-2 and has a Comprehensive Plan land use designation of Commercial (COM), it does not possess a targeted residential density.

THE PROPOSED DENSITY FOR THE DEVELOPMENT CAN BE SEEN IN THE FINDING FOR NMC 15.225.060(A) BECAUSE THE PERMITTED DENSITY IS RELATED TO THE APPROVAL OF THE DEVELOPMENT CONDITIONAL USE PERMIT AND ITS COMPATIBILITY WITH THE SURROUNDING AREA.

This criterion is met.

Chapter 15.340 AIRPORT OVERLAY (AO) SUBDISTRICT

[…]

15.340.050 Limitations.

A. ***To meet the standards and reporting requirements established in FAA Regulations, Part 77, no structure shall penetrate into the airport imaginary surfaces as defined in this code except as provided in NMC 15.340.030(B).***

B. ***High density public uses as defined in this code shall not be permitted in the airport approach safety zone or the displaced threshold approach surface zone.***

C. ***Following July 1990, if FAA funds are used by the city to improve or enhance the airport, new structures, buildings and dense uses shall be prohibited in the runway protection zone consistent with federal requirements.***

D. ***Whenever there is a conflict in height limitations prescribed by this overlay zone and the primary zoning district, the lowest height limitation fixed shall govern; provided, however, that the height limitations here imposed shall not apply to such structures customarily employed for aeronautical purposes.***

E. ***No glare-producing materials shall be used on the exterior of any structure located within the airport approach safety zone.***

F. ***In noise-sensitive areas (within 1,500 feet of an airport or within established noise contour boundaries of 55 Ldn and above for identified airports) where noise levels are a concern, a declaration of anticipated noise levels shall be attached to any building permit or development approval. In areas where the noise level is anticipated to be 55 Ldn and above, prior to issuance of a building permit for construction of noise-sensitive land use (real property normally used for sleeping or normally used as schools, churches, hospitals, or public libraries) the permit Applicant shall be required to demonstrate that the indoor noise level will not exceed 55 Ldn. The director will review building permits for noise-sensitive developments.***

Findings: The City of Newberg's records indicate that the subject property is located in the Airport Inner Horizontal Surface associated with Sportsman Airpark. The location of the proposed structure and building height of approximately 37 feet does not extend into the airport imaginary surface height limit of approximately 314 feet. The property is over 2,000 feet away from the airport, which is outside the noise-sensitive areas.

This criterion is met.

CHAPTER 15.342 STREAM CORRIDOR OVERLAY (SC) SUBDISTRICT

15.342.010 Purpose.

The purpose of the stream corridor (SC) overlay subdistrict is to implement the goals and policies of the comprehensive plan relating to open space, scenic, and natural resources which are intended to ". . . ensure that adequate land shall be retained in permanent open space use and that natural scenic and historic resources are protected." Furthermore, this subdistrict is intended to ". . . protect, conserve, enhance, and maintain the Willamette River Greenway." The subdistrict allows for a balance of protection of open space, scenic and natural resources and environmentally sensitive development. The designation of lands within this subdistrict is

used to provide reasonable regulation of development in or adjacent to stream corridors. This subdistrict does not provide for or authorize public access to private properties designated within this subdistrict. Additionally, the provisions of this subdistrict do not provide measures for the public acquisition of private property. [Ord. 2451, 12-2-96. Code 2001 § 151.465.]

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.]

Findings: The stream corridor overlay regulations are applicable to these properties as it is on a portion of both tax lots R3216 02017 and R3216 2025 on the eastern edge and new structures and grading are proposed on site including stormwater pipes into the stream corridor including the neighboring tax lot R3216 02024. All findings for the stream corridor can be found in Exhibit C – Stream Corridor Overlay and Special Flood Hazard Area Findings.

CHAPTER 15.343 AREAS OF SPECIAL FLOOD HAZARD OVERLAY (FHO)

15.343.010 Purpose.

A. It is the purpose of this chapter to promote the public health, safety, and general welfare, and to minimize public and private losses due to flood conditions in specific areas by provisions designed:

1. To protect human life and health;

2. To minimize expenditure of public money and costly flood control projects;

3. To minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;

4. To minimize prolonged business interruptions;

5. To minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets, and bridges located in areas of special flood hazard;

6. To help maintain a stable tax base by providing for the sound use and development of areas of special flood hazard so as to minimize future flood blight areas;

7. To ensure that potential buyers are notified that property is in an area of special flood hazard; and

8. To ensure that those who occupy the areas of special flood hazard assume responsibility for their actions.

B. In order to accomplish its purposes, this chapter includes methods and provisions for:

1. Restricting or prohibiting uses which are dangerous to health, safety, and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities;

2. Requiring that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;

3. Controlling the alteration of natural floodplains, stream channels, and natural protective barriers, which help accommodate or channel flood waters;

4. Controlling filling, grading, dredging, and other development which may increase flood damage;

5. Preventing or regulating the construction of flood barriers which will unnaturally divert flood waters or may increase flood hazards in other areas;

6. Coordinating and supplementing the provisions of the State Building Code with local land use and development ordinances. [Ord. 2719 § 2 (Exh. B), 3-1-10. Code 2001 § 151.481.]

15.343.020 General provisions.

A. Lands to Which This Chapter Applies. This chapter shall apply to all areas of special flood hazard within the jurisdiction of Newberg, Oregon, as designated in the Flood Insurance Study for Yamhill County and Incorporated Areas and on the Federal Emergency Management Agency (FEMA) flood insurance rate maps (FIRM) dated March 2, 2010.

Findings: The Areas of Special Flood Hazard Overlay Subdistrict regulations are applicable to these properties as it is on a portion of both tax lots R3216 02017 and R3216 2025 on the eastern edge and stormwater pipes and very minor amounts of grading are proposed within the Special Flood Hazard Area. All findings for the Areas of Special Flood Hazard Overlay Subdistrict can be found in Exhibit C – Stream Corridor Overlay and Special Flood Hazard Area Findings

CHAPTER 15.346 SPECIFIC PLAN (SP) SUBDISTRICT

15.346.010 Purpose.

The purpose of the SP subdistrict is to allow the development and approval of specific plans in the city. A specific plan is a master plan applied to one or more parcels in order to coordinate

and direct development in terms of transportation, utilities, open space, and land use. The purpose is also to streamline the development process and encourage development according to the specific plan. Specific plans are intended to promote coordinated planning concepts and pedestrian-oriented mixed use development. [Ord. 2451, 12-2-96. Code 2001 § 151.505.]

Findings: The City of Newberg's zoning maps indicate that the subject properties are located in the Springbrook Oaks Specific Plan and thus must meet all the requirements of that Specific Plan. Findings for the Specific Plan can be seen below in the staff report.

[…]

15.346.070 Specific plan development standards.

Development standards for specific plans are listed below. The standards shall be utilized in conjunction with the specific plan adopted as an exhibit to the SP overlay subdistrict. This section is intended to be amended as new specific plans are adopted.

[…]

B. Springbrook Oaks Specific Plan.

1. Report Adopted. The Springbrook Oaks specific plan dated August 2, 1999, and amended August 2, 1999, October 16, 2006, August 6, 2018, and June 7, 2021, is adopted by reference. The development standards listed in this section are intended to implement the policies of the Springbrook Oaks specific plan. Development of Springbrook Oaks shall follow the standards of this code section as well as the policies of the plan. If a conflict exists between the Springbrook Oaks specific plan policies and the development code, the Springbrook Oaks specific plan shall govern.

2. Permitted Uses and Conditional Uses. Eight development areas have been established with corresponding zones within the Springbrook Oaks specific plan. The permitted and conditional uses allowed under the SP subdistrict shall be the same as those uses permitted in the base zoning districts. Exceptions to this standard include the following:

a. A golf course shall be permitted within the M-1 area, adjacent to the stream corridor; and

b. Densities and lot sizes shall be in accordance to the standards established in subsection (B)(8)(a) of this section.

c. In addition to the permitted uses in the RP zone, area F-1 permits:

i. Medically related industrial uses, such as medical laboratories, manufacture and wholesale distribution of medical equipment, medical research facilities, and laundries and similar services for medical facilities.

ii. Medically related retail uses, such as a pharmacy, gift shop or cafe (limited to 3,000 square feet), or medical appliance sale and rental store.

iii. Barber and beauty shops.

Area F-1 permits residential uses.

d. Area F-2 does not permit single-family dwellings.

e. Areas shown in the bypass corridor overlay (LUBCO) district are subject to the standards of that overlay.

Finding: The site, tax lots R3216 02017 and R3216 02025, are in the C-2 zone and Area A of the Springbrook Oaks Specific Plan. The underlying base zone allows multi-family dwellings in the C-2 district with a conditional use permit.

3. Street and Pedestrian Pathway Standards. Street and pedestrian pathway development standards are established in NMC 15.505.010 et seq. and NMC 15.505.210 et seq.

Finding: Streets and pedestrian pathways are addressed elsewhere in this staff report for NMC 15.505 Public Improvement Standards.

4. Residential Design. Multiple, nonrepetitive home designs (detached dwelling units) shall be used in the development. No two identical designs shall be located closer than every three lots on any street frontage.

Finding: There are only two lots for the proposed multi-family dwelling. This criterion does not apply.

5. Setbacks. Figures 1 and 2 of the Springbrook Oaks specific plan identify special setback standards that apply to the property.

6. Residential, Professional and Industrial Setbacks.

a. Residential.

i. Development Areas A through F Setbacks – Figure 1 of the Springbrook Oaks Specific Plan. Minimum and maximum front setbacks for structures shall be met in development areas A through F of the Springbrook Oaks specific plan. Residential structures shall be no closer nor further from the front property line than as follows:

	Minimum	*Maximum*
Porch	***10'***	***25'***
Dwelling	***15'***	***25' (without porch)***
Cottage cluster dwelling	***10'***	***25' (without porch)***
Garage or carport	***20'***	***None***

The front of a garage may not be closer to the property line than the front of the residential structure unless each fronts on different streets.

Finding: The proposed development is in Development Area A. Buildings meet the minimum and maximum setback for dwellings. There are no proposed garages or carports for the development. Setbacks were addressed elsewhere in the staff report for findings in NMC 15.410.020.

This criterion is met.

[…]

iii. Interior Setbacks. Interior yard setbacks shall be the same as the base zone. An exception to this standard is made for single-family attached housing, where no interior setback is required for the zero lot line. Another exception is development within the R-P zones of area F which may have a five-foot interior setback.

Finding: The proposed development is in Development Area A where all interior setbacks default to the base zone which is C-2. The C-2 zoning district has no interior setback requirement for the subject property as it only abuts commercial or industrial zoned property as seen in the findings for yard setbacks in NMC 15.410 provided elsewhere in the staff report.

This criterion is met.

b. Professional and Industrial Setbacks. Except as set forth in subsection (B)(5) of this section, setbacks for professional and industrial developments within development areas A, F, and G of the Springbrook Oaks specific plan shall be set by the base zone or as otherwise required in this code.

Finding: The proposed development is not a professional or industrial development. As such, this criterion is not applicable.

c. Building Heights. Building height limits shall be the same as those in the base zone. An exception is for areas F-1 and F-2, which shall have a maximum building height of 50 feet.

Finding: The proposed development is in Development Area A, so all height limits default to the base zone, which is C-2. The C-2 zoning district has no maximum building height requirement where it only abuts commercial or industrial zoned property. Findings for building and height design standards pursuant to NMC 15.415 are provided elsewhere in this staff report.

This criterion is met

7. Street Trees. Street trees shall be provided adjacent to all public rights-of-way abutting or within a subdivision or partition. Street trees shall be installed in accordance with the provisions of NMC 15.420.010(B)(4). Trees shall be selected from the street tree species

list authorized by the city council. Preference should be given towards the selection of oak species to maintain the character of the development's namesake: Springbrook Oaks.

Finding: Street trees are proposed in E Hayes Street as N Springbrook already has street trees planted. The application materials state that Forest Green Oaks will be planted in the planter strip on E Hayes Street. Additionally, see findings for street trees within landscape standards pursuant to NMC 15.420.010(B)(4).

This criterion is met

8. Residential Density. Residential density is governed by the SP overlay subdistrict.

a. The following development standards shall be applied to Springbrook Oaks for single-family detached dwellings and duplex dwellings (please refer to Graphic VI for map of development areas A through H of the Springbrook Oaks specific plan). See Appendix A, Figure 20. These standards shall supersede any density or density transfer standards established in the development code.

Area	*Zone*	*Minimum Lot Size (Square Feet)*	*Minimum Lot Area per Dwelling Unit (Square Feet)*	*Maximum Density (Dwelling Units per Acre)*
A	*C-2*	*5,000*	*NA*	*NA*
B[4, 5]	*RP*	*1,500**	*1,500**	*21.8*[1]*
C[4, 5]	*R-3*	*2,500**	*2,500**	*13.1**
D[4, 5]	*R-2*	*3,750**	*3,750*	*8.8*
E[4, 5]	*R-2*	*5,000*	*5,000**	*6.6**
F-1[4, 5]	*RP*	*1,500**	*1,500**	*21.8**
F-2[4, 5]	*RP*	*1,500**	*None*[2]*	*None*[2]*
F-3[4, 5]	*RP*	*1,500**	*1,500**	*21.8**
G	*M-1*	*20,000*	*NA*	*NA*
H[4, 5]	*R-1*	*5,000**	*10,000*[3]*	*3.3**

** Different than the standards established elsewhere in the development code. Residential land use only permitted on F-1 area for Yamhill County tax lot 3216-02026.*

[1] Up to 100 percent of the land zoned RP within area B may be developed for residential use.

[2] *There is no limit on the number of dwelling units allowed in area F-2.*

[3] *Average lot area per dwelling in any one subdivision.*

[4] *Duplex dwellings are exempt from minimum lot area per dwelling unit. Duplex dwellings count as a single dwelling for the purpose of calculating compliance with the maximum density.*

[5] *Triplex dwellings, quadplex dwellings, townhouse dwellings, multifamily dwellings, and cottage cluster projects are permitted on lots meeting the applicable minimum lot areas for the dwelling type in the corresponding zone per NMC 15.405.010(A), and are exempt from the development standards in this table.*

b. Density Shifting.

i. A density shift of up to 20 percent is permitted between any two lots or portions of lots of equal acreage within the same or different residential areas (areas B, C, D and E). The shift may be up to 20 percent of total units permitted within the lower density zone regardless of which direction the shifting is occurring. Any such shift shall be approved through a Type I process. An agreement must be drafted and signed by all parties involved.

ii. An example of density shifting is as follows:

Present maximum density permitted by zone	*A five-acre lot in area B = 109 units*
	A five-acre lot in area C = 65.5 units
	(20 percent = 13.1 units)
Proposed 20 percent shift:	*Lot in area B = 122* units*
	Lot in area C = 52 units*
	OR
	Lot in area B = 95 units*
	Lot in area C = 78 units*

* *Rounded down to a whole unit number.*

c. Increases in density of residential areas B, C, D and E may be permitted in consideration for land designated for public purposes such as schools, neighborhood parks, plazas, and the like (excluding stream corridors). For any given acreage designated for the aforementioned purposes, the density of an equal amount of acreage may be increased 20 percent in another area of Springbrook Oaks which has

the same zone type as that of where the public area is located. The density shift may also be directed to a different zone, in a similar manner to the above. For example:

Present maximum density of public land:	***A five-acre lot in area D zoned R-2 = 44 units (20 percent = 8.8 units)***
Proposed 20 percent density shift to another five acres in area D zoned R-2	***44 units + 8.8 units = 52 units****
	OR
Proposed 20 percent density shift to another five acres in area B zoned R-3	***109 units + 8.8 units = 117 units****

* ***Rounded down to a whole unit number.***

d. Any area of land whose allowed density has increased due to a density shift may include a corresponding decrease in the area's minimum lot size and minimum lot area per dwelling unit.

e. No lot within any given zone may increase density due to a density shift more than once.

f. Maximum lot coverage is described in NMC 15.405.040.

Finding: Tax Lot R3216 02017 is approximately 101,494 square feet and Tax Lot R3216 02025 is approximately 98,010 square feet. Since both lots are over 5,000 square feet and are in a C-2 base zone, density restrictions do not apply.

9. Commercial and Industrial Standards. In addition to site review standards, all commercial and industrial development will conform to the covenants, conditions, and restrictions (CC&Rs) approved for the Springbrook Oaks development. A certificate of compliance with these CC&Rs shall be submitted with a design review application for any commercial or industrial development.

Finding: The proposed development is residential in nature, therefore the CCR's are not applicable.

10. Sign Standards. Signs must comply with NMC 15.435.010 through 15.435.120.

Finding: Sign standards are addressed in the findings for NMC 15.435 found elsewhere in the staff report.

11. Tree Management Plan. Any proposed development within development area H must follow the approved tree management plan for development area H. The plan shall be developed by a third-party licensed arborist.

Finding: The proposed development is in Area A and not in area H. This criterion does not apply.

12. Permitting Process. Any proposed development shall follow the permit approval process described in NMC 15.100.010 through 15.100.150. Exceptions to this standard are as follows:

a. Proposed subdivisions will be reviewed under the Type II process; and

b. Any proposed development within development areas A through F that meet the building design and development standards in Appendix C (see Springbrook Oaks specific plan) will be reviewed under the Type I process. The Applicant shall provide written documentation showing that each development standard has been met.

Finding: The proposed development is in Development Area A but does not meet the building design and development standards in Appendix C and therefore can't be reviewed under the Type I process.

[…]

14. Residential Development Near the Bypass. In order to minimize conflicts between the proposed bypass and proposed residential development in area F, the director shall approve a management plan prior to residential subdivision or development approval in area F. The management plan shall be developed in coordination with the director, ODOT, and the developer. The management plan may require any of the following or other conditions necessary to minimize conflicts:

a. Separation between the bypass and residential development, either within or outside the eventual right-of-way.

b. Specific orientation of buildings.

c. Specific layout of streets, walkways, pedestrian paths, alleys, driveways, open spaces, and sound walls.

Finding: The proposed development is in Development Area A and therefore the additional standards for development near the Bypass do not apply.

D. FINDINGS FOR DEVELOPMENT STANDARDS (NMC DIVISION 400)

Chapter 15.405 LOT REQUIREMENTS

15.405.010 Minimum and maximum lot area.

A. In the following districts, each lot or development site shall have an area as shown below except as otherwise permitted by this code:

[…]

2. In the AI, C-1, C-2, and C-3 districts, each lot or development site shall have a minimum area of 5,000 square feet or as may be established by a subdistrict.

Finding: Tax lot R3216 02017 (north lot) is an existing lot of record located in the C-2/SP zone. The lot size is 101,494 square feet, meeting the minimum area of 5,000 square feet. No changes to the lot area are proposed.

Tax Lot R3216 02025 (south lot) is an existing lot of record located in the C-2/SP zone. The lot size is 98,010 square feet, meeting the minimum area of 5,000 square feet. No changes to the lot area are proposed.

This criterion is met.

[…]

15.405.030 Lot dimensions and frontage.

A. Width. Widths of lots shall conform to the standards of this code.

B. Depth to Width Ratio. Each lot and parcel shall have an average depth between the front and rear lines of not more than two and one-half times the average width between the side lines. Depths of lots shall conform to the standards of this code. Development of lots under 15,000 square feet are exempt from the lot depth to width ratio requirement.

C. Area. Lot sizes shall conform to standards set forth in this code. Lot area calculations shall not include area contained in public or private streets as defined by this code.

D. Frontage.

1. No lot or development site shall have less than the following lot frontage standards:

a. Each lot or development site shall have either frontage on a public street for a distance of at least 25 feet or have access to a public street through an easement that is at least 25 feet wide. No new private streets, as defined in NMC 15.05.030, shall be created to provide frontage or access except as allowed by NMC 15.240.020(L)(2).

b. Each lot in R-2 zone shall have a minimum width of 25 feet at the front building line and R-3 zone shall have a minimum width of 30 feet at the front building line, except that duplex, triplex, quadplex and cottage cluster project lots in the R-3 zone shall have a minimum width of 25 feet at the front building line.

c. Each lot in R-1 zone shall have a minimum width of 35 feet at the front building line and AI or RP shall have a minimum width of 50 feet at the front building line.

d. Each lot in an AR zone shall have a minimum width of 45 feet at the front building line.

2. The above standards apply with the following exceptions:

a. Lots for townhouse dwellings in any zone where they are permitted shall have a minimum frontage on a public street for a distance of at least 20 feet, shall have a minimum width of 20 feet at the front building line and shall have access meeting the provisions of NMC 15.415.050(B).

b. Legally created lots of record in existence prior to the effective date of the ordinance codified in this code.

c. Lots or development sites which, as a process of their creation, were approved with sub-standard widths in accordance with provisions of this code.

d. Existing private streets may not be used for new dwelling units, except private streets that were created prior to March 1, 1999, including paving to fire access roads standards and installation of necessary utilities, and private streets allowed in the airport residential and airport industrial districts. However, existing single-family detached dwellings on existing private streets may be converted to duplex, triplex, or quadplex dwellings.

Finding: A lot of record is defined in NMC 15.05.030 as a:

> *"lot shown as part of a recorded subdivision, or any parcel of land described by metes and bounds in a recorded deed, record of survey, or other appropriate document recorded in the office of the county recorder; except, that no lot or parcel of land created without complying with the provisions of the land division requirements of the state and this code is entitled to the waiver of this section."*

Tax lots R3216 02017 and R3216 02025, the development site are existing lots of record. No changes are proposed to lot dimensions or frontage, however both properties have over 25 feet (both over 500 ft) of frontage on a public street on both N Springbrook Road and E Hayes Street.

This criterion is met.

15.405.040 Lot coverage and parking coverage requirements.

[…]

B. Residential uses in residential zones shall meet the following maximum lot coverage and parking coverage standards; however, cottage cluster projects shall be exempt from the standards. See the definitions in NMC 15.05.030 and Appendix A, Figure 4.

1. Maximum Lot Coverage.

a. R-1: 40 percent, except:

i. Fifty percent if all structures on the lot are one story; and

ii. Sixty percent for townhouse dwellings.

b. R-2 and RP: 60 percent.
c. AR and R-3: 60 percent.

9. ***Maximum Parking Coverage. R-1, R-2, R-3, and RP: 30 percent.***

10. ***Combined Maximum Lot and Parking Coverage.***

a. R-1: 60 percent.
b. R-2, R-3, RP and townhouse dwellings in R-1: 70 percent.

C. All other districts and uses not listed in subsection (B) of this section shall not be limited as to lot coverage and parking coverage except as otherwise required by this code.

Finding: The subject properties are located in the C-2/SP zone which is not listed in subsection B. Therefore, per subsection C, lot coverage and parking coverage requirements are not applicable to this project. Additionally, the Springbrook Oaks Plan does not have a maximum lot coverage standard for multi-family dwellings.

This criterion is met.

Chapter 15.410 YARD SETBACK REQUIREMENTS

15.410.010 General yard regulations.

A. No yard or open space provided around any building for the purpose of complying with the provisions of this code shall be considered as providing a yard or open space for any other building.

B. No yard or open space on adjoining property shall be considered as providing required yard or open space for another lot or development site under the provisions of this code.

C. No front yards provided around any building for the purpose of complying with the regulations of this code shall be used for public or private parking areas or garages, or other accessory buildings, except as specifically provided elsewhere in this code.

D. When the common property line separating two or more contiguous lots is covered by a building or a permitted group of buildings with respect to such common property line or lines does not fully conform to the required yard spaces on each side of such common property line or lines, such lots shall constitute a single development site and the yards as required by this code shall then not apply to such common property lines.

E. Dwellings Where Permitted above Nonresidential Buildings. The front and interior yard requirements for residential uses shall not be applicable; provided, that all yard requirements for the district in which such building is located are complied with.

F. In the AI airport industrial district, clear areas, safety areas, object-free areas, taxiways, parking aprons, and runways may be counted as required yards for a building, even if located upon an adjacent parcel.

G. In the AR airport residential district, clear areas, safety areas, object-free areas, taxiways, parking aprons, and runways may be counted as required yards for a building, if located upon an adjacent parcel.

Finding: The proposed development is not in an AI or AR zone and no yard or open space is being considered as providing a yard or open space for another building. No open space or yard on adjacent properties is being used for building setbacks or parking setbacks for these properties. The lots do not share a common property line.

The criteria is met.

15.410.020 Front yard setback.
[…]
B. Commercial.

> ***2. All lots or development sites in the C-2 district shall have a front yard of not less than 10 feet. There shall be no minimum front yard setback for C-2 zoned property that has frontage on E. Portland Road or Highway 99 W. The maximum front yard setback for C-2 zoned property that has frontage on E. Portland Road or Highway 99 W. shall be no greater than 10 feet. A greater front yard setback is allowed for C-2 zoned property having frontage on E. Portland Road or Highway 99 W. when a plaza or other pedestrian amenity is provided; however, said front yard setback should be the minimum setback needed to accommodate a pedestrian amenity. No parking shall be allowed in said yard. Said yard shall be landscaped and maintained.***

[…]

Finding: The project site is located in the C-2/SP zone on corner lots with frontage along E Hayes Street and N Springbrook Road. A front yard is a yard extending between lot lines which intersect a street line. Therefore, front yard setbacks are required along both street frontages. Per the submitted preliminary plan set, sheet P06 site plan, at least a 20-foot setback is being met along all of the frontages of E Hayes Street and N Springbrook Road which is greater than the 10-foot requirement. According to the Springbrook Oaks Specific Plan, dwellings are required to have a 15-foot minimum setback and 25-foot maximum setback for residential dwellings pursuant to NMC 15.346.070(B)(6)(a) as seen elsewhere in this staff report.

Parking is not being proposed in the front yard setback. This section also states the yard shall be landscaped and maintained. Refer to findings in Chapter 15.420 Landscaping and Outdoor Areas found elsewhere in the staff report.

This criterion is met.

15.410.030 Interior yard setback.

> ***[…]***

B. Commercial.

> ***1. All lots or development sites in the C-1 and C-2 districts have no interior yards required where said lots or development sites abut property lines of commercially or industrially zoned property. When interior lot lines of said districts are common with property zoned***

residentially, interior yards of not less than 10 feet shall be required opposite the residential districts.

Finding: Tax lots R3216 02017 is located in the C-2/SP zone with interior yards along the east and north property lines on property. It abuts C-2 zoned property to the north and east. The Springbrook Oaks Specific Plan states that the interior yard requirement defaults to the base zone.

Tax lot R3216 02025 is located in the C-2/SP zone with interior yards along the east and south property lines on property. It abuts C-2 property to the east with unincorporated territory to the south. The City's comprehensive plan identifies the property to the south as industrially designated which is expected to result in the zoning of the property as industrial when it is annexed into the City.

The Springbrook Oaks Specific Plan states that the interior yard requirement defaults to the base zone as provided in the findings for the Springbrook Oaks Specific Plan pursuant to NMC 15.346.070 elsewhere in this staff report. Since the property abuts only commercial and industrially zoned property, no interior yard distances are required to be maintained.

This criterion is met.

15.410.040 Setback and yard restrictions as to schools, churches, public buildings.

A. Building setback. No buildings shall be erected, used or maintained for a school, church or public or semi-public building or use, institution or similar use under the regulations of this code unless such a building is removed at least 25 feet from every boundary of any property included in any residential district.

Finding: The proposed project will not be constructing a school, church or other public building.

This criterion is not applicable.

[…]

15.410.050 Special setback requirements to planned rights of way.

A. Yard Requirements for Property Abutting Partial or Future Street Rights-of-Way.

1. Except as provided in subsection (A)(2) of this section, no building shall be erected on a lot which abuts a street having only a portion of its required width dedicated, unless the yards provided and maintained in connection with such building have a width and/or depth needed to complete the street width plus the width and/or depths of the yards required on the lot by this code.

2. Where a comprehensive plan street design or a future street plan exists, the placement of buildings and the establishment of yards where

required by this code shall relate to the future street boundaries as determined by said plans.

B. Planned Street Right-of-Way Widths. Planned street right-of-way widths are established as indicated in subsection (C) of this section for the various categories of streets shown in the transportation system plan.

C. A lot or parcel of land in any district adjoining a street for which the planned right-of-way width and alignment have been determined shall have a building setback line equal to the yard required in the district, plus a distance of:

1. Fifty feet from and parallel with the centerline of expressways.
2. Thirty-five feet from and parallel with the centerline of major and minor arterials.
3. Thirty feet from and parallel with the centerline of multifamily, commercial and industrial streets and single-family collector streets.
4. Thirty feet from and parallel with the centerline of single-family local streets.
5. Twenty-five feet from and parallel with the centerline of single-family hillside, cul-de-sacs and local streets which will never be extended more than 2,400 feet in length and which will have a relatively even division of traffic to two or more exits.

Exceptions to the above five classifications are shown in the transportation system plan.

D. The centerline of planned streets shall be either the officially surveyed centerline or a centerline as on a precise plan. In the event of conflict between the two, the latter-described line shall prevail. In all other cases, a line midway between properties abutting the right-of-way shall be the centerline for the purposes of this code.

Finding: The proposed project does not include planned rights of way.

The criterion is not applicable.

15.410.060 Vision clearance setback.

The following vision clearance standards shall apply in all zones (see Appendix A, Figure 9).

A. At the intersection of two streets, including private streets, a triangle formed by the intersection of the curb lines, each leg of the vision clearance triangle shall be a minimum of 50 feet in length.
B. At the intersection of a private drive and a street, a triangle formed by the intersection of the curb lines, each leg of the vision clearance triangle shall be a minimum of 25 feet in length.
C. Vision clearance triangles shall be kept free of all visual obstructions from two and one-half feet to nine feet above the curb line. Where curbs are absent, the

edge of the asphalt or future curb location shall be used as a guide, whichever provides the greatest amount of vision clearance.

D. There is no vision clearance requirement within the commercial zoning district(s) located within the riverfront (RF) overlay subdistrict.

Finding: The site is located at the intersection of two streets, E Hayes Street and N Springbrook Road. A 50-foot vision clearance triangle is required. The Applicant did not put this vision clearance on their plans but references their Exhibit A. There are currently proposed street trees within this setback. The sites will be accessed from E Hayes Street. Per the Applicant's narrative a 25-foot vision clearance triangle is provided on either side of the service drive access except for planned street trees. The street trees are proposed within the 25-foot vision clearance tringle at the intersection of E Hayes Street and the driveway. Due to the planned street trees being in the required vision clearance, the Applicant shall do the following:

All vision clearance requirements shall be shown on the final site and landscaping plans. The street trees proposed within the 50-foot vision clearance tringle at the intersection of E Hayes Street and N Springbrook Road as well as the street trees in the 25-foot vision clearance of the intersections of the driveways and E Hayes Street shall be relocated and shown to be outside the required vision clearance triangles on the final site and landscaping plans submitted with public improvement permits and building permits.

If the aforementioned conditions are adhered to this criterion will be met.

15.410.070 Yard exceptions and permitted intrusions into required yard setbacks.

The following intrusions may project into required yards to the extent and under the conditions and limitations indicated:

A. Depressed Areas. In any district, open work fences, hedges, guard railings or other landscaping or architectural devices for safety protection around depressed ramps, stairs or retaining walls may be located in required yards; provided, that such devices are not more than three and one-half feet in height.

B. Accessory Buildings. In front yards on through lots, where a through lot has a depth of not more than 140 feet, accessory buildings may be located in one of the required front yards; provided, that every portion of such accessory building is not less than 10 feet from the nearest street line.

C. Projecting Building Features. The following building features may project into the required front yard no more than five feet and into the required interior yards no more than two feet; provided, that such projections are no closer than three feet to any interior lot line:

1. Eaves, cornices, belt courses, sills, awnings, buttresses or other similar features.

2. Chimneys and fireplaces, provided they do not exceed eight feet in width.

3. Porches, platforms or landings which do not extend above the level of the first floor of the building.

4. Mechanical structures (heat pumps, air conditioners, emergency generators and pumps).

Finding: The proposed plans do not show any depressed areas, new accessory buildings or projecting building features within the required yard setbacks. Therefore, no exceptions or permitted intrusions are proposed and the criteria of this section are not applicable.

D. Fences and Walls.

1. In the residential district, a fence or wall shall be permitted to be placed at the property line or within a yard setback as follows:

a. Not to exceed six feet in height. Located or maintained within the required interior yards. For purposes of fencing only, lots that are corner lots or through lots may select one of the street frontages as a front yard and all other yards shall be considered as interior yards, allowing the placement of a six-foot fence on the property line. In no case may a fence extend into the clear vision zone as defined in NMC 15.410.060.

b. Not to exceed four feet in height. Located or maintained within all other front yards.

2. In any commercial, industrial, or mixed employment district, a fence or wall shall be permitted to be placed at the property line or within a yard setback as follows:

a. Not to exceed eight feet in height. Located or maintained in any interior yard except where the requirements of vision clearance apply. For purposes of fencing only, lots that are corner lots or through lots may select one of the street frontages as a front yard and all other yards shall be considered as interior yards, allowing the placement of an eight-foot fence on the property line.

b. Not to exceed four feet in height. Located or maintained within all other front yards.

Finding: The proposed retaining wall is setback 10 feet from the front property lines meeting the required setback as seen in Sheet P06. There are no other walls or fences being proposed for the project that staff are aware of but they would need to comply with NMC 15.410.070(D) if proposed in the future.

This criterion is not applicable.

3. If chain link (wire-woven) fences are used, they are manufactured of corrosion-proof materials of at least 11-1/2 gauge.

Finding: The development is proposing a chain link fence in the basement floor plans. However, the proposed chain link fence is outside of any required yards. Therefore, this criterion is not applicable.

4. The requirements of vision clearance shall apply to the placement of fences.

Finding: The Applicant is not proposing any fences within the vision clearance area. This criterion is met.

E. Parking and Service Drives (Also Refer to NMC 15.440.010 through 15.440.080).

1. In any district, service drives or accessways providing ingress and egress shall be permitted, together with any appropriate traffic control devices in any required yard.

Finding: See findings in NMC 15.440.020 that address this elsewhere in the staff report but service drives are allowed in the required yard and give access to the development off of E Hayes Street.

This criterion is met.

[…]

3. In any commercial or industrial district, except C-1, C-4, M-1, and M-E, public or private parking areas or parking spaces shall be permitted in any required yard (see NMC 15.410.030). Parking requirements in the C-4 district and the M-E district within the riverfront overlay subdistrict are described in NMC 15.352.040(H).

Findings: No parking is proposed within the required yard. This criterion is not applicable.

Chapter 15.415 BUILDING AND SITE DESIGN STANDARDS

15.415.020 Building height limitation.
[…]

B. Commercial, Industrial and Mixed Employment.

[…]

2. In the AI, C-2, C-3, M-E, M-1, M-2, and M-3 districts there is no building height limitation, except, where said districts abut upon a residential district, the maximum permitted building height shall not exceed the maximum building height permitted in the abutting residential district for a distance of 50 feet from the abutting boundary.

Finding: The site is located within the C-2/SP zone. The average height of the building will be approximately 33 feet per the application materials. In the C-2 zone there are no height restrictions unless the property abuts a residential zone. To the east across the creek is High Density (R-3) and Residential Professional (R-P) zoning. The project site does not directly abut

the residential zone to the east as the zone change occurs approximately at the centerline of the creek. However, the submitted site plan shows the building will be located outside the 50-foot height restriction distance and therefore would meet this criterion if the residential zone abutted the property line.

This criterion is met.

C. The maximum height of buildings and uses permitted conditionally shall be stated in the conditional use permits.

Finding: A multi-family building in a commercial zone is a conditionally permitted use requiring the maximum height of the building to be stated in the conditional use permit. The Applicant's narrative describes that the average height of the building will be 33 feet, with a maximum height of 37 feet according to submitted materials. The maximum height as discussed elsewhere in the staff report finding for NMC 15.225.060(A).

15.415.030 Building Height Exemptions.

Roof structures and architectural features for the housing of elevators, stairways, tanks, ventilating fans and similar equipment required to operate and maintain the building, fire or parapet walls, skylights, towers, flagpoles, chimneys, smokestacks, wireless masts, TV antennas, steeples and similar structures may be erected above the height limits prescribed in this code; provided, that no roof structure, feature or any other device above the prescribed height limit shall be allowed or used for the purpose of providing additional floor space. Further, no roof structure or architectural feature under this exemption shall be erected more than 18 feet above the height of the main building, whether such structure is attached to it or freestanding, nor shall any such structure or feature exceed the height limits of the airport overlay subdistrict.

Finding: The proposed buildings will not exceed the maximum allowable building height and will not contain roof structures or architectural features above the height limits prescribed in this code.

The criterion is not applicable.

15.415.040 Public access required.

No building or structure shall be erected or altered except on a lot fronting or abutting on a public street or having access to a public street over a private street or easement of record approved in accordance with provisions contained in this code. New private streets may not be created to provide access except as allowed under NMC 15.332.020(B)(24), 15.336.020(B)(8), and in the M-4 zone. Existing private streets may not be used for access for new dwelling units, except as allowed under NMC 15.405.030. No building or structure shall be erected or altered without provisions for access roadways as required in the Oregon Fire Code, as adopted by the city.

Finding: The development site is located at the corners of the intersection of E Hayes Street and N Springbrook Road. The site has approximately 310 feet of frontage along E Hayes Street which the site will take access from.

This criterion is met.

Chapter 15.420 LANDSCAPING AND OUTDOOR AREAS

15.420.010 Required minimum standards.

A. Private and Shared Outdoor Recreation Areas in Residential Developments.

1. Private Areas. Each ground-level living unit in a residential development subject to a design review plan approval shall have an accessible outdoor private space of not less than 48 square feet in area. The area shall be enclosed, screened or otherwise designed to provide increased privacy for unit residents, their guests and neighbors.

Finding: The submitted floor plans, on Sheet A21A, the first-floor plans show the outdoor areas approximately 60 square feet, surpassing the 48 square feet. The Applicant states that trees and plants will be used to screen the first-floor units as shown per the landscaping plan in sheet P11 but does not give details on how they provide privacy to ground level units. Because the details of how the landscaping would provide privacy, the Applicant shall provide an updated landscaping plan prior to building permit review which defines and depicts the plantings that will contribute to screening of the private areas pursuant to NMC 15.420.010(A)(1).

This criterion is met.

2. Individual and Shared Areas. Usable outdoor recreation space shall be provided for the individual and/or shared use of residents and their guests in any multifamily residential development, as follows:

a. One- or two-bedroom units: 200 square feet per unit.

b. Three- or more bedroom units: 300 square feet per unit.

Finding: The proposed multi-family development includes 96 dwelling units in five buildings. All proposed dwelling units will be two-bedroom units. Therefore, there would be 200 square feet per the 96 units, for a total of 19,200 square feet of outdoor recreation space. Sheet P06 shows the design of the site will provide outdoor recreation space but does not clearly show the playground or open space areas the Applicant states in their narrative. As such, the Applicant shall submit an updated site plan and landscaping plan clearly demonstrating that the 19,200 square feet of outdoor recreation area is met.

If the aforementioned condition is adhered to, this criterion will be met.

c. Storage areas are required in residential developments. Convenient areas shall be provided in residential developments for the storage of articles such as bicycles, barbecues, luggage, outdoor furniture, and the like. These shall be entirely enclosed.

Finding: The provided floor plans show that 3 of the proposed 5 buildings will have storage areas in the basement that will be enclosed. Each unit will also have an enclosed storage area off their balcony or patio.

This criterion is met.

3. In the AR airport residential district a five percent landscaping standard is required with the goal of "softening" the buildings and making the development "green" with plants, where possible. The existence of the runway, taxiway, and approach open areas already provide generally for the 15 percent requirement.

Findings: The development is not residential and not in the AR airport district. This criteria is not applicable.

B. Required Landscaped Area. The following landscape requirements are established for all developments except single-family detached dwellings, duplex dwellings, triplex dwellings, quadplex dwellings, townhouse dwellings and cottage cluster projects:

1. A minimum of 15 percent of the lot area shall be landscaped; provided, however, that computation of this minimum may include areas landscaped under subsection (B)(3) of this section. Development in the C-3 (central business district) zoning district and M-4 (large lot industrial) zoning district is exempt from the 15 percent landscape area requirement of this section. Additional landscaping requirements in the C-4 district are described in NMC 15.352.040(K). In the AI airport industrial district, only a five percent landscaping standard is required with the goal of "softening" the buildings and making the development "green" with plants, where possible. The existence of the runway, taxiway, and approach open areas already provide generally for the 15 percent requirement. Developments in the AI airport industrial district with a public street frontage shall have said minimum landscaping between the front property line and the front of the building.

Finding: The subject site, tax lots R3216 02017 and R3216 02025, is 200,037 square feet per Yamhill County assessor data. Therefore, a 15% landscaping requirement would be 30,005 square feet. The Applicant narrative states that nearly 85,000 square feet of landscaped area will be provided, which is a total of 44%, surpassing the minimum requirement. The landscape plan showing this can be seen on sheet P11. The site is not in the Airport Industrial (AI) Overlay. It is in the Airport Overlay (AO), specifically the Inner Horizontal Surface.

This criterion is met.

2. All areas subject to the final design review plan and not otherwise improved shall be landscaped.

Finding: The Applicant's narrative and submitted landscape plan, Sheet P11, shows that all areas not being utilized for direct parking, service drive aisle, pedestrian access ways, or the building itself, will be landscaped. The special hazard areas of the stream corridor, floodplain and wetlands will not be altered outside of the proposed stormwater pipes.

This criterion is met.

3. The following landscape requirements shall apply to the parking and loading areas:

a. A parking or loading area providing 10 or more spaces shall be improved with defined landscaped areas totaling no less than 25 square feet per parking space.

Finding: The site is required to have 164 parking places. Therefore, a total of 4,100 square feet of defined landscape area shall be incorporated with the parking area. The proposed site plan is deficient by five parking places, (see NMC 15.440.010(B) for finding). There is landscaping surrounding the parking lot, fire turnaround and service drives that provide the required landscaping.

This criterion is met.

b. A parking, loading area, or drive aisle which runs adjacent to a property line shall be separate from any lot line adjacent to a street by a landscaped strip at least 10 feet in interior width or the width of the required yard, whichever is greater, and any other lot line by a landscaped strip of at least five feet in interior width. See subsections (B)(3)(c) and (d) of this section for material to plant within landscape strips.

Finding: The property lines that are adjacent to E Hayes Street and N Springbrook Road require a 10-foot front yard setback and will provide parking just outside that area. As shown on the landscape plan Sheet P11, all parking areas will be separated from all lot lines street by at least a 10-foot-wide landscaped strip. While the Springbrook Oaks Specific Plan in NMC 15.346.070(B)(6)(a) has a higher setback requirement of 15 feet for dwellings and 20 feet for garages, there is not a separate requirement for setbacks for parking, defaulting to the 10 feet for C-2 districts.

This criterion is met.

c. A landscaped strip separating a parking area, loading area, or drive aisle from a street shall contain street trees spaced as appropriate to the species, not to exceed 50 feet apart on average, and a combination of shrubs and ground cover, or lawn. This landscaping shall provide partial screening of these areas from the street.

Finding: There are already street trees on the N Springbrook side of the development that were planted as part of the Newberg Dundee Bypass as well as trees on the east side of the sidewalk. The Applicant is planning on leaving these trees along the street per Sheet P11. Landscaping plans show that along E Hayes, a combination of street trees, shrubs, and ground cover will be planted in the landscape separating the parking area and drive aisle from the street. The trees noted are Forest Green Oaks in the planter strip (to meet Springbrook Oak Specific Plan preference) with Golden Rain Trees behind the sidewalks. All trees are proposed to be within an average 50 feet of each other.

This criterion is met.

d. A landscaped strip separating a parking area, loading area, or drive aisle from an interior lot line shall contain any combination of trees, shrubs, ground cover or lawn. Plant material shall be selected from at least two different plant material groups (example: trees and shrubs, or lawn and shrubs, or lawn and trees and shrubs).

Finding: Landscaping plans, sheet P11, show that within the landscape strip bordering the north property line on tax lot R3216 02017, that a combination of shrubs and trees is used. The landscape strip bordering the south property line on tax lot R3216 02025 also shows a combination of trees and shrubs being used.

This criterion is met.

e. Landscaping in a parking or loading area shall be located in defined landscaped areas which are uniformly distributed throughout the parking or loading area.

Finding: Defined landscaped areas have been provided per sheet P11. The landscaped areas completely border the parking area and are contained with a curb edge. Landscaped parking islands are also uniformly distributed throughout and meet NMC 15.420.010(B)(3)(h) requirements.

This criterion is met.

f. Landscaping areas in a parking lot, service drive or loading area shall have an interior width of not less than five feet.

Finding: Per sheet P11, the landscaping areas in the parking lot and service drive show an interior width of not less than five feet.

This criterion is met.

g. ***All multifamily, institutional, commercial, or industrial parking areas, service drives, or loading zones which abut a residential district shall be enclosed with a 75 percent opaque, site-obscuring fence, wall or evergreen hedge along and immediately adjacent to any interior property line which abuts the residential district. Landscape plantings must be large enough to provide the required minimum screening requirement within 12 months after initial installation. Adequate provisions shall be maintained to protect walls, fences or plant materials from being damaged by vehicles using said parking areas.***

Finding: Tax lots R3216 02017 and R3216 02025 are located within the C-2/SP zone and do not abut a residential district, only additional C-2 zone property and an unincorporated parcel that is slated to be industrially zoned upon annexation. Therefore, the screening requirements of this section are not applicable.

h. ***An island of landscaped area shall be located to separate blocks of parking spaces. At a minimum, one deciduous shade tree per seven parking spaces shall be planted to create a partial tree canopy over and around the parking area. No more than seven parking spaces may be grouped together without an island separation unless otherwise approved by the director based on the following alternative standards:***

i. ***Provision of a continuous landscaped strip, with a five-foot minimum width, which runs perpendicular to the row of parking spaces (see Appendix A, Figure 13).***

i. ***Provision of tree planting landscape islands, each of which is at least 16 square feet in size, and spaced no more than 50 feet apart on average, within areas proposed for back-to-back parking (see Appendix A, Figure 14).***

Finding: The submitted preliminary plans, Sheet P06, show that there are blocks or parking spaces with more than seven parking spaces grouped together without a landscaped island. The Applicant has states they intend to put the 5 feet of landscaping next to the curb of the parking spaces to meet the alternative standards stated in provision (h)(i) above. The current landscaping plan on sheet P11 shows landscaping adjacent to the blocks of parking spaces that have more than 7 spaces but also appears that it is on top of the walkway. Due to this discrepancy, the Applicant shall submit a revised landscaping plan showing at least a 5 foot minimum landscaping width running next to all blocks of parking that have more than 7 spaces with a deciduous tree. The walkway adjacent to the landscaping going to the buildings and out to the streets must be at least 4 feet wide to meet the requirements of private pathways seen in the findings 15.440.010(B). Alternatively, a landscaped island that is at least 5 feet in width could be installed for every block of 7 parking spaces with a deciduous tree within the parking lot.

If the aforementioned condition is adhered to, this criterion will be met.

4. Trees, Shrubs and Ground Covers. The species of street trees required under this section shall conform to those authorized by the city council through resolution. The director shall have the responsibility for preparing and updating the street tree species list which shall be adopted in resolution form by the city council.

a. Arterial and minor arterial street trees shall have spacing of approximately 50 feet on center. These trees shall have a minimum two-inch caliper tree trunk or stalk at a measurement of two feet up from the base and shall be balled and burlapped or boxed.

Finding: N Springbrook Road already has street trees currently installed in conjunction with shrubs and swales. Due to the already existing infrastructure in the planter strip, no new street trees need to be planted in the planter strip on N Springbrook Road.

This criterion is met.

b. Collector and local street trees shall be spaced approximately 35 to 40 feet on center. These trees shall have a minimum of a one and one-half or one and three-fourths inch tree trunk or stalk and shall be balled and burlapped or boxed.

Finding: E Hayes Street is identified as a major collector street. The street trees proposed on the landscaping plan, Sheet P11, show the trees will be spaced approximately 40 feet on center, and will have a two-inch caliper. The Landscape plan notes the City of Newberg root barrier detail.

This criterion is met.

c. Accent Trees. Accent trees are trees such as flowering cherry, flowering plum, crab-apple, Hawthorne and the like. These trees shall have a minimum one and one-half inch caliper tree trunk or stalk and shall be at least eight to 10 feet in height. These trees may be planted bare root or balled and burlapped. The spacing of these trees should be approximately 25 to 30 feet on center.

d. All broad-leafed evergreen shrubs and deciduous shrubs shall have a minimum height of 12 to 15 inches and shall be balled and burlapped or come from a two-gallon can. Gallon-can size shrubs will not be allowed except in ground covers. Larger sizes of shrubs may be required in special areas and locations as specified by the design review board.

Spacing of these shrubs shall be typical for the variety, three to eight feet, and shall be identified on the landscape planting plan.

Finding: Landscape plans, Sheet P11, show that the majority of all shrubs being planted will come from a one or two-gallon cans and show accent trees. A final landscaping plan shall be provided with the building permit application so an accurate planning final showing all accent trees, shrubs and other landscaping materials with correct spacing for site approval can occur prior to certificate of occupancy.

If the aforementioned condition is adhered to, this criterion will be met.

e. Ground Cover Plant Material. Ground cover plant material such as greening juniper, cotoneaster, minor Bowles, English ivy, hypericum and the like shall be one of the following sizes in specified spacing for that size:

Gallon cans	***3 feet on center***
4" containers	***2 feet on center***
2-1/4" containers	***18" on center***
Rooted cuttings	***12" on center***

Finding: Landscape plans submitted show that the ground cover proposed will be appropriately placed.

This criterion is met.

5. Automatic, underground irrigation systems shall be provided for all areas required to be planted by this section. The director shall retain the flexibility to allow a combination of irrigated and nonirrigated areas. Landscaping material used within nonirrigated areas must consist of drought- resistant varieties. Provision must be made for alternative irrigation during the first year after initial installation to provide sufficient moisture for plant establishment.

Finding: As stated in the narrative and on Sheet P11, landscaped areas will be provided with an automatic underground irrigation system.

This criterion is met.

6. Required landscaping shall be continuously maintained.

Finding: The narrative states the landscaping will be maintained for the duration of the planting to encourage plant viability. This does not represent continuous maintenance. As such, the

Applicant, or building owner/management company shall be responsible for continuously maintaining the required landscaping.

If the aforementioned condition is adhered to, this criterion will be met.

7. Maximum height of tree species shall be considered when planting under overhead utility lines.

Finding: Overhead lines only existing along N Springbrook Road at the very edge of the northern property; therefore this criteria does not apply.

This criterion is met.

8. Landscaping requirements and standards for parking and loading areas (subsection (B)(3) of this section) will apply to development proposals unless the institution has addressed the requirements and standards by an approved site development master plan. With an approved site development master plan, the landscape requirements will be reviewed through an administrative Type I review process.

Finding: The development does not have an approved site development master plan. The landscaping requirements of subsection (B)(3) of this section have been applied to this project.

This criterion is met.

9. In the M-4 zone, landscaping requirements and standards for parking and loading areas (subsection (B)(3) of this section) do not apply unless within 50 feet of a residential district.

Finding: This project is in the C-2 / Community Commercial zone, not in the M-4 zone. This criterion is not applicable.

C. Installation of Landscaping. All landscaping required by these provisions shall be installed prior to the issuance of occupancy permits, unless security equal to 110 percent of the cost of the landscaping as determined by the director is filed with the city, insuring such installation within six months of occupancy. A security – cash, certified check, time certificates of deposit, assignment of a savings account, bond or such other assurance of completion as shall meet with the approval of the city attorney – shall satisfy the security requirements. If the installation of the landscaping is not completed within the six-month period, or within an extension of time authorized by the director, the security may be used by the city to complete the installation. Upon completion of the installation, any portion of the remaining security deposited with the city shall be returned to the Applicant

Findings: The required landscaping shall be installed prior to certificate of occupancy or bonded for pursuant to NMC 15.420.010(C).

If the aforementioned condition is adhered to, this criterion will be met.

15.420.020 Landscaping and amenities in public rights-of-way.

The following standards are intended to create attractive streetscapes and inviting pedestrian spaces. A review body may require any of the following landscaping and amenities to be placed in abutting public rights-of-way as part of multifamily, commercial, industrial, or institutional design reviews, or for subdivisions and planned unit developments. In addition, any entity improving existing rights-of-way should consider including these elements in the project. A decision to include any amenity shall be based on comprehensive plan guidelines, pedestrian volumes in the area, and the nature of surrounding development.

A. Pedestrian Space Landscaping. Pedestrian spaces shall include all sidewalks and medians used for pedestrian refuge. Spaces near sidewalks shall provide plant material for cooling and dust control, and street furniture for comfort and safety, such as benches, waste receptacles and pedestrian-scale lighting. These spaces should be designed for short-term as well as long-term use. Elements of pedestrian spaces shall not obstruct sightlines and shall adhere to any other required city safety measures. Medians used for pedestrian refuge shall be designed for short-term use only with plant material for cooling and dust control, and pedestrian-scale lighting. The design of these spaces shall facilitate safe pedestrian crossing with lighting and accent paving to delineate a safe crossing zone visually clear to motorists and pedestrians alike.

Finding: The proposed development is a multifamily residential project and therefore the following code sections may be applied by the review body.

1. Street trees planted in pedestrian spaces shall be planted according to NMC 15.420.010(B)(4).

Finding: Street trees have been proposed. Please see findings for NMC 15.420.010(B)(4) for details.

2. Pedestrian spaces shall have low (two and one-half feet) shrubs and ground covers for safety purposes, enhancing visibility and discouraging criminal activity.

a. Plantings shall be 90 percent evergreen year-round, provide seasonal interest with fall color or blooms, and at maturity maintain growth within the planting area (refer to plant material matrix below).

b. Plant placement shall also adhere to clear sight line requirements as well as any other relevant city safety measures.

Finding: Per the submitted narrative and provided landscape plan, it is stated that the plants chosen will provide consistency with the Springbrook Oaks Master Plan in having Forest Green Oaks in the planter strip along E Hayes Street. The trees will need to meet the vision clearance requirements as noted in the previous finding for NMC 15.410.060 .

This criterion is met.

3. Pedestrian-scale lighting shall be installed along sidewalks and in medians used for pedestrian refuge.

a. Pole lights as well as bollard lighting may be specified; however, the amount and type of pedestrian activity during evening hours, e.g., transit stops, nighttime service districts, shall ultimately determine the type of fixture chosen.

b. Luminaire styles shall match the area/district theme of existing luminaires and shall not conflict with existing building or roadway lights causing glare.

c. Lighting heights and styles shall be chosen to prevent glare and to designate a clear and safe path and limit opportunities for vandalism (see Appendix A, Figure 17, Typical Pedestrian Space Layouts).

d. Lighting shall be placed near the curb to provide maximum illumination for spaces furthest from building illumination. Spacing shall correspond to that of the street trees to prevent tree foliage from blocking light.

Finding: Anticipated street lighting will provide lighting that illuminates the sidewalk adequately.

This criterion is met.

4. Street furniture such as benches and waste receptacles shall be provided for spaces near sidewalks only.

a. Furniture should be sited in areas with the heaviest pedestrian activity, such as downtown, shopping districts, and shopping centers.

b. Benches should be arranged to facilitate conversation between individuals with L-shaped arrangements and should face the area focal point, such as shops, fountains, plazas, and should divert attention away from nearby traffic.

Finding: Street furniture within the public right-of-way was not proposed with this project. This criterion is not applicable.

5. Paving and curb cuts shall facilitate safe pedestrian crossing and meet all ADA requirements for accessibility.

Finding: Per the submitted site plans, the only curb cut occurring within the public right-of-way will be in conjunction with the access driveways on E Hayes Street. The narrative states this will comply with ADA requirements. Confirmation that this criterion is met will be evaluated during the public improvement and / or the building permit stage.

B. Planting Strip Landscaping. All planting strips shall be landscaped. Planting strips provide a physical and psychological buffer for pedestrians from traffic with plant material that reduces heat and dust, creating a more comfortable pedestrian environment. Planting strips shall have different arrangements and combinations of plant materials according to the frequency of on-street parking (see Appendix A, Figures 18 and 19).

> ***1. Planting strips which do not have adjacent parking shall have a combination of ground covers, low (two and one-half feet) shrubs and trees. Planting strips adjacent to frequently used on-street parking, as defined by city staff, shall only have trees protected by tree grates, and planting strips adjacent to infrequently used on-street parking shall be planted with ground cover as well as trees (see Appendix A, Figures 18 and 19, Typical Planting Strip Layouts). District themes or corridor themes linking individual districts should be followed utilizing a unifying plant characteristic, e.g., bloom color, habit, or fall color. When specifying thematic plant material, monocultures should be avoided, particularly those species susceptible to disease.***

Finding: The street trees along N Springbrook Road are already planted. The Applicant is proposing to plant Forest Green Oaks in the planter strip on E Hayes Street with a grass component where the trees are not present. There is no adjacent off-street parking next to either tax lot. These planter strip areas do not have adjacent on-street parking and therefore shall have a combination of ground cover, shrubs and trees. The provided landscape plans show that area will be landscaped consistent with these requirements, and detailed findings were identified in NMC 15.420.020(A)(2) and in 15.420.010(B)(4).

This criterion is met.

> ***2. Street trees shall be provided in all planting strips as provided in NMC 15.420.010(B)(4).***
>
> > ***a. Planting strips without adjacent parking or with infrequent adjacent parking shall have street trees in conjunction with ground covers and/or shrubs.***
> >
> > ***b. Planting strips with adjacent parking used frequently shall have only street trees protected by tree grates.***

Finding: The landscape plan provided shows there are planting strips without adjacent on-street parking. A combination of shrubs in the right-of-way, and street trees to be planted on E Hayes Street are present. There are already existing street trees on N Springbrook Road. Detailed findings were identified in NMC 15.420.020(A)(2) and in 15.420.010(B)(4).

This criterion is met.

3. Shrubs and ground covers shall be provided in planting strips without adjacent parking with low (two and one-half feet) planting masses to enhance visibility, discourage criminal activity, and provide a physical as well as psychological buffer from passing traffic.

a. Plantings shall be 90 percent evergreen year-round, provide seasonal interest with fall color or blooms and at maturity maintain growth within the planting area.

b. Ground cover able to endure infrequent foot traffic shall be used in combination with street trees for planting strips with adjacent occasional parking (refer to plant material matrix below).

c. All plant placement shall adhere to clear sight line requirements as well as any other relevant city safety measures.

Finding: See findings for pedestrian spaces, NMC 15.420.020(A)(2), that also meet the requirements of this section elsewhere in this staff report.

This criterion is met.

C. Maintenance. All landscapes shall be maintained for the duration of the planting to encourage health of plant material as well as public health and safety. All street trees and shrubs shall be pruned to maintain health and structure of the plant material for public safety purposes.

Finding: The provided narrative states that all landscaping on-site will be maintained for the duration of the planting. Ongoing maintenance of planter strips is the adjacent property owners responsibility. Per NMC 12.05.250 property owners are required to maintain landscaping in planter strip and per NMC 12.05.260 are required to maintain street trees consistent with the approved street tree plan.

If the aforementioned condition is adhered to, this criterion will be met.

D. Exception. In the AI airport industrial district and AR airport residential district, no landscape or amenities except for grass are required for any area within 50 feet of aircraft operation areas including aircraft parking areas, taxiways, clear areas, safety areas, object-free areas, and the runway.

Finding: Tax Lots R3216 02017 and R3216 02025 is located in the C-2 /SP Community Commercial/Specific Plan zone, not the AI airport industrial district or AR airport residential district. Therefore, this criterion is not applicable.

Plant Material Matrix – Newberg Transportation Planning Rule Implementation

	Median		*Pedestrian Space*	*Planting Strip*		
	Central Business District/Urban Application	*Low Density Application*		*Frequent On-Street Parking*	*Infrequent On-Street Parking*	*Without On-Street Parking*
Plant Material	*Trees, shrubs and ground cover*		*Trees, shrubs and ground cover (where applicable)*	*Trees in tree wells with grates*	*Trees and ground cover*	*Trees, shrubs and ground cover*
Tree and Shrub Arrangement	*Single row of trees planted in triangular pattern, equally spaced, shrubs as desired*	*Single row of trees planted in triangular pattern, arranged in clusters, shrubs as desired*	*Refer to median or planting strip specifications as applicable*	*Single row of trees planted in linear pattern, equally spaced*	*Refer to tree specifications for median as applicable, ground cover as desired*	*Refer to tree specifications for median as applicable, ground cover as desired*
Tree Form	*Columnar to round tree canopy*	*Round to broad tree canopy*	*Refer to median or planting strip specifications as applicable*	*Refer to median recommendations as applicable*	*Refer to median recommendations as applicable*	*Refer to median recommendations as applicable*
Examples of Recommended Tree Species	*Bradford Flowering Pear (Pyrus calleryana "Bradford"), Flowering Cherry (Prunus serrulata, several varieties), Red Sunset Maple (Acer rubrum), Londos Plana (Platanus acerifolia)*	*Flowering Cherry (Prunus serrulata, several varieties), Flowering Dogwood (Cornus species, several varieties), Hawthorn (Crataegus species, several species), Red Sunset Maple (Acer rubrum), Red Oak*	*Refer to median or planting strip specifications as applicable*	*Refer to median recommendations as applicable, lowest tree limb height of 10 feet*	*Refer to median recommendations as applicable, lowest limb height of 10 feet*	*Refer to median recommendations as applicable, lowest limb height of 10 feet*

	Median		Pedestrian Space	Planting Strip		
	Central Business District/Urban Application	Low Density Application		Frequent On-Street Parking	Infrequent On-Street Parking	Without On-Street Parking
		(Quercus rubra)				
Shrub and Ground Cover Characteristics (i.e., environmental tolerance, mature size)	Pollutant and reflected heat tolerant	Pollutant and reflected heat tolerant	2.5 feet maximum height, pollutant and reflected heat tolerant	Not applicable	2.5 feet maximum height, pollutant and reflected heat tolerant	2.5 feet maximum height, pollutant and reflected heat tolerant
Examples of Recommended Shrub Species	Lonicera japonica (Privet Honeysuckle), Sargent Juniper (Juniperus sargentii), Cotoneaster (Cotoneaster, various varieties), Winter Creeper (Euonymus fortunei)	Lonicera japonica (Privet Honeysuckle), Sargent Juniper (Juniperus sargentii), Cotoneaster (Cotoneaster, various varieties), Winter Creeper (Euonymus fortunei)	Sargent Juniper (Juniperus sargentii), Cotoneaster (Cotoneaster, low varieties), Winter Creeper (Euonymus fortunei)	Not applicable	Sargent Juniper (Juniperus sargentii), Cotoneaster (Cotoneaster, prostrate varieties)	Sargent Juniper (Juniperus sargentii), Cotoneaster (Cotoneaster, various varieties), Winter Creeper (Euonymus fortunei)

Chapter 15.425 EXTERIOR LIGHTING

[…]

15.420.020 Applicability and exemptions.

A. Applicability. Outdoor lighting shall be required for safety and personal security in areas of assembly, parking, and traverse, as part of multifamily residential, commercial, industrial, public, recreational and institutional uses. The Applicant for any Type I or Type II development permit shall submit, as part of the site plan, evidence that the proposed outdoor lighting plan will comply with this section. This information shall contain but not be limited to the following:

1. The location, height, make, model, lamp type, wattage, and proposed cutoff angle of each outdoor lighting fixture.

2. ***Additional information the director may determine is necessary, including but not limited to illuminance level profiles, hours of business operation, and percentage of site dedicated to parking and access.***
3. ***If any portion of the site is used after dark for outdoor parking, assembly or traverse, an illumination plan for these areas is required. The plan must address safety and personal security.***

[…]

Finding: The Applicant submitted an exterior lighting plan showing that lighting is provided in areas of assembly and parking in the proposed development. The lighting plan showed the location, height, make, model, lamp type, wattage and proposed cutoff angle showing adequate lighting on the property.

15.425.030 Alternative materials and methods of construction, installation, or operation.

The provisions of this section are not intended to prevent the use of any design, material, or methods of installation or operation not specifically prescribed by this section, provided any such alternate has been approved by the director. Alternatives must be an approximate equivalent to the applicable specific requirement of this section and must comply with all other applicable standards in this section.

Finding: The Applicant is proposing to use LED lamps to light the parking and assembly areas in the proposed development. This type of lighting is not seen in NMC 15.425.040 but is a type of lighting that is consistent with today's technology. The proposed lighting is the equivalent of approximately 133 watts which does not require shielding according to 15.425.040(B). However, findings for NMC 15.225.060 regarding site compatibility further address lighting specifications found elsewhere in the staff report.

This criterion is met.

15.425.040 Requirements.
A. General Requirements – All Zoning Districts.

1. ***Low-level light fixtures include exterior lights which are installed between ground level and six feet tall. Low-level light fixtures are considered nonintrusive and are unrestricted by this code.***
2. ***Medium-level light fixtures include exterior lights which are installed between six feet and 15 feet above ground level. Medium-level light fixtures must either comply with the shielding requirements of subsection (B) of this section, or the Applicant shall show that light trespass from a property has been designed not to exceed one-half foot-candle at the property line.***
3. ***High-level light fixtures include exterior lights which are installed 15 feet or more above ground level. High-level light fixtures must comply with the shielding requirements of subsection (B) of this section, and light trespass from a property may not exceed one-half foot-candle at the property line.***

B. Table of Shielding Requirements.

Fixture Lamp Type	*Shielded*
Low/high pressure sodium, mercury vapor, metal halide and fluorescent over 50 watts	*Fully*
Incandescent over 160 watts	*Fully*
Incandescent 160 watts or less	*None*
Fossil fuel	*None*
Any light source of 50 watts or less	*None*
Other sources	*As approved by NMC 15.425.030*

Findings: The Applicant is proposing to use LED lamps for exterior lighting, as such the table of shielding requirements default to NMC 15.425.030 and a Director's approval.

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: The application materials indicate that all new utility lines will be located below ground and that there is no relocation of overhead utilities planned, however plans do not show this. As such, Any new service connection to the property are required to be undergrounded. Utility and Building Plans shall clearly show the undergrounding of new utility lines. See NMC 15.430.010 for additional requirements and exception provisions.

Upon adherence to the aforementioned condition of approval, the criteria is met.

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: No existing utility lines are proposed to be relocated, and proposed lines are to be undergrounded on site. This 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: The submitted materials do not show new connections to or relocations of electric, communication, natural gas, or cable television but do indicate in the narrative that all utilities will be undergrounded. Because they do not show that on any plans, Any new service connection to the property is required to be undergrounded. See NMC 15.430.010 for additional requirements and exception provisions.

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

Chapter 15.435 SIGNS

15.435.020 Applicability and exemptions.

A. All signs placed or maintained anywhere within the city shall comply with the standards of this chapter, with the exception of the following:

1. ***Public signs.***
2. ***Signs that are required to be placed by law and that are no more than 50 percent larger than the minimum size required by law or, if there is no minimum size specified, signs with lettering height no more than four inches.***
3. ***Signs painted on or attached to windows that do not cover more than 50 percent of the surface of that window.***
4. ***Signs located entirely within a building and not on a window.***
5. ***Signs not legible from the public right-of-way.***

Finding: Two signs are being proposed with this project as shown on the submitted site plan on sheet P06 at the corners of Springbrook and Hayes but no details of the signs were submitted with the application. As such, A sign permit shall be applied for, reviewed, and approved that meets all of Chapter 15.435 Signs prior to placement of such signs.

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

B. If any of the signs listed above require permits under the current edition of the Oregon Structural Specialty Code, the sign shall be placed only following issuance of such permit.

Finding: The proposed building is located away from public entries and will not require any new or additional signage and are therefore exempt from the standards of NMC 15.435. If any signs legible from the public right-of-way require permits, the signs shall be placed only following issuance of such permits.

This criterion is not applicable.

C. Nothing in this chapter shall be construed to allow placement of a sign on a property without the authority of the property owner.

[…]

Finding: The proposed building is located away from public entries and will not require any new or additional signage and are therefore exempt from the standards of NMC 15.435. Any signs placed on the property shall require the authority of the property owner.

This criterion is not applicable.

Chapter 15.440 OFF-STREET PARKING, BICYCLE PARKING, AND PRIVATE WALKWAYS

15.440.010 Required off-street parking.

A. Off-street parking shall be provided on the lot or development site for all R-1, C-1, M-1, M-2 and M-3 zones. In all other zones, the required parking shall be on the lot or development site or within 400 feet of the lot or development site which the parking is required to serve. All required parking must be under the same ownership as the lot or development site served except through special covenant agreements as approved by the city attorney, which bind the parking to the lot or development site.

1. In cases where the Applicant is proposing off-street parking, refer to subsection (F) of this section for the maximum number of parking spaces.

B. Off-street parking is required pursuant to NMC 15.440.030 in the C-2 district.

1. In cases where the Applicant is proposing off-street parking, refer to subsection (F) of this section for the maximum number of parking spaces.

C. Off-street parking is not required in the C-3 district, except for:

1. Dwelling units meeting the requirements noted in NMC 15.305.020.

2. New development which is either immediately adjacent to a residential district or separated by nothing but an alley.

3. In cases where the Applicant is proposing off-street parking, refer to subsection (F) of this section for the maximum number of parking spaces.

D. Within the C-4 district, the minimum number of required off-street parking spaces shall be 50 percent of the number required by NMC 15.440.030, except that no reduction is permitted for residential uses. For maximum number of off-street parking spaces refer to subsection (F) of this section.

E. All commercial, office, or industrial developments that have more than 20 off-street parking spaces and that have designated employee parking must provide at least one preferential carpool/vanpool parking space. The preferential carpool/vanpool parking space(s) must be located close to a building entrance.

F. Maximum Number of Off-Street Automobile Parking Spaces. The maximum number of off-street automobile parking spaces allowed per site equals the minimum number of required spaces, pursuant to NMC 15.440.030, multiplied by a factor of:

1. One and one-fifth spaces for uses fronting a street with adjacent on-street parking spaces; or

2. One and one-half spaces for uses fronting no street with adjacent on-street parking; or

3. A factor determined according to a parking analysis.

Findings: The findings below correspond with the sub-sections of the code:

A. This project is located in the C-2/SP zone and parking is proposed on the development site. The lots are also within 400 feet of each other and currently under the same ownership. This criterion is met.
B. The proposed properties are in the C-2/SP district. The off-street parking calculations can be seen in the finding for NMC 15.440.030
C. The proposed project is in the C-2/SP zoning district. Because the subject property is not in the C-3 zoning district, this criterion is not applicable.
D. The proposed project is in the C-2/SP zoning district. Because the subject property is not in the C-4 zoning district, this criterion is not applicable.
E. The development is not commercial, office or industrial, this criterion is not applicable.
F. The minimum number of required off-street parking spaces for the site is 164 as seen in NMC 15.440.030 in this staff report. There is no adjacent on-street parking on E Hayes Street or N Springbrook Road which means that the maximum amount of parking spaces allowed would be 197 using the 1.2 times the required off-street parking spaces method identified in sub-section (F)(1). The Applicant is proposing 159 off-street parking spaces which is below the maximum allowed parking spaces of 197. This criterion is met.

The criteria are either not applicable or are met.

15.440.020 Parking area and service drive design.

A. All public or private parking areas, parking spaces, or garages shall be designed, laid out and constructed in accordance with the minimum standards as set forth in NMC 15.440.070

Finding: NMC 15.440.070 directs the design of parking areas and services drives. The submitted site plan shows a two-way travel aisle with a 24-foot-wide service drive with 90-degree parking spaces. This design requires stall widths to be 9 feet wide and 18 feet long. Compact spaces may be 8 feet wide and 16 feet long and the Applicant has proposed some compact spaces but did not show them in their plans. The proposed parking areas are composed of asphalt for hard surfacing.

This criterion is met.

B. Groups of three or more parking spaces, except those in conjunction with a single-family detached dwelling, duplex dwelling, triplex dwelling, quadplex dwelling, townhouse dwelling or cottage cluster on a single lot, shall be served by a service drive so that no backward movement or other maneuvering of a vehicle within a street, other that an alley, will be required. Service drives shall be designed and constructed to

facilitate the flow of traffic, provide maximum safety in traffic access and egress and maximum safety of pedestrian and vehicular traffic on the site, but in no case shall two-way and one-way service drives be less than 20 feet and 12 feet respectively. Service drives shall be improved in accordance with the minimum standards as set forth in NMC 15.440.060

Finding: According to the submitted parking lot plan, no parking spaces will require a backward movement or other maneuvering of a vehicle within a street. The proposed service drive is a two-way service drive with a 24-foot width, which complies with the requirement when 90 degrees, 9-foot-wide parking spaces are utilized.

See the findings for NMC 15.440.060 for further information on service drive improvements.

This criterion is met.

C. Gates. A private drive or private street serving as primary access to more than one dwelling unit shall not be gated to limit access, except as approved by variance.

Finding: Neither a private drive nor private street are proposed within this project. This criterion is not applicable.

D. In the AI airport industrial district and AR airport residential district, taxiways may be used as part of the service drive design where an overall site plan is submitted that shows how the circulation of aircraft and vehicles are safely accommodated, where security fences are located, if required, and is approved by the fire marshal, planning director, and public works director. The following submittal must be made:

1. A drawing of the area to be developed, including the probable location, height, and description of structures to be constructed; the location and description of a security fence or gate to secure the aircraft operations areas of off-airport property for the other nonsecured pedestrian/auto/truck areas on on-airport property; the proposed location of the proposed taxiway access in accordance with FAA specifications (refer to Federal Aviation Administration Advisory Circular No. 150/5300-13 regarding airport design, and AC/5370-10B regarding construction standards for specifications that should be used as a guideline); and the identification of the vehicular traffic pattern area clearly separated from aircraft traffic. Once specific buildings have been designed, FAA Form 7460-1, Notice of Proposed Construction or Alteration, must be submitted to the City of Newberg, the private airport owner, and the FAA for airspace review.

Finding: This project is located in the C-2 / Community Commercial zone, not within the AI airport industrial district or AR airport residential district. Therefore, this criterion is not applicable.

15.440.030 Parking spaces required.

Use	Minimum Parking Spaces Required
Residential Types	
Dwelling, multifamily and multiple single-family dwellings on a single lot	
Studio or one-bedroom unit Two-bedroom unit Three- and four-bedroom unit Five- or more bedroom unit	1 per dwelling unit 1.5 per dwelling unit 2 per dwelling unit 0.75 spaces per bedroom
• Unassigned spaces	If a development is required to have more than 10 spaces on a lot, then it must provide some unassigned spaces. At least 15 percent of the total required parking spaces must be unassigned and be located for convenient use by all occupants of the development. The location shall be approved by the director.
• Visitor spaces	If a development is required to have more than 10 spaces on a lot, then it must provide at least 0.2 visitor spaces per dwelling unit.

Finding: Per NMC 15.440.030 the following parking spaces must be provided for a multi-family dwelling:

USE	MINIMUM PARKING SPACES REQUIRED	UNITS X RATE	REQUIRED PARKING
2 bedrooms	1.5 per dwelling unit	96 units x 1.5 =	144 parking spaces
Unassigned Parking Spaces ***Required for developments with over 10***	15% must be labeled as unassigned	.15 x 144 required spaces =	22 unassigned spaces required
Visitor Parking Spaces ***Required for developments with over 10***	.2 visitor spaces per dwelling unit	.2 x 96 total dwelling units =	20 visitor spaces required
TOTAL REQUIRED ***Spaces Required Per Dwelling Unit + Required Visitor Spaces***			**= Total of 164 parking spaces required for development**

Based on the floor plans provided by the Applicant, it shows that all 96 proposed multi-family units are 2-bedroom units. The Applicant's narrative states that 159 parking spaces will be provided. This is less than is required and as seen elsewhere in this staff report, seven (7) continuous parking spaces are not broken up for landscaping islands in some areas seen in the plans. The Applicant indicated that they plan to revise their plans to have all EV parking spaces to be compact to comply with the required parking but plans were not revised to show this. Because the required parking is not provided, the Applicant shall:

- provide an updated site plan showing at least 164 parking spaces that meet the requirements of NMC 15.440.060 and 15.440.070 prior to any permits being issued, or
- apply for a Type I code adjustment to reduce the number of required parking spaces, or
- 10 of the proposed dwelling units may be altered to 1-bedroom units to meet the requirements of NMC 15.440.030.

Additional requirements regarding parking and landscaping requirements can be seen in the findings for NMC 15.420.010 (B)(3).

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

15.440.060 Parking area and service drive improvements

All public or private parking areas, outdoor vehicle sales areas, and service drives shall be improved according to the following:

A. All parking areas and service drives shall have surfacing of asphaltic concrete or Portland cement concrete or other hard surfacing such as brick or concrete pavers. Other durable and dust-free surfacing materials may be approved by the director for infrequently used parking areas. All parking areas and service drives shall be graded so as not to drain stormwater over the public sidewalk or onto any abutting public or private property.

Finding: The Applicant's narrative and preliminary plans show that the parking will be hard surfaced asphalt pavement. Stormwater is shown to be drained to stormwater lines with outfalls into the creek on the existing properties without going over sidewalks or onto abutting property.

This criterion is met.

B. All parking areas shall be designed not to encroach on public streets, alleys, and other rights-of-way. Parking areas shall not be placed in the area between the curb and sidewalk or, if there is no sidewalk, in the public right-of-way between the curb and the property line. The director may issue a permit for exceptions for unusual circumstances where the design maintains safety and aesthetics.

Finding: The proposed parking layout does not locate any parking places so that a vehicle would encroach on public streets, alleys, or rights-of-way. The proposed site plan shows all parking will be on site and have at least a 10-foot landscape buffer between the parking space and the

sidewalk at the property line. No parking is proposed to take place within the right-of-way, between a curb and sidewalk, or outside of the site's property line.

This criterion is met.

C. All parking areas, except those required in conjunction with a single-family detached, duplex, triplex, quadplex or townhouse dwelling, or cottage cluster project, shall provide a substantial bumper which will prevent cars from encroachment on abutting private and public property.

Finding: No parking will be located that would allow a vehicle to encroach on abutting private or public properties. Therefore, no bumpers will be required although the site plan does show bumpers for ADA spaces, and all proposed EV spaces. Furthermore, the site plan shows parking stalls that face a property line will be screened by at least a 10-foot landscape buffer.

This criterion is met.

D. All parking areas, including service drives, except those required in conjunction with single-family detached, duplex, triplex, quadplex or townhouse dwellings or cottage cluster projects, shall be screened in accordance with NMC 15.420.010(B).

Finding: Please see NMC 15.420.010(B) for specific findings.

E. Any lights provided to illuminate any public or private parking area or vehicle sales area shall be so arranged as to reflect the light away from any abutting or adjacent residential district.

Finding: There is not a residential district directly abutting the properties but there are residential districts across the creek from the proposed development. Based on the current photometric plan submitted by the Applicant, no light is arranged to reflect light towards the nearby residential districts.

This criterion is met.

F. All service drives and parking spaces shall be substantially marked and comply with NMC 15.440.070.

Finding: The proposed plans shows all parking spaces marked and they all comply with NMC 15.440.070.

This criterion is met.

G. Parking areas for residential uses shall not be located in a required front yard, except as follows:

> ***1. Single-family detached, duplex, triplex, quadplex, and townhouse dwellings: parking is authorized in a front yard on a service drive which provides access to an improved parking area outside the front yard.***

Finding: This project is not associated with a residential use stated in the section. Therefore, this criterion is not applicable.

H. A reduction in size of the parking stall may be allowed for up to a maximum of 30 percent of the total number of spaces to allow for compact cars. For high turnover uses, such as convenience stores or fast-food restaurants, at the discretion of the director, all stalls will be required to be full-sized.

Finding: The development is required to have 164 parking places and proposed plans currently show 159. The Applicant has stated that they are planning on turning the EV spaces into compact spaces but that is not reflected in the plans currently submitted. A maximum of 49 spaces could be converted to compact spaces current to meet the maximum 30 percent. The proposed EV spaces currently comprise 33 spaces. Compact spaces are an 8 foot by 16 foot space. Due to the Applicant's narrative stating they plan on turning some parking spaces into compact stalls, The Applicant shall submit a revised site plan showing all parking spacing meeting the requirements of NMC 15.440.070 is required with building permit plans. Compact spaces shall be appropriately marked and dimensioned.

If the aforementioned condition is adhered to, this criterion will be met.

I. Affordable housing projects may use a tandem parking design, subject to approval of the community development director.

Finding: This project is not an affordable housing project, nor is it proposing tandem parking. This criterion is not applicable.

J. Portions of off-street parking areas may be developed or redeveloped for transit-related facilities and uses such as transit shelters or park-and-ride lots, subject to meeting all other applicable standards, including retaining the required minimum number of parking spaces.

Finding: Transit-related facilities are not proposed in this project. This criterion is not applicable.

15.440.080 Off-street loading

A. Buildings to be built or substantially altered which receive and distribute materials and merchandise by trucks shall provide and maintain off-street loading berths in sufficient number and size to adequately handle the needs of the particular use.

1. The following standards shall be used in establishing the minimum number of berths required:

Gross Floor Area of the Building in Square Feet	No. of Berths
Up to 10,000	1
10,000 and over	2

2. A loading berth shall contain a space 10 feet wide and 35 feet long and have a vertical clearance of 14 feet. Where the vehicles generally used for loading and unloading exceed these dimensions, the required length of these berths shall be increased.

3. Additional off-street loading requirements within the C-4 district are described in NMC 15.352.040(H)(7).

4. Where a facility includes an aircraft hangar, the off-street loading requirement is not required since loading may occur through the hangar doors.

B. The following provisions shall apply to off-street loading facilities:

1. The provision and maintenance of off-street loading space is a continuing obligation of the property owner. No building permit shall be issued until plans are presented that show property that is and will remain available for exclusive use as off-street loading space. The subsequent use of property for which the building permit is issued shall be conditional upon the unqualified continuance and availability of the amount of loading space required by this code. Should the owner or occupant of any building change the use to which the building is put, thereby increasing off-street loading requirements, it shall be unlawful and a violation of this code to begin or maintain such altered use until such time as the increased off-street loading requirements are met.

2. Owners of two or more buildings may agree to utilize jointly the same loading spaces when the hours of operation do not overlap; provided, that satisfactory legal evidence is presented to the city attorney in the form of deeds, leases or contracts to establish the joint use.

3. A plan drawn to scale, indicating how the off-street loading requirements are to be fulfilled, shall accompany an application for a building permit.

4. Design Requirements for Loading Areas.

a. Areas used for standing and maneuvering of vehicles shall have durable and dustless surfaces of asphaltic concrete or portland cement concrete, maintained adequately for all-weather use and so drained as to avoid flow of water across the sidewalks.

b. Loading areas adjacent to residential zones designed to minimize disturbance of residents.

c. Artificial lighting which may be provided shall be so deflected as not to shine or create glare in any residential zone or on any adjacent dwelling.

d. Access aisles shall be of sufficient width for all vehicular turning and maneuvering.

e. Vision clearance standards as identified in NMC 15.410.060 shall apply.

Finding: The proposed project will construct a multi-family development; materials and merchandise will not be received and distributed from this site. Therefore, this criterion is not applicable.

[…]

Article II. Bicycle Parking

15.440.100 Facility requirements.
Bicycle parking facilities shall be provided for the uses shown in the following table. Fractional space requirements shall be rounded up to the next whole number.

Use	*Minimum Number of Bicycle Parking Spaces Required*
New multiple dwellings, including additions creating additional dwelling units	*One bicycle parking space for every four dwelling units*
New commercial, industrial, office, and institutional developments, including additions that total 4,000 square feet or more	*One bicycle parking space for every 10,000 square feet of gross floor area. In C-4 districts, two bicycle parking spaces, or one per 5,000 square feet of building area, must*

Use	*Minimum Number of Bicycle Parking Spaces Required*
	be provided, whichever is greater
Transit centers and park and ride lots	*Four spaces or one per 10 vehicle spaces, whichever is greater[a + b]*
Parks	*Two bicycle parking spaces within 50 feet of each developed play-ground, ball field, or shelter*
Transit stops	*Two spaces[a]*

Notes:

a. Short-term bicycle parking is parking intended to be used for durations less than two hours. Short-term bicycle parking shall consist of a stationary rack or other approved structure to which the bicycle can be locked securely and shall be located within 50 feet of the main building entrance or one of several main entrances, and no further from an entrance than the closest automobile parking space. Shelter or cover may be required for a specified percentage of short-term parking.

b. Long-term bicycle parking is parking intended to be used for durations over two hours. Long-term parking shall consist of a lockable enclosure, a secure room in a building on-site, monitored parking, or another form of fully sheltered and secure parking.

[Ord. 2862 § 1 (Exh. A § 3), 6-15-20; Ord. 2564, 4-15-02; Ord. 2518, 9-21-99. Code 2001 § 151.625.2.]

15.440.110 Design.

A. Bicycle parking facilities shall consist of one or more of the following:

1. A firmly secured loop, bar, rack, or similar facility that accommodates locking the bicycle frame and both wheels using a cable or U-shaped lock.

2. An enclosed locker.

3. A designated area within the ground floor of a building, garage, or storage area. Such area shall be clearly designated for bicycle parking.

4. Other facility designs approved by the director.

B. All bicycle parking spaces shall be at least six feet long and two and one-half feet wide. Spaces shall not obstruct pedestrian travel.

C. All spaces shall be located within 50 feet of a building entrance of the development.

D. Required bicycle parking facilities may be located in the public right-of-way adjacent to a development subject to approval of the authority responsible for maintenance of that right-of-way. [Ord. 2518, 9-21-99. Code 2001 § 151.625.3.]

Finding: The 96-unit multi-family development would be required to have one bicycle space for every four units, for a total of twenty four (24) bicycle parking spaces. Per the Applicant's narrative, they are proposing 24 bike parking spaces with 6 next to each main entry. However, only 12 spaces are clearly shown on the Applicant's plans. Because the site plan only shows 12 parking spaces, a revised site plan clearly showing 24 bicycle parking spaces shall be provided prior to a building permit being issued.

If the aforementioned condition is adhered to, this criterion will be met.

[…]

Article III. Private Walkways

15.440.130 Where required.
Private walkways shall be constructed as part of any development requiring Type II design review, including mobile home parks. In addition, they may be required as part of conditional use permits or planned unit developments. In the airport industrial (AI) district and residential (AR) district, on-site walks are not required in aircraft operations areas, such as parking aprons, taxiways, and runways. [Ord. 2647, 6-5-06; Ord. 2619, 5-16-05; Ord. 2513, 8-2-99. Code 2001 § 151.620.2.]

15.440.140 Private walkway design.
A. All required private walkways shall meet the applicable building code and Americans with Disabilities Act requirements.

Finding: The Applicant does show one accessible route of the south side of parcel R3216 02025 for connection between buildings on the site but otherwise does not give details on accessible routed. Due to a lack of details about accessible routes, Each tax lot (R3216 02025 and R3216 02017) shall have one private walkway that meets the Americans with Disabilities Act (ADA) requirements to either N Springbrook Road or E Hayes Street

If the aforementioned condition is adhered to, this criterion will be met.

B. Required private walkways shall be a minimum of four feet wide.

Finding: There is conflicting information in the site plans and landscaping plans that show the pathways either at approximately 3 feet or 7 feet in the development. Due to this discrepancy, an

updated site plan shall be submitted prior to building permit review showing all walkways being a minimum of four feet wide.

If the aforementioned condition is adhered to, this criterion will be met.

C. Required private walkways shall be constructed of portland cement concrete or brick.

Finding: On the site plan, walkways are shown as being constructed of concrete. To ensure that all walkways are hard surfaced, walkways on the site shall be constructed of concrete or brick.

If the aforementioned condition is adhered to, this criterion will be met.

D. Crosswalks crossing service drives shall, at a minimum, be painted on the asphalt or clearly marked with contrasting paving materials or humps/raised crossings. If painted striping is used, it should consist of thermoplastic striping or similar type of durable application.

Finding: The proposed development shows one crosswalk crossing a service drive on the far south side of tax lot R3216 02025 and another going from Building C across to the trash enclosure on tax lot R3216 02017. There are no other crosswalks across service drives proposed. As the crosswalks do not say what type of materials they are using for paint, thermoplastic striping or other similar type acceptable to the City Engineer shall be used for the crosswalks going across the service drives.

E. At a minimum, required private walkways shall connect each main pedestrian building entrance to each abutting public street and to each other.

Finding: The site plan shows connection from proposed Buildings B and C to E Hayes Street and to Building A on the same property. Proposed Building A also has a connection to E Hayes Street. There is no connection on tax lot R3216 02017 to N Springbrook Road.

The site plan also shows a connection from Building D to E Hayes Street and to the other buildings through a walkway on the far south side of tax lot R3216 02025. However, no connection to N Springbrook Road is shown. Building E on the same tax lot currently has to travel over 600 feet from the farthest southeast units to get to the sidewalk on E Hayes Street without walking across a drive aisle. Staff finds that this is impractical and most people would just walk across the drive aisle to get to the sidewalk on E Hayes Street. This creates a safety conflict with cars. There is also no walkway on tax lot R3216 02025 out to N Springbrook Road.

The following must be met to have an acceptable walkway on the properties: The Applicant shall provide an updated site plan demonstrating the following modifications:

- The pathway in front of proposed Building E shall be extended to connect with the sidewalk on E Hayes Street.

- There shall be a walkway to N Springbrook Road on Tax Lot R3216 02017. Staff suggest this occur near the trash enclosure to limit the distance of the required walkway.
- There shall be a walkway to N Springbrook Road on Tax Lot R3216 02025

If the aforementioned conditions are adhered to, this criterion will be met.

F. The review body may require on-site walks to connect to development on adjoining sites.

Finding: There is not another development that staff believe the development needs to connect to. The only adjacent development is the unincorporated Grange property to the south with the rest of the area is limited by a stormwater pond and creek.

G. The review body may modify these requirements where, in its opinion, the development provides adequate on-site pedestrian circulation, or where lot dimensions, existing building layout, or topography preclude compliance with these standards.

Finding: Staff believes the findings above regarding walkways are fair but leaves it at the discretion of the Planning Commission if they believe other walkways or circulation is appropriate.

E. FINDINGS FOR PUBLIC IMPROVEMENT STANDARDS (NMC TITLE 15.500)

Chapter 15.505 Public Improvement Standards
15.505.010 Purpose.

This chapter provides standards for public infrastructure and utilities installed with new development, consistent with the policies of the City of Newberg comprehensive plan and adopted city master plans. The standards are intended to minimize disturbance to natural features, promote energy conservation and efficiency, minimize and maintain development impacts on surrounding properties and neighborhoods, and ensure timely completion of adequate public facilities to serve new development. [Ord. 2810 § 2 (Exhs. B, C), 12-19-16.]

15.505.020 Applicability.

The provision and utilization of public facilities and services within the City of Newberg shall apply to all land developments in accordance with this chapter. No development shall be approved unless the following improvements are provided for prior to occupancy or operation, unless future provision is assured in accordance with NMC 15.505.030(E).

Finding: All improvements reviewed under this application are identified in the NMC 15.505 section specific to them and are conditioned to comply with the Public Works Design and Construction Standards in those sections.

This criterion is met.

A. Public Works Design and Construction Standards. The design and construction of all improvements within existing and proposed rights-of-way and easements, all improvements to be maintained by the city, and all improvements for which city approval is required shall comply with the requirements of the most recently adopted Newberg public works design and construction standards.

Finding: The submitted materials show that the project site is served by existing public improvements. Most required public improvements were constructed as part of a previous project. New public roadway and utility improvements are not proposed, and except for street lighting and sidewalks none are required.

The plans do show proposed driveway locations, existing and proposed water service laterals and existing wastewater service laterals at the site.

Plans submitted with a permit application for public improvements, as found to be required during the permit plan review process, are to meet the requirements of the current City of Newberg Public Works Design and Construction Standards.

Plans will be fully reviewed for compliance with city standards including the Public Works Design and Construction Standards as part of the permit plan review process.

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

B. Street Improvements. All projects subject to a Type II design review, partition, or subdivision approval must construct street improvements necessary to serve the development.

Finding: The submitted materials show that the project site is served by existing public improvements. Most required public improvements were constructed as part of a previous project. New public roadway and utility improvements are not proposed, and except for street lighting and sidewalks none are required.

All street improvements required for this application are identified in the NMC 15.505.030 section specific to them and are conditioned to comply with the Public Works Design and Construction Standards in those sections. Sections of NMC 15.505.030 that are not applicable for this application are omitted for brevity.

This criterion is met.

C. Water. All developments, lots, and parcels within the City of Newberg shall be served by the municipal water system as specified in Chapter 13.15 NMC.

Finding: The submitted materials show that the project site is served by existing public improvements. There is an existing 24-inch water main located along E Hayes Street. Water service stubs to the project site are shown connected to this water main. The preliminary plans do show new water connections to the public water line in E Hayes Street.

Because the Applicant has not submitted construction plans for the new water connections, the Applicant is required to submit construction plans and obtain a public improvement permit for connection to the public water main for the proposed water services.

Plans will be fully reviewed for compliance with city standards including the Public Works Design and Construction Standards as part of the permit plan review process.

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

D. Wastewater. All developments, lots, and parcels within the City of Newberg shall be served by the municipal wastewater system as specified in Chapter 13.10 NMC.

Finding: The submitted materials show that the project site is served by existing public improvements. There is an existing 8-inch wastewater line in E Hayes Street. Service laterals to the site are also shown. The preliminary plans do show new connections to the public wastewater system

Because the Applicant has not submitted construction plans for the new wastewater connections, the Applicant is required to submit construction plans and obtain a public improvement permit for connection to the public wastewater system for the proposed wastewater services. A manhole will be required at the connection to the public wastewater system.

The wastewater analysis of impacts to the wastewater system from the proposed development is required to be submitted with permit applications.

Plans will be fully reviewed for compliance with city standards including the Public Works Design and Construction Standards as part of the permit plan review process.

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

E. Stormwater. All developments, lots, and parcels within the City of Newberg shall manage stormwater runoff as specified in Chapters 13.20 and 13.25 NMC.

Finding: The submitted materials show that there will be a net increase in impervious area of more than 500-square feet. The Applicant has proposed private stormwater facilities to meet stormwater management requirements.

Because there is a net increase of 500 square feet or more in impervious area, the Applicant will be required to submit a stormwater report and plans for stormwater management that meet the

requirements of Chapters 13.20 and 13.25 NMC and comply with the Public Works Design and Construction Standards with the permit application. This includes compliance with Public Works Design and Construction Standards section 4.6.8 Facility Selection Hierarchy.

Plans will be fully reviewed for compliance with city standards including the Public Works Design and Construction Standards as part of the permit plan review process.

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

F. Utility Easements. Utility easements shall be provided as necessary and required by the review body to provide needed facilities for present or future development of the area.

Finding: The submitted materials show existing utility easements. The preliminary plans show construction activity occurring on an adjacent property, Tax Lot 2024 of Tax Map 3S2W16, east of the project site.

The Applicant is required to provide recorded access and private utility easements necessary for work and private stormwater facilities shown on plans as occurring on adjacent property, Tax Lot 2024 of Tax Map 3S2W16, east of the project site. The necessary recorded easements are to be submitted during the Building Permit process and prior to occupancy.

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

G. City Approval of Public Improvements Required. No building permit may be issued until all required public facility improvements are in place and approved by the director, or are otherwise bonded for in a manner approved by the review authority, in conformance with the provisions of this code and the Newberg Public Works Design and Construction Standards. [Ord. 2810 § 2 (Exhs. B, C), 12-19-16.]

Finding: Any required public improvement permit(s) for this project must be submitted, approved and issued prior to building permits being issued.

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

15.505.030 Street standards.

A. Purpose. The purpose of this section is to:

1. Provide for safe, efficient, and convenient multi-modal transportation within the City of Newberg.

2. Provide adequate access to all proposed and anticipated developments in the City of Newberg. For purposes of this section, "adequate access" means direct routes of travel

between destinations; such destinations may include residential neighborhoods, parks, schools, shopping areas, and employment centers.

3. Provide adequate area in all public rights-of-way for sidewalks, wastewater and water lines, stormwater facilities, natural gas lines, power lines, and other utilities commonly and appropriately placed in such rights-of-way. For purposes of this section, "adequate area" means space sufficient to provide all required public services to standards defined in this code and in the Newberg public works design and construction standards.

B. Applicability. The provisions of this section apply to:

1. The creation, dedication, and/or construction of all public streets, bike facilities, or pedestrian facilities in all subdivisions, partitions, or other developments in the City of Newberg.

2. The extension or widening of existing public street rights-of-way, easements, or street improvements including those which may be proposed by an individual or the city, or which may be required by the city in association with other development approvals.

3. The construction or modification of any utilities, pedestrian facilities, or bike facilities in public rights-of-way or easements.

4. The designation of planter strips. Street trees are required subject to Chapter 15.420 NMC.

5. Developments outside the city that tie into or take access from city streets.

Finding: The submitted materials show that the project site is served by existing public improvements. Most required public improvements were constructed as part of a previous project. New public roadway and utility improvements are not proposed, and except for street lighting and sidewalks none are required.

All street improvements required for this application are identified in the NMC 15.505.030 section specific to them and are conditioned to comply with the Public Works Design and Construction Standards in those sections. Sections of NMC 15.505.030 that are not applicable for this application are omitted for brevity.

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

[…]

E. Improvements to Existing Streets.

1. All projects subject to partition, subdivision, or Type II design review approval shall dedicate right-of-way sufficient to improve the street to the width specified in subsection (G) of this section.

2. All projects subject to partition, subdivision, or Type II design review approval must construct a minimum of a three-quarter street improvement to all existing streets adjacent to, within, or necessary to serve the development. The director may waive or modify this requirement where the Applicant demonstrates that the condition of existing streets to serve the development meets city standards and is in satisfactory condition to handle the projected traffic loads from the development. Where a development has frontage on both sides of an existing street, full street improvements are required.

3. In lieu of the street improvement requirements outlined in NMC 15.505.040(B), the review authority may elect to accept from the Applicant monies to be placed in a fund dedicated to the future reconstruction of the subject street(s). The amount of money deposited with the city shall be 100 percent of the estimated cost of the required street improvements (including any associated utility improvements), and 10 percent of the estimated cost for inflation. Cost estimates used for this purpose shall be based on preliminary design of the constructed street provided by the Applicant's engineer and shall be approved by the director.

Finding: The submitted materials show that the project site is served by existing public improvements. Most required public improvements were constructed as part of a previous project. New public roadway and utility improvements are not proposed, and except for street lighting and sidewalks none are required.

All street improvements required for this application are identified in the NMC 15.505.030 section specific to them and are conditioned to comply with the Public Works Design and Construction Standards in those sections. Sections of NMC 15.505.030 that are not applicable for this application are omitted for brevity.

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

F. Improvements Relating to Impacts. Improvements required as a condition of development approval shall be roughly proportional to the impact of the development on public facilities and services. The review body must make findings in the development approval that indicate how the required improvements are roughly proportional to the impact. Development may not occur until required transportation facilities are in place or guaranteed, in conformance with the provisions of this code. If required transportation facilities cannot be put in place or be guaranteed, then the review body shall deny the requested land use application.

Finding: The submitted materials include a traffic study dated July 8, 2024. The traffic study identified that the N Springbrook Road/E Haworth Avenue intersection is functioning below the City's level of service standard and that trips from the proposed development would continue to degrade the performance of the existing stop-controlled intersection.

Project I09 in the City's 2016 Transportation System Plan (TSP) calls for installing a traffic signal and left turn lanes on E Haworth, at the N Springbrook Road/E Haworth Avenue intersection with an estimated cost of $400,000 (2016 dollars). The traffic study notes that 8 AM trips out of a total

1259 AM trips and 9 PM trips out of a total of 1589 PM trips are being added to the Springbrook Road/Haworth Avenue intersection as a direct result of the development. A Traffic Impact Fee was developed to capture the proportional impact of the development on public facilities and services.

Because the Applicant's development is adversely impacting the N Springbrook Road/E Haworth Avenue intersection, the Applicant will be required to pay a Traffic Impact Fee for the Springbrook Road/Haworth Avenue intersection which is being assessed based on the proportional impact of the development on public facilities and services. The following formula was used to develop a Traffic Impact Fee to capture the proportional impact of the development based on the most significant AM or PM proportional volume contribution:
(8 AM trips directly proportional to the development)/(1259 AM peak hour total trips through the intersection)*($400,000 for the TSP cost of an intersection upgrade) = $2,542 Traffic Impact Fee.
The Traffic Impact Fee of $2,542 is to be paid at the time of, or prior to, building permit issuance.

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

[…]

R. Vehicular Access Standards.

1. Purpose. The purpose of these standards is to manage vehicle access to maintain traffic flow, safety, roadway capacity, and efficiency. They help to maintain an adequate level of service consistent with the functional classification of the street. Major roadways, including arterials and collectors, serve as the primary system for moving people and goods within and through the city. Access is limited and managed on these roads to promote efficient through movement. Local streets and alleys provide access to individual properties. Access is managed on these roads to maintain safe maneuvering of vehicles in and out of properties and to allow safe through movements. If vehicular access and circulation are not properly designed, these roadways will be unable to accommodate the needs of development and serve their transportation function.

2. Access Spacing Standards. Public street intersection and driveway spacing shall follow the standards in Table 15.505.R below. The Oregon Department of Transportation (ODOT) has jurisdiction of some roadways within the Newberg city limits, and ODOT access standards will apply on those roadways.

Table 15.505.R. Access Spacing Standards

Roadway Functional Classification	*Area*[1]	*Minimum Public Street Intersection Spacing (Feet)*[2]	*Driveway Setback from Intersecting Street*[3]
Expressway	*All*	*Refer to ODOT Access Spacing Standards*	*NA*
Major arterial	*Urban* *CBD*	*Refer to ODOT Access Spacing Standards*	
Minor arterial	*Urban* *CBD*	*500* *200*	*150* *100*
Major collector	*All*	*400*	*150*
Minor collector	*All*	*300*	*100*

[1] "Urban" refers to intersections inside the city urban growth boundary outside the central business district (C-3 zone).

"CBD" refers to intersections within the central business district (C-3 zone).

"All" refers to all intersections within the Newberg urban growth boundary.

[2] Measured centerline to centerline.

[3] The setback is based on the higher classification of the intersecting streets. Measured from the curb line of the intersecting street to the beginning of the driveway, excluding flares. If the driveway setback listed above would preclude a lot from having at least one driveway, including shared driveways or driveways on adjoining streets, one driveway is allowed as far from the intersection as possible.

Finding: The submitted materials show the beginning of the proposed driveways on E Hayes Street as being greater than 150-feet from the curb line of the intersecting street, N Springbrook Road, a minor arterial.

This criterion is met.

3. Properties with Multiple Frontages. Where a property has frontage on more than one street, access shall be limited to the street with the lesser classification.

a. For a duplex, triplex or quadplex dwelling or a cottage cluster project with frontage on two local streets, access may be permitted on both streets.

Finding: The submitted materials show that the properties comprising the project site have frontages on E Hayes Street, a major collector and on N Springbrook Road, a minor arterial. Proposed driveways are shown only on E Hayes Street, the street with the lesser classification.

This criterion is met.

[…]

9. ODOT or Yamhill County Right-of-Way. Where a property abuts an ODOT or Yamhill County right-of-way, the Applicant for any development project shall obtain an access permit from ODOT or Yamhill County.

Finding: The proposed development abuts an ODOT right-of-way on N Springbrook Road but no access is proposed from this road.

[…]

S. Public Walkways.

1. Projects subject to Type II design review, partition, or subdivision approval may be required to provide public walkways where necessary for public safety and convenience, or where necessary to meet the standards of this code. Public walkways are meant to connect cul-de-sacs to adjacent areas, to pass through oddly shaped or unusually long blocks, to provide for networks of public paths according to adopted plans, or to provide access to schools, parks or other community destinations or public areas. Where practical, public walkway easements and locations may also be used to accommodate public utilities.

2. Public walkways shall be located within a public access easement that is a minimum of 15 feet in width.

3. A walk strip, not less than 10 feet in width, shall be paved in the center of all public walkway easements. Such paving shall conform to specifications in the Newberg public works design and construction standards.

4. Public walkways shall be designed to meet the Americans with Disabilities Act requirements.

5. Public walkways connecting one right-of-way to another shall be designed to provide as short and straight of a route as practical.

6. The developer of the public walkway may be required to provide a homeowners' association or similar entity to maintain the public walkway and associated improvements.

7. Lighting may be required for public walkways in excess of 250 feet in length.

8. The review body may modify these requirements where it finds that topographic, preexisting development, or similar constraints exist.

Finding: The Applicant is providing the required sidewalk on E Hayes Street that currently does not exist. As there are no cul-de-sacs, oddly shaped or long lots and there is no additional network paths in adopted plans.

This criterion is not applicable.

T. Street Trees. Street trees shall be provided for all projects subject to Type II design review, partition, or subdivision. Street trees shall be installed in accordance with the provisions of NMC 15.420.010(B)(4).

Finding: Street trees will be provided for. Full findings can be seen in NMC 15.420.010(B)(4) seen elsewhere in this staff report.

U. Street Lights. All developments shall include underground electric service, light standards, wiring and lamps for street lights according to the specifications and standards of the Newberg public works design and construction standards. The developer shall install all such facilities and make the necessary arrangements with the serving electric utility as approved by the city. Upon the city's acceptance of the public improvements associated with the development, the street lighting system, exclusive of utility-owned service lines, shall be and become property of the city unless otherwise designated by the city through agreement with a private utility.

Finding: The submitted materials do not include street lighting along the project site street frontages meeting city standards. Because the proposed project does not include street lighting along street frontages meeting city standards, the Applicant shall provide a lighting analysis on the public improvement permit which includes:

- An analysis of street lighting along Springbrook Road and Hayes Steet frontages demonstrating that the existing lighting along the project site's frontages meet city standards or plans to install additional PGE Option A streetlights necessary to meet City standards will be required with the public works improvements permit application.
- Street lighting analysis will need to extend to the center line of the street for all frontages, unless otherwise coordinated with, or directed by, the City Engineer.
- An analysis to determine, and address any potential lighting trespass and glare onto properties on the west side of Springbrook will also be required.

Plans will be fully reviewed for compliance with city standards including the Public Works Design and Construction Standards as part of the permit plan review process.

Because the submitted materials do not address the need for possible permits from ODOT for installation of streetlights along the N Springbrook Road frontages, the Applicant will be required to obtain any necessary ODOT permits to perform work within ODOT right-of-way. Any necessary ODOT permit are to be obtained and submitted as part of the public improvement permit process.

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

V. Transit Improvements. Development proposals for sites that include or are adjacent to existing or planned transit facilities, as shown in the Newberg transportation system plan or adopted local or regional transit plan, shall be required to provide any of the following, as applicable and required by the review authority:

1. Reasonably direct pedestrian connections between the transit facility and building entrances of the site. For the purpose of this section, "reasonably direct" means a route that does not deviate unnecessarily from a straight line or a route that does not involve a significant amount of out-of-direction travel for users.

2. A transit passenger landing pad accessible to disabled persons.

3. An easement of dedication for a passenger shelter or bench if such facility is in an adopted plan.

4. Lighting at the transit facility. [Ord. 2889 § 2 (Exh. B §§ 43 – 45), 12-6-21; Ord. 2880 § 2 (Exh. B §§ 51, 52), 6-7-21; Ord. 2871 § 3 (Exh. D), 3-1-21; Ord. 2862 § 1 (Exh. A § 1), 6-15-20; Ord. 2822 § 1 (Exh. A), 2-5-18; Ord. 2810 § 2 (Exhs. B, C), 12-19-16; Ord. 2763 § 1 (Exh. A § 19), 9-16-13; Ord. 2736 § 1 (Exh. A §§ 1, 3, 4), 3-21-11; Ord. 2619, 5-16-05; Ord. 2513, 8-2-99; Ord. 2507, 3-1-99; Ord. 2494, 4-6-98; Ord. 2451, 12-2-96. Code 2001 §§ 151.681, 151.683, 151.684 – 151.686, 151.689 – 151.692, 151.694, 151.695, 151.701 – 151.703, 151.705.]

Finding: The submitted materials do not include planned transit facilities, and none are required. The project site does not include and is not adjacent to existing or planned transit facilities.

This criterion is not applicable.

15.505.040 Public utility standards.

A. Purpose. The purpose of this section is to provide adequate services and facilities appropriate to the scale and type of development.

B. Applicability. This section applies to all development where installation, extension or improvement of water, wastewater, or private utilities is required to serve the development or use of the subject property.

C. General Standards.

1. The design and construction of all improvements within existing and proposed rights-of-way and easements, all improvements to be maintained by the city, and all improvements for which city approval is required shall conform to the Newberg public works design and construction standards and require a public improvements permit.

2. The location, design, installation and maintenance of all utility lines and facilities shall be carried out with minimum feasible disturbances of soil and site. Installation of all proposed public and private utilities shall be coordinated by the developer and be approved by the city to ensure the orderly extension of such utilities within public right-of-way and easements.

D. Standards for Water Improvements. All development that has a need for water service shall install the facilities pursuant to the requirements of the city and all of the following standards. Installation of such facilities shall be coordinated with the extension or improvement of necessary wastewater and stormwater facilities, as applicable.

1. All developments shall be required to be linked to existing water facilities adequately sized to serve their intended area by the construction of water distribution lines, reservoirs and pumping stations which connect to such water service facilities. All necessary easements required for the construction of these facilities shall be obtained by the developer and granted to the city pursuant to the requirements of the city.

2. Specific location, size and capacity of such facilities will be subject to the approval of the director with reference to the applicable water master plan. All water facilities shall conform with city pressure zones and shall be looped where necessary to provide adequate pressure and fire flows during peak demand at every point within the system in the development to which the water facilities will be connected. Installation costs shall remain entirely the developer's responsibility.

3. The design of the water facilities shall take into account provisions for the future extension beyond the development to serve adjacent properties, which, in the judgment of the city, cannot be feasibly served otherwise.

4. Design, construction and material standards shall be as specified by the director for the construction of such public water facilities in the city.

Finding: The submitted materials show that the project site is served by existing public improvements. There is an existing 24-inch water main located along E Hayes Street. Water service stubs to the project site are shown connected to this water main. The preliminary plans do show new water connections to the public water line in E Hayes Street.

Because the Applicant has not submitted construction plans for the new water connections, the Applicant is required to submit construction plans and obtain a public improvement permit for connection to the public water main for the proposed water services.

Plans will be fully reviewed for compliance with city standards including the Public Works Design and Construction Standards as part of the permit plan review process.

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

E. Standards for Wastewater Improvements. All development that has a need for wastewater services shall install the facilities pursuant to the requirements of the city and all of the following standards. Installation of such facilities shall be coordinated with the extension or improvement of necessary water services and stormwater facilities, as applicable.

1. All septic tank systems and on-site sewage systems are prohibited. Existing septic systems must be abandoned or removed in accordance with Yamhill County standards.

2. All properties shall be provided with gravity service to the city wastewater system, except for lots that have unique topographic or other natural features that make gravity wastewater extension impractical as determined by the director. Where gravity service is impractical, the developer shall provide all necessary pumps/lift stations and other improvements, as determined by the director.

3. All developments shall be required to be linked to existing wastewater collection facilities adequately sized to serve their intended area by the construction of wastewater lines which connect to existing adequately sized wastewater facilities. All necessary easements required for the construction of these facilities shall be obtained by the developer and granted to the city pursuant to the requirements of the city.

4. Specific location, size and capacity of wastewater facilities will be subject to the approval of the director with reference to the applicable wastewater master plan. All wastewater facilities shall be sized to provide adequate capacity during peak flows from the entire area potentially served by such facilities. Installation costs shall remain entirely the developer's responsibility.

5. Temporary wastewater service facilities, including pumping stations, will be permitted only if the director approves the temporary facilities, and the developer provides for all facilities that are necessary for transition to permanent facilities.

6. The design of the wastewater facilities shall take into account provisions for the future extension beyond the development to serve upstream properties, which, in the judgment of the city, cannot be feasibly served otherwise.

7. Design, construction and material standards shall be as specified by the director for the construction of such wastewater facilities in the city.

Finding: The submitted materials show that the project site is served by existing public improvements. There is an existing 8-inch wastewater line in E Hayes Street. Service laterals to the site are also shown. The preliminary plans do show new connections to the public wastewater system

Because the Applicant has not submitted construction plans for the new wastewater connections, the Applicant is required to submit construction plans and obtain a public improvement permit

for connection to the public wastewater system for the proposed wastewater services. A manhole will be required at the connection to the public wastewater system.

The wastewater analysis of impacts to the wastewater system from the proposed development is required to be submitted with permit applications.

Plans will be fully reviewed for compliance with city standards including the Public Works Design and Construction Standards as part of the permit plan review process.

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

F. Easements. Easements for public and private utilities shall be provided as deemed necessary by the city, special districts, and utility companies. Easements for special purpose uses shall be of a width deemed appropriate by the responsible agency. Such easements shall be recorded on easement forms approved by the city and designated on the final plat of all subdivisions and partitions. Minimum required easement width and locations are as provided in the Newberg public works design and construction standards. [Ord. 2810 § 2 (Exhs. B, C), 12-19-16.]

Finding: The submitted materials show existing utility easements. The preliminary plans show construction activity occurring on an adjacent property, Tax Lot 2024 of Tax Map 3S2W16, east of the project site.

The Applicant is required to provide recorded access and private utility easements necessary for work and private stormwater facilities shown on plans as occurring on adjacent property, Tax Lot 2024 of Tax Map 3S2W16, east of the project site. The necessary recorded easements are to be submitted during the Building Permit process and prior to occupancy.

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

15.505.050 Stormwater system standards.

A. Purpose. The purpose of this section is to provide for the drainage of surface water from all development; to minimize erosion; and to reduce degradation of water quality due to sediments and pollutants in stormwater runoff.

B. Applicability. The provisions of this section apply to all developments subject to site development review or land division review and to the reconstruction or expansion of such developments that increases the flow or changes the point of discharge to the city stormwater system. Additionally, the provisions of this section shall apply to all drainage facilities that impact any public storm drain system, public right-of-way or public easement, including but not limited to off-street parking and loading areas.

C. General Requirement. All stormwater runoff shall be conveyed to a public storm wastewater or natural drainage channel having adequate capacity to carry the flow without overflowing or otherwise causing damage to public and/or private property. The developer shall pay all costs associated with designing and constructing the facilities necessary to meet this requirement.

Finding: The submitted materials show that there will be a net increase in impervious area of more than 500-square feet. The Applicant has proposed private stormwater facilities to meet stormwater management requirements.

Because there is a net increase of 500 square feet or more in impervious area, the Applicant will be required to submit a stormwater report and plans for stormwater management that meet the requirements of Chapters 13.20 and 13.25 NMC and comply with the Public Works Design and Construction Standards with the permit application. This includes compliance with Public Works Design and Construction Standards section 4.6.8 Facility Selection Hierarchy.

Plans will be fully reviewed for compliance with city standards including the Public Works Design and Construction Standards as part of the permit plan review process.

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

D. Plan for Stormwater and Erosion Control. No construction of any facilities in a development included in subsection (B) of this section shall be permitted until an engineer registered in the State of Oregon prepares a stormwater report and erosion control plan for the project. This plan shall contain at a minimum:

> ***1. The methods to be used to minimize the amount of runoff, sedimentation, and pollution created from the development both during and after construction.***
>
> ***2. Plans for the construction of stormwater facilities and any other facilities that depict line sizes, profiles, construction specifications, and other such information as is necessary for the city to review the adequacy of the stormwater plans.***
>
> ***3. Design calculations shall be submitted for all drainage facilities. These drainage calculations shall be included in the stormwater report and shall be stamped by a licensed professional engineer in the State of Oregon. Peak design discharges shall be computed based upon the design criteria outlined in the public works design and construction standards for the city.***

Finding: The submitted materials include a preliminary stormwater report and preliminary erosion and sediment control plans for the proposed project.

Because the Applicant has not submitted a final stormwater report, the Applicant will be required to submit a stormwater report and plans for stormwater management that meet the requirements of Chapters 13.20 and 13.25 NMC and comply with the Public Works Design and Construction

Standards with the permit application. This includes compliance with Public Works Design and Construction Standards section 4.6.8 Facility Selection Hierarchy.

Plans will be fully reviewed for compliance with city standards including the Public Works Design and Construction Standards as part of the permit plan review process.

Because the proposed project will disturb more than 1 acre, the Applicant will be required to obtain a DEQ 1200C permit and submit the approved DEQ 1200C Permit with permit applications.

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

E. Development Standards. Development subject to this section shall be planned, designed, constructed, and maintained in compliance with the Newberg public works design and construction standards. [Ord. 2810 § 2 (Exhs. B, C), 12-19-16.]

Finding: The submitted materials indicate that the development will meet requirements of the Newberg Public Works Design and Construction A Standards.

Because the Applicant has not submitted construction plans, construction plans which comply with the Newberg Public Works Design and Construction Standards shall be submitted with the public works improvement permit application.

Plans will be fully reviewed for compliance with city standards including the Public Works Design and Construction Standards as part of the permit plan review process.

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

F. FINDINGS STREETS AND SIDEWALKS (NMC TITLE 12)

Chapter 12.05 Street and Sidewalks

12.05.090 Permits and certificates.

A. Concurrent with the issuance of a building permit for the construction of a building for residential use or business structures or an addition to a dwelling or business structure, the value of which is $30,000 or more except as the city engineer may require on building permits of lesser value in accordance with NMC 12.05.040, the owner, builder or contractor to whom the building permit is issued shall meet the following requirements:

> ***1. Construct a sidewalk within the dedicated right-of-way for the full frontage in which a sidewalk in good repair does not exist. The sidewalk construction shall be completed within the building construction period or prior to issuance of an occupancy permit, whichever is the lesser.***

Finding: The submitted materials do not clearly indicate if existing sidewalks are in condition. Sidewalks do not exist on the north side of E Hayes along the project site frontage.

The Applicant will be required to replace any sidewalks along the site's frontage that are in poor condition or not in compliance with City of Newberg ADA standards. Determination of any sidewalk panels to be replaced will occur as part of the building permit process.

The Applicant will be required to build a new 5-foot wide Type A sidewalk, with a minimum five-foot wide planter strip between the sidewalk and the curb line and 1-foot between the back of the sidewalk and the right-of-way line, on the north side of Hayes Street along the project site frontage.

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

2. Dedicate right-of-way in accordance with the city transportation plan.

Finding: The submitted materials indicate that there may not be adequate existing right-of-way along the project site's frontage for the construction of new Type A sidewalks. The Applicant will be required to dedicate sufficient right-of-way for construction of new Type A sidewalks on the north side of Hayes Street along the project site frontage.

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

CONCLUSION:
Based on the above findings, the criteria for site design review including public improvement, development standards and zoning district are either met, not applicable, or will be met if the aforementioned conditions of approval are adhered to.

EXHIBIT "C" FOR PLANNING COMMISSION ORDER 2025-03
FINDINGS FOR MISC124-0018
Stream Corridor Overlay and Special Flood Hazard Review for Corner of N Springbrook Road and E Hayes Street (West Branch Apartments)

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 in Section V: Exhibit "D"

CHAPTER 15.342 STREAM CORRIDOR OVERLAY (SC) SUBDISTRICT

15.342.010 Purpose.

The purpose of the stream corridor (SC) overlay subdistrict is to implement the goals and policies of the comprehensive plan relating to open space, scenic, and natural resources which are intended to ". . . ensure that adequate land shall be retained in permanent open space use and that natural scenic and historic resources are protected." Furthermore, this subdistrict is intended to ". . . protect, conserve, enhance, and maintain the Willamette River Greenway." The subdistrict allows for a balance of protection of open space, scenic and natural resources and environmentally sensitive development. The designation of lands within this subdistrict is used to provide reasonable regulation of development in or adjacent to stream corridors. This subdistrict does not provide for or authorize public access to private properties designated within this subdistrict. Additionally, the provisions of this subdistrict do not provide measures for the public acquisition of private property. [Ord. 2451, 12-2-96. Code 2001 § 151.465.]

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.]

15.342.030 General information.

The delineated stream corridor overlay subdistrict is described by boundary lines delineated on the City of Newberg zoning map indicated with an SC symbol. The boundaries of the SC areas were established by an ecologist analyzing several environmental values including erosion potential, wildlife habitat, riparian water quality protection, floodplain water quality protection, natural condition, and ecological integrity. This information is contained in more detail in a document titled "City of Newberg, Stream Corridors as a Goal 5 Resource." This document includes a Goal 5 ESEE (economic, social, environment and energy consequences) analysis and was the basis for the preparation of this chapter. The boundaries of the SC overlay subdistrict are typically located at a logical top of bank, or where no obvious top of bank exists, are located at a distance 50 feet from the edge of the wetland. [Ord. 2451, 12-2-96. Code 2001 § 151.467.]

15.342.040 Activities exempt from these regulations.

The following public or private uses and activities are exempt from the regulations of this chapter:

A. Emergency procedures or emergency activities undertaken by public or private parties which are necessary for the protection of public health, safety and welfare.

B. Maintenance and repair of buildings, structures, yards, gardens or other activities or uses that were in existence prior to the effective date of the ordinance codified in these regulations.

C. Alterations of buildings or accessory structures which do not increase building coverage.

D. The expansion of an existing structure, building, improvements, or accessory structures, provided the expansion is located completely outside of the stream corridor delineation boundary.

E. The following agricultural activities lawfully in existence as of December 4, 1996:

1. Mowing of hay, grass or grain crops.

2. Tilling, discing, planting, seeding, harvesting and related activities for pasture, trees, food crops or business crops; provided, that no additional lands within the stream corridor boundary are converted to these uses.

F. Operation, maintenance and repair of existing irrigation, drainage ditches, ponds, wastewater facilities, stormwater detention or retention facilities, and water treatment facilities.

G. Normal and routine maintenance of existing streets and utilities.

H. Normal and routine maintenance of any public improvement or public recreational area.

I. Measures to remove or abate hazards and nuisances including but not limited to removal of fallen, hazardous or diseased trees.

J. Roadway and related improvements associated with a final alignment of the Newberg bypass road project.

K. Maintenance and repair of existing railroad trackage and related improvements.

L. Airport Area.

> ***1. The removal or pruning of trees or other vegetation located within the airport overlay subdistrict, as established on the City of Newberg zoning map, that either exceed the height limits established by the overlay subdistrict or are otherwise demonstrated to pose a threat to the health, safety, welfare, and general operation of the airport.***
>
> ***2. The removal of undergrowth, within 500 feet east and west of the runway and 1,000 feet south of the runway, as necessary to maintain the safe operation of the airport facilities and activities.***

M. Utilities installed above or below existing street rights-of-way.

N. Utility services using an existing pole or installation of other utilities where no more than 100 square feet of ground area is disturbed, no native trees are removed, and the area is replanted to preconstruction conditions using native plants selected from the Newberg plant list.

O. Utility services within existing access roads or other previously improved areas where the utility service can be installed without expanding the previously improved area.

P. The removal of any plant identified on the Newberg plant list as a nuisance plant such as Himalayan blackberry, English ivy, periwinkle, poison oak, or Scotch broom.

Q. The planting or propagation of any plant identified as native on the Newberg plant list.

R. The planting or propagation of any nonnative plant; provided, that the area to be planted covers less than 10 percent of the total site area within the SC overlay subdistrict and does not include any nuisance plants as identified on the Newberg plant list. [Ord. 2451, 12-2-96. Code 2001 § 151.468.]

Findings: The stream corridor overlay regulations are applicable to these properties as it is on a portion of both tax lots R3216 02017 and R3216 2025 on the eastern edge and new structures and grading are proposed on site including stormwater pipes into the stream corridor.

15.342.050 Activities requiring a Type I process.

The following uses shall be processed as a Type I decision and shall be approved by the director upon submittal of a plan indicating compliance with the accompanying criteria and the restoration standards indicated in NMC 15.342.060.

A. The expansion of an existing single-family, duplex, triplex or quadplex dwelling, structure, building, improvements, or accessory structures inside the corridor delineation boundary, including any expansion associated with conversion of an existing single-family dwelling into a duplex, triplex or quadplex dwelling; provided, that the following criteria have been satisfied:

1. The expansion of a single-family, duplex, triplex or quadplex dwelling, structure or improvement (including decks and patios); provided, that it is located no closer to the stream or wetland area than the existing structure or improvement;

2. The coverage of all structures within the SC overlay subdistrict on the subject parcel shall not be increased by more than 1,000 square feet of the coverage in existence as of December 4, 1996;

3. The disturbed area is restored pursuant to NMC 15.342.060; and

4. No portion of the improvement is located within the 100-year flood boundary.

B. Private or public service connection laterals and service utilities extensions where the disturbed area shall be restored pursuant to NMC 15.342.060.

C. Private or public sidewalks, stairs and related lighting where the disturbed area is restored pursuant to NMC 15.342.060.

D. Bicycle and pedestrian paths; provided, that the area is restored pursuant to NMC 15.342.060.

E. Temporary construction access associated with authorized Type I uses. The disturbed area associated with temporary construction access shall be restored pursuant to NMC 15.342.060.

F. The removal of nonnative vegetation (such as blackberries) by mechanical means; provided, that the site is restored pursuant to NMC 15.342.060.

G. Single-family, duplex, triplex or quadplex dwellings or structures which are nonconforming to the standards of this chapter may be rebuilt in the event of damage due to fire or other natural hazard; provided, that the single-family, duplex, triplex or quadplex dwelling or structure is placed within the same foundation lines. [Ord. 2889 § 2 (Exh. B §§ 17, 18), 12-6-21; Ord. 2880 § 2 (Exh. B §§ 20, 21), 6-7-21; Ord. 2451, 12-2-96. Code 2001 § 151.469.]

Findings: The proposed disturbed area is for construction of an 8-inch stormwater outfall which extends 26 feet into the stream corridor that is a service utility extension. The disturbed area shall be restored pursuant to NMC 15.342.060 as seen below in the findings.

This criterion is met.

15.342.060 Restoration standards for Type I process.

A plan shall be approved only if the following standards can be met. This shall be shown on a plan submitted along with a Type I application.

A. Disturbed areas, other than authorized improvements, shall be regraded and contoured to appear natural. All fill material shall be native soil. Native soil may include soil associations commonly found within the vicinity, as identified from USDA Soil Conservation Service, Soil Survey of Yamhill Area, Oregon.

B. Replanting shall be required using a combination of trees, shrubs and grasses. Species shall be selected from natives on the Newberg plant list.

C. Removed trees over six inches in diameter, as measured at breast height, shall be replaced at a ratio of three new trees for every one removed. All trees replaced pursuant to this section shall have an average caliper measurement of a minimum of one inch. Additional trees of any caliper may be used to further enhance the mitigation site.

D. All disturbed areas, other than authorized improvements, shall be replanted to achieve 90 percent cover in one year.

E. All disturbed areas shall be protected with erosion control devices prior to construction activity. The erosion control devices shall remain in place until 90 percent cover is achieved.

F. Except as provided below, all restoration work must occur within the SC overlay subdistrict and be on the same property. The director may authorize work to be performed on properties within the general vicinity or adjacent to the overlay subdistrict; provided, that the Applicant demonstrates that this will provide greater overall benefit to the stream corridor areas. [Ord. 2451, 12-2-96. Code 2001 § 151.470.]

Findings:

A. The Applicant's materials state that the disturbed areas will be revegetated with a native grass seed mix on native soil. They only mention how the area will be restored to pre-construction contours but do not show this in their plans. The Applicant shall submit a revised landscape or replanting plan that shows the grading will be contoured to appear natural after the stormwater pipe is installed in the stream corridor overlay area.

B. The Applicant has provided a landscape plan that shows a combination of grasses and shrubs being replanted, however their stream corridor memo and landscape plan have differing plants. Therefore, a new landscaping plan shall be submitted showing plants from the Newberg plant list being replanted within the stream corridor prior to any ground disturbance.

C. The Applicant provided plans and a stream corridor memo that do not show or mention any trees actually being removed within the stream corridor. However, the Applicant's narrative presents conflicting information, stating that trees will be removed in the stream corridor with no replacement. The Applicant's narrative does not mention anything about diameter or breast height of the trees scheduled for removal. Because the application materials contain this discrepancy, the Applicant shall provide an updated landscape plan showing all trees to be removed in or near the stream corridor that are six inches or more in diameter. If trees that are six inches or more in diameter are to be removed in the stream corridor, then the Applicant shall clearly demonstrate the replacement trees at a ratio of 3:1 on the landscape plans.

D. The Applicant's stream corridor narrative states that the plants will be installed at densities to achieve 90 percent cover in one year. To ensure that this happens, all disturbed areas shall be replanted to achieve 90 percent cover in one year from the planting of such installation. The Applicant shall notify the City of when the disturbed area is replanted.

E. The Applicant's plans show proper erosion control devices in the stream corridor overlay area. These erosion control devices shall remain in place until 90 percent cover is achieved.

F. The stormwater pipe system goes onto the neighboring property also owned by Werth Family LLC, the current property owner of the development. The restoration will occur on both properties and is planting more than currently exists in that area.

These criteria are either met or can be met if the aforementioned conditions are adhered to.

CHAPTER 15.343 AREAS OF SPECIAL FLOOD HAZARD OVERLAY (FHO)

15.343.010 Purpose.

A. It is the purpose of this chapter to promote the public health, safety, and general welfare, and to minimize public and private losses due to flood conditions in specific areas by provisions designed:

1. To protect human life and health;

2. To minimize expenditure of public money and costly flood control projects;

3. To minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;

4. To minimize prolonged business interruptions;

5. To minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets, and bridges located in areas of special flood hazard;

6. To help maintain a stable tax base by providing for the sound use and development of areas of special flood hazard so as to minimize future flood blight areas;

7. To ensure that potential buyers are notified that property is in an area of special flood hazard; and

8. To ensure that those who occupy the areas of special flood hazard assume responsibility for their actions.

B. In order to accomplish its purposes, this chapter includes methods and provisions for:

1. Restricting or prohibiting uses which are dangerous to health, safety, and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities;

2. Requiring that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;

3. Controlling the alteration of natural floodplains, stream channels, and natural protective barriers, which help accommodate or channel flood waters;

4. Controlling filling, grading, dredging, and other development which may increase flood damage;

5. Preventing or regulating the construction of flood barriers which will unnaturally divert flood waters or may increase flood hazards in other areas;

6. Coordinating and supplementing the provisions of the State Building Code with local land use and development ordinances. [Ord. 2719 § 2 (Exh. B), 3-1-10. Code 2001 § 151.481.]

15.343.020 General provisions.

A. Lands to Which This Chapter Applies. This chapter shall apply to all areas of special flood hazard within the jurisdiction of Newberg, Oregon, as designated in the Flood Insurance Study for Yamhill County and Incorporated Areas and on the Federal Emergency Management Agency (FEMA) flood insurance rate maps (FIRM) dated March 2, 2010.

B. Basis for Establishing the Areas of Special Flood Hazard. The areas of special flood hazard identified by the Federal Insurance Administration in a scientific and engineering report entitled "The Flood Insurance Study for Yamhill County, Oregon and Incorporated Areas," dated March 2, 2010, with accompanying flood insurance maps are hereby adopted by reference and declared to be a part of this chapter. The Flood Insurance Study is on file at Newberg City Hall. The best available information for flood hazard area identification as

outlined in subsection (F)(1) of this section shall be the basis for regulation until a new flood insurance rate map is issued which incorporates the data utilized under subsection (F)(1) of this section.

C. Penalties for Noncompliance. No affected structure or land shall hereafter be constructed, located, extended, converted, or altered without full compliance with the terms of this chapter and other applicable regulations. Violations of the provisions of this chapter by failure to comply with any of its requirements (including violations of conditions and safeguards established in connection with conditions) are subject to enforcement. Nothing herein contained shall prevent the City of Newberg from taking such other lawful action as is necessary to prevent or remedy any violation.

D. Relation to Other Regulations. Most areas of special flood hazard in Newberg are within the existing stream corridor subdistrict, the Willamette Greenway, or in wetlands or waterways subject to federal and state regulations. Therefore, it is expected that floodplain development and use of these regulations will be rare. This chapter should not be read as allowing development that is otherwise restricted or prohibited by other city, state, or federal laws.

E. Warning and Disclaimer of Liability. The degree of flood protection required by this chapter is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur on rare occasions. Flood heights may be increased by manmade or natural causes. This chapter does not imply that land outside the areas of special flood hazard or uses permitted within such areas will be free from flooding or flood damages. This chapter shall not create liability on the part of the City of Newberg, any officer or employee of the city, or the Federal Insurance Administration, for any flood damages that result from reliance on this chapter or any administrative decision lawfully made hereunder.

F. Duties of the Local Administrator. The director is hereby appointed to administer and implement this chapter by granting or denying floodplain development permit applications in accordance with its provisions. The director's duties are outlined below:

1. Information to Be Obtained and Maintained.

a. Where base flood elevation data is provided through the Flood Insurance Study, FIRM, or required as in NMC 15.343.030(B), obtain and record the actual elevation (in relation to mean sea level) of the lowest floor (including basements and below-flood grade crawlspaces) of all new or substantially improved affected structures, and whether or not the affected structure contains a basement.

b. For all new or substantially improved floodproofed affected structures where base flood elevation data is provided through the Flood Insurance Study, FIRM, or as required in NMC 15.343.030(B):

i. Verify and record the actual elevation (in relation to mean sea level); and

ii. Maintain the floodproofing certifications.

c. Maintain for public inspection all records pertaining to the provisions of this chapter.

d. When base flood elevation data has not been provided (A and V zones) in accordance with subsection (B) of this section, Basis for Establishing the Areas of Special Flood Hazard, the director shall obtain, review, and reasonably utilize any base flood elevation and floodway data available from a federal, state or other source, in order to administer NMC 15.343.040(B), Specific Standards, and NMC 15.343.060, Floodways.

2. Alteration of Watercourses.

a. Notify adjacent communities, the Department of Land Conservation and Development and other appropriate state and federal agencies, prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Insurance Administration.

b. Require that maintenance is provided within the altered or relocated portion of said watercourse so that the flood carrying capacity is not diminished.

3. Interpretation of FIRM Boundaries. Make interpretations, where needed, as to exact location of the boundaries of the areas of special flood hazard (for example, where there appears to be a conflict between a mapped boundary and actual field conditions). The person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation as provided in NMC 15.343.030(E). [Ord. 2719 § 2 (Exh. B), 3-1-10. Code 2001 § 151.482.]

15.343.030 Floodplain development permit procedures.

A. Floodplain Development Permit Required. Any person shall obtain a floodplain development permit before constructing or developing within any area of special flood hazard established in NMC 15.343.020(B). The permit shall be for all affected structures including manufactured homes, as set forth in NMC 15.05.030, and for all floodplain development including fill and other activities, also as set forth in NMC 15.05.030.

B. Application for Floodplain Development Permit. Application for a floodplain development permit shall be made on forms furnished by the planning and building department and may include but not be limited to plans in duplicate drawn to scale showing the nature, location, dimensions, and elevations of the area in question; existing or proposed affected structures, fill, storage of materials, drainage facilities, and the location of the foregoing. Specifically, the following information is required:

1. Elevation, in relation to mean sea level, of the lowest floor (including basement) of all affected structures;

2. Elevation in relation to mean sea level of floodproofing in any affected structure;

3. Certification by a registered professional engineer or architect that the floodproofing methods for any nonresidential affected structure meet the floodproofing criteria in NMC 15.343.040(B); and

4. Description of the extent to which a watercourse will be altered or relocated as a result of proposed floodplain development.

C. Floodplain Development Permit Application Review. The director shall review all floodplain development permit applications. Floodplain development permits shall be reviewed as part of the review of applicable design review, building permit application, grading permit application, other application, or as a Type I review if no other application is concurrent. The review shall determine:

1. That the permit requirements and conditions of this chapter have been satisfied.

2. That all necessary permits have been obtained from those federal, state, or local governmental agencies from which prior approval is required.

3. That if the floodplain development is located in the floodway, the encroachment provisions of NMC 15.343.060(A) are met.

Finding: The Applicant did not provide an application for a floodplain development permit with the design review application that included the stormwater outfall systems into the floodplain. As such, the Applicant shall submit and be approved for a Type I floodplain development permit prior to any grading or building permit being issued. The Applicant shall also submit documentation from the Army Corp of Engineers or Department of State Lands, as applicable, for any permit that may be required, or evidence that the stormwater outfall does not require a permit from other Agencies within the Flood Hazard Area, with submittal of the Type I floodplain development permit.

CONCLUSION:

Based on the above findings, the criteria for the stream corridor overlay and special flood hazard area will be met if the aforementioned conditions of approval are met.

EXHIBIT "D" FOR PLANNING COMMISSION ORDER 2025-03
CONDITIONS OF APPROVAL FOR CUP24-0004/DR224-0006/MISC124-0018
Conditional Use Permit, Design Review and Stream Corridor Overlay Review for the Corner of Springbrook Road and E Hayes Street (West Branch Apartments)

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

1. **Conditions of Approval**: Either write or otherwise permanently affix the conditions of approval contained within this report onto the first page of plans submitted for all permits required (public improvement, building etc.).

THE FOLLOWING MUST BE COMPLETED BEFORE PUBLIC IMPROVEMENT AND BUILDING PERMIT REVIEW:

2. **Updated and revised site plan and landscaping plans shall be submitted that show the following:**

   a. Parking

   i. At least 164 parking spaces that meet NMC 15.440.060 and 15.440.070 prior to any permits being issued; or apply and be approved for a Type I parking adjustment to reduce the number of required spaces; or 10 units may be altered to be 1-bedroom units to meet the requirements of NMC 15.440.030.

   ii. All parking spaces meeting the requirements of NMC 15.440.070 is required with the building permit plans. Compact spaces shall be appropriately marked and dimensioned.

   iii. 24 bike parking spaces

   b. Private Walkways

   i. Each tax lot (R3216 02025 and R3216 02017) shall have one private walkway that meets the Americans with Disabilities Act (ADA) requirements to either N Springbrook Road or E Hayes Street

   ii. All walkways shall be a minimum of four feet wide.

iii. Walkways on the site shall be constructed of concrete or brick

iv. Thermoplastic striping or other similar type acceptable to the City Engineer shall be used for the crosswalks going across the service drives.

v. The pathway in front of proposed Building E shall be extended to connect with the sidewalk on E Hayes Street

vi. There shall be a walkway to N Springbrook Road on Tax Lot R3216 02017 (Staff would suggest this be near the trash enclosure to limit the distance of the required walkway -this could be a staircase if one of the other pathways out to E Hayes Street is ADA compliant)

vii. There shall be a walkway to N Springbrook Road on Tax Lot R3216 02025

c. Landscaping

i. the Applicant shall submit an updated site plan and landscaping plan clearly demonstrating that the 19,200 square feet of outdoor recreation area is clearly met.

ii. the Applicant shall submit a revised landscaping plan showing at least a 5 foot minimum width running next to all blocks of parking that have more than 7 spaces with a deciduous tree. The walkway adjacent to the landscaping going to the buildings and out to the streets must be at least 4 feet wide to meet the requirements of private pathways seen in the findings 15.440.010(B). Alternatively, a landscaped island that is at least 5 feet in width shall be installed for every block of 7 parking spaces with a deciduous tree.

iii. A final landscaping plan shall be provided with the building permit application so an accurate planning final showing all accent trees, shrubs and other landscaping materials with correct spacing for site approval can occur prior to certificate of occupancy.

iv. A new landscaping plan shall be submitted showing plants from the Newberg plant list being replanted within the stream corridor prior to any ground disturbance.

v. the Applicant shall provide an updated landscape plan showing all trees to be removed in or near the stream corridor that are six inches or more in diameter and

if trees are to be removed in the stream corridor, then the Applicant shall clearly demonstrate the replacement trees at a ratio of 3:1 on the landscape plans.

vi. the Applicant shall provide an updated landscaping plan prior to building permit review which defines and depicts the plantings that will contribute to screening of the private areas pursuant to NMC 15.420.010(A)(1).

d. Vision Clearance

i. All vision clearance requirements shall be shown on the final site and landscaping plans. The street trees proposed within the 50-foot vision clearance tringle at the intersection of E Hayes Street and N Springbrook Road as well as the street trees in the 25-foot vision clearance of the intersections of the driveways and E Hayes Street shall be relocated and shown to be outside the required vision clearance triangles on the final site and landscaping plans submitted with public improvement permits and building permits.

e. Stream Corridor

i. The Applicant shall submit a revised landscape or replanting plan that shows the grading will be contoured to appear natural after the stormwater pipe is installed in the stream corridor overlay area.

ii. A new landscaping plan shall be submitted showing plants from the Newberg plant list being replanted within the stream corridor prior to any ground disturbance.

the Applicant shall provide an updated landscape plan showing all trees to be removed in or near the stream corridor that are six inches or more in diameter. If trees that are six inches or more in diameter are to be removed in the stream corridor, then the Applicant shall clearly demonstrate the replacement trees at a ratio of 3:1 on the landscape plans.

f. Exterior Lighting

i. the Applicant shall provide an updated lighting analysis and photometric plan showing that 0.0 footcandles of light trespass extend past any property line.

ii. The Applicant shall take actions to mitigate light trespass and glare to neighboring properties, including but not limited to the use of exterior luminaries that are fully shielded, full cut-off, and downward-facing to minimize off-site lighting, night sky pollution and shining lights onto surrounding properties.

g. Floodplain Development

i. The Applicant shall submit and be approved for a Type I floodplain development permit prior to any grading or building permit being issued. The Applicant shall also submit documentation from the Army Corp of Engineers or Department of State Lands, as applicable, for any permit that may be required, or evidence that the stormwater outfall does not require a permit from other Agencies within the Flood Hazard Area, with submittal of the Type I floodplain development permit.

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

3. Underground Utilities

a. Any new service connection to the property are required to be undergrounded. Utility and Building Plans shall clearly show the undergrounding of new utility lines. See NMC 15.430.010 for additional requirements and exception provisions.

4. Permit Submittal: Submit a building permit application complete working drawing sets of the proposed project. Show all the features of the plan approved through design review, including the following:

- Mechanical details
- Structural details
- Electrical details

THE FOLLOWING MUST BE COMPLETED BEFORE THE CITY WILL ISSUE A PUBLIC IMPROVEMENT PERMIT (UNLESS OTHERWISE NOTED):

5. Public Improvements:

a. General

i. Plans submitted with a permit application for public improvements, as found to be required during the permit plan review process, are to meet the requirements of the current City of Newberg Public Works Design and Construction Standards.

ii. Plans will be fully reviewed for compliance with city standards including the Public Works Design and Construction Standards as part of the permit plan review process.

iii. construction plans which comply with the Newberg Public Works Design and Construction Standards shall be submitted with the public works improvement permit application.

iv. Any required public improvement permit(s) for this project must be submitted, approved and issued prior to building permits being issued.

b. Water

i. The Applicant is required to submit construction plans and obtain a public improvement permit for connection to the public water main for the proposed water services.

ii. Plans will be fully reviewed for compliance with city standards including the Public Works Design and Construction Standards as part of the permit plan review process.

c. Wastewater

i. the Applicant is required to submit construction plans and obtain a public improvement permit for connection to the public wastewater system for the proposed wastewater services. A manhole will be required at the connection to the public wastewater system.

ii. The wastewater analysis of impacts to the wastewater system from the proposed development is required to be submitted with permit applications.

iii. Plans will be fully reviewed for compliance with city standards including the Public Works Design and Construction Standards as part of the permit plan review process.

d. Stormwater

i. The Applicant will be required to submit a stormwater report and plans for stormwater management that meet the requirements of Chapters 13.20 and 13.25 NMC and comply with the Public Works Design and Construction Standards with the permit application. This includes compliance with Public Works Design and Construction Standards section 4.6.8 Facility Selection Hierarchy.

ii. Plans will be fully reviewed for compliance with city standards including the Public Works Design and Construction Standards as part of the permit plan review process.

iii. The Applicant is required to provide recorded access and private utility easements necessary for work and private stormwater facilities shown on plans as occurring on adjacent property, Tax Lot 2024 of Tax Map 3S2W16, east of the project site. The necessary recorded easements are to be submitted during the Building Permit process and prior to occupancy.

e. Street Lighting

i. the Applicant shall provide a lighting analysis on the public improvement permit which includes:

a. An analysis of street lighting along Springbrook Road and Hayes Steet frontages demonstrating that the existing lighting along the project site's frontages meet city standards or plans to install additional PGE Option A streetlights necessary to meet City standards will be required with the public works improvements permit application.

b. Street lighting analysis will need to extend to the center line of the street for all frontages, unless otherwise coordinated with, or directed by, the City Engineer.

c. An analysis to determine and address any potential lighting trespass and glare onto properties on the west side of Springbrook will also be required.

f. Street Standards

i. the Applicant will be required to obtain any necessary ODOT permits to perform work within ODOT right-of-way. Any necessary ODOT permit are to be obtained and submitted as part of the public improvement permit process.

g. Erosion Control

i. the Applicant will be required to obtain a DEQ 1200C permit and submit the approved DEQ 1200C Permit with permit applications.

h. Public Sidewalks

i. The Applicant will be required to build a new 5-foot wide Type A sidewalk, with a minimum five-foot wide planter strip between the sidewalk and the

curb line and 1-foot between the back of the sidewalk and the right-of-way line, on the north side of Hayes Street along the project site frontage.

ii. The Applicant will be required to replace any sidewalks along the site's frontage that are in poor condition or not in full compliance with City of Newberg and ADA standards. Determination of any sidewalk panels to be replaced will occur as part of the building permit process.

iii. The Applicant will be required to dedicate sufficient right-of-way for construction of new Type A sidewalks on the north side of Hayes Street along the project site frontage.

i. Traffic

i. The Applicant will be required to pay a Traffic Impact Fee for the Springbrook Road/Haworth Avenue intersection which is being assessed based on the proportional impact of the development on public facilities and services. The following formula was used to develop a Traffic Impact Fee to capture the proportional impact of the development based on the most significant AM or PM proportional volume contribution:

(8 AM trips directly proportional to the development)/(1259 AM peak hour total trips through the intersection)*($400,000 for the TSP cost of an intersection upgrade) = $2,542 Traffic Impact Fee.

The Traffic Impact Fee of $2,542 is to be paid at the time of, or prior to, building permit issuance.

OTHER:

6. Signs

a. Any signs legible from the public right-of-way will need to meet the standards in NMC 15.435.

b. If any signs legible from the public right-of-way require permits, the signs shall be placed only following issuance of such permits.

c. Any signs placed on the property shall require the authority of the property owner.

d. A sign permit shall be applied for, reviewed, and approved that meets all of Chapter 15.435 Signs prior to placement of such signs.

7. **Permitted Density and Height Requirements:**

    a. The overall density shall be no more than 21 dwelling units per acre on the combined two tax lots R3216 02017 and R3216 02025

    b. The maximum height for any structure shall be no more than 37 feet on tax lots R3216 02017 and R3216 02025

THE FOLLOWING MUST BE COMPLETED PRIOR TO CERTIFICATE OF OCCUPANCY:

8. **Landscaping Installation and Maintenance**

    a. The Applicant or building owner/management company shall be responsible for continuously maintaining the required landscaping.

    b. The required landscaping shall be installed prior to certificate of occupancy or bonded for pursuant to NMC 15.420.010(C).

    c. Per NMC 12.05.250 property owners are required to maintain landscaping in the planter strip and per NMC 12.05.260 are required to maintain street trees consistent with the approved street tree plan.

DEVELOPMENT NOTES

Completion of Design Review Conditions: Contact the Planning Division at 503-537-1240 to verify that all design review conditions have been completed for final occupancy approval. Additional information available online at https://www.newbergoregon.gov/planning.

Building Division Requirements: This project is subject to compliance with all Building Division standards. This includes obtaining all applicable building, plumbing, mechanical, and electrical permits. For questions call 503-537-1240 or visit https://www.newbergoregon.gov/building.

Public Improvement Permits: For public improvement permit questions, contact the Engineering Division at 503-537-1273 or visit https://www.newbergoregon.gov/engineering.

System Development Charges (SDCs) will be collected when building permits are issued. For questions regarding SDCs please contact the Engineering division at engineering@newbergoregon.gov or 503-537-1273.

Flight Hazards: The Oregon Department of Aviation (ODAV) has reviewed the proposal and prepared the following comment(s): *In accordance with FAR Part 77.9 and OAR 738-070-0060, the proposed development may be required to undergo aeronautical evaluations by the FAA and*

ODAV. The applicant can use the FAA's Notice Criteria Tool to determine which proposed structures, including any cranes used during construction, warrant a notice of construction filing. If so, they are required to provide separate notices of construction to both the FAA and ODAV. The applicant should receive the resulting aeronautical determination letters from the FAA and ODAV prior to approval of any building permits. The height of any new structures, trees, and other planted vegetation should not penetrate FAR Part 77 Imaginary Surfaces, as determined by the FAA and ODAV.

FAA: Notice Criteria Tool

ODAV Contact: Brandon Pike, brandon.pike@odav.oregon.gov or 971-372-1339. Additional information available at https://www.oregon.gov/aviation/pages/index.aspx.

Oregon Department of Transportation (ODOT): For permitting questions related to state highways and ODOT jurisdiction, contact development review and permitting for Region 2. Additional information available at https://www.oregon.gov/odot/regions/pages/region-2-northwest-oregon.aspx.

ODOT Region 2 Contact: Brion Scot, Brion.Scott@odot.oregon.gov or 503-871-1411

Waste Management: Coordinate with Waste Management on garbage and recycling service for the new development.

Site Inspections

- Contact the Building Division (503-537-1240) for Building, Mechanical, and Plumbing final inspections or visit https://www.newbergoregon.gov/building/page/how-do-i.
- Contact Yamhill County (538-7302) for electrical final inspections. Additional information available at https://www.yamhillcounty.gov/296/Electric.
- Contact the Planning Division (503-537-1240) for final planning/site inspections or visit https://www.newbergoregon.gov/building/page/how-do-i.

Attachment 1: Application Materials

TYPE III APPLICATION (QUASI-JUDICIAL REVIEW)

File #: CUP24-0004

Applicant's Representative
Zach Pelz - AKS Engineering & Forestry
pelzz@aks-eng.com - 503.400.6028 Ext. 410

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: DMKS, LLC

ADDRESS: 901 N Brutscher St, STE 206 CITY: Newberg STATE: OR ZIP: 97062

EMAIL ADDRESS: Contact Applicant's Representative PHONE: MOBILE:

OWNER *(if different from above)*: _____ PHONE: _____

ADDRESS: _____ CITY: STATE: ZIP:

ENGINEER/SURVEYOR: AKS Engineering & Forestry LLC CONTACT: Chuck Gregory

EMAIL ADDRESS: chuckg@aks-eng.com PHONE: (503) 563-6151 MOBILE:

GENERAL INFORMATION:

PROJECT LOCATION: 3411 E Hayes Street PROJECT VALUATION: $ ~~15,700,000~~ 13,400,000

PROJECT DESCRIPTION/USE: Improvements to the existing undeveloped lots with apartment building and associated parking, utilities,landscaping and frontage improvements

MAP/TAX LOT NO. (i.e.3200AB-400): R3216-02017 / R3216-02025 SITE SIZE: 4.6 SQ. FT. ☐ ACRE ☑

COMP PLAN DESIGNATION: Community Commercial/Specific Plan CURRENT ZONING: C-2/SP

CURRENT USE: Undeveloped Lots TOPOGRAPY:

SURROUNDING USES:

NORTH: Commercial SOUTH: Residential

EAST: Residential WEST: Commercial

ATTACHED PROJECT CRITERIA AND REQUIREMENTS *(check all that apply)*

General Checklist: ☐Fees ☐Public Notice Information ☐Current Title Report ☐Written Criteria Response ☐Owner Signature
☐ 2 Copies of full Application Packet

For detailed checklists, applicable criteria for the written criteria response, and number of copies per application type, turn to:

Annexation ..... p. 15
Comprehensive Plan / Zoning Map Amendment (site specific) ..... p. 19
Conditional Use Permit ..... p. 21
Historic Landmark Modification/Alteration ..... p. 24
Planned Unit Development ..... p. 27

The Application Packet can be submitted to *Planning@newbergoregon.gov* or at 414 E First St., Newberg OR. 97132
If the Application is emailed 2 physical copies must be mailed or brought into the Community Development Department

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

G Michael Gougler 7/11/24
Applicant Signature Date

G. Michael Gougler
Print Name

G Michael Gougler 7/11/24
Owner Signature Date

G. Michael Gougler
Print Name

TYPE II APPLICATION – LAND USE

File #: DR224-0006

Applicant's Representative
Zach Pelz - AKS Engineering & Forestry
pelzz@aks-eng.com - 503.400.6028 Ext. 410

TYPES – PLEASE CHECK ONE:

- [x] **Design review**
- [ ] **Tentative Plan for Partition**
- [ ] **Tentative Plan for Subdivision**
- [ ] **Type II Major Modification**
- [ ] **Variance** _____
- [x] **Other: (Explain)** ~~Stream Corridor~~

APPLICANT INFORMATION:

APPLICANT: DMKS, LLC

ADDRESS: 901 N Brutscher St, STE 206 CITY: Newberg STATE: OR ZIP: 97132

EMAIL ADDRESS: Contact Applicant's Representative PHONE: Contact Applicant's Representative MOBILE: Contact Applicant's Representative

OWNER *(if different from above)*: _____ PHONE: _____

ADDRESS: _____ CITY: _____ STATE: OR ZIP: _____

ENGINEER/SURVEYOR: AKS Engineering & Forestry CONTACT: Chuck Gregory

EMAIL ADDRESS: chuckg@aks-eng.com PHONE: (503) 563-6051 MOBILE: _____

GENERAL INFORMATION:

PROJECT LOCATION: 3411 E Hayes Street PROJECT VALUATION: $ ~~15,700,000~~ 13,400,000

PROJECT DESCRIPTION/USE: Improvements to the existing undeveloped lots with apartment building and associated parking, utilities,landscaping and frontage improvements

MAP/TAX LOT NO. (i.e.3200AB-400): R3216-02017 / R3216-02025 SITE SIZE: 4.6 SQ. FT. ☐ ACRE ☑

COMP PLAN DESIGNATION: Community Commercial/Specific Plan CURRENT ZONING: C-2/SP

CURRENT USE: Undeveloped Lots

SURROUNDING USES:

NORTH: Commercial SOUTH: Residential

EAST: Residential WEST: Commercial

ATTACHED PROJECT CRITERIA AND REQUIREMENTS *(check all that apply)*

General Checklist: ☐ Fees ☐ Public Notice Information ☐ Current Title Report ☑ Written Criteria Response ☐ Owner Signature
☐ 2 Copies of full Application Packet

For detailed checklists, applicable criteria for the written response, and other requirements per application type, turn to:

Design Review ..... p. 13
Partition Tentative Plat ..... p. 15
Subdivision Tentative Plat ..... p. 17
Variance Checklist ..... p. 20
Short-term Rental ..... p. 22

The Application Packet can be submitted to *Planning@newbergoregon.gov* or at 414 E First St., Newberg OR. 97132
If the Application is emailed 2 physical copies must be mailed or brought into the Community Development Department

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

G M Goucler 7/11/24
Applicant Signature Date

G. MICHAEL GOUGLER
Print Name

G M Goucler 7/11/24
Owner Signature Date

G. MICHAEL GOUGLER
Print Name

Type I Application (Administrative Review)

File #: MISC124-0018

TYPES – PLEASE CHECK ONE:

- ☐ **Code Adjustment**
- ☐ **Final Plat**
- ☐ **Minor Design Review**
- ☐ **Property Line Adjustment**
- ☐ **Cottage Cluster Design Review**
- ☐ **Historic Landmark Minor Alteration/Demolition**
- ☐ **Property Line Consolidation**
- ☐ **Type I Extension or Type I Minor/Major Modification**
- ☐ **Type II or Type III Extension or Minor Modification**
- ☑ **Other: (Explain)** Stream Corridor

APPLICANT INFORMATION:

APPLICANT: DMKS, LLC

ADDRESS: 901 N Brutscher St, Ste 206 CITY: Newberg STATE: OR ZIP: 97132

EMAIL ADDRESS: Contact Applicant representative PHONE: MOBILE:

OWNER *(if different from above)* : PHONE:

ADDRESS: CITY: STATE: ZIP:

ENGINEER/SURVEYOR: AKS Engineering CONTACT: Chuck Gregory

EMAIL ADDRESS: Chuckg@AKS-Eng.com PHONE: (503) 563-6051 MOBILE:

GENERAL INFORMATION:

PROJECT LOCATION: 3411 E Hayes St PROJECT VALUATION: $ 13,400,000

PROJECT DESCRIPTION/USE: Improvements to the existing undeveloped lts with apartment building & associated parking, utilities, landscaping & frontage imp.

MAP/TAX LOT NO. (i.e.3200AB-400): R3216-02017/R3216-02025 SITE SIZE: 4.6 SQ. FT. ☐ ACRE ☑

COMP PLAN DESIGNATION: Community Comerccial/Specific Plan CURRENT ZONING: C-2/SP

CURRENT USE: Undeveloped Lots

SURROUNDING USES:

NORTH: Comercial SOUTH: Residential

EAST: Residential WEST: Commercial

ATTACHED PROJECT CRITERIA AND REQUIREMENTS *(check box's)*

Required Information: ☐ Fees ☑ Written Criteria Response ☐ 1 Digital Copy of full Application Packet

☐ Current Title Report ☐ Owner Signature

For detailed checklists, applicable criteria for the written criteria response, and number of copies per application type, turn to:

Code Adjustment ..... **p. 5**
Final Plat ..... **p. 7**
Minor Design Review ..... **p. 10**
Minor Modification ..... **p. 12**
Property Line Adjustment/Consolidation ..... **p. 13**
Historic Landmark Minor Alteration/Demo ..... **p. 15**

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.

GM Gougler 7/25/24
Applicant Signature Date

GM Gougler 7/25/24
Owner Signature Date

Mike Gougler
Print Name

GM Gougler
Print Name

West Branch Apartments
Site Design Review, Conditional Use Permit, and Stream Corridor Overlay Review

Date: July 2024

Submitted to:
City of Newberg
Community Development Department
414 E First St
Newberg, OR 97132

Applicant:
DMKS, LLC
901 Brutscher St, Suite 206
Newberg, OR 97132

AKS ENGINEERING & FORESTRY
12965 SW Herman Road, Suite 100
Tualatin, OR 97062
(503) 563-6151

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Exhibits

Exhibit A: Civil Engineering and Design Review Plans
Exhibit B: Architectural Drawings
Exhibit C: Transportation Impact Study
Exhibit D: Wastewater Capacity Analysis
Exhibit E: Preliminary Stormwater Report
Exhibit F: Application Fom
Exhibit G: Ownership Information
Exhibit H: Type I Stream Corridor Memo
Exhibit I: Hydrant Flow Test

Site Design Review, Conditional Use Permit, and Stream Corridor Overlay Review

Submitted to:	City of Newberg Community Development Department 414 E First St Newberg, OR 97132
Applicant:	DMKS, LLC 901 Brutscher St, Suite 206 Newberg, OR 97132
Property Owners:	Werth Family, LLC 3330 SW 70th Ave Portland, OR 97225
Applicant's Consultant:	AKS Engineering & Forestry, LLC 12965 SW Herman Road, Suite 100 Tualatin, OR 97062 Contact(s): Zach Pelz, AICP Email: pelzz@aks-eng.com Phone: (503) 563-6151
Site Location:	3411 E Hayes St, Newberg, OR 97132
Yamhill County Assessor's Map:	3S216; Lots 2017 and 2025
Site Size:	±5.58 acres
Land Use Districts:	Community Commercial (C-2)/Springbrook Oaks Specific Plan Overlay Subdistrict (SP)/Stream Corridor Overlay Subdistrict (SC)

I. Executive Summary

DMKS, LLC (Applicant) is submitting this application for a Type III Site Design Reivew, Conditional Use Permit, and Stream Corridor Overlay Review to accommodate new multi-family residential homes on a ±5.58-acre site located at 3411 E Hayes Street in Newberg. The essential components of the application include:

- 96 new multi-family homes in 5 separate buildings
- 159 resident and visitor on-site vehicle parking spaces
- 24 bicycle parking spaces
- 2 new on-site playgrounds
- On-site basement-level resident storage units
- New and replacement sidewalks and street trees along Hayes Street
- Attractive trees and landscaping

The application preserves natural resources located within the Stream Corridor Overlay along the east edge of the site while providing needed housing consistent with Newberg's Comprehensive Plan.

This application includes the City application forms, written materials, and preliminary plans necessary for City staff to review and determine compliance with the applicable approval criteria. The evidence is substantial and supports the County's approval of the application.

II. Site Description/Setting

The two lots included in this application comprise a total area of ±5.58 acres. Both lots are within the City of Newberg and are designated as C-2 on the City's adopted zoning map. Additionally, the site is located within the Springbrook Oaks SP Overlay Subdistrict, and the SC Overlay Subdistrict occupies a portion of the eastern edge of the lots.

The subject site abuts Hayes Street and N Springbrook Road. Existing residential homes are located east of the subject site. Existing commercial uses are located north and west of the site. The Fernwood Grange abuts the site's south boundary.

III. Applicable Review Criteria

This application involves the development of land for housing. Oregon Revised Statutes (ORS) 197A.400(1) states that a local government may apply only clear and objective standards, conditions, and procedures regulating the provision of housing, and that such standards, conditions, and procedures cannot have the effect, either in themselves or cumulatively, of discouraging housing through unreasonable cost or delay. In addition, this application involves a "limited land use decision" as that term is defined in ORS 197.015(12). The significance of this statutory provision is also discussed below.

Oregon Courts and the Land Use Board of Appeals (LUBA) have generally held that an approval standard is not clear and objective if it imposes on an applicant "subjective, value-laden analyses that are designed to balance or mitigate impacts of the development" (Rogue Valley Association of Realtors v. City of Ashland, 35 OR LUBA 139, 158 [1998] aff'd, 158 OR App 1 [1999]). ORS 197.831 places the burden on local governments to demonstrate that the standards and conditions placed on housing applications can be imposed only in a clear and objective manner. While this application addresses all standards and conditions, the Applicant reserves the right to object to the enforcement of standards or conditions that

are not clear and objective and does not waive its right to assert that the housing statutes apply to this application. [The exceptions in ORS 197A.400(2) do not apply to this application].

ORS 197.195(1) describes how certain standards can be applied as part of a limited land use application. The applicable land use regulations for this application are found in City of Newberg Municipal Code Title 15. Pursuant to ORS 197.195(1) comprehensive plan provisions (as well as goals, policies, etc. from within the adopted elements of the comprehensive plan) may not be used as a basis for a decision or an appeal of a decision unless they are specifically incorporated into the land use regulations. While this application may respond to comprehensive plan and/or related documents, such a response does not imply or concede that said provisions are applicable approval criteria. Similarly, the applicant does not waive its right to object to the attempted implementation of these provisions unless they are specifically listed in the applicable land use regulations, as is required by ORS 197.195(1).

Pursuant to ORS 197.522, if this application is found to be inconsistent with the applicable land use regulations, the applicant may offer an amendment or propose conditions of approval to make the application consistent with applicable regulations. In fact, the local government is obligated to consider and impose any conditions of approval proposed by the applicant if such conditions would allow the local government to approve an application that would not otherwise meet applicable approval criteria.

NEWBERG MUNICIPAL CODE – TITLE 15 DEVELOPMENT CODE

Chapter 15.220 SITE DESIGN REVIEW

15.220.010 Purpose.

These provisions provide for the review and approval process of the design of certain developments and improvements in order to promote functional, safe and innovative site development compatible with the natural and manmade environment. The following provisions are intended to discourage unsightly development, improve the quality of new development in the city, coordinate the site planning process with existing and proposed development, and provide a pleasant working and living environment in the city. Furthermore, these provisions are intended to coordinate the site development process through review of the architecture of the structure(s), signs, landscaping, and other design elements on the site.

Response: The following responses confirm that the application is subject to applicable provisions of this Chapter and that as planned, the application conforms to the applicable approval criteria and purpose of this Chapter.

15.220.020 Site design review applicability.

These provisions provide for the review and approval process of the design of certain developments and improvements in order to promote functional, safe and innovative site development compatible with the natural and manmade environment. The following provisions are intended to discourage unsightly development, improve the quality of new development in the city, coordinate the site planning process with existing and proposed development, and provide a pleasant working and living environment in the city. Furthermore, these provisions are intended to coordinate the site development process through review of the architecture of the structure(s), signs, landscaping, and other design elements on the site.

Response: As demonstrated below, the application is subject to the Site Design Review process of Section 15.220.

15.220.020 Site design review applicability.

A. Applicability of Requirements. Site design review shall be required prior to issuance of building permits or commencement of work for all improvements noted below. Site design review permits shall be processed as either Type I or Type II, as noted below.

[…]

3. Type III.

[…]

b. Multifamily dwellings in the R-1, R-4 or C-2 zone (conditional use permit also required).

c. Multifamily dwellings in the C-3 zone along Hancock Street (conditional use permit also required).

[…]

Response: The application seeks approval for a new multifamily housing project located in the City's C-2/SP zoning district and is therefore subject to the Type III Site Design Review process.

[…]

15.220.030 Site design review requirements.

[…]

B. Type II or III. The following information is required to be submitted with all Type II or III applications for site design review:

1. Site Development Plan. A site development plan shall be to scale and shall indicate the following as appropriate to the nature of the use:

a. Access to site from adjacent right-of-way, streets and arterials;

b. Parking and circulation areas;

c. Location and design of buildings and signs;

d. Orientation of windows and doors;

e. Entrances and exits;

f. Private and shared outdoor recreation spaces;

g. Pedestrian circulation;

h. Outdoor play areas;

i. Service areas for uses such as mail delivery, trash disposal, aboveground utilities, loading and delivery;

j. Areas to be landscaped;

k. Exterior lighting;

l. Special provisions for handicapped persons;

m. Other site elements and spaces which will assist in the evaluation of site development;

n. Proposed grading, slopes, and proposed drainage;

o. Location and access to utilities including hydrant locations; and

p. Streets, driveways, and sidewalks.

Response: The Civil Engineering Design Review Plans in Exhibit A include the information listed above. This submittal requirement is met.

2. **Site Analysis Diagram. A site analysis diagram shall be to scale and shall indicate the following characteristics on the site and within 100 feet of the site:**

   a. **Relationship of adjacent lands;**

   b. **Location of species of trees greater than four inches in diameter at four feet above ground level;**

   c. **Existing and proposed topography;**

   d. **Natural drainage and proposed drainage and grading;**

   e. **Natural features and structures having a visual, or other significant relationship with the site.**

Response: The Civil Engineering Design Review Plans in Exhibit A include the information listed above. This submittal requirement is met.

3. **Architectural Drawings. Architectural drawings shall be prepared which identify floor plans and elevations.**

Response: The Architectural Drawings in Exhibit B include floor plans and elevations. This submittal requirement is met.

4. **Landscape Plan. The landscape plan shall indicate:**

   a. **The size, species and approximate locations of plant materials to be retained or placed on the site together with a statement which indicates the mature size and canopy shape of all plant materials;**

   b. **Proposed site contouring; and**

   c. **A calculation of the percentage of the site to be landscaped.**

Response: A landscape plan illustrating the above information is included in Exhibit A. This submittal requirement is met.

5. **Special Needs for Handicapped. The design review plan shall indicate compliance with all handicapped accessibility requirements including, but not limited to, the location of handicapped parking spaces, the location of accessible routes from the entrance to the public way, and ramps for wheelchairs.**

Response: The Civil Engineering Design Review Plans in Exhibit A include the information listed above. This submittal requirement is met.

6. **Existing Features and Natural Landscape. The plans shall indicate existing landscaping and existing grades. Existing trees or other features intended to be preserved or removed shall be indicated on the plans.**

Response: The Civil Engineering Design Review Plans in Exhibit A include the information listed above. This submittal requirement is met.

7. **Drives, Parking and Circulation. Proposed vehicular and pedestrian circulation, parking spaces, parking aisles, and the location and number of access points shall be indicated on the plans. Dimensions shall be provided for all elements.**

8. **Drainage. The direction and location of on- and off-site drainage shall be indicated on the plans. This shall include, but not be limited to, site drainage, parking lot drainage, size and location of storm drain lines, and any retention or detention facilities necessary for the project as identified in the submitted preliminary stormwater report.**

9. **Buffering and Screening. Buffering and screening of areas, structures and facilities for storage, machinery and equipment, services (mail, refuse, utility wires, and the like), loading and parking and similar accessory areas and structures shall be shown on the plans.**

Response: The Civil Engineering Design Review Plans in Exhibit A include the information listed above. These submittal requirements are met.

10. **Signs and Graphics. The location, colors, materials, and lighting of all exterior signs, graphics or other informational or directional features shall be shown on the plans.**

Response: The application does not seek approval for signage at this time. Applicant intends to submit a request for signage at a future date. The submittal requirement does not apply.

11. **Exterior Lighting. Exterior lighting within the design review plan shall be indicated on the plans. The direction of the lighting, size and type of fixtures, and an indication of the amount of lighting shall be shown on the plans.**

Response: A photometric lighting plan is currently under development and is anticipated to be submitted to the City prior to the determination of a complete application. This submittal requirement will be met.

12. **Trash and Refuse Storage. All trash or refuse storage areas, along with appropriate screening, shall be indicated on the plans. Refuse storage areas must be constructed of brick, concrete block or material matching the material used on other proposed structures on the site.**

Response: The Architectural Drawings in Exhibit B include design details pertaining to Trash and Refuse Storage Facilities. As shown in Exhibit B, such facility will be constructed of concrete block and will be complementary to planned on-site structures. This submittal requirement and design criterion is met.

13. **Roadways and Utilities. The proposed plans shall indicate any public improvements that will be constructed as part of the project, including, but not limited to, roadway and utility improvements.**

Response: The Civil Engineering Design Review Plans in Exhibit A include details regarding planned public and private roadway and utility improvements. This submittal requirement is met.

14. **Traffic Study. A traffic study shall be submitted for any project that generates 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 shall be required by the director for projects 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.**

Response: The Transportation Impact Study (TIS) in Exhibit C reveals that the site is anticipated to generate more than 40 vehicle trips per p.m. peak hour. This submittal requirement is met.

[…]

15.220.050 Criteria for design review.

[…]

B. Type II or III. The following criteria are required to be met in order to approve a Type II or III design review request:

1. Design Compatibility. The proposed design review request incorporates an architectural design which is the same as existing or proposed uses and structures in the surrounding area. This shall include, but not be limited to, building architecture, materials, colors, roof design, landscape design, and signage.

Response: The pattern of existing development in the vicinity of the subject site may be characterized as a mix of strip commercial and multi-family residential uses on sites that have experienced relatively steady redevelopment over the past decade. The predominant architectural style is of a contemporary aesthetic across both commercial and residential use types. As illustrated in Exhibit B, the planned homes in this application will continue this contemporary aesthetic and will be complementary to the surrounding uses. The criterion is met.

2. Parking and On-Site Circulation. Parking areas shall meet the requirements of NMC 15.440.010. Parking studies shall be required to determine if adequate parking and circulation are provided for uses not specifically identified in NMC 15.440.010. Provisions shall be made to provide on-site circulation without using the public streets as part of the parking lot circulation pattern. Parking areas shall be designed so that vehicles can efficiently enter and exit the public streets with a minimum impact on the functioning of the public street.

Response: As shown in Exhibit A, and discussed further below in the responses to NMC 15.440, sufficient off-street parking is provided on site to accommodate the planned use. Exhibit A further illustrates that the site has been designed to accommodate all anticipated circulation and maneuvering on site and with minimal impact to the operation of Hayes Street or N Springbrook Road. The criterion is met.

3. Setbacks and General Requirements. The proposal shall comply with NMC 15.415.010 through 15.415.060 dealing with height restrictions, public access, residential development standards and home occupations; and NMC 15.405.010 through 15.405.040 and 15.410.010 through 15.410.070 dealing with setbacks, coverage, vision clearance, and yard requirements.

Response: As shown in Exhibit A, and as responded to further below, the application satisfies all applicable setback, building height, access, lot coverage, vision clearance, and related residential development standards. The applicable criteria are met.

4. Landscaping Requirements. The proposal shall comply with NMC 15.420.010 dealing with landscape requirements and landscape screening.

Response: As shown in Exhibit A, and as included in the responses to the applicable criteria in NMC 15.420 further below, the application satisfies all applicable landscaping standards. The applicable criteria are met.

[…]

7. **Zoning District Compliance. The proposed use shall be listed as a permitted or conditionally permitted use in the zoning district in which it is located as found in NMC 15.305.010 through 15.336.020. Through this site review process, the director may make a determination that a use is determined to be similar to those listed in the applicable zoning district, if it is not already specifically listed. In this case, the director shall make a finding that the use shall not have any different or more detrimental effects upon the adjoining neighborhood area than those specifically listed.**

Response: As illustrated in the table under NMC 15.305.020 further below, multi-family homes are permitted as a conditional use in the C-2 zoning district. This criterion is met.

8. **Subdistrict Compliance. Properties located within subdistricts shall comply with the provisions of those subdistricts located in NMC 15.340.010 through 15.348.060.**

Response: The subject site is located in the Springbrook Oaks Specific Plan overlay subdistrict. Responses to said applicable criteria are provided below. The criterion is met.

9. **Alternative Circulation, Roadway Frontage Improvements and Utility Improvements. New developments shall provide for access for vehicles and pedestrians to adjacent properties which are currently developed or will be developed in the future. This may be accomplished through the provision of local public streets or private access and utility easements. At the time of development of a parcel, provisions shall be made to develop the adjacent street frontage in accordance with city street standards and the standards contained in the transportation plan. At the discretion of the city, these improvements may be deferred through use of a deferred improvement agreement or other form of security.**

Response: The subject site is comprised of two parcels lying north and south of Hayes Street. The northerly parcel is surrounded by existing development, a protected stream corridor, and public rights-of-way; these features preclude the extension of public or private access to the adjacent properties. The southerly parcel abuts public rights-of-way along its north and west boundary, a protected stream corridor along its east flank, and a private property (Fernwood Grange), that may have redevelopment potential, to the south.

Grading along the south property line is necessary to accommodate on site Americans with Disabilities Act (ADA) requirements as well as to support appropriate stormwater drainage/management. Planned site grading necessitates a retaining wall along much of the south property line and subsequently precludes the ability to accommodate a public or private street in this area.

Moreover, a public or private street connection to the abutting property to the south, presumably connecting the east portion of that lot to Hayes Street, would significantly impact Applicant's development potential on the subject site as it would necessitate the elimination of approximately one-half of the vehicle parking spaces (and subsequently the removal of that same number of multi-family homes) on the southerly parcel.

Finally, the Fernwood Grange property currently has access to N Springbrook Road. Future development on the Fernwood Grange parcel can be designed to utilize this existing access. Due to environmental constraints, existing development, and potentially significant impacts to the development potential of the subject site, it is not possible to

extend access to abutting properties beyond the currently planned connections at Hayes Street.

10. Traffic Study Improvements. If a traffic study is required, improvements identified in the traffic study shall be implemented as required by the director.

Response: A TIS is included in Exhibit C. The TIS concludes that no improvement to areas roadways beyond those already planned in the City's TSP (TSP Project 109) are necessary to mitigate traffic impacts anticipated from future homes on this site. The TIS suggests that the appropriate mitigation to address impacts affecting TSP Project 109 is to contribute a proportionate share fee toward this future improvement. The criterion can be met.

15.220.060 Additional requirements for multifamily residential projects.

The purpose of this section is to ensure that multifamily residential containing five or more units meet minimum standards for good design, provide a healthy and attractive environment for those who live there, and are compatible with surrounding development.

A. Review Process. Two review processes are available for review of multifamily residential development: objective and discretionary. An applicant may choose which process to use. The objective process uses clear and objective standards that do not require the use of discretionary decision-making. The discretionary process uses design guidelines that are more subjective in nature and are intended to provide the applicant with more design flexibility. Regardless of the review process, the applicant must demonstrate how the applicable standards or guidelines are being met.

As part of the discretionary site design review process, an applicant for a new multifamily residential project must demonstrate that some of the following site and building design elements, each of which has a point value, have been incorporated into the design of the project. At least 14 points are required for smaller multifamily projects with five to eight units and at least 20 points are required for multifamily projects with nine or more units. For more information and illustrations of each element, refer to the Newberg Residential Development Design Guidelines (July 1997).

A project may be reviewed using only one of the two review processes. For example, a project may not use some of the objective standards and some of the discretionary guidelines for one application. Pursuant to Chapters 15.100 and 15.220 NMC:

[…]

2. A Type III site design review is required for:

a. Projects in zones R-2, RP and C-4 following the discretionary process.

b. Projects in zones R-1, R-4, C-2, C-3 (Hancock Street) (conditional use permit also required).

Response: Due to the site's location in the C-2 zoning district, the application is subject to the Type III design review process per the above. Applicant has elected to utilize the discretionary site design review pathway.

B. Design Guidelines and Standards. Applicable guidelines and standards for multi-unit and congregate housing are located in Table 15.220.060(B). These standards should not be interpreted as requiring a specific architectural style.

Table 15.220.060(B): Multifamily Residential Design Guidelines and Standards

Design Element	Design Guideline (Discretionary Process) Projects with 5 – 8 dwelling units must obtain 14 points, projects with 9 or more dwelling units must obtain 20 points.	Design Standard (Objective Process) All standards must be met.
Site Design Elements		
1. Private and Shared Recreation Areas	Consolidate green space to increase visual impact and functional utility. This applies to larger projects which collectively have a significant amount of open space areas which can be consolidated into children's play areas, gardens, and/or dog-walking areas (three points).	a. Private Areas. Each ground-level living unit in a residential development subject to a design review plan approval shall have an accessible outdoor private space of not less than 48 square feet in area. The area shall be enclosed, screened or otherwise designed to provide increased privacy for unit residents, their guests and neighbors. b. Individual and Shared Areas. In addition to the private open space identified above, usable outdoor recreation space shall be provided for the individual and/or shared use of residents and their guests in any multifamily residential development, as follows: i. One- or two-bedroom units: 200 square feet per unit. ii. Three- or more bedroom units: 300 square feet per unit. iii. Storage areas are required in residential developments. Convenient areas shall be provided in residential developments for the storage of articles such as bicycles, barbecues, luggage, outdoor furniture, and the like. These shall be entirely enclosed and shall be a minimum of 18 square feet per dwelling unit.
2. Site Vegetation	Preserve existing natural features, including topography, water features, and/or native vegetation (three points).	The proposal shall adhere to the landscaping standards in Chapter 15.420 NMC.
3. Building Setbacks	Use the front setback to build a street edge by orienting building(s) toward the street with a relatively shallow front yard (12 to 15 feet for two-story buildings) to create a more "pedestrian-friendly" environment (three points).	The proposal shall adhere to the base zone standard for building setbacks listed in Chapter 15.410 NMC.
4. Vehicle Parking	Place parking lots to the sides and/or back of projects so that front yard areas can be used for landscaping and other "pedestrian-friendly" amenities (three points).	Parking for the development shall comply with the following: a. On-site surface parking areas, garages, and vehicle maneuvering areas shall not be located directly between the facade of a primary building(s) and an abutting street right-of-way. b. Parking located to the side of a dwelling structure shall be limited to 50% of the linear frontage of the site. Drive aisles without adjacent parking spaces do not count as parking areas for purposes of this standard.

Table 15.220.060(B): Multifamily Residential Design Guidelines and Standards

Design Element	Design Guideline (Discretionary Process) Projects with 5 – 8 dwelling units must obtain 14 points, projects with 9 or more dwelling units must obtain 20 points.	Design Standard (Objective Process) All standards must be met.
5. Multiple Building Groupings	Create "outdoor" rooms in larger projects by grouping buildings to create well-defined outdoor spaces (two points).	Adhere to the design standards in Private and Shared Recreation Areas, above.
6. Landscaping	Provide good-quality landscaping. Provide coordinated site landscaping sufficient to give the site its own distinctive character, including the preservation of existing landscaping and use of native species (two points).	The proposal shall adhere to the landscaping standards in Chapter 15.420 NMC.
7. Parking Vegetation Buffer	Landscape at the edges of parking lots to minimize visual impacts upon the street and surrounding properties (two points).	Parking design and landscape shall adhere to the standards in Chapters 15.440 and 15.420 NMC.
8. Street Trees	Use street trees and vegetative screens at the front property line to soften visual impacts from the street and provide shade (one point).	The proposal shall adhere to the street trees and landscaping amenities in public rights-of-way standards in NMC 15.420.020. On-site landscaping shall adhere to the standards in Chapter 15.420 NMC.
9. Outdoor Furnishings	Use site furnishings to enhance open space. Provide communal amenities such as benches, playground equipment, and fountains to enhance the outdoor environment (one point).	User amenities—such as tables, benches, trees, shrubs, planter boxes, garden plots, drinking fountains, spas, or pool—may be placed in outdoor shared recreation areas.
10. Fencing	Keep fences neighborly by keeping them low, placing them back from the sidewalk, and using compatible building materials (one point).	The proposal shall adhere to the fence height standards in NMC 15.410.070(D).
11. Entrance Building Materials	Use entry accents such as distinctive building or paving materials to mark major entries to multifamily buildings or to individual units (one point).	Building entrances shall be emphasized through the use of recesses, projections, corner entries, or landscape treatments.

Table 15.220.060(B): Multifamily Residential Design Guidelines and Standards

Design Element	Design Guideline (Discretionary Process) Projects with 5 – 8 dwelling units must obtain 14 points, projects with 9 or more dwelling units must obtain 20 points.	Design Standard (Objective Process) All standards must be met.
12. Outdoor Lighting	Use appropriate outdoor lighting which enhances the nighttime safety and security of pedestrians without causing glare in nearby buildings (one point).	a. Uses on the site shall be illuminated as follows: (1) Parking and loading areas: 0.5 footcandle minimum. (2) Walkways: 0.5 footcandle minimum and average of 1.5 footcandles. (3) Building entrances: 1 footcandle minimum with an average of 3.5 footcandles, except that secondary entrances may have an average of 2.0 footcandles. b. Maximum illumination at the property line shall not exceed 0.5 footcandles. However, where a site abuts a nonresidential district, maximum illumination at the property line shall not exceed 1 footcandle. This standard applies to adjacent properties across a public right-of-way. c. Developments shall use full cut-off lighting fixtures to avoid off-site lighting, night sky pollution, and shining lights into residential units.
Building Design Elements		
1. Building Orientation and Entrances	Orient buildings toward the street. For attached single-family and smaller multifamily projects, this means orienting individual entries and porches to the street. In larger projects with internal circulation and grounds, this means that at least 10 percent of the units should have main entries which face the street rather than be oriented toward the interior (three points).	a. The primary building entry, or entries, for ground-floor units shall face the street right-of-way or a central common open space. Secondary entries may face parking lots or other interior site areas. b. For sites not on an arterial street, at least 50% of a site's street frontage, excluding driveways, shall be occupied by buildings that are located no further than 10 feet from the required setback line. c. For sites on an arterial street, at least 50% of a site's street frontage, excluding driveways, shall be occupied by buildings that are located no further than 20 feet from the required setback line.
2. Building Height	Respect the scale and patterns of nearby buildings by reflecting the architectural styles, building details, materials, and scale of existing buildings (three points).	The proposal shall adhere to the base zone standard for building height listed in NMC 15.415.020.

Table 15.220.060(B): Multifamily Residential Design Guidelines and Standards

Design Element	Design Guideline (Discretionary Process) Projects with 5 – 8 dwelling units must obtain 14 points, projects with 9 or more dwelling units must obtain 20 points.	Design Standard (Objective Process) All standards must be met.
3. Building Articulation	Break up large buildings into bays by varying planes at least every 50 feet (three points).	a. Street-facing building facades shall be divided into wall planes. The wall plane on the exterior of each dwelling unit shall be articulated by doing one or more of the following: (1) Incorporating elements such as porches, balconies, or decks into the wall plane. (2) Recessing the building a minimum of 2 feet deep x 6 feet long. (3) Extending an architectural bay at least 2 feet from the primary street-facing facade. b. To avoid long, monotonous, uninterrupted walls, buildings shall incorporate exterior wall off-sets, projections and/or recesses. At least 1 foot of horizontal variation shall be used at intervals of 40 feet or less along the building's primary facade on the ground-floor level.
4. Building Facade Design	Provide variation in repeated units of large multifamily projects so that these projects have recognizable identities. Elements such as color; porches, balconies, and windows; railings; and building materials and form, either alone or in combination, can be used to create this variety (three points).	a. Windows and the glass portion(s) of doors with glazing shall occupy a minimum of 25% of the total street-facing facade. b. Buildings shall have a distinct base and top. The base of the building (ground-floor level) shall be considered from grade to 12 feet above grade. The base shall be visually distinguished from the top of the building by any of the following physical transitions: a change in brick pattern, a change in surface or siding materials, a change in color, or a change in the size or orientation of window types. c. Blank, windowless walls in excess of 750 square feet are prohibited when facing a public street, unless required by the Building Code. In instances where a blank wall exceeds 750 square feet, it shall be articulated (see Building Articulation, above) or landscaping shall be planted in front of it that will grow to cover 50% of the wall withing 3 years of planting. d. Garage doors shall be painted to match the color or color palette used on the rest of the buildings.
5. Building Materials	Use some or all of the following materials in new buildings: wood or wood-like siding applied horizontally or vertically as board and batten; shingles, as roofing, or on upper portions of exterior walls and gable ends; brick at the base of walls and chimneys; wood or wood-like sash windows; and wood or wood-like trim (one point for each material described above).	The following building materials are prohibited on street-facing building facades and shall not collectively be used on more than 35% of any other building facade: (1) Vinyl PVC siding; (2) T-111 plywood; (3) Exterior insulation finishing (EIFS); (4) Corrugated metal; (5) Unfinished or untextured concrete or concrete block; (6) Spandrel glass; (7) Sheet pressboard.

Table 15.220.060(B): Multifamily Residential Design Guidelines and Standards

Design Element	Design Guideline (Discretionary Process) Projects with 5 – 8 dwelling units must obtain 14 points, projects with 9 or more dwelling units must obtain 20 points.	Design Standard (Objective Process) All standards must be met.
6. Architectural Elements	Incorporate architectural elements of one of the city's historical styles (Queen Anne, Dutch colonial revival, colonial revival, or bungalow style) into the design to reinforce the city's cultural identity. Typical design elements which should be considered include, but are not limited to, "crippled hip" roofs, Palladian-style windows, roof eave brackets, dormer windows, and decorative trim boards (two points).	The applicant is encouraged to incorporate elements of one of the city's historical styles (Queen Anne, Dutch colonial revival, colonial revival, or bungalow style) into the design to reinforce the city's cultural identity.
7. Carports and Garages	Keep garages and carports secondary to the building by placing them to the side or back of units and/or using architectural designs, materials, and landscaping to buffer visual impacts from the street (two points).	a. On-site garages or carports shall not be located directly between the facade of a primary building(s) and an abutting street right-of-way. b. All garages or carports that are part of the same structure that contains dwelling units shall be located at least 4 feet behind the front building facade.
8. Front Porches	Provide a front porch at every main entry as this is both compatible with the city's historic building pattern and helps to create an attractive, "pedestrian-friendly" streetscape (two points).	Provide a front porch or patio for at least one main entry.
9. Roofs	Use sloped roofs at a pitch of 3:12 or steeper. Gable and hip roof forms are preferable (two points).	Where a sloped roof is proposed, the sloped roof shall be at a pitch of 3:12 or steeper.

Response: Applicant has elected to utilize the discretionary site design review pathway. Because the project includes 9 or more dwelling units, a total of 20 points must be obtained from the menu of items in NMC Table 15.220.060(B). As shown in Exhibits A and B, the application achieves a total of 23 points in the following categories from NMC Table 15.220.060(B):

- Site Design Elements (highlighted in blue in Table 15.220.060(B))
    1. Private and Shared Recreation Areas (+3 points)
    2. Site Vegetation (+3 points)
    5. Multiple Building Groupings (+2 points)
    6. Landscaping (+2 points)
    7. Parking Vegetation Buffer (+2 points)
    8. Street Trees (+1 point)

9. Outdoor Furnishings (+1 point)

- Building Design Elements (highlighted in blue in Table 15.220.060(B))
  2. Building Heights (+3 points)
  3. Building Articulation (+3 points)
  4. Building Façade Design (+3 points)

The criteria are met.

Chapter 15.225 CONDITIONAL USE PROCEDURES

[…]

15.225.060 General conditional use permit criteria – Type III.

A conditional use permit may be granted through a Type III procedure only if the proposal conforms to all the following criteria:

A. The location, size, design and operating characteristics of the proposed development are such that it can be made reasonably compatible with and have minimal impact on the livability or appropriate development of abutting properties and the surrounding neighborhood, with consideration to be given to harmony in scale, bulk, coverage and density; to the availability of public facilities and utilities; to the generation of traffic and the capacity of surrounding streets, and to any other relevant impact of the development.

Response: The planned multi-family residences included in this application would continue the residential development pattern that is in place to the east of the site. As compared with other commercial uses allowed in the C-2 zoning district, the planned residences better accommodate the irregular shape and size of the property and are more complementary to the existing stream corridor overlay on the site. Further, the planned additional residences provide additional customer base for existing and future commercial uses in the area, and which can be supported by convenient walking and bicycling that will relieve stress on area roadways. As discussed further below, adequate City services and facilities are in place to accommodate the planned use. The criterion is met.

B. The location, design, and site planning of the proposed development will provide a convenient and functional living, working, shopping or civic environment, and will be as attractive as the nature of the use and its location and setting warrants.

Response: New multi-family residences on this site support convenient and functional living, working, and shopping due to the close proximity to commercial and retail uses within walking and bicycling distance of the subject site. Further, the site has been designed to protect the habitat and functional values of the adjacent stream corridor at the east side of the property while utilizing this natural resource as an amenity for future residents. For these reasons, the planned use and design of the site best complement the site and environmental constraints and while supporting adjacent uses. The criterion is met.

C. The proposed development will be consistent with this code.

Response: As described throughout this narrative and as evidenced in the accompanying exhibits, the application satisfies all applicable approval criteria and is subsequently consistent with this code. The criterion is met.

[…]

15.225.080 Conditions.

The hearing body shall designate conditions in connection with the conditional use permit deemed necessary to secure the purpose of this chapter and the general conditional use permit criteria and require the guarantees and evidence that such conditions will be complied with. Such conditions may include:

A. Regulation of uses.

B. Special yards, spaces.

C. Fences and walls.

D. Surfacing of parking areas to city specifications.

E. Street dedications and improvements (or bonds).

F. Regulation of points of vehicular ingress and egress.

G. Regulation of signs.

H. Landscaping and maintenance of landscaping.

I. Maintenance of the grounds.

J. Regulation of noise, vibration, odors or other similar nuisances.

K. Regulation of time for certain activities.

L. Time period within which the proposed use shall be developed.

M. Duration of use.

N. Such other conditions as will make possible the development of the city in an orderly and efficient manner in conformity with the Newberg comprehensive plan and the Newberg development code.

Response: The City can find that no special conditions as outlined in A. – N. above, are necessary to mitigate for anticipated impacts from the planned use. This is because the site has been designed in specific consideration of each of these above-listed items and achieves a superior level of complementarity with adjacent uses and natural features.

Future multi-family homes on the subject site will help to address the City's stated need for such and are conveniently located within walking and biking distance to several area retail and commercial uses; providing opportunities for walking and bicycling to support some portion of typical daily trip activity.

Moreover, a generous buffer between planned on-site development and the adjacent stream corridor and wetlands located near the east property line serves to preserve and enhance that habitat functions provided by this natural resource.

[…]

[…]

15.305.020 Zoning use table – Use districts.

#	Use	C-1	C-2	C-3	C-4	Notes and Special Use Standards
200	RESIDENTIAL USES					
Def.	Dwelling, multifamily		C(4)	P(8)/C(5)		Subject to lot or development site area requirements of NMC 15.405.010

Response: Per the Table in NMC 15.305.020, multi-family homes are permitted as a conditional use in the City's C-2 zoning district.

Chapter 15.342 STREAM CORRIDOR OVERLAY (SC) SUBDISTRICT

15.342.010 Purpose.

The purpose of the stream corridor (SC) overlay subdistrict is to implement the goals and policies of the comprehensive plan relating to open space, scenic, and natural resources which are intended to ". . . ensure that adequate land shall be retained in permanent open space use and that natural scenic and historic resources are protected." Furthermore, this subdistrict is intended to ". . . protect, conserve, enhance, and maintain the Willamette River Greenway." The subdistrict allows for a balance of protection of open space, scenic and natural resources and environmentally sensitive development. The designation of lands within this subdistrict is used to provide reasonable regulation of development in or adjacent to stream corridors. This subdistrict does not provide for or authorize public access to private properties designated within this subdistrict. Additionally, the provisions of this subdistrict do not provide measures for the public acquisition of private property.

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.

Response: Except for a sole 8-inch stormwater line that outfalls into the Stream Corridor Overlay Subdistrict for a distance of ±26-feet, the planned project completely avoids impacts to this natural area. Nonetheless, the planned stormwater impacts are subject to Type I review under this section as discussed in further detail below.

15.342.030 General information.

The delineated stream corridor overlay subdistrict is described by boundary lines delineated on the City of Newberg zoning map indicated with an SC symbol. The boundaries of the SC areas were established by an ecologist analyzing several environmental values including erosion potential, wildlife habitat, riparian water quality protection, floodplain water quality protection, natural condition, and ecological integrity. This information is contained in more detail in a document titled "City of Newberg, Stream Corridors as a Goal 5 Resource." This document includes a Goal 5 ESEE (economic, social, environment and energy consequences) analysis and was the basis for the preparation of this chapter. The boundaries of the SC overlay subdistrict are typically located at a logical top of bank, or where no obvious top of bank exists, are located at a distance 50 feet from the edge of the wetland.

Response: The Stream Corridor Overlay Subdistrict boundary is shown in Exhibit A and was derived from the City based on the information here.

15.342.040 Activities exempt from these regulations.

The following public or private uses and activities are exempt from the regulations of this chapter:

A. Emergency procedures or emergency activities undertaken by public or private parties which are necessary for the protection of public health, safety and welfare.

B. Maintenance and repair of buildings, structures, yards, gardens or other activities or uses that were in existence prior to the effective date of the ordinance codified in these regulations.

C. Alterations of buildings or accessory structures which do not increase building coverage.

D. The expansion of an existing structure, building, improvements, or accessory structures, provided the expansion is located completely outside of the stream corridor delineation boundary.

E. The following agricultural activities lawfully in existence as of December 4, 1996:

1. Mowing of hay, grass or grain crops.

2. Tilling, discing, planting, seeding, harvesting and related activities for pasture, trees, food crops or business crops; provided, that no additional lands within the stream corridor boundary are converted to these uses.

F. Operation, maintenance and repair of existing irrigation, drainage ditches, ponds, wastewater facilities, stormwater detention or retention facilities, and water treatment facilities.

G. Normal and routine maintenance of existing streets and utilities.

H. Normal and routine maintenance of any public improvement or public recreational area.

I. Measures to remove or abate hazards and nuisances including but not limited to removal of fallen, hazardous or diseased trees.

J. Roadway and related improvements associated with a final alignment of the Newberg bypass road project.

K. Maintenance and repair of existing railroad trackage and related improvements.

L. Airport Area.

1. The removal or pruning of trees or other vegetation located within the airport overlay subdistrict, as established on the City of Newberg zoning map, that either exceed the height limits established by the overlay subdistrict or are otherwise demonstrated to pose a threat to the health, safety, welfare, and general operation of the airport.

2. The removal of undergrowth, within 500 feet east and west of the runway and 1,000 feet south of the runway, as necessary to maintain the safe operation of the airport facilities and activities.

M. Utilities installed above or below existing street rights-of-way.

N. Utility services using an existing pole or installation of other utilities where no more than 100 square feet of ground area is disturbed, no native trees are removed, and the area is replanted to preconstruction conditions using native plants selected from the Newberg plant list.

O. Utility services within existing access roads or other previously improved areas where the utility service can be installed without expanding the previously improved area.

P. The removal of any plant identified on the Newberg plant list as a nuisance plant such as Himalayan blackberry, English ivy, periwinkle, poison oak, or Scotch broom.

Q. The planting or propagation of any plant identified as native on the Newberg plant list.

R. The planting or propagation of any nonnative plant; provided, that the area to be planted covers less than 10 percent of the total site area within the SC overlay subdistrict and does not include any nuisance plants as identified on the Newberg plant list.

Response: As shown in Exhibit A, the application will replace a ±11-foot-long portion of existing sidewalk on the south side of Hayes Street that is located within the Stream Corridor Overlay Subdistrict. Per K. above, this improvement work is exempt from the regulations in this chapter.

The planned stormwater outfall is not eligible for any of the exemptions from the regulations of this chapter. Responses to the applicable Type I Stream Corridor Overlay Subdistrict criteria are included below as they pertain to the planned stormwater outfall.

15.342.050 Activities requiring a Type I process.

The following uses shall be processed as a Type I decision and shall be approved by the director upon submittal of a plan indicating compliance with the accompanying criteria and the restoration standards indicated in NMC 15.342.060.

[…]

B. Private or public service connection laterals and service utilities extensions where the disturbed area shall be restored pursuant to NMC 15.342.060.

[…]

Response: As shown in Exhibit A, the application includes a planned 8-inch stormwater outfall that will extend ±26-feet into the Stream Corridor Overlay Subdistrict. Disturbed areas will be restored to native conditions pursuant to NMC 15.342.060, following the completion of work. The planned stormwater outfall is therefore subject to the Type I Stream Corridor Overlay Subdistrict review process.

15.342.060 Restoration standards for Type I process.

A plan shall be approved only if the following standards can be met. This shall be shown on a plan submitted along with a Type I application.

A. Disturbed areas, other than authorized improvements, shall be regraded and contoured to appear natural. All fill material shall be native soil. Native soil may include soil associations commonly found within the vicinity, as identified from USDA Soil Conservation Service, Soil Survey of Yamhill Area, Oregon.

B. Replanting shall be required using a combination of trees, shrubs and grasses. Species shall be selected from natives on the Newberg plant list.

C. Removed trees over six inches in diameter, as measured at breast height, shall be replaced at a ratio of three new trees for every one removed. All trees replaced pursuant to this section shall have an average caliper measurement of a minimum of one inch. Additional trees of any caliper may be used to further enhance the mitigation site.

D. All disturbed areas, other than authorized improvements, shall be replanted to achieve 90 percent cover in one year.

E. All disturbed areas shall be protected with erosion control devices prior to construction activity. The erosion control devices shall remain in place until 90 percent cover is achieved.

F. Except as provided below, all restoration work must occur within the SC overlay subdistrict and be on the same property. The director may authorize work to be performed on properties within the general vicinity or adjacent to the overlay subdistrict; provided, that the applicant demonstrates that this will provide greater overall benefit to the stream corridor areas.

Response: As shown in Exhibit A, three existing trees must be removed to accommodate the planned stormwater outfall. Also as shown in Exhibit A, this area of temporary impact will be revegetated with a native grass seed mix on native soil. Due to the potential for root impacts to this planned stormwater line, it is not appropriate to replant trees in the area of temporary disturbance. Appropriate erosion control measures will be in place prior to and during all construction activity (see Exhibit A). The applicable criteria can be met.

[…]

15.342.110 Prohibited uses and activities.

The following activities or uses are prohibited within this subdistrict:

A. Except as provided in NMC 15.342.040(R), the planting or propagation of any plant identified as a nuisance plant as determined by a qualified botanist or indicated as a nuisance plant on the Newberg plant list.

B. The removal of native trees that are greater than six inches in diameter at breast height, except as is otherwise permitted within this chapter.

C. Any use dealing with hazardous substances or materials, including but not limited to gas service stations.

D. Public pathways, except those in conjunction with public lands, public parks or public easements that have been acquired by other than eminent domain.

E. Recreational marijuana producer and recreational marijuana processor.

F. Recreational marijuana wholesalers, laboratories, research certificates and retailers.

G. Recreational marijuana dispensaries.

Response: The planned outfall requires the removal of three existing trees that are 6-inches (not greater than) in diameter (see Exhibit A). Therefore, the application does not seek approval for any of the prohibited uses and activities listed above. The criteria are met.

[…]

Chapter 15.346 SPECIFIC PLAN (SP) SUBDISTRICT

15.346.040 Plan implementation.

A. Overlay Subdistrict. The specific plan shall be implemented as a zoning overlay subdistrict. If the plan applies to land outside the city limits, the SP specific plan zoning subdistrict classification shall indicate where the SP overlay zone will be applied upon annexation. The specific plan shall be adopted as an exhibit to the SP overlay zone subdistrict and the SP overlay plan district.

B. New Construction. New construction subject to site design review or building permit review shall meet the special development and design standards of the specific plan.

C. Priority of Standards and Procedures. Unless otherwise noted, the standards and procedures of the specific plan overlay subdistrict shall supplement and supersede standards and procedures of this code.

Response: The application seeks approval for new construction on a site that is located within the Springbrook Oaks Specific Plan Subdistrict. The applicable criteria are responded to below.

15.346.070 Specific plan development standards.

Development standards for specific plans are listed below. The standards shall be utilized in conjunction with the specific plan adopted as an exhibit to the SP overlay subdistrict. This section is intended to be amended as new specific plans are adopted.

B. Springbrook Oaks Specific Plan.

1. Report Adopted. The Springbrook Oaks specific plan dated August 2, 1999, and amended August 2, 1999, October 16, 2006, August 6, 2018, and June 7, 2021, is adopted by reference. The development standards listed in this section are intended to implement the policies of the Springbrook Oaks specific plan. Development of Springbrook Oaks shall follow the standards of this code section as well as the policies of the plan. If a conflict exists between the Springbrook Oaks specific plan policies and the development code, the Springbrook Oaks specific plan shall govern.

Response: Responses to the applicable criteria from the Springbrook Oaks Specific Plan and this Code are responded to in this narrative. Any conflict between said regulations is noted in Applicant's responses and as per the above, the applicable criteria from the Springbrook Oaks Specific Plan will prevail.

2. Permitted Uses and Conditional Uses. Eight development areas have been established with corresponding zones within the Springbrook Oaks specific plan. The permitted and conditional uses allowed under the SP subdistrict shall be the same as those uses permitted in the base zoning districts. Exceptions to this standard include the following:

a. A golf course shall be permitted within the M-1 area, adjacent to the stream corridor; and

b. Densities and lot sizes shall be in accordance to the standards established in subsection (B)(8)(a) of this section.

c. In addition to the permitted uses in the RP zone, area F-1 permits:

i. Medically related industrial uses, such as medical laboratories, manufacture and wholesale distribution of medical equipment, medical research facilities, and laundries and similar services for medical facilities.

ii. Medically related retail uses, such as a pharmacy, gift shop or cafe (limited to 3,000 square feet), or medical appliance sale and rental store.

iii. Barber and beauty shops.

d. Area F-1 permits residential uses.

e. Area F-2 does not permit single-family dwellings.

f. Areas shown in the bypass corridor overlay (LUBCO) district are subject to the standards of that overlay.

Response: The subject site is located in Area A of the Springbrook Oaks Specific Plan. The planned use is allowed as a conditional use in the underlying C-2 zoning district. Subsequently, application is not eligible for any of the exemptions listed above.

3. Street and Pedestrian Pathway Standards. Street and pedestrian pathway development standards are established in NMC 15.505.010 et seq. and NMC 15.505.210 et seq.

Response: The applicable street and pedestrian pathway standards are currently located in NMC 15.505.030 and are responded to below.

[…]

5. Setbacks. Figures 1 and 2 of the Springbrook Oaks specific plan identify special setback standards that apply to the property.

6. Residential, Professional and Industrial Setbacks.

a. Residential.

i. Development Areas A through F Setbacks – Figure 1 of the Springbrook Oaks Specific Plan. Minimum and maximum front setbacks for structures shall be met in development areas A through F of the Springbrook Oaks specific plan. Residential structures shall be no closer nor further from the front property line than as follows:

	Minimum	Maximum
Porch	10'	25'
Dwelling	15'	25' (without porch)
Cottage cluster dwelling	10'	25' (without porch)
Garage or carport	20'	None

The front of a garage may not be closer to the property line than the front of the residential structure unless each fronts on different streets.

Response: The subject site is located in Area A of the Springbrook Oaks Specific Plan. Per the above table, the minimum dwelling setback in this area is 10-feet and the maximum dwelling setback is 25-feet. As shown in Exhibit A, all planned buildings fronting Hayes Street and N Springbrook Road meet these minimum and maximum dwelling setback standards. The criterion is met.

[…]

iii. Interior Setbacks. Interior yard setbacks shall be the same as the base zone. An exception to this standard is made for single-family attached housing, where no interior setback is required for the zero

lot line. Another exception is development within the R-P zones of area F which may have a five-foot interior setback.

Response: The interior side yard setback applies to the north property line of the northerly parcel and the south property line of the southerly parcel. Per NMC 15.410.030.B, there is no minimum interior side yard setback where such abuts property zoned for commercial or industrial use. The north property line of the subject site abuts commercially zoned land and the south property line abuts land outside of the City that is designated for future industrial uses on the City's Comprehensive Plan Map. Subsequently, there is no minimum interior side yard setback applicable to the subject site. The criterion is met.

[…]

c. Building Heights. Building height limits shall be the same as those in the base zone. An exception is for areas F-1 and F-2, which shall have a maximum building height of 50 feet.

Response: Per 15.415.020.B.2, "In the … C-2… districts there is no building height limitation, except, where said districts abut upon a residential district, the maximum permitted building heights shall not exceed the maximum building height permitted in the abutting residential district for a distance of 50 feet from the abutting boundary."

The subject site does not abut a residential district and therefore there is no maximum building height. As shown in Exhibit B, planned structures will be approximately ±33-feet in height as measured about the average height of the pitched roofs, per the method in NMC 15.05.030 and Appendix A of NMC Title 15. The criterion is met.

7. Street Trees. Street trees shall be provided adjacent to all public rights-of-way abutting or within a subdivision or partition. Street trees shall be installed in accordance with the provisions of NMC 15.420.010(B)(4). Trees shall be selected from the street tree species list authorized by the city council. Preference should be given towards the selection of oak species to maintain the character of the development's namesake: Springbrook Oaks.

Response: The application does not seek approval for a land division and therefore the criterion does not apply. Nonetheless, as shown on the Preliminary Landscape Plan in Exhibit A, street trees are planned along the site's Hayes Street frontage and in accordance with NMC 15.420.010(B)(4). Per the above, Forest Green Oak trees have been selected as the planned street tree species. Street trees currently exist along the site's N Springbrook Road frontage.

8. Residential Density. Residential density is governed by the SP overlay subdistrict.

a. The following development standards shall be applied to Springbrook Oaks for single-family detached dwellings and duplex dwellings (please refer to Graphic VI for map of development areas A through H of the Springbrook Oaks specific plan). See Appendix A, Figure 20. These standards shall supersede any density or density transfer standards established in the development code.

Area	Zone	Minimum Lot Size (Square Feet)	Minimum Lot Area per Dwelling Unit (Square Feet)	Maximum Density (Dwelling Units per Acre)
A	C-2	5,000	NA	NA

Response: Per the above table there is no minimum or maximum density in the A Area of the Springbrook Oaks Specific Plan Subarea Overlay. As planned, the project includes 96 new multi-family homes across ±4.97 net developable acres and achieves a gross density of 19.31 dwellings/gross acre. The criterion is met.

[…]

Chapter 15.405 LOT REQUIREMENTS

15.405.010 Minimum and maximum lot area.

A. In the following districts, each lot or development site shall have an area as shown below except as otherwise permitted by this code:

[…]

2. In the AI, C-1, C-2, and C-3 districts, each lot or development site shall have a minimum area of 5,000 square feet or as may be established by a subdistrict.

[…]

[…]

C. In calculating lot area for this section, lot area does not include land within public or private streets. In calculating lot area for maximum lot area/minimum density requirements, lot area does not include land within stream corridors, land reserved for public parks or open spaces, commons buildings, land for preservation of natural, scenic, or historic resources, land on slopes exceeding 15 percent or for avoidance of identified natural hazards, land in shared access easements, public walkways, or entirely used for utilities, land held in reserve in accordance with a future development plan, or land for uses not appurtenant to the residence.

Response: The subject site is located in the C-2 zoning district and comprises a total net development area of ±4.97-acres. The criteria are met.

[…]

15.405.030 Lot dimensions and frontage.

A. Width. Widths of lots shall conform to the standards of this code.

B. Depth to Width Ratio. Each lot and parcel shall have an average depth between the front and rear lines of not more than two and one-half times the average width between the side lines. Depths of lots shall conform to the standards of this code. Development of lots under 15,000 square feet are exempt from the lot depth to width ratio requirement.

C. Area. Lot sizes shall conform to standards set forth in this code. Lot area calculations shall not include area contained in public or private streets as defined by this code.

D. Frontage.

1. No lot or development site shall have less than the following lot frontage standards:

a. Each lot or development site shall have either frontage on a public street for a distance of at least 25 feet or have access to a public street through an easement that is at least 25 feet wide. No new private streets, as defined in NMC 15.05.030, shall be created to provide frontage or access except as allowed by NMC 15.240.020(L)(2).

[…]

2. The above standards apply with the following exceptions:

   a. Lots for townhouse dwellings in any zone where they are permitted shall have a minimum frontage on a public street for a distance of at least 20 feet, shall have a minimum width of 20 feet at the front building line and shall have access meeting the provisions of NMC 15.415.050(B).

   b. Legally created lots of record in existence prior to the effective date of the ordinance codified in this code.

   c. Lots or development sites which, as a process of their creation, were approved with sub-standard widths in accordance with provisions of this code.

   d. Existing private streets may not be used for new dwelling units, except private streets that were created prior to March 1, 1999, including paving to fire access roads standards and installation of necessary utilities, and private streets allowed in the airport residential and airport industrial districts. However, existing single-family detached dwellings on existing private streets may be converted to duplex, triplex, or quadplex dwellings.

Response: The application does not seek the creation of new lots or parcels. As above, the existing parcels satisfy the lot area requirements for the planned use. The applicable criteria are met.

15.405.040 Lot coverage and parking coverage requirements.

A. Purpose. The lot coverage and parking coverage requirements below are intended to:

   1. Limit the amount of impervious surface and storm drain runoff on residential lots.

   2. Provide open space and recreational space on the same lot for occupants of that lot.

   3. Limit the bulk of residential development to that appropriate in the applicable zone.

B. Residential uses in residential zones shall meet the following maximum lot coverage and parking coverage standards; however, cottage cluster projects shall be exempt from the standards. See the definitions in NMC 15.05.030 and Appendix A, Figure 4.

   1. Maximum Lot Coverage.

      a. R-1: 40 percent, except:

         i. Fifty percent if all structures on the lot are one story; and

         ii. Sixty percent for townhouse dwellings.

      b. R-2 and RP: 60 percent.

      c. AR and R-3: 60 percent.

   2. Maximum Parking Coverage. R-1, R-2, R-3, and RP: 30 percent.

   3. Combined Maximum Lot and Parking Coverage.

      a. R-1: 60 percent.

      b. R-2, R-3, RP and townhouse dwellings in R-1: 70 percent.

C. All other districts and uses not listed in subsection (B) of this section shall not be limited as to lot coverage and parking coverage except as otherwise required by this code.

Response: The application seeks approval for a residential use in the City's C-2 (non-residential zone) zoning district and is therefore subject to the standards in C. above. Per 15.405.040.C., there is no limit on lot and/or parking coverage for the subject site. The criterion is met.

Chapter 15.410 YARD SETBACK REQUIREMENTS

[…]

15.410.010 General yard regulations.

A. No yard or open space provided around any building for the purpose of complying with the provisions of this code shall be considered as providing a yard or open space for any other building.

B. No yard or open space on adjoining property shall be considered as providing required yard or open space for another lot or development site under the provisions of this code.

C. No front yards provided around any building for the purpose of complying with the regulations of this code shall be used for public or private parking areas or garages, or other accessory buildings, except as specifically provided elsewhere in this code.

D. When the common property line separating two or more contiguous lots is covered by a building or a permitted group of buildings with respect to such common property line or lines does not fully conform to the required yard spaces on each side of such common property line or lines, such lots shall constitute a single development site and the yards as required by this code shall then not apply to such common property lines.

Response: As shown in Exhibit A, yards and open spaces have been designed and calculated in accordance with the applicable provisions above. The applicable criteria are met.

[…]

15.410.020 Front yard setback.

[…]

B. Commercial.

[…]

2. All lots or development sites in the C-2 district shall have a front yard of not less than 10 feet. There shall be no minimum front yard setback for C-2 zoned property that has frontage on E. Portland Road or Highway 99 W. The maximum front yard setback for C-2 zoned property that has frontage on E. Portland Road or Highway 99 W. shall be no greater than 10 feet. A greater front yard setback is allowed for C-2 zoned property having frontage on E. Portland Road or Highway 99 W. when a plaza or other pedestrian amenity is provided; however, said front yard setback should be the minimum setback needed to accommodate a pedestrian amenity. No parking shall be allowed in said yard. Said yard shall be landscaped and maintained.

Response: The site is located within Area A of the Springbrook Oaks Specific Plan Subarea Overlay which specifies front yard setbacks that are different from those listed above. Per NMC 15.345.070.B.1, the setbacks in the Springbrook Oaks Specific Plan Subarea Overlay apply. The criterion does not apply.

[…]

15.410.030 Interior yard setback.

[…]

B. Commercial.

1. All lots or development sites in the C-1 and C-2 districts have no interior yards required where said lots or development sites abut property lines of commercially or industrially zoned property. When interior lot lines of said districts are common with property zoned residentially, interior yards of not less than 10 feet shall be required opposite the residential districts.

[…]

Response: The site is located within Area A of the Springbrook Oaks Specific Plan Subarea Overlay which specifies similar setbacks as those listed here. Per NMC 15.345.070.B.1, the setbacks in the Springbrook Oaks Specific Plan Subarea Overlay prevail. While this criterion does not apply, it is met.

15.410.050 Special setback requirements to planned rights-of-way.

A. Yard Requirements for Property Abutting Partial or Future Street Rights-of-Way.

1. Except as provided in subsection (A)(2) of this section, no building shall be erected on a lot which abuts a street having only a portion of its required width dedicated, unless the yards provided and maintained in connection with such building have a width and/or depth needed to complete the street width plus the width and/or depths of the yards required on the lot by this code.

2. Where a comprehensive plan street design or a future street plan exists, the placement of buildings and the establishment of yards where required by this code shall relate to the future street boundaries as determined by said plans.

B. Planned Street Right-of-Way Widths. Planned street right-of-way widths are established as indicated in subsection (C) of this section for the various categories of streets shown in the transportation system plan.

C. A lot or parcel of land in any district adjoining a street for which the planned right-of-way width and alignment have been determined shall have a building setback line equal to the yard required in the district, plus a distance of:

1. Fifty feet from and parallel with the centerline of expressways.

2. Thirty-five feet from and parallel with the centerline of major and minor arterials.

3. Thirty feet from and parallel with the centerline of multifamily, commercial and industrial streets and single-family collector streets.

4. Thirty feet from and parallel with the centerline of single-family local streets.

5. Twenty-five feet from and parallel with the centerline of single-family hillside, cul-de-sacs and local streets which will never be extended more than 2,400 feet in length and which will have a relatively even division of traffic to two or more exits.

Exceptions to the above five classifications are shown in the transportation system plan.

D. The centerline of planned streets shall be either the officially surveyed centerline or a centerline as on a precise plan. In the event of conflict between the two, the latter-described line shall prevail. In all other cases, a line midway between properties abutting the right-of-way shall be the centerline for the purposes of this code.

Response: The subject site does not abut any partial or planned streets. The criteria do not apply.

15.410.060 Vision clearance setback.

The following vision clearance standards shall apply in all zones (see Appendix A, Figure 9).

A. At the intersection of two streets, including private streets, a triangle formed by the intersection of the curb lines, each leg of the vision clearance triangle shall be a minimum of 50 feet in length.

Response: As shown in Exhibit A, there are no planned obstructions, except for street trees that will be maintained to comply with applicable vision clearance standards, within the vision clearance setback located at the intersection of Hayes Street and N Springbrook Road. The criterion is met.

B. At the intersection of a private drive and a street, a triangle formed by the intersection of the curb lines, each leg of the vision clearance triangle shall be a minimum of 25 feet in length.

Response: As shown in Exhibit A, there are no planned obstructions, except for street trees that will be maintained to comply with applicable vision clearance standards, within the vision clearance setbacks located at the intersection of the site driveways and Hayes Street. The criterion is met.

C. Vision clearance triangles shall be kept free of all visual obstructions from two and one-half feet to nine feet above the curb line. Where curbs are absent, the edge of the asphalt or future curb location shall be used as a guide, whichever provides the greatest amount of vision clearance.

Response: Planned street trees located within the vision clearance setback will be maintained such that branches and foliage are not present between a height of 2.5- to 9-feet above the adjacent curb line. The criterion can be met.

[…]

15.410.070 Yard exceptions and permitted intrusions into required yard setbacks.

The following intrusions may project into required yards to the extent and under the conditions and limitations indicated:

A. Depressed Areas. In any district, open work fences, hedges, guard railings or other landscaping or architectural devices for safety protection around depressed ramps, stairs or retaining walls may be located in required yards; provided, that such devices are not more than three and one-half feet in height.

Response: As shown in Exhibit A, relatively short retaining walls are planned within yard areas adjacent N Springbrook Road and Hayes Street. Where required by the building code, guard rails will be provided atop these retaining walls and pursuant to the applicable standards of the Oregon Structural Specialty Code. The criterion is met.

B. Accessory Buildings. In front yards on through lots, where a through lot has a depth of not more than 140 feet, accessory buildings may be located in one of the required front yards; provided, that every portion of such accessory building is not less than 10 feet from the nearest street line.

Response: As shown in Exhibit A, no accessory buildings are planned within front yards. Further, the site may not be characterized as a through lot. The criterion does not apply.

C. Projecting Building Features. The following building features may project into the required front yard no more than five feet and into the required interior yards no more than two feet; provided, that such projections are no closer than three feet to any interior lot line:

1. Eaves, cornices, belt courses, sills, awnings, buttresses or other similar features.
2. Chimneys and fireplaces, provided they do not exceed eight feet in width.

3. Porches, platforms or landings which do not extend above the level of the first floor of the building.

4. Mechanical structures (heat pumps, air conditioners, emergency generators and pumps).

Response: As shown in Exhibit A, there are no building features that are planned to project into required front or interior yards. The criterion does not apply.

D. Fences and Walls.

[…]

2. In any commercial, industrial, or mixed employment district, a fence or wall shall be permitted to be placed at the property line or within a yard setback as follows:

a. Not to exceed eight feet in height. Located or maintained in any interior yard except where the requirements of vision clearance apply. For purposes of fencing only, lots that are corner lots or through lots may select one of the street frontages as a front yard and all other yards shall be considered as interior yards, allowing the placement of an eight-foot fence on the property line.

b. Not to exceed four feet in height. Located or maintained within all other front yards.

3. If chain link (wire-woven) fences are used, they are manufactured of corrosion-proof materials of at least 11-1/2 gauge.

4. The requirements of vision clearance shall apply to the placement of fences.

Response: As shown in Exhibit A, relatively short retaining walls (4.71-feet or less in height) are planned within yard areas adjacent N Springbrook Road and Hayes Street. Per D.2.a. above, one retaining wall in excess of 4-feet in height (±4.71-feet) is located along the N Springbrook Road frontage and is permissible on this corner lot because this provision allows the Applicant to designate the site's Hayes Street frontage as the front yard the N Springbrook frontage as an interior yard. As above, guardrails will be installed where required per the Oregon Structural Specialty Code.

Planned retaining walls and guardrails are not located within required vision clearance areas. The applicable criteria are met.

E. Parking and Service Drives (Also Refer to NMC 15.440.010 through 15.440.080).

1. In any district, service drives or accessways providing ingress and egress shall be permitted, together with any appropriate traffic control devices in any required yard.

[…]

3. In any commercial or industrial district, except C-1, C-4, M-1, and M-E, public or private parking areas or parking spaces shall be permitted in any required yard (see NMC 15.410.030). Parking requirements in the C-4 district and the M-E district within the riverfront overlay subdistrict are described in NMC 15.352.040(H).

[…]

[…]

Response: As shown in Exhibit A, none of the planned private parking areas are located within a required yard area. As allowed per E.1. above, accessways serving the north and south

parcels do pass through a required yard to provide vehicular access to the site. The applicable criteria are met.

Chapter 15.415 BUILDING AND SITE DESIGN STANDARDS

15.415.010 Main buildings and uses as accessory buildings.

A. Hereinafter, any building which is the only building on a lot is a main building.

[…]

15.415.020 Building height limitation.

[…]

B. Commercial, Industrial and Mixed Employment.

[…]

2. In the AI, C-2, C-3, M-E, M-1, M-2, and M-3 districts there is no building height limitation, except, where said districts abut upon a residential district, the maximum permitted building height shall not exceed the maximum building height permitted in the abutting residential district for a distance of 50 feet from the abutting boundary.

[…]

Response: The subject site is located in the C-2 zoning district and does not abut a residential district; therefore there is no maximum building height standard. As shown in Exhibit B, planned structures will be approximately ±33-feet in height as measured about the average height of the pitched roofs, per the method in NMC 15.05.030 and Appendix A of NMC Title 15. The criterion is met.

C. The maximum height of buildings and uses permitted conditionally shall be stated in the conditional use permits.

Response: The City's final order in response to this application will memorialize that there is no maximum building height limitation on the subject property. The criterion can be met.

[…]

15.415.040 Public access required.

No building or structure shall be erected or altered except on a lot fronting or abutting on a public street or having access to a public street over a private street or easement of record approved in accordance with provisions contained in this code. New private streets may not be created to provide access except as allowed under NMC 15.332.020(B)(24), 15.336.020(B)(8), and in the M-4 zone. Existing private streets may not be used for access for new dwelling units, except as allowed under NMC 15.405.030. No building or structure shall be erected or altered without provisions for access roadways as required in the Oregon Fire Code, as adopted by the city.

Response: The subject site has frontage on and direct access to Hayes Street, which is a public street. The criteria are met.

[…]

Chapter 15.420 LANDSCAPING AND OUTDOOR AREAS

15.420.010 Required minimum standards.

A. Private and Shared Outdoor Recreation Areas in Residential Developments.

1. **Private Areas. Each ground-level living unit in a residential development subject to a design review plan approval shall have an accessible outdoor private space of not less than 48 square feet in area. The area shall be enclosed, screened or otherwise designed to provide increased privacy for unit residents, their guests and neighbors.**

Response: As shown in Exhibit B, all planned homes, including ground-level homes, include a private outdoor space of ±55 square feet. The Preliminary Landscape Plan in Exhibit A illustrates that private open spaces for ground-level homes will be screened using trees and shrubs. The criterion is met.

2. **Individual and Shared Areas. Usable outdoor recreation space shall be provided for the individual and/or shared use of residents and their guests in any multifamily residential development, as follows:**

   a. **One- or two-bedroom units: 200 square feet per unit.**

   b. **Three- or more bedroom units: 300 square feet per unit.**

   c. **Storage areas are required in residential developments. Convenient areas shall be provided in residential developments for the storage of articles such as bicycles, barbecues, luggage, outdoor furniture, and the like. These shall be entirely enclosed.**

Response: As shown in Exhibit B, each of the 96 homes planned for the site are intended as two-bedroom homes. Per 2.a. above, this equates to a total minimum shared area requirement of 19,200 square feet (96 homes x 200 square feet/home = 19,200 square feet). Exhibit A illustrates that more than 20,000 square feet of usable open space is provided in the form of plazas, children's playground areas, and open lawn areas.

Finally, Exhibit B shows that storage areas are provided adjacent the private outdoor area for all homes as well as within individual storage units in Buildings B, C, and E. The criteria are met.

[…]

B. **Required Landscaped Area. The following landscape requirements are established for all developments except single-family detached dwellings, duplex dwellings, triplex dwellings, quadplex dwellings, townhouse dwellings and cottage cluster projects:**

1. **A minimum of 15 percent of the lot area shall be landscaped; provided, however, that computation of this minimum may include areas landscaped under subsection (B)(3) of this section. Development in the C-3 (central business district) zoning district and M-4 (large lot industrial) zoning district is exempt from the 15 percent landscape area requirement of this section. Additional landscaping requirements in the C-4 district are described in NMC 15.352.040(K). In the AI airport industrial district, only a five percent landscaping standard is required with the goal of "softening" the buildings and making the development "green" with plants, where possible. The existence of the runway, taxiway, and approach open areas already provide generally for the 15 percent requirement. Developments in the AI airport industrial district with a public street frontage shall have said minimum landscaping between the front property line and the front of the building.**

2. **All areas subject to the final design review plan and not otherwise improved shall be landscaped.**

Response: As shown in the Preliminary Landscape Plan in Exhibit A, 15% of this ±193,062 square foot site equates to a minimum landscaped area of 28,960 square feet. This same plan shows

that nearly 85,000 square feet (44%) of the site is planned to be landscaped. Additionally, all unimproved areas are planned to be landscaped. The applicable criteria are met.

3. The following landscape requirements shall apply to the parking and loading areas:

a. A parking or loading area providing 10 or more spaces shall be improved with defined landscaped areas totaling no less than 25 square feet per parking space.

Response: As shown in Exhibit A, 159 vehicle parking spaces are planned. At 25 square feet per vehicle parking space, the minimum required parking area landscaping equals ±3,975 square feet. As shown on the Preliminary Landscape Plan in Exhibit A, more than 4,500 square feet of landscaping is provided within parking areas. The criterion is met.

b. A parking, loading area, or drive aisle which runs adjacent to a property line shall be separate from any lot line adjacent to a street by a landscaped strip at least 10 feet in interior width or the width of the required yard, whichever is greater, and any other lot line by a landscaped strip of at least five feet in interior width. See subsections (B)(3)(c) and (d) of this section for material to plant within landscape strips.

Response: As shown in Exhibit A, planned parking areas adjacent to Hayes Street, N Springbrook Road, and abutting private properties to the north and south are separated from these adjacent streets and properties by a minimum 10-foot-wide landscape strip pursuant (B)(3)(c) and (d). The criterion is met.

c. A landscaped strip separating a parking area, loading area, or drive aisle from a street shall contain street trees spaced as appropriate to the species, not to exceed 50 feet apart on average, and a combination of shrubs and ground cover, or lawn. This landscaping shall provide partial screening of these areas from the street.

d. A landscaped strip separating a parking area, loading area, or drive aisle from an interior lot line shall contain any combination of trees, shrubs, ground cover or lawn. Plant material shall be selected from at least two different plant material groups (example: trees and shrubs, or lawn and shrubs, or lawn and trees and shrubs).

Response: The Preliminary Landscape Plan in Exhibit A illustrates that landscape screening between parking areas and adjacent rights-of-way and interior lot lines contains street trees and landscaping as required here. The criteria are met.

e. Landscaping in a parking or loading area shall be located in defined landscaped areas which are uniformly distributed throughout the parking or loading area.

f. Landscaping areas in a parking lot, service drive or loading area shall have an interior width of not less than five feet.

Response: The Preliminary Landscape Plan in Exhibit A illustrates that parking area landscaping is located within defined areas that are uniformly distributed and have an interior width of at least 5-feet. The criteria are met.

g. All multifamily, institutional, commercial, or industrial parking areas, service drives, or loading zones which abut a residential district shall be enclosed with a 75 percent opaque, site-obscuring fence, wall or evergreen hedge along and immediately adjacent to any interior property line which abuts the residential district. Landscape plantings must be large enough to provide the

required minimum screening requirement within 12 months after initial installation. Adequate provisions shall be maintained to protect walls, fences or plant materials from being damaged by vehicles using said parking areas.

Response: The application does not include planned parking areas which abut a residential district. The criterion does not apply.

h. An island of landscaped area shall be located to separate blocks of parking spaces. At a minimum, one deciduous shade tree per seven parking spaces shall be planted to create a partial tree canopy over and around the parking area. No more than seven parking spaces may be grouped together without an island separation unless otherwise approved by the director based on the following alternative standards:

i. Provision of a continuous landscaped strip, with a five-foot minimum width, which runs perpendicular to the row of parking spaces (see Appendix A, Figure 13).

ii. Provision of tree planting landscape islands, each of which is at least 16 square feet in size, and spaced no more than 50 feet apart on average, within areas proposed for back-to-back parking (see Appendix A, Figure 14).

Response: The application requests approval from the Director to permit alternative parking area landscaping as authorized in h.i. and h.ii. above. This alternative landscaping approach is warranted due to constraints imposed by the irregular shape of the site and the stream corridor located along the east side of the property. Upon approval of the alternative standards in h.i. and h.ii. above, the criteria are met.

4. Trees, Shrubs and Ground Covers. The species of street trees required under this section shall conform to those authorized by the city council through resolution. The director shall have the responsibility for preparing and updating the street tree species list which shall be adopted in resolution form by the city council.

a. Arterial and minor arterial street trees shall have spacing of approximately 50 feet on center. These trees shall have a minimum two-inch caliper tree trunk or stalk at a measurement of two feet up from the base and shall be balled and burlapped or boxed.

Response: As above, street trees exist along the site's N Springbrook Road frontage. New street trees are planned along the site's Hayes Street (minor arterial) frontage consistent with this and related standards in the Springbrook Oaks Specific Plan Overlay Subdistrict requirements (see Preliminary Landscape Plan in Exhibit A). The criterion is met.

[…]

c. Accent Trees. Accent trees are trees such as flowering cherry, flowering plum, crab-apple, Hawthorne and the like. These trees shall have a minimum one and one-half inch caliper tree trunk or stalk and shall be at least eight to 10 feet in height. These trees may be planted bare root or balled and burlapped. The spacing of these trees should be approximately 25 to 30 feet on center.

d. All broad-leafed evergreen shrubs and deciduous shrubs shall have a minimum height of 12 to 15 inches and shall be balled and burlapped or come from a two-gallon can. Gallon-can size shrubs will not be allowed except in ground covers. Larger sizes of shrubs may be required in special areas and locations as specified by the design review board. Spacing of these shrubs shall be typical for the variety, three to eight feet, and shall be identified on the landscape planting plan.

e. **Ground Cover Plant Material. Ground cover plant material such as greening juniper, cotoneaster, minor Bowles, English ivy, hypericum and the like shall be one of the following sizes in specified spacing for that size:**

Gallon cans	3 feet on center
4'' containers	2 feet on center
2-1/4'' containers	18'' on center
Rooted cuttings	12'' on center

Response: Accent trees, shrubs, and groundcovers are planned as provided above (see Preliminary Landscape Plan in Exhibit A). The criterion is met.

5. **Automatic, underground irrigation systems shall be provided for all areas required to be planted by this section. The director shall retain the flexibility to allow a combination of irrigated and nonirrigated areas. Landscaping material used within nonirrigated areas must consist of drought- resistant varieties. Provision must be made for alternative irrigation during the first year after initial installation to provide sufficient moisture for plant establishment.**

6. **Required landscaping shall be continuously maintained.**

7. **Maximum height of tree species shall be considered when planting under overhead utility lines.**

8. **Landscaping requirements and standards for parking and loading areas (subsection (B)(3) of this section) will apply to development proposals unless the institution has addressed the requirements and standards by an approved site development master plan. With an approved site development master plan, the landscape requirements will be reviewed through an administrative Type I review process.**

Response: As shown in the Preliminary Landscape Plan in Exhibit A, automatic irrigation is planned for all trees and landscape areas, and which will be maintained for the duration of the planting to encourage plant viability. Tree species have been selected in consideration of potential utility conflicts above and below-ground. The criteria are met.

[…]

C. **Installation of Landscaping. All landscaping required by these provisions shall be installed prior to the issuance of occupancy permits, unless security equal to 110 percent of the cost of the landscaping as determined by the director is filed with the city, insuring such installation within six months of occupancy. A security – cash, certified check, time certificates of deposit, assignment of a savings account, bond or such other assurance of completion as shall meet with the approval of the city attorney – shall satisfy the security requirements. If the installation of the landscaping is not completed within the six-month period, or within an extension of time authorized by the director, the security may be used by the city to complete the installation. Upon completion of the installation, any portion of the remaining security deposited with the city shall be returned to the applicant.**

Response: Applicant will install all required landscaping or bond for such prior to the issuance of occupancy. The criterion can be met.

15.420.020 Landscaping and amenities in public rights-of-way.

The following standards are intended to create attractive streetscapes and inviting pedestrian spaces. A review body may require any of the following landscaping and amenities to be placed in abutting public rights-of-way as part of multifamily, commercial, industrial, or institutional design reviews, or for subdivisions and planned unit developments. In addition, any entity improving existing rights-of-way should consider including these elements in the project. A decision to include any amenity shall be based on comprehensive plan guidelines, pedestrian volumes in the area, and the nature of surrounding development.

A. Pedestrian Space Landscaping. Pedestrian spaces shall include all sidewalks and medians used for pedestrian refuge. Spaces near sidewalks shall provide plant material for cooling and dust control, and street furniture for comfort and safety, such as benches, waste receptacles and pedestrian-scale lighting. These spaces should be designed for short-term as well as long-term use. Elements of pedestrian spaces shall not obstruct sightlines and shall adhere to any other required city safety measures. Medians used for pedestrian refuge shall be designed for short-term use only with plant material for cooling and dust control, and pedestrian-scale lighting. The design of these spaces shall facilitate safe pedestrian crossing with lighting and accent paving to delineate a safe crossing zone visually clear to motorists and pedestrians alike.

1. Street trees planted in pedestrian spaces shall be planted according to NMC 15.420.010(B)(4).

Response: As shown in Exhibit A and discussed previously, street trees are planned in accordance with applicable City of Newberg standards. The criterion is met.

2. Pedestrian spaces shall have low (two and one-half feet) shrubs and ground covers for safety purposes, enhancing visibility and discouraging criminal activity.

a. Plantings shall be 90 percent evergreen year-round, provide seasonal interest with fall color or blooms, and at maturity maintain growth within the planting area (refer to plant material matrix below).

b. Plant placement shall also adhere to clear sight line requirements as well as any other relevant city safety measures.

Response: In the context of the subject application, pedestrian spaces consist of sidewalks along Hayes Street and N Springbrook Road. Recent improvements to N Springbrook Road have completed the necessary public improvements, including sidewalks and pedestrian spaces required by this Code. This application plans for selected sidewalk replacement along the Hayes Street frontage, including additional street tree plantings in the public right-of-way. The selected street tree species are Forest Green Oak consistent with recommendations included in the Springbrook Oaks Specific Plan Overlay Subdistrict. No additional shrubs or ground cover beyond those existing are planned in the Hayes Street right-of-way. The criteria are met.

3. Pedestrian-scale lighting shall be installed along sidewalks and in medians used for pedestrian refuge.

a. Pole lights as well as bollard lighting may be specified; however, the amount and type of pedestrian activity during evening hours, e.g., transit stops, nighttime service districts, shall ultimately determine the type of fixture chosen.

b. Luminaire styles shall match the area/district theme of existing luminaires and shall not conflict with existing building or roadway lights causing glare.

c. Lighting heights and styles shall be chosen to prevent glare and to designate a clear and safe path and limit opportunities for vandalism (see Appendix A, Figure 17, Typical Pedestrian Space Layouts).

d. Lighting shall be placed near the curb to provide maximum illumination for spaces furthest from building illumination. Spacing shall correspond to that of the street trees to prevent tree foliage from blocking light.

Response: Street lighting along the site's frontage with N Springbrook Road and Hayes Street currently exist and complies with applicable City standards. No new street lighting is planned. The criteria do not apply.

4. Street furniture such as benches and waste receptacles shall be provided for spaces near sidewalks only.

a. Furniture should be sited in areas with the heaviest pedestrian activity, such as downtown, shopping districts, and shopping centers.

b. Benches should be arranged to facilitate conversation between individuals with L-shaped arrangements and should face the area focal point, such as shops, fountains, plazas, and should divert attention away from nearby traffic.

Response: No public spaces outside of the sidewalk are planned, and subsequently street furniture is similarly not planned with this application. The criteria do not apply.

5. Paving and curb cuts shall facilitate safe pedestrian crossing and meet all ADA requirements for accessibility.

Response: Planned curb cuts as necessary to accommodate new driveway access to the north- and south portions of the site will be designed/constructed to facilitate safe pedestrian crossing and will meet applicable ADA requirements. The criterion can be met.

B. Planting Strip Landscaping. All planting strips shall be landscaped. Planting strips provide a physical and psychological buffer for pedestrians from traffic with plant material that reduces heat and dust, creating a more comfortable pedestrian environment. Planting strips shall have different arrangements and combinations of plant materials according to the frequency of on-street parking (see Appendix A, Figures 18 and 19).

1. Planting strips which do not have adjacent parking shall have a combination of ground covers, low (two and one-half feet) shrubs and trees. Planting strips adjacent to frequently used on-street parking, as defined by city staff, shall only have trees protected by tree grates, and planting strips adjacent to infrequently used on-street parking shall be planted with ground cover as well as trees (see Appendix A, Figures 18 and 19, Typical Planting Strip Layouts). District themes or corridor themes linking individual districts should be followed utilizing a unifying plant characteristic, e.g., bloom color, habit, or fall color. When specifying thematic plant material, monocultures should be avoided, particularly those species susceptible to disease.

2. Street trees shall be provided in all planting strips as provided in NMC 15.420.010(B)(4).

a. Planting strips without adjacent parking or with infrequent adjacent parking shall have street trees in conjunction with ground covers and/or shrubs.

b. Planting strips with adjacent parking used frequently shall have only street trees protected by tree grates.

3. Shrubs and ground covers shall be provided in planting strips without adjacent parking with low (two and one-half feet) planting masses to enhance visibility, discourage criminal activity, and provide a physical as well as psychological buffer from passing traffic.

a. Plantings shall be 90 percent evergreen year-round, provide seasonal interest with fall color or blooms and at maturity maintain growth within the planting area.

b. Ground cover able to endure infrequent foot traffic shall be used in combination with street trees for planting strips with adjacent occasional parking (refer to plant material matrix below).

c. All plant placement shall adhere to clear sight line requirements as well as any other relevant city safety measures.

Response: As shown in Exhibit A and as previously discussed, the application includes the planting of Forest Green Oak trees within the Hayes Street right-of-way. All other required plantings in the Hayes Street and N Springbrook Road rights-of-way have been previously completed. The applicable criteria are met.

C. Maintenance. All landscapes shall be maintained for the duration of the planting to encourage health of plant material as well as public health and safety. All street trees and shrubs shall be pruned to maintain health and structure of the plant material for public safety purposes.

Response: As discussed in Exhibit A, all new landscaping will be maintained for the duration of the planting to ensure their viability. The criterion is met.

[…]

Chapter 15.425 EXTERIOR LIGHTING

15.425.010 Purpose.

The purpose of this chapter is to regulate the placement, orientation, distribution patterns, and fixture types of on-site outdoor lighting. The intent of this section is to provide minimum lighting standards that promote safety, utility, and security, prevent glare on public roadways, and protect the privacy of residents.

15.425.020 Applicability and exemptions.

A. Applicability. Outdoor lighting shall be required for safety and personal security in areas of assembly, parking, and traverse, as part of multifamily residential, commercial, industrial, public, recreational and institutional uses. The applicant for any Type I or Type II development permit shall submit, as part of the site plan, evidence that the proposed outdoor lighting plan will comply with this section. This information shall contain but not be limited to the following:

1. The location, height, make, model, lamp type, wattage, and proposed cutoff angle of each outdoor lighting fixture.

2. Additional information the director may determine is necessary, including but not limited to illuminance level profiles, hours of business operation, and percentage of site dedicated to parking and access.

3. If any portion of the site is used after dark for outdoor parking, assembly or traverse, an illumination plan for these areas is required. The plan must address safety and personal security.

B. Exemptions. The following uses shall be exempt from the provisions of this section:

1. Public street and airport lighting.

2. Circus, fair, carnival, or outdoor governmentally sponsored event or festival lighting.

3. Construction or emergency lighting, provided such lighting is discontinued immediately upon completion of the construction work or abatement of the emergency necessitating said lighting.

4. Temporary Lighting. In addition to the lighting otherwise permitted in this code, a lot may contain temporary lighting during events as listed below:

   a. Grand Opening Event. A grand opening is an event of up to 30 days in duration within 30 days of issuance of a certificate of occupancy for a new or remodeled structure, or within 30 days of change of business or ownership. No lot may have more than one grand opening event per calendar year. The applicant shall notify the city in writing of the beginning and ending dates prior to the grand opening event.

   b. Other Events. A lot may have two other events per calendar year. The events may not be more than eight consecutive days in duration, nor less than 30 days apart.

5. Lighting activated by motion sensor devices.

6. Nonconforming lighting in place as of September 5, 2000. Replacement of nonconforming lighting is subject to the requirements of NMC 15.205.010 through 15.205.100.

7. Light Trespass onto Industrial Properties. The lighting trespass standards of NMC 15.425.040 do not apply where the light trespass would be onto an industrially zoned property.

15.425.030 Alternative materials and methods of construction, installation, or operation.

The provisions of this section are not intended to prevent the use of any design, material, or methods of installation or operation not specifically prescribed by this section, provided any such alternate has been approved by the director. Alternatives must be an approximate equivalent to the applicable specific requirement of this section and must comply with all other applicable standards in this section.

15.425.040 Requirements.

A. General Requirements – All Zoning Districts.

1. Low-level light fixtures include exterior lights which are installed between ground level and six feet tall. Low-level light fixtures are considered nonintrusive and are unrestricted by this code.

2. Medium-level light fixtures include exterior lights which are installed between six feet and 15 feet above ground level. Medium-level light fixtures must either comply with the shielding requirements of subsection (B) of this section, or the applicant shall show that light trespass from a property has been designed not to exceed one-half foot-candle at the property line.

3. High-level light fixtures include exterior lights which are installed 15 feet or more above ground level. High-level light fixtures must comply with the shielding requirements of subsection (B) of this section, and light trespass from a property may not exceed one-half foot-candle at the property line.

B. Table of Shielding Requirements.

Fixture Lamp Type	Shielded
Low/high pressure sodium, mercury vapor, metal halide and fluorescent over 50 watts	Fully
Incandescent over 160 watts	Fully
Incandescent 160 watts or less	None
Fossil fuel	None
Any light source of 50 watts or less	None
Other sources	As approved by NMC 15.425.030

Note: "Incandescent" includes tungsten-halogen (quartz) lamps.

Response: A lighting plan and photometric analysis is currently underway and will be submitted prior to the determination of completeness for this application. The criteria can be met.

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.

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.

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 the utility is extraordinarily expensive.

2. There are physical factors that make undergrounding extraordinarily difficult.

3. Existing utility facilities in the area are primarily overhead and are unlikely to be changed.

Response: As shown in Exhibit A, all new utility lines will be located below ground. No relocation of above ground/overhead utilities is planned. The criteria are met.

Chapter 15.440 OFF-STREET PARKING, BICYCLE PARKING, AND PRIVATE WALKWAYS

Article I. Off-Street Parking Requirements

15.440.010 Required off-street parking.

A. Off-street parking shall be provided on the lot or development site for all R-1, C-1, M-1, M-2 and M-3 zones. In all other zones, the required parking shall be on the lot or development site or within 400 feet of the lot or development site which the parking is required to serve. All required parking must be under the same ownership as the lot or development site served except through special covenant agreements as approved by the city attorney, which bind the parking to the lot or development site.

1. In cases where the applicant is proposing off-street parking, refer to subsection (F) of this section for the maximum number of parking spaces.

Response: As shown in Exhibit A, the application plans to accommodate all required parking in off-street parking lots on the subject site. The applicable criteria are met.

B. Off-street parking is required pursuant to NMC 15.440.030 in the C-2 district.

1. In cases where the applicant is proposing off-street parking, refer to subsection (F) of this section for the maximum number of parking spaces.

Response: Per the table in 15.440.030 and per F. below, the minimum required off-street vehicle parking for the subject application is 115 spaces (((96 dwellings x 1 space/dwelling) + (96 dwellings x 0.2 visitor spaces/dwelling)) = 115 spaces))) and the maximum allowed parking is 173 spaces (115 minimum parking spaces x 1.5 where abutting street with no on-street parking = 173). As shown in Exhibit A, the plan includes 159 off-street vehicle parking spaces and is therefore within the allowable range for the subject site. The applicable criteria are met.

[…]

F. Maximum Number of Off-Street Automobile Parking Spaces. The maximum number of off-street automobile parking spaces allowed per site equals the minimum number of required spaces, pursuant to NMC 15.440.030, multiplied by a factor of:

1. One and one-fifth spaces for uses fronting a street with adjacent on-street parking spaces; or

2. One and one-half spaces for uses fronting no street with adjacent on-street parking; or

3. A factor determined according to a parking analysis.

Response: As provided above, the maximum allowed parking is 173 spaces (115 minimum parking spaces x 1.5 where abutting street with no on-street parking = 173). As shown in Exhibit A, the plan includes 159 off-street vehicle parking spaces and is therefore below the allowed maximum for the subject site. The criteria are met.

15.440.020 Parking area and service drive design.

A. All public or private parking areas, parking spaces, or garages shall be designed, laid out and constructed in accordance with the minimum standards as set forth in NMC 15.440.070.

Response: As provided in the response to NMC 15.440.070 below, the private parking and vehicle circulation areas comply with all applicable minimum standards of that section. The criterion is met.

B. Groups of three or more parking spaces, except those in conjunction with a single-family detached dwelling, duplex dwelling, triplex dwelling, quadplex dwelling, townhouse dwelling or cottage cluster project on a single lot, shall be served by a service drive so that no backward movement or other maneuvering of a vehicle within a street, other than an alley, will be required. Service drives shall be designed and constructed to facilitate the flow of traffic, provide maximum safety in traffic access and egress and maximum safety of pedestrian and vehicular traffic on the site, but in no case shall two-way and one-way service drives be less than 20 feet and 12 feet, respectively. Service drives shall be improved in accordance with the minimum standards as set forth in NMC 15.440.060.

Response: As shown in Exhibit A, all vehicle maneuvering can be accommodated on site and will not necessitate backing onto a public street. Planned circulation areas are designed to comply with all applicable standards in NMC 15.440.060 and elsewhere. The criteria are met.

C. Gates. A private drive or private street serving as primary access to more than one dwelling unit shall not be gated to limit access, except as approved by variance.

Response: No gates are planned as part of this application. The criterion is met.

[…]

15.440.030 Parking spaces required.

Use	Minimum Parking Spaces Required
Residential Types	
Dwelling, multifamily and multiple single-family dwellings on a single lot	1 per dwelling unit
Studio or one-bedroom unit	1.5 per dwelling unit
Two-bedroom unit	2 per dwelling unit
Three- and four-bedroom unit	0.75 spaces per bedroom
Five- or more bedroom unit	
• Unassigned spaces	If a development is required to have more than 10 spaces on a lot, then it must provide some unassigned spaces. At least 15 percent of the total required parking spaces must be unassigned and be located for convenient use by all occupants of the development. The location shall be approved by the director.
• Visitor spaces	If a development is required to have more than 10 spaces on a lot, then it must provide at least 0.2 visitor spaces per dwelling unit.
• On-street parking credit	On-street parking spaces may be counted toward the minimum number of required spaces for developments required to have more than 10 spaces on a lot. The on-street spaces must be directly adjoining and on the same side of the street as the subject property, must be legal spaces that meet all city standards, and cannot be counted if they could be removed by planned future street widening or a bike lane on the street.
• Available transit service	At the review body's discretion, affordable housing projects may reduce the required off-street parking by 10 percent if there is an adequate continuous pedestrian route no more than 1,500 feet in length from the development to transit service with an average of less than one hour regular service intervals during commuting periods or where the development provides its own transit. A developer may qualify for this parking reduction if improvements on a proposed pedestrian route are made by the developer, thereby rendering it an adequate continuous route.

Notes:

* "1-E" refers to fraternities, sororities, cooperatives and dormitories that require one parking space for each three occupants for whom sleeping facilities are provided.

** "3.-G(1)" refers to establishments or enterprises of a recreational or an entertainment nature (spectator type, e.g., auditoriums, assembly halls, theaters, stadiums, places of public assembly) that require one parking space for each four seats.

[…]

15.440.060 Parking area and service drive improvements.

All public or private parking areas, outdoor vehicle sales areas, and service drives shall be improved according to the following:

A. All parking areas and service drives shall have surfacing of asphaltic concrete or Portland cement concrete or other hard surfacing such as brick or concrete pavers. Other durable and dust-free surfacing materials may be approved by the director for infrequently used parking areas. All parking areas and service drives shall be graded so as not to drain stormwater over the public sidewalk or onto any abutting public or private property.

Response: As shown in Exhibit A, planned parking areas will be asphalt paved and will be designed to drain stormwater runoff away from public sidewalks and abutting private properties.

B. All parking areas shall be designed not to encroach on public streets, alleys, and other rights-of-way. Parking areas shall not be placed in the area between the curb and sidewalk or, if there is no sidewalk, in the public right-of-way between the curb and the property line. The director may issue a permit for exceptions for unusual circumstances where the design maintains safety and aesthetics.

Response: As shown in Exhibit A, planned parking areas do not encroach onto public streets and/or rights-of-way. The criterion is met.

C. All parking areas, except those required in conjunction with a single-family detached, duplex, triplex, quadplex or townhouse dwelling, or cottage cluster project, shall provide a substantial bumper which will prevent cars from encroachment on abutting private and public property.

Response: As shown in Exhibit A, planned parking areas will be separated from adjacent public and private properties by a minimum 6-inch concrete curb and/or wheel stop that will prevent encroachment onto said properties. The criterion is met.

D. All parking areas, including service drives, except those required in conjunction with single-family detached, duplex, triplex, quadplex or townhouse dwellings or cottage cluster projects, shall be screened in accordance with NMC 15.420.010(B).

Response: As described above and shown in Exhibit A, all parking areas are planned to be screened with appropriate and attractive landscaping in compliance with applicable standards in NMC 15.420.010. The criterion is met.

E. Any lights provided to illuminate any public or private parking area or vehicle sales area shall be so arranged as to reflect the light away from any abutting or adjacent residential district.

Response: A site lighting and photometric plan is currently under development and is expected to be submitted as a supplement to this application prior to the determination of completeness for this application. This forthcoming lighting/photometric plan will show that planned lighting will illuminate the private parking areas on site and will avoid glare onto adjacent residential properties. The criterion can be met.

F. All service drives and parking spaces shall be substantially marked and comply with NMC 15.440.070.

Response: Exhibit A illustrates that all parking and vehicle circulation areas will be appropriately marked per NMC 15.440.070. The criterion is met.

G. Parking areas for residential uses shall not be located in a required front yard, except as follows:

[…]

Response: As shown in Exhibit A and discussed above, no parking is planned within a front yard area. The criterion is met.

H. A reduction in size of the parking stall may be allowed for up to a maximum of 30 percent of the total number of spaces to allow for compact cars. For high turnover uses, such as convenience stores or fast-food restaurants, at the discretion of the director, all stalls will be required to be full-sized.

Response: The application does not seek approval for any compact parking spaces. The criterion does not apply.

I. Affordable housing projects may use a tandem parking design, subject to approval of the community development director.

Response: The application may not be characterized as an affordable housing project and is subsequently not eligible for this exemption. The criterion does not apply.

J. Portions of off-street parking areas may be developed or redeveloped for transit-related facilities and uses such as transit shelters or park-and-ride lots, subject to meeting all other applicable standards, including retaining the required minimum number of parking spaces.

Response: The site does not include any existing parking areas that are planned to be redeveloped. The criterion does not apply.

15.440.070 Parking tables and diagrams.

The following tables provide the minimum dimensions of public or private parking areas:

Table of Dimensions (In Feet)

Basic Stall			Back to Back	Aisles	
Angle – °	A	B	C	D (One-Way)	E (Two-Way)
30°	18	16.8	25.8	12	20
38°	14.6	18.2	29.3	12	20
45°	12.7	19.1	31.8	12	20
52°	11.4	19.7	33.9	13	20
55°	11	19.9	34.6	14	20
60°	10.4	20.1	35.7	15	20
70°	9.6	20	36.9	18	20
80°	9.1	19.3	37	20	20

Table of Dimensions (In Feet)

Stall Width with Corresponding Aisle Width						
Stall Width = X	9	9.5	10	10.5	11	12
Aisle Width = Y	24	24	22	22	20	20

[…]

Response: As shown in Exhibit A, the plan includes 90-degree parking spaces that are accessed by two-way drive aisles. Planned parking spaces measure 9-feet wide by 18-feet deep and

the drive aisles are a minimum of 24-feet in width as measured from the back of the adjacent parking spaces. The applicable criteria are met.

15.440.080 Off-street loading.

A. **Buildings to be built or substantially altered which receive and distribute materials and merchandise by trucks shall provide and maintain off-street loading berths in sufficient number and size to adequately handle the needs of the particular use.**

[…]

Response: The planned buildings will not receive review or distribute materials and merchandise by trucks. Off-street loading spaces are not required. The criteria in this section do not apply.

Article II. Bicycle Parking

15.440.090 Purpose.

Cycling is a healthy activity for travel and recreation. In addition, by maximizing bicycle travel, the community can reduce negative effects of automobile travel, such as congestion and pollution. To maximize bicycle travel, developments must provide effective support facilities. At a minimum, developments need to provide a secure place for employees, customers, and residents to park their bicycles.

15.440.100 Facility requirements.

Bicycle parking facilities shall be provided for the uses shown in the following table. Fractional space requirements shall be rounded up to the next whole number.

	Minimum Number of Bicycle Parking Spaces Required
New multiple dwellings, including additions creating additional dwelling units	One bicycle parking space for every four dwelling units

Notes:

a. **Short-term bicycle parking is parking intended to be used for durations less than two hours. Short-term bicycle parking shall consist of a stationary rack or other approved structure to which the bicycle can be locked securely and shall be located within 50 feet of the main building entrance or one of several main entrances, and no further from an entrance than the closest automobile parking space. Shelter or cover may be required for a specified percentage of short-term parking.**

b. **Long-term bicycle parking is parking intended to be used for durations over two hours. Long-term parking shall consist of a lockable enclosure, a secure room in a building on-site, monitored parking, or another form of fully sheltered and secure parking.**

Response: Per the table above, 24 total bicycle parking spaces are required (96 dwellings x 1 parking space/4 dwellings = 24 bicycle parking spaces). As shown in Exhibit A, a total of 24 bicycle parking spaces are provided adjacent to the main entries of the planned buildings. The criteria are met.

15.440.110 Design.

A. **Bicycle parking facilities shall consist of one or more of the following:**

1. **A firmly secured loop, bar, rack, or similar facility that accommodates locking the bicycle frame and both wheels using a cable or U-shaped lock.**

2. **An enclosed locker.**

3. **A designated area within the ground floor of a building, garage, or storage area. Such area shall be clearly designated for bicycle parking.**

4. Other facility designs approved by the director.

B. All bicycle parking spaces shall be at least six feet long and two and one-half feet wide. Spaces shall not obstruct pedestrian travel.

C. All spaces shall be located within 50 feet of a building entrance of the development.

D. Required bicycle parking facilities may be located in the public right-of-way adjacent to a development subject to approval of the authority responsible for maintenance of that right-of-way.

Response: As shown in Exhibit A, required bicycle parking is planned to be provided in the form of a firmly secured loop/rack that will be anchored to the ground and located within 50-fee of a planned building entrance. Bicycle parking spaces will measure 6-feet long a 2.5-feet wide and will not obstruct pedestrian travel. The criteria are met.

Article III. Private Walkways

15.440.120 Purpose.

Sidewalks and private walkways are part of the city's transportation system. Requiring their construction is part of the city's plan to encourage multimodal travel and to reduce reliance on the automobile. Considerable funds have and will be expended to install sidewalks along the streets in the city. Yet there is little point to this expense if it is not possible for people to walk from the sidewalk to the developments along each side. The following requirements are intended to provide safe and convenient paths for employees, customers, and residents to walk from public sidewalks to development entrances, and to walk between buildings on larger sites.

15.440.130 Where required.

Private walkways shall be constructed as part of any development requiring Type II design review, including mobile home parks. In addition, they may be required as part of conditional use permits or planned unit developments. In the airport industrial (AI) district and residential (AR) district, on-site walks are not required in aircraft operations areas, such as parking aprons, taxiways, and runways.

Response: Sufficient public access/walkways are present within the vicinity of the site such that private walkways are not warranted. The application does include the replacement of some damaged sidewalk panels in the Hayes Street public right-of-way to promote pedestrian mobility. No public access benefit would be served through the provision of private walkways on the subject site. Therefore, the criteria in this section are not applicable.

[…]

Chapter 15.505 PUBLIC IMPROVEMENTS STANDARDS

15.505.010 Purpose.

This chapter provides standards for public infrastructure and utilities installed with new development, consistent with the policies of the City of Newberg comprehensive plan and adopted city master plans. The standards are intended to minimize disturbance to natural features, promote energy conservation and efficiency, minimize and maintain development impacts on surrounding properties and neighborhoods, and ensure timely completion of adequate public facilities to serve new development.

15.505.020 Applicability.

The provision and utilization of public facilities and services within the City of Newberg shall apply to all land developments in accordance with this chapter. No development shall be approved unless the following improvements are provided for prior to occupancy or operation, unless future provisions are assured in accordance with NMC 15.505.030(E).

A. Public Works Design and Construction Standards. The design and construction of all improvements within existing and proposed rights-of-way and easements, all improvements to be maintained by the city, and all improvements for which city approval is required shall comply with the requirements of the most recently adopted Newberg public works design and construction standards.

B. Street Improvements. All projects subject to a Type II design review, partition, subdivision approval, or middle housing land division approval must construct street improvements necessary to serve the development.

C. Water. All developments, lots, and parcels within the City of Newberg shall be served by the municipal water system as specified in Chapter 13.15 NMC.

D. Wastewater. All developments, lots, and parcels within the City of Newberg shall be served by the municipal wastewater system as specified in Chapter 13.10 NMC.

E. Stormwater. All developments, lots, and parcels within the City of Newberg shall manage stormwater runoff as specified in Chapters 13.20 and 13.25 NMC.

F. Utility Easements. Utility easements shall be provided as necessary and required by the review body to provide needed facilities for present or future development of the area.

G. City Approval of Public Improvements Required. No building permit may be issued until all required public facility improvements:

1. Are in place and approved by the director; or

2. Are substantially complete pursuant to NMC 15.235.060 and otherwise bonded for in a manner approved by the review authority;

in conformance with the provisions of this code and the Newberg Public Works Design and Construction Standards.

Response: The application includes a Type II Design Review and is subject to applicable provisions of this section. As shown in Exhibit A, planned public improvements are limited to new and replacement sidewalks in the Hayes Street right-of-way. Public right-of-way dedication is planned along the frontage abutting the north side of Hayes Street to accommodate public sidewalk improvements. The site is currently served by municipal water and wastewater facilities in the Hayes Street right-of-way. Stormwater runoff will be managed via subsurface detention chambers on-site and pursuant to applicable City of Newberg Standards.

15.505.030 Street standards.

A. Purpose. The purpose of this section is to:

1. Provide for safe, efficient, and convenient multi-modal transportation within the City of Newberg.

2. Provide adequate access to all proposed and anticipated developments in the City of Newberg. For purposes of this section, "adequate access" means direct routes of travel between destinations; such destinations may include residential neighborhoods, parks, schools, shopping areas, and employment centers.

3. Provide adequate area in all public rights-of-way for sidewalks, wastewater and water lines, stormwater facilities, natural gas lines, power lines, and other utilities commonly and appropriately placed in such rights-of-way. For purposes of this section, "adequate area" means space sufficient to provide all required public services to standards defined in this code and in the Newberg public works design and construction standards.

B. Applicability. The provisions of this section apply to:

1. The creation, dedication, and/or construction of all public streets, bike facilities, or pedestrian facilities in all subdivisions, partitions, or other developments in the City of Newberg.

2. The extension or widening of existing public street rights-of-way, easements, or street improvements including those which may be proposed by an individual or the city, or which may be required by the city in association with other development approvals.

3. The construction or modification of any utilities, pedestrian facilities, or bike facilities in public rights-of-way or easements.

4. The designation of planter strips. Street trees are required subject to Chapter 15.420 NMC.

5. Developments outside the city that tie into or take access from city streets.

Response: The application includes new and replacement sidewalks and associated street trees in the Hayes Street right-of-way that have been designed per applicable City standards.

[…]

E. Improvements to Existing Streets.

1. All projects subject to partition, subdivision, Type II design review, or middle housing land division approval shall dedicate right-of-way sufficient to improve the street to the width specified in subsection (G) of this section.

2. All projects subject to partition, subdivision, or Type II design review approval must construct a minimum of a three-quarter street improvement to all existing streets adjacent to, within, or necessary to serve the development. The director may waive or modify this requirement where the applicant demonstrates that the condition of existing streets to serve the development meets city standards and is in satisfactory condition to handle the projected traffic loads from the development. Where a development has frontage on both sides of an existing street, full street improvements are required.

3. In lieu of the street improvement requirements outlined in subsection (E)(2) of this section, the review authority may elect to accept from the applicant monies to be placed in a fund dedicated to the future reconstruction of the subject street(s). The amount of money deposited with the city shall be 100 percent of the estimated cost of the required street improvements (including any associated utility improvements), and 10 percent of the estimated cost for inflation. Cost estimates used for this purpose shall be based on preliminary design of the constructed street provided by the applicant's engineer and shall be approved by the director.

F. Improvements Relating to Impacts. Improvements required as a condition of development approval shall be roughly proportional to the impact of the development on public facilities and services. The review body must make findings in the development approval that indicate how the required improvements are roughly proportional to the impact. Development may not occur until required transportation facilities are in place or guaranteed, in conformance with the provisions of this code. If required transportation facilities cannot be put in place or be guaranteed, then the review body shall deny the requested land use application.

Response: Except for the lack of a sidewalk on the north side of Hayes Street, existing streets fronting the subject site are currently built to applicable City standards. Public right-of-way dedication is planned along the frontage abutting the north side of Hayes Street to accommodate public sidewalk improvements. The application plans to install a new and replacement sidewalks and associated street trees in the Hayes Street right-of-way. No additional dedication, three-quarter street, or other improvements are needed. The applicable criteria are met.

G. Street Width and Design Standards.

[…]

7. Sidewalks. Sidewalks shall be provided on both sides of all public streets. Minimum width is five feet.

[…]

8. Planter Strips. Except where infeasible, a planter strip shall be provided between the sidewalk and the curb line, with a minimum width of five feet. This strip shall be landscaped in accordance with the standards in NMC 15.420.020. Curb-side sidewalks may be allowed on limited residential streets. Where curb-side sidewalks are allowed, the following shall be provided:

a. Additional reinforcement is done to the sidewalk section at corners.

b. Sidewalk width is six feet.

Response: As shown in Exhibit A, new 5-foot wide sidewalks are planned on the north side of Hayes Street and replacement 5-foot wide sidewalk segments are planned on the south side of Hayes Street. No new sidewalks are needed along the site's N Springbrook Road frontage. Additionally, a 6-foot-wide planter strip will be created/maintained on the north and south side of Hayes Street. The applicable criteria are met.

[…]

[…]

R. Vehicular Access Standards.

1. Purpose. The purpose of these standards is to manage vehicle access to maintain traffic flow, safety, roadway capacity, and efficiency. They help to maintain an adequate level of service consistent with the functional classification of the street. Major roadways, including arterials and collectors, serve as the primary system for moving people and goods within and through the city. Access is limited and managed on these roads to promote efficient through movement. Local streets and alleys provide access to individual properties. Access is managed on these roads to maintain safe maneuvering of vehicles in and out of properties and to allow safe through movements. If vehicular access and circulation are not properly designed, these roadways will be unable to accommodate the needs of development and serve their transportation function.

2. Access Spacing Standards. Public street intersection and driveway spacing shall follow the standards in Table 15.505.R below. The Oregon Department of Transportation (ODOT) has jurisdiction of some roadways within the Newberg city limits, and ODOT access standards will apply on those roadways.

Table 15.505.R. Access Spacing Standards

Roadway Functional Classification	Area[1]	Minimum Public Street Intersection Spacing (Feet)[2]	Driveway Setback from Intersecting Street[3]
Expressway	All	Refer to ODOT Access Spacing Standards	NA
Major arterial	Urban CBD	Refer to ODOT Access Spacing Standards	
Minor arterial	Urban CBD	500 200	150 100
Major collector	All	400	150
Minor collector	All	300	100

[1] "Urban" refers to intersections inside the city urban growth boundary outside the central business district (C-3 zone). "CBD" refers to intersections within the central business district (C-3 zone). "All" refers to all intersections within the Newberg urban growth boundary.

[2] Measured centerline to centerline.

[3] The setback is based on the higher classification of the intersecting streets. Measured from the curb line of the intersecting street to the beginning of the driveway, excluding flares. If the driveway setback listed above would preclude a lot from having at least one driveway, including shared driveways or driveways on adjoining streets, one driveway is allowed as far from the intersection as possible.

Response: Planned access to the site will occur via two new driveways located on the north and south side of Hayes Street, which is classified as a minor arterial in the City's TSP. As shown in Exhibit A, the planned access driveways are located more than 175-feet east of the intersection of Hayes Street/N Springbrook Road and therefore exceed the minimum driveway spacing required per Table 15.505.R, above. The criteria are met.

3. **Properties with Multiple Frontages. Where a property has frontage on more than one street, access shall be limited to the street with the lesser classification.**

   a. **For a duplex, triplex or quadplex dwelling or a cottage cluster project with frontage on two local streets, access may be permitted on both streets.**

Response: The subject site has frontage on Hayes Street (minor arterial) and N Springbrook Road (major arterial). Planned access will occur from Hayes Street which is the lesser classification roadway. The criterion is met.

4. **Driveways. More than one driveway is permitted on a lot accessed from either a minor collector or local street as long as there is at least 40 feet of lot frontage separating each driveway approach. More than one driveway is permitted on a lot accessed from a major collector as long as there is at least 100 feet of lot frontage separating each driveway approach.**

   a. **For a duplex, triplex or quadplex dwelling or a cottage cluster project, more than one driveway is permitted on a lot accessed from either a minor collector or local street as long as there is at least 22 feet of lot frontage separating each driveway approach.**

Response: Only a single driveway is planned for each of the north and south parcels. The criterion is met.

[…]

9. **ODOT or Yamhill County Right-of-Way. Where a property abuts an ODOT or Yamhill County right-of-way, the applicant for any development project shall obtain an access permit from ODOT or Yamhill County.**

Response: Although the property fronts N Springbrook Road, which is an ODOT facility, access to said facility is not requested. The site does not abut any Yamhill County facility. The criterion does not apply.

[…]

S. **Public Walkways.**

1. **Projects subject to Type II design review, partition, or subdivision approval may be required to provide public walkways where necessary for public safety and convenience, or where necessary to meet the standards of this code. Public walkways are meant to connect cul-de-sacs to adjacent areas, to pass through oddly shaped or unusually long blocks, to provide for networks of public paths according to adopted plans, or to provide access to schools, parks or other community destinations or public areas. Where practical, public walkway easements and locations may also be used to accommodate public utilities.**

2. **Public walkways shall be located within a public access easement that is a minimum of 15 feet in width.**

3. **A walk strip, not less than 10 feet in width, shall be paved in the center of all public walkway easements. Such paving shall conform to specifications in the Newberg public works design and construction standards.**

4. **Public walkways shall be designed to meet the Americans with Disabilities Act requirements.**

5. **Public walkways connecting one right-of-way to another shall be designed to provide as short and straight of a route as practical.**

6. **The developer of the public walkway may be required to provide a homeowners' association or similar entity to maintain the public walkway and associated improvements.**

7. **Lighting may be required for public walkways in excess of 250 feet in length.**

8. **The review body may modify these requirements where it finds that topographic, preexisting development, or similar constraints exist.**

Response: The application does not include any new public walkways nor does Applicant expect such will be required by the City given the presence of existing and adequate public sidewalks in the project vicinity. The criteria do not apply.

T. **Street Trees. Street trees shall be provided for all projects subject to Type II design review, partition, or subdivision. Street trees shall be installed in accordance with the provisions of NMC 15.420.010(B)(4).**

Response: As above, and as shown in Exhibit A, new street trees are planned in the Hayes Street public right-of-way pursuant to NMC 15.420.010(B)(4). Street trees are present along the site's N Springbrook Road frontage. The criterion is met.

U. Street Lights. All developments shall include underground electric service, light standards, wiring and lamps for street lights according to the specifications and standards of the Newberg public works design and construction standards. The developer shall install all such facilities and make the necessary arrangements with the serving electric utility as approved by the city. Upon the city's acceptance of the public improvements associated with the development, the street lighting system, exclusive of utility-owned service lines, shall be and become property of the city unless otherwise designated by the city through agreement with a private utility.

Response: Existing street lights constructed to applicable City standards are present along the site's frontage with Hayes Street and N Springbrook Road. No new street lights are planned. The criterion does not apply.

V. Transit Improvements. Development proposals for sites that include or are adjacent to existing or planned transit facilities, as shown in the Newberg transportation system plan or adopted local or regional transit plan, shall be required to provide any of the following, as applicable and required by the review authority:

1. Reasonably direct pedestrian connections between the transit facility and building entrances of the site. For the purpose of this section, "reasonably direct" means a route that does not deviate unnecessarily from a straight line or a route that does not involve a significant amount of out-of-direction travel for users.
2. A transit passenger landing pad accessible to disabled persons.
3. An easement of dedication for a passenger shelter or bench if such facility is in an adopted plan.
4. Lighting at the transit facility.

Response: The subject site is not located adjacent any existing or planned transit facilities. The criteria do not apply.

15.505.040 Public utility standards.

A. Purpose. The purpose of this section is to provide adequate services and facilities appropriate to the scale and type of development.

B. Applicability. This section applies to all development where installation, extension or improvement of water, wastewater, or private utilities is required to serve the development or use of the subject property.

C. General Standards.

1. The design and construction of all improvements within existing and proposed rights-of-way and easements, all improvements to be maintained by the city, and all improvements for which city approval is required shall conform to the Newberg public works design and construction standards and require a public improvements permit.
2. The location, design, installation and maintenance of all utility lines and facilities shall be carried out with minimum feasible disturbances of soil and site. Installation of all proposed public and private utilities shall be coordinated by the developer and be approved by the city to ensure the orderly extension of such utilities within public right-of-way and easements.

Response: The application includes new and replacement sidewalk and private water service connections in the Hayes Street public right-of-way. Said planned improvements will be designed and constructed per applicable City standards. The criteria can be met.

D. Standards for Water Improvements. All development that has a need for water service shall install the facilities pursuant to the requirements of the city and all of the following standards. Installation of such facilities shall be coordinated with the extension or improvement of necessary wastewater and stormwater facilities, as applicable.

1. All developments shall be required to be linked to existing water facilities adequately sized to serve their intended area by the construction of water distribution lines, reservoirs and pumping stations which connect to such water service facilities. All necessary easements required for the construction of these facilities shall be obtained by the developer and granted to the city pursuant to the requirements of the city.

2. Specific location, size and capacity of such facilities will be subject to the approval of the director with reference to the applicable water master plan. All water facilities shall conform with city pressure zones and shall be looped where necessary to provide adequate pressure and fire flows during peak demand at every point within the system in the development to which the water facilities will be connected. Installation costs shall remain entirely the developer's responsibility.

3. The design of the water facilities shall take into account provisions for the future extension beyond the development to serve adjacent properties, which, in the judgment of the city, cannot be feasibly served otherwise.

4. Design, construction and material standards shall be as specified by the director for the construction of such public water facilities in the city.

Response: As shown in Exhibit A, the application plans to connect new water service laterals to an existing water main line in Hayes Street. The design of these lateral connections, including the domestic water meters and related appurtenances, will be done in compliance with applicable City of Newberg standards. The criteria can be met.

E. Standards for Wastewater Improvements. All development that has a need for wastewater services shall install the facilities pursuant to the requirements of the city and all of the following standards. Installation of such facilities shall be coordinated with the extension or improvement of necessary water services and stormwater facilities, as applicable.

Response: As shown in Exhibit A, wastewater service laterals are currently stubbed to the subject site. The No wastewater improvements are planned. The criteria do not apply.

[…]

15.505.050 Stormwater system standards.

A. Purpose. The purpose of this section is to provide for the drainage of surface water from all development; to minimize erosion; and to reduce degradation of water quality due to sediments and pollutants in stormwater runoff.

B. Applicability. The provisions of this section apply to all developments subject to site development review or land division review and to the reconstruction or expansion of such developments that increases the flow or changes the point of discharge to the city stormwater system. Additionally, the provisions of this section shall apply to all drainage facilities that impact any public storm drain system, public right-of-way or public easement, including but not limited to off-street parking and loading areas.

C. General Requirement. All stormwater runoff shall be conveyed to a public storm wastewater or natural drainage channel having adequate capacity to carry the flow without overflowing or otherwise causing damage to public and/or private property. The developer shall pay all costs associated with designing and constructing the facilities necessary to meet this requirement.

Response: As shown in Exhibit A, stormwater runoff will be managed within subsurface detention chambers before it is conveyed offsite via an 8-inch private storm line to the natural

drainageway abutting the east side of the site. The Preliminary Stormwater Report in Exhibit E demonstrates that post-development stormwater runoff will match pre-development conditions. The criteria are met.

D. **Plan for Stormwater and Erosion Control. No construction of any facilities in a development included in subsection (B) of this section shall be permitted until an engineer registered in the State of Oregon prepares a stormwater report and erosion control plan for the project. This plan shall contain at a minimum:**

1. **The methods to be used to minimize the amount of runoff, sedimentation, and pollution created from the development both during and after construction.**
2. **Plans for the construction of stormwater facilities and any other facilities that depict line sizes, profiles, construction specifications, and other such information as is necessary for the city to review the adequacy of the stormwater plans.**
3. **Design calculations shall be submitted for all drainage facilities. These drainage calculations shall be included in the stormwater report and shall be stamped by a licensed professional engineer in the State of Oregon. Peak design discharges shall be computed based upon the design criteria outlined in the public works design and construction standards for the city.**

E. **Development Standards. Development subject to this section shall be planned, designed, constructed, and maintained in compliance with the Newberg public works design and construction standards.**

Response: As shown in the Preliminary Demolition, Erosion, and Sediment Control Plan in Exhibit A, and the Preliminary Stormwater Report in Exhibit E, both of which have been prepared by an engineer registered in the State of Oregon, stormwater runoff will be managed consistent with applicable City of Newberg standards. The criteria are met.

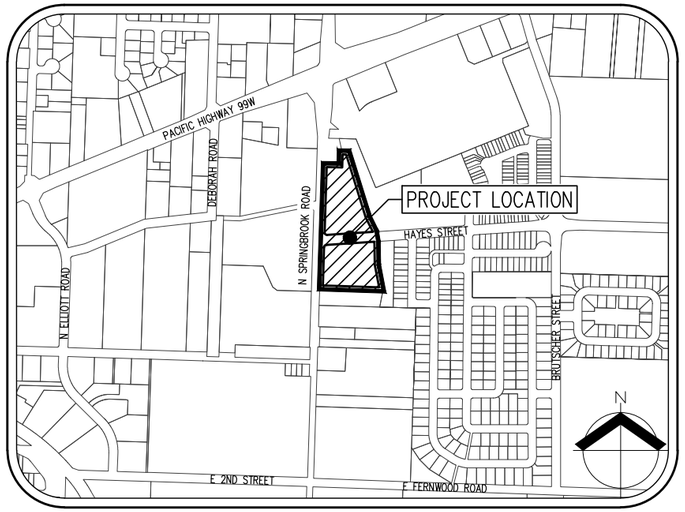
IV. Conclusion

The required findings have been made and this written narrative and accompanying documentation demonstrate that the application is consistent with the applicable provisions of the Washington County Community Development Code. The evidence in the record is substantial and supports approval of the application. Therefore, the Applicant respectfully requests that the County approve this Property Line Adjustment application.

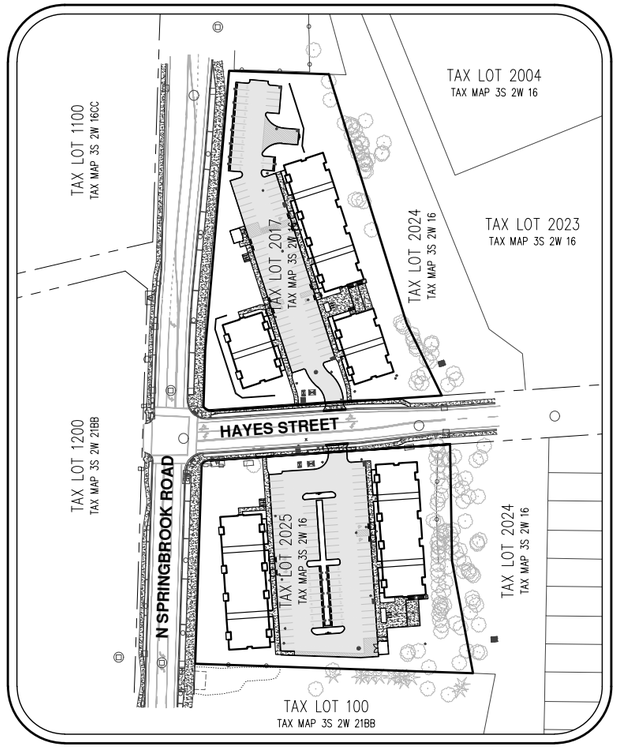
Exhibit A: Civil Engineering and Design Review Plans

WEST BRANCH APARTMENTS

CIVIL ENGINEERING DESIGN REVIEW PLANS



VICINITY MAP
NOT TO SCALE



SITE MAP
NOT TO SCALE

LEGEND

	EXISTING	PROPOSED		EXISTING	PROPOSED
DECIDUOUS TREE			STORM DRAIN CLEAN OUT		
CONIFEROUS TREE			STORM DRAIN CATCH BASIN		
FIRE HYDRANT			STORM DRAIN AREA DRAIN		
WATER BLOWOFF			STORM DRAIN MANHOLE		
WATER METER			GAS METER		
WATER VALVE			GAS VALVE		
DOUBLE CHECK VALVE			GUY WIRE ANCHOR		
AIR RELEASE VALVE			UTILITY POLE		
SANITARY SEWER CLEAN OUT			POWER VAULT	P	P
SANITARY SEWER MANHOLE			POWER JUNCTION BOX		
SIGN			POWER PEDESTAL		
STREET LIGHT			COMMUNICATIONS VAULT	C	C
MAILBOX	MB	MB	COMMUNICATIONS JUNCTION BOX		
			COMMUNICATIONS RISER		

	EXISTING	PROPOSED
RIGHT-OF-WAY LINE		
BOUNDARY LINE		
PROPERTY LINE		
CENTERLINE		
DITCH		
CURB		
EDGE OF PAVEMENT		
EASEMENT		
FENCE LINE		
GRAVEL EDGE		
POWER LINE	PWR	PWR
OVERHEAD WIRE	OHW	OHW
COMMUNICATIONS LINE	COM	COM
FIBER OPTIC LINE	CFO	CFO
GAS LINE	GAS	GAS
STORM DRAIN LINE	STM	STM
SANITARY SEWER LINE	SAN	SAN
WATER LINE	WAT	WAT

OWNER/APPLICANT
DMKS, LLC
CONTACT: MIKE GOUGLER
901 N BRUTSCHER ST, STE 206
NEWBERG, OR 97132
PH: 503.537.9011

CIVIL ENGINEERING/ SURVEYING/LAND USE PLANNING/LANDSCAPE ARCHITECTURE FIRM
AKS ENGINEERING & FORESTRY, LLC
CONTACT: CHUCK GREGORY, PE – PRINCIPAL
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GEOTECHNICAL FIRM
GEOPACIFIC ENGINEERING, INC.
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14835 SW 72ND AVE
PORTLAND, OR 97224
PH: 503.598.8445

SHEET INDEX

P01	COVER SHEET WITH SITE MAP, VICINITY MAP, & LEGEND
P02	EXISTING CONDITIONS PLAN
P03	EXISTING CONDITIONS PLAN
P04	PRELIMINARY DEMOLITION, EROSION, & SEDIMENT CONTROL PLAN
P05	PRELIMINARY GRADING PLAN
P06	PRELIMINARY DIMENSIONED SITE PLAN
P07	PRELIMINARY FRONTAGE IMPROVEMENTS PLAN
P08	PRELIMINARY FIRE ACCESS PLAN
P09	PRELIMINARY COMPOSITE UTILITY PLAN
P10	PRELIMNARY LANDSCAPE PLAN
P11	PRELIMINARY LANDSCAPE DETAILS, NOTES & PLANTING SCHEDULE

PROPERTY DESCRIPTION
TAX LOTS 2017 AND 2025 OF YAMHILL COUNTY ASSESSORS TAX MAP 3S 2W 16
SECTION 16, TOWNSHIP 3 SOUTH, RANGE 2 WEST
CITY OF NEWBERG, OREGON

PROPERTY LOCATION
NORTH AND SOUTH ABUTMENTS TO HAYES STREET EAST OF THE
INTERSECTION WITH N SPRINGBROOK ROAD AT 3411 E HAYES STREET
NEWBERG, OREGON 97132

PROJECT PURPOSE
THE PROPOSED PROJECT CONSISTS OF IMPROVEMENTS TO THE EXISTING UNDEVELOPED LOTS WITH APARTMENT BUILDINGS AND ASSOCIATED PARKING, UTILITIES, LANDSCAPING, AND FRONTAGE IMPROVEMENTS.

VERTICAL DATUM
ELEVATIONS ARE BASED ON TRIMBLE NOW NETWORK OBSERVATIONS (NAVD88) AND CHECKED AGAINST YAMHILL COUNTY STATION NO. 22, LOCATED AT THE NORTHERLY RIGHT-OF-WAY LINE OF DOUGLAS AVENUE AND ON THE CENTERLINE OF SPRINGBROOK WAY.
ELEVATION = 223.40 FEET (NAVD88)

AKS ENGINEERING & FORESTRY, LLC
12965 SW HERMAN RD, STE 100
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ENGINEERING • SURVEYING • NATURAL RESOURCES
FORESTRY • PLANNING • LANDSCAPE ARCHITECTURE

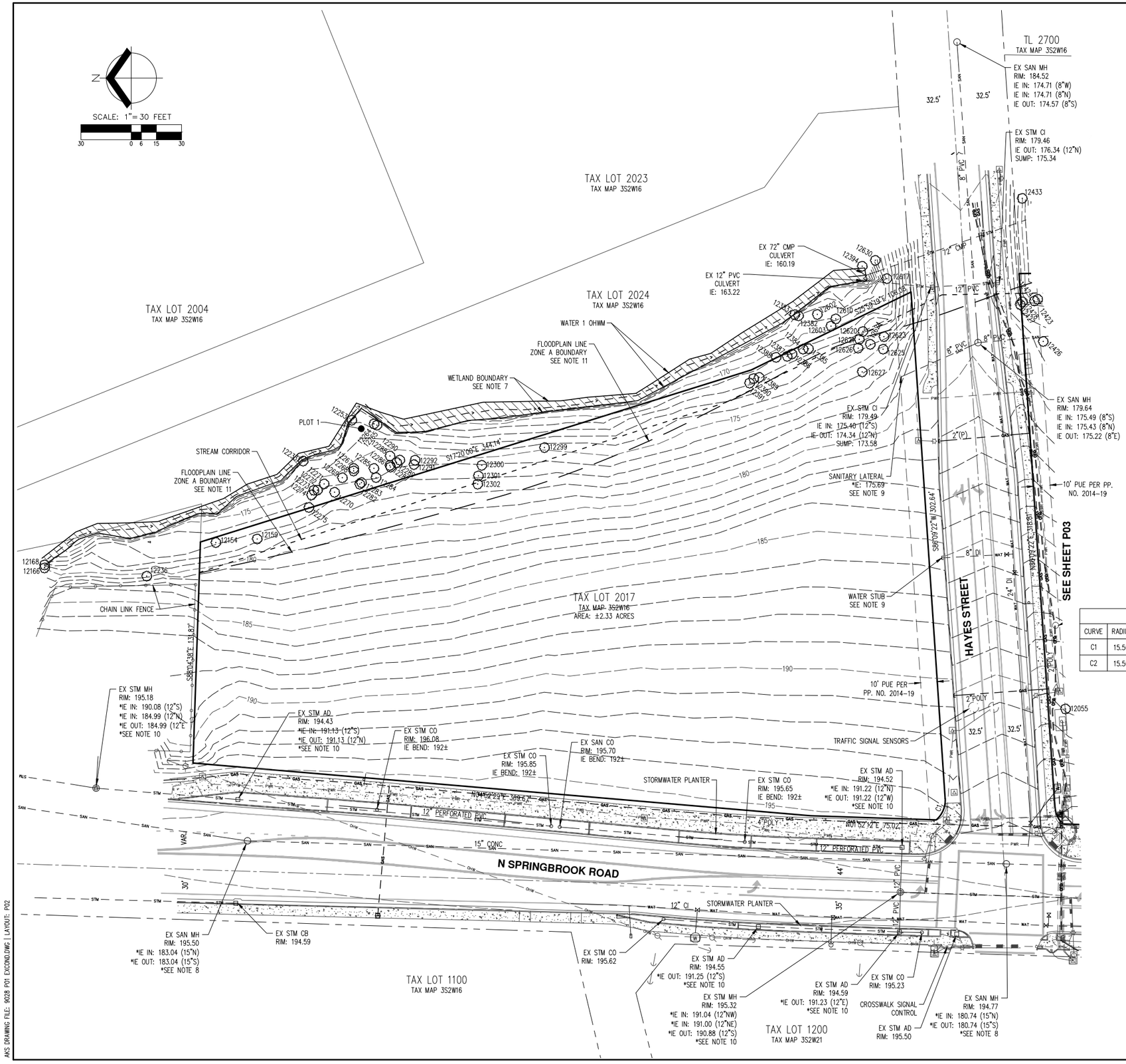
COVER SHEET WITH SITE MAP, VICINITY MAP, & LEGEND
WEST BRANCH APARTMENTS
DMKS, LLC
NEWBERG, OREGON

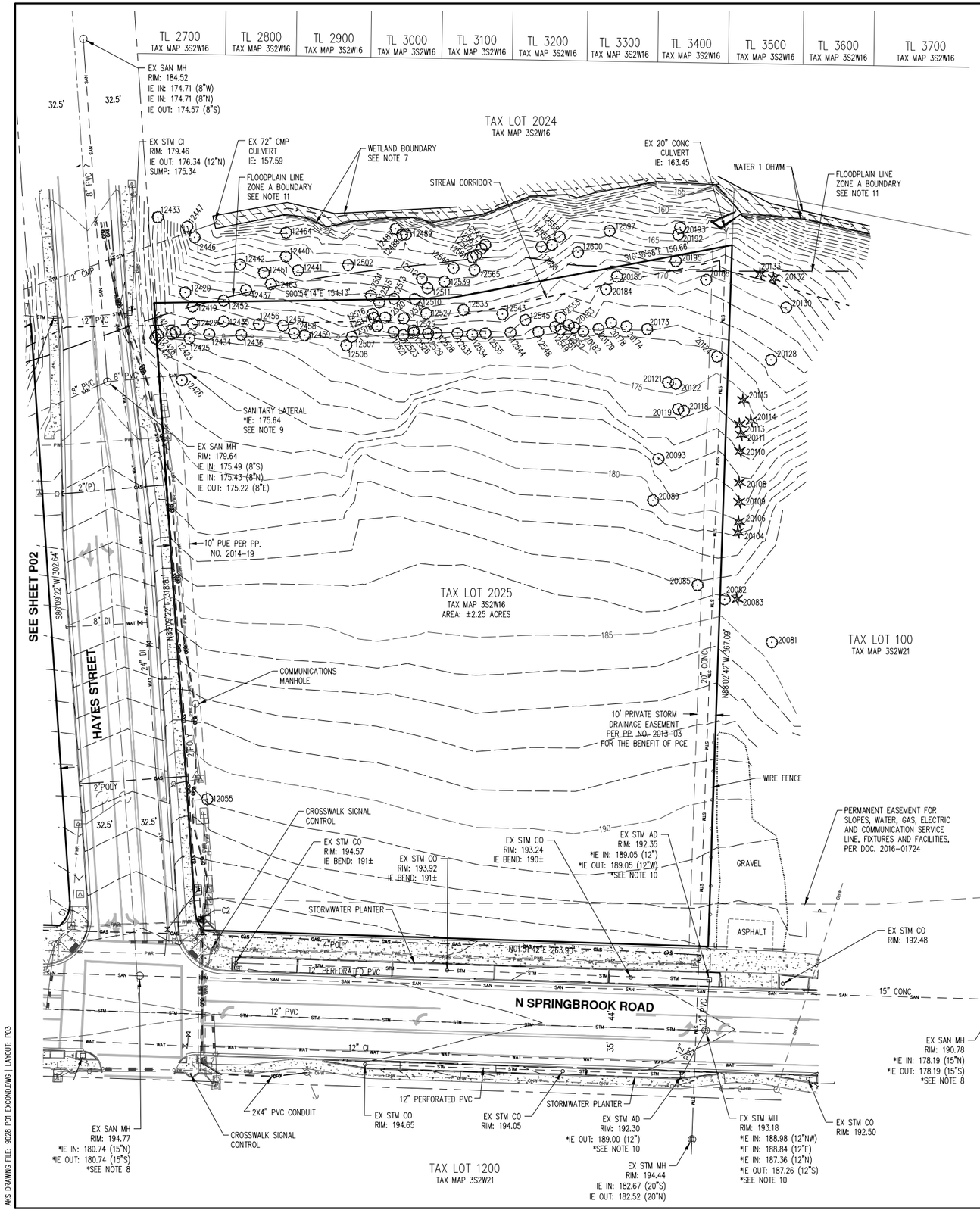
REGISTERED PROFESSIONAL ENGINEER
OREGON
JULY 19, 2005
EDWARD GREGORY
PRELIMINARY NOT FOR CONSTRUCTION
RENEWS: JUNE 30, 2025

JOB NUMBER:	9028
DATE:	07/12/2024
DESIGNED BY:	TMI
DRAWN BY:	AMJ
CHECKED BY:	CEG

P01

AKS DRAWING FILE: 9028 P01 COVERLDWG | LAYOUT: P01


SCALE: 1"=30 FEET
30 0 6 15 30
TAX LOT 2004
TAX MAP 3S2W16
TAX LOT 2023
TAX MAP 3S2W16
TAX LOT 2024
TAX MAP 3S2W16
TAX LOT 2017
TAX MAP 3S2W16
AREA: ±2.33 ACRES
TAX LOT 1100
TAX MAP 3S2W16
TAX LOT 1200
TAX MAP 3S2W21
TL 2700
TAX MAP 3S2W16
EX SAN MH
RIM: 184.52
IE IN: 174.71 (8"W)
IE IN: 174.71 (8"N)
IE OUT: 174.57 (8"S)
EX STM CI
RIM: 179.46
IE OUT: 176.34 (12"N)
SUMP: 175.34
EX 72" CMP CULVERT
IE: 160.19
EX 12" PVC CULVERT
IE: 163.22
WATER 1 OHWM
FLOODPLAIN LINE
ZONE A BOUNDARY
SEE NOTE 11
WETLAND BOUNDARY
SEE NOTE 7
PLOT 1
STREAM CORRIDOR
FLOODPLAIN LINE
ZONE A BOUNDARY
SEE NOTE 11
S17°20'05"E 344.14'
EX STM CI
RIM: 179.49
IE IN: 175.49 (12"S)
IE OUT: 174.34 (12"N)
SUMP: 173.58
EX SAN MH
RIM: 179.64
IE IN: 175.49 (8"S)
IE IN: 175.43 (8"N)
IE OUT: 175.22 (8"E)
SANITARY LATERAL
*IE: 175.69
SEE NOTE 9
10' PUE PER PP.
NO. 2014-19
S89°09'22"W 302.64'
N89°09'22"E 318.81'
SEE SHEET P03
HAYES STREET
WATER STUB
SEE NOTE 9
10' PUE PER
PP. NO. 2014-19
TRAFFIC SIGNAL SENSORS
CHAIN LINK FENCE
S89°04'36"E 13.87'
EX STM MH
RIM: 195.18
*IE IN: 190.08 (12"S)
*IE IN: 184.99 (12"N)
*IE OUT: 184.99 (12"E
*SEE NOTE 10
EX STM AD
RIM: 194.43
*IE IN: 191.13 (12"S)
*IE OUT: 191.13 (12"N)
*SEE NOTE 10
EX STM CO
RIM: 196.08
IE BEND: 192±
EX STM CO
RIM: 195.85
IE BEND: 192±
EX SAN CO
RIM: 195.70
IE BEND: 192±
STORMWATER PLANTER
EX STM CO
RIM: 195.65
IE BEND: 192±
EX STM AD
RIM: 194.52
*IE IN: 191.22 (12"N)
*IE OUT: 191.22 (12"W)
*SEE NOTE 10
N89°52'24"E 369.67'
12" PERFORATED PVC
N01°52'12"E 75.02'
12" PERFORATED PVC
15" CONC
N SPRINGBROOK ROAD
EX SAN MH
RIM: 195.50
*IE IN: 183.04 (15"N)
*IE OUT: 183.04 (15"S)
*SEE NOTE 8
EX STM CB
RIM: 194.59
EX STM CO
RIM: 195.62
12" CI
STORMWATER PLANTER
EX STM AD
RIM: 194.55
*IE OUT: 191.25 (12"S)
*SEE NOTE 10
EX STM MH
RIM: 195.32
*IE IN: 191.04 (12"NW)
*IE IN: 191.00 (12"NE)
*IE OUT: 190.88 (12"S)
*SEE NOTE 10
EX STM AD
RIM: 194.59
*IE OUT: 191.23 (12"E)
*SEE NOTE 10
EX STM CO
RIM: 195.23
CROSSWALK SIGNAL CONTROL
EX STM AD
RIM: 195.50
EX SAN MH
RIM: 194.77
*IE IN: 180.74 (15"N)
*IE OUT: 180.74 (15"S)
*SEE NOTE 8
12" PVC
8" PVC
12" PVC
8" PVC
8" DI
24" DI
2" POLY
2" POLY
2"(P)
4" POLY
12" PVC
12" PVC
72" CMP
12" PVC
8" PVC
8" PVC
12" PVC
12" PVC
12



TREE TABLE		
TREE NUMBER	TYPE	DBH (IN.)
12055	DECIDUOUS	11
12154	DECIDUOUS	7,10
12159	DECIDUOUS	14
12166	DECIDUOUS	14
12168	DECIDUOUS	14,16
12233	DECIDUOUS	9
12236	DECIDUOUS	18
12253	DECIDUOUS	12,12,16
12264	DECIDUOUS	12,18
12265	DECIDUOUS	18
12267	DECIDUOUS	8
12268	DECIDUOUS	6
12269	DECIDUOUS	10
12270	DECIDUOUS	12,36
12271	DECIDUOUS	10
12272	DECIDUOUS	18
12273	DECIDUOUS	6
12274	DECIDUOUS	8
12275	DECIDUOUS	8
12282	DECIDUOUS	7
12283	DECIDUOUS	8
12284	DECIDUOUS	6
12285	DECIDUOUS	10
12286	DECIDUOUS	8
12287	DECIDUOUS	6
12288	DECIDUOUS	6
12289	DECIDUOUS	8
12290	DECIDUOUS	8
12291	DECIDUOUS	16
12292	DECIDUOUS	6,6
12299	DECIDUOUS	32
12300	DECIDUOUS	6
12301	DECIDUOUS	6
12302	DECIDUOUS	10
12382	DECIDUOUS	6,10

TREE TABLE		
TREE NUMBER	TYPE	DBH (IN.)
12383	DECIDUOUS	8
12384	DECIDUOUS	12
12385	DECIDUOUS	14
12386	DECIDUOUS	9
12387	DECIDUOUS	10
12388	DECIDUOUS	6
12389	DECIDUOUS	6,16,18
12390	DECIDUOUS	6
12391	DECIDUOUS	6
12394	DECIDUOUS	20
12419	DECIDUOUS	7
12420	DECIDUOUS	6
12422	DECIDUOUS	12
12423	DECIDUOUS	6
12424	DECIDUOUS	6
12425	DECIDUOUS	16
12426	DECIDUOUS	9
12427	DECIDUOUS	8
12428	DECIDUOUS	15
12433	DECIDUOUS	6
12434	DECIDUOUS	14
12435	DECIDUOUS	25
12436	DECIDUOUS	14
12437	DECIDUOUS	6
12440	DECIDUOUS	17,17
12441	DECIDUOUS	16
12442	DECIDUOUS	10
12446	DECIDUOUS	7
12447	DECIDUOUS	14
12451	DECIDUOUS	10
12452	DECIDUOUS	7
12456	DECIDUOUS	6
12457	DECIDUOUS	9
12458	DECIDUOUS	6
12459	DECIDUOUS	24

TREE TABLE		
TREE NUMBER	TYPE	DBH (IN.)
12463	DECIDUOUS	7
12464	DECIDUOUS	6
12487	DECIDUOUS	12,14,20
12488	DECIDUOUS	14,19
12489	DECIDUOUS	22
12501	DECIDUOUS	9
12502	DECIDUOUS	11
12507	DECIDUOUS	11,13
12508	DECIDUOUS	6
12510	DECIDUOUS	7
12511	DECIDUOUS	7
12512	DECIDUOUS	7
12513	DECIDUOUS	10
12515	DECIDUOUS	6
12516	DECIDUOUS	9
12517	DECIDUOUS	6
12518	DECIDUOUS	6
12520	DECIDUOUS	6
12521	DECIDUOUS	13
12522	DECIDUOUS	8
12523	DECIDUOUS	9
12525	DECIDUOUS	8
12526	DECIDUOUS	12
12527	DECIDUOUS	6
12528	DECIDUOUS	13
12529	DECIDUOUS	11
12531	DECIDUOUS	14
12533	DECIDUOUS	12
12534	DECIDUOUS	13
12535	DECIDUOUS	13
12539	DECIDUOUS	13
12540	DECIDUOUS	6
12543	DECIDUOUS	6,6
12544	DECIDUOUS	6
12545	DECIDUOUS	14

TREE TABLE		
TREE NUMBER	TYPE	DBH (IN.)
12548	DECIDUOUS	9
12549	DECIDUOUS	11
12551	DECIDUOUS	11
12552	DECIDUOUS	11
12553	DECIDUOUS	8
12556	DECIDUOUS	25
12557	DECIDUOUS	12
12558	DECIDUOUS	6
12561	DECIDUOUS	10
12562	DECIDUOUS	21
12563	DECIDUOUS	21
12564	DECIDUOUS	17
12565	DECIDUOUS	9
12597	DECIDUOUS	18
12600	DECIDUOUS	11
12602	DECIDUOUS	36
12603	DECIDUOUS	16
12610	DECIDUOUS	13
12617	DECIDUOUS	10,14
12620	DECIDUOUS	6
12621	DECIDUOUS	6,8
12623	DECIDUOUS	6
12624	DECIDUOUS	6
12625	DECIDUOUS	7
12626	DECIDUOUS	7
12627	DECIDUOUS	7
12630	DECIDUOUS	8,12
20081	DECIDUOUS	15
20082	DECIDUOUS	6,14
20083	CONIFEROUS	27
20085	DECIDUOUS	7
20089	DECIDUOUS	8
20093	DECIDUOUS	9
20104	CONIFEROUS	17
20106	CONIFEROUS	15

TREE TABLE		
TREE NUMBER	TYPE	DBH (IN.)
20108	CONIFEROUS	16
20109	CONIFEROUS	15
20110	CONIFEROUS	18
20111	CONIFEROUS	21
20113	CONIFEROUS	14
20114	CONIFEROUS	6
20115	CONIFEROUS	18,19
20118	DECIDUOUS	6
20119	DECIDUOUS	6
20121	DECIDUOUS	13
20122	DECIDUOUS	7
20124	DECIDUOUS	9
20128	DECIDUOUS	7
20130	DECIDUOUS	6
20132	CONIFEROUS	21
20133	CONIFEROUS	6
20173	DECIDUOUS	16
20174	DECIDUOUS	14
20178	DECIDUOUS	10
20179	DECIDUOUS	15
20182	DECIDUOUS	7
20183	DECIDUOUS	14
20184	DECIDUOUS	7
20185	DECIDUOUS	6
20188	DECIDUOUS	29
20192	DECIDUOUS	6
20193	DECIDUOUS	28
20195	DECIDUOUS	6

CURVE TABLE				
CURVE	RADIUS	DELTA	LENGTH	CHORD
C1	15.50'	52°42'31"	14.26'	N67°29'22"W 13.76'
C2	15.50'	41°13'53"	11.15'	N65°32'25"E 10.92'

SCALE: 1"=30 FEET

30 0 6 15 30

NOTES:

1. UTILITIES SHOWN ARE BASED ON UNDERGROUND UTILITY LOCATE MARKINGS AS PROVIDED BY OTHERS, PROVIDED PER UTILITY LOCATE TICKET NUMBER 21259751, 21317845. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND LOCATES REPRESENT THE ONLY UTILITIES IN THE AREA. CONTRACTORS ARE RESPONSIBLE FOR VERIFYING ALL EXISTING CONDITIONS PRIOR TO BEGINNING CONSTRUCTION.
2. FIELD WORK WAS CONDUCTED SEPTEMBER 8, 10, 14–15, 20–21, 28, 2021.
3. VERTICAL DATUM: ELEVATIONS ARE BASED ON TRIMBLE NOW NETWORK OBSERVATIONS (NAVD88) AND CHECKED AGAINST YAMHILL COUNTY STATION NO. 22, LOCATED AT THE NORTHERLY RIGHT-OF-WAY LINE OF DOUGLAS AVENUE AND ON THE CENTERLINE OF SPRINGBROOK WAY. ELEVATION = 223.40 FEET (NAVD 88).
4. THIS IS NOT A PROPERTY BOUNDARY SURVEY TO BE RECORDED WITH THE COUNTY SURVEYOR. BOUNDARIES MAY BE PRELIMINARY AND SHOULD BE CONFIRMED WITH THE STAMPING SURVEYOR PRIOR TO RELYING ON FOR DETAILED DESIGN OR CONSTRUCTION.
5. CONTOUR INTERVAL IS 1 FOOT.
6. TREES WITH DIAMETER OF 6" AND GREATER ARE SHOWN. TREE DIAMETERS WERE MEASURED UTILIZING A DIAMETER TAPE AT BREAST HEIGHT. TREE INFORMATION IS SUBJECT TO CHANGE UPON ARBORIST INSPECTION.
7. WATER BOUNDARIES SHOWN WERE DELINEATED BY AKS ENGINEERING & FORESTRY, LLC. ON SEPTEMBER 14, 2021 AND WERE PROFESSIONALLY SURVEYED BY AKS IN SEPTEMBER 2021.
8. SANITARY SEWER INVERT ELEVATION ARE PER CITY OF NEWBERG, OREGON HESS CREEK-SPRINGBROOK SANITARY SEWERS, INTERCEPTOR "A" STA 64+50-STA 78+00, CORNELL, HOWLAND, HAYES & MERRYFIELD MAY 1970 PLANS.
9. SANITARY SEWER LATERAL LOCATIONS AND INVERT ELEVATIONS, AND WATER STUB LOCATIONS ALONG HAYES STREET ARE PER STREET AND STORM DRAINAGE IMPROVEMENTS 0+00 TO 8+00, HAYES STREET IMPROVEMENTS SHEET 3, LEONARD A RYDELL P.E, P.L.S OCTOBER 11, 2005. ELEVATIONS REPORTED IN AS-BUILTS WERE CONVERTED TO NAVD 88 DATUM BY ADDING 3.55 FEET.
10. STORM DRAINAGE INVERT ELEVATIONS ARE PER OR18: NEWBERG-DUNDEE BYPASS (PHASE 1G) (SPRINGBROOK RD) SEC. OREGON DEPARTMENT OF TRANSPORTATION DRAINAGE PROFILE SHEET 9D & 10E, PARAMETRIX ENGINEERING, PLANNING, ENVIRONMENTAL STUDIES JANUARY 2017.
11. ZONE A FLOODPLAIN LINE SHOWN PER GRAPHICAL OVERLAY OF FEMA FIRM NUMBER 41071C0237D WITH EFFECTIVE DATE 3/2/2010.

AKS ENGINEERING & FORESTRY, LLC
12965 SW HERMAN RD, STE 100
TUALATIN, OR 97062
503.563.6151
WWW.AKS-ENG.COM

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WEST BRANCH APARTMENTS

NEWBERG OREGON
YAMHILL COUNTY TAX MAP 3 2 16
TAX LOT 2017 & 2025

EXISTING CONDITIONS PLAN

DESIGNED BY:
DRAWN BY: JAY
MANAGED BY: BRH
CHECKED BY: BRH
DATE: 7/11/2024

REGISTERED PROFESSIONAL LAND SURVEYOR
OREGON
MARCH 14, 2017
BENJAMIN R HUFF
84738PLS
RENEWS: 6/30/25

REVISIONS

JOB NUMBER 9028

SHEET P03

AKS DRAWING FILE: 9028 P01 EXCOND.DWG | LAYOUT: P03

LEGEND

- EXISTING GROUND CONTOUR (1 FT) — 184
- EXISTING GROUND CONTOUR (5 FT) — 185
- DISTURBANCE LIMITS
- SAWCUT
- TREE PROTECTION FENCING
- SEDIMENT FENCE
- STRAW WATTLES
- EXISTING TREE TO REMAIN
- EXISTING TREE TO BE REMOVED
- INLET PROTECTION
- EXISTING CURB AND GUTTER TO BE REMOVED
- EXISTING SIDEWALK TO BE REMOVED
- GRAVEL CONSTRUCTION ENTRANCE
- ASSUMED TREE ROOT ZONE (1-FT RADIUS PER 1-IN DBH)

(#) KEYED DEMOLITION AND ESC NOTES

1. STRIP AND REMOVE ORGANICS, TOPSOIL, ROOTS, AND EXCESS MATERIAL AS REQUIRED FOR IMPROVEMENTS. OBTAIN APPROVAL FROM GEOTECHNICAL ENGINEER PRIOR TO PLACING FILL.
2. SAWCUT AND REMOVE EXISTING CURB AND GUTTER
3. SAWCUT AND REMOVE EXISTING SIDEWALK
4. REMOVE EXISTING TREE
5. INSTALL TREE PROTECTION FENCING
6. INSTALL SEDIMENT FENCE
7. INSTALL GRAVEL CONSTRUCTION ENTRANCE
8. INSTALL STRAW WATTLES
9. INSTALL SILT SACK INLET PROTECTION

(P) PROTECT AT ALL TIMES DURING CONSTRUCTION. ADJUST TO NEW FINISHED GRADE AS REQUIRED. ANY DAMAGE SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE.

N

SCALE: 1" = 30 FEET

30 0 6 15 30

ORIGINAL PAGE SIZE: 22" x 34"

TOTAL DISTURBED AREA = ±3.7 AC

TAX LOT 2024
TAX MAP 3S 2W 16

TAX LOT 2017
TAX MAP 3S 2W 16

TAX LOT 2025
TAX MAP 3S 2W 16

WETLAND BOUNDARY

FEMA FLOODPLAIN BOUNDARY

STREAM CORRIDOR BOUNDARY

UNDISTURBED NATURAL VEGETATION

DISTURBANCE LIMITS

TREE ROOT ZONE (TYP.)

HAYES STREET

N SPRINGBROOK ROAD

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PRELIMINARY DEMOLITION, EROSION, & SEDIMENT CONTROL PLAN

WEST BRANCH APARTMENTS

DMKS, LLC
NEWBERG, OREGON

REGISTERED PROFESSIONAL ENGINEER
OREGON
JULY 15, 1994
EDWARD GREGORY
RENEWS: JUNE 30, 2025

PRELIMINARY NOT FOR CONSTRUCTION

JOB NUMBER:	9028
DATE:	07/12/2024
DESIGNED BY:	TMI
DRAWN BY:	AMJ
CHECKED BY:	CEG

P04

AKS DRAWING FILE: 9028 P04 DEMO ESC.DWG | LAYOUT: P04

LEGEND

FINISHED GRADE CONTOUR (1 FT)	184
FINISHED GRADE CONTOUR (5 FT)	185
EXISTING GROUND CONTOUR (1 FT)	184
EXISTING GROUND CONTOUR (5 FT)	185
DISTURBANCE LIMITS	

ABBREVIATIONS

EXISTING
- (EG): EXISTING GROUND ELEVATION
- (RIM): EXISTING RIM ELEVATION
- (AC): EXISTING ASPHALT CONCRETE ELEVATION
- (TC): EXISTING TOP OF CURB ELEVATION
- (SW): EXISTING SIDEWALK ELEVATION
- (EP): EXISTING EDGE OF PAVEMENT ELEVATION
- (CONC): EXISTING CONCRETE ELEVATION

PROPOSED
- FFE: FINISHED FLOOR ELEVATION
- FG: FINISHED GRADE ELEVATION
- RIM: RIM ELEVATION
- TW: TOP OF WALL ELEVATION
- AC: ASPHALT CONCRETE ELEVATION
- EP: EDGE OF PAVEMENT ELEVATION
- TC: TOP OF CURB ELEVATION
- BSE: BOTTOM OF STAIR ELEVATION
- TSE: TOP OF STAIR ELEVATION
- SW: SIDEWALK ELEVATION
- CONC: CONCRETE ELEVATION

DOWNWARD SLOPE: X.X%

SCALE: 1"= 30 FEET

30 0 6 15 30

ORIGINAL PAGE SIZE: 22" x 34"

TAX LOT 2024
TAX MAP 3S 2W 16

TAX LOT 2024
TAX MAP 3S 2W 16

TAX LOT 2017
TAX MAP 3S 2W 16

TAX LOT 2025
TAX MAP 3S 2W 16

WETLAND BOUNDARY

STREAM CORRIDOR BOUNDARY

DISTURBANCE LIMITS

FEMA FLOODPLAIN BOUNDARY

10' PUE PER PP. NO. 2014-19

10' PRIVATE STORM DRAINAGE EASEMENT PER PP. NO. 2013-03

BUILDING A
FFE = 190.00

BUILDING B
FFE = 186.00

BUILDING C
FFE = 189.50

BUILDING C
FFE = 190.50

BUILDING D
FFE = 191.50

BUILDING E
FFE = 185.00

1.0' FFE STEP

RIDGE

HAYES STREET

N SPRINGBROOK ROAD

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PRELIMINARY GRADING PLAN
WEST BRANCH APARTMENTS
DMKS, LLC
NEWBERG, OREGON

REGISTERED PROFESSIONAL ENGINEER
OREGON
JULY 14, 2015
CHARLES E. GRIFFITH
EXPIRES: 12/31/25

PRELIMINARY
NOT FOR CONSTRUCTION

RENEWS: JUNE 30, 2025

JOB NUMBER:	9028
DATE:	07/12/2024
DESIGNED BY:	TMI
DRAWN BY:	AMJ
CHECKED BY:	CEG

P05

AKS DRAWING FILE: 9028 P05 GRADING | LAYOUT: P05

LEGEND

NEW ASPHALT

NEW CONCRETE

PARKING COUNT – TAX LOT 2017	
STANDARD	55
ADA	3
EV READY	15
TOTAL	73
BICYCLE	12

PARKING COUNT – TAX LOT 2025	
STANDARD	64
ADA	4
EV READY	18
TOTAL	86
BICYCLE	12

SCALE: 1" = 30 FEET

30 0 6 15 30

ORIGINAL PAGE SIZE: 22" x 34"

TAX LOT 2024
TAX MAP 3S 2W 16

WETLAND BOUNDARY
STREAM CORRIDOR BOUNDARY
FEMA FLOODPLAIN BOUNDARY
10' PUE PER PP. NO. 2014-19
SEE FRONTAGE IMPROVEMENTS PLAN
BUILDING C 3-STORY 24 UNITS
BUILDING B 3-STORY 12 UNITS
BUILDING E 3-STORY 24 UNITS
BUILDING A 3-STORY 12 UNITS
BUILDING D 3-STORY 24 UNITS
STAIRS
PLAZA AREA
RETAINING WALL
TRASH ENCLOSURE
BIKE PARKING (6) SPACES (TYP.)
ADA PARKING (2) SPACES
ADA PARKING (1) SPACE
2' DRAINAGE CURB CUT
2' DRAINAGE CURB CUT (TYP.)
ASPHALT PAVEMENT
ELECTRIC VEHICLE READY PARKING (TYP.)
ACCESSIBLE ROUTE
FIRE TRUCK TURNAROUND
STANDARD PARKING STRIPING (TYP.)
STANDARD CURB (TYP.)
PRIVATE SIDEWALK (TYP.)
LANDSCAPE ISLAND (TYP.)
APPROXIMATE LOCATION OF NEW PLAYGROUND
HAYES STREET
N SPRINGBROOK ROAD
TAX LOT 2017
TAX MAP 3S 2W 16
TAX LOT 2025
TAX MAP 3S 2W 16

(1) DIMENSION IS NOT TO SCALE AND WILL BE CORRECTED WITH FINAL PLAN REVISIONS. BUILDING SETBACKS WILL NOT EXCEED 25-FEET.

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PRELIMINARY DIMENSIONED SITE PLAN
WEST BRANCH APARTMENTS
DMKS, LLC
NEWBERG, OREGON

REGISTERED PROFESSIONAL ENGINEER
OREGON
JULY 14, 2015
CHARLES E. GRIFFITH
EXPIRES: 06/30/25

PRELIMINARY NOT FOR CONSTRUCTION

RENEWS: JUNE 30, 2025

JOB NUMBER:	9028
DATE:	07/12/2024
DESIGNED BY:	TMI
DRAWN BY:	AMJ
CHECKED BY:	CEG

P06

AKS DRAWING FILE: 9028 P06 SITE.DWG | LAYOUT: P06

LEGEND

NEW ASPHALT

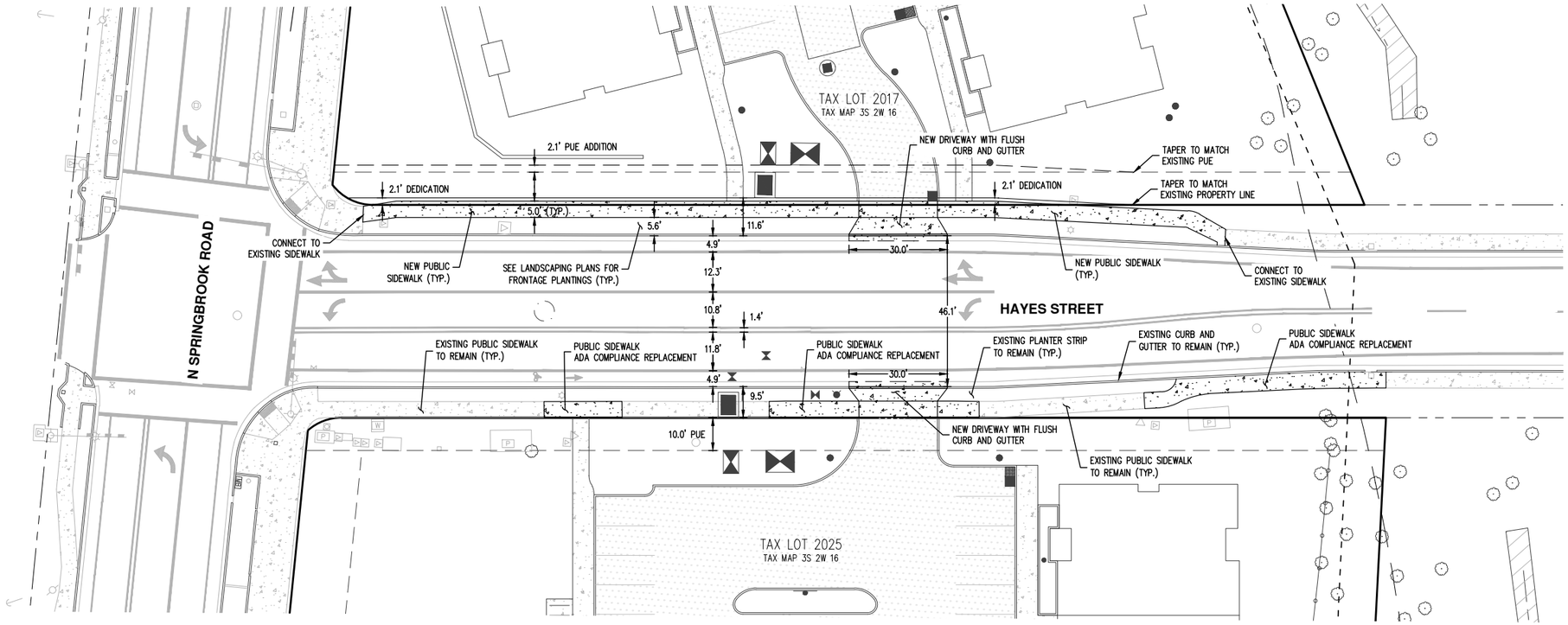
NEW CONCRETE

N

SCALE: 1" = 20 FEET

20 0 4 10 20

ORIGINAL PAGE SIZE: 22" x 34"



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PRELIMINARY FRONTAGE IMPROVEMENTS PLAN
WEST BRANCH APARTMENTS
DMKS, LLC
NEWBERG, OREGON

REGISTERED PROFESSIONAL ENGINEER
OREGON
JULY 14, 1995
CHRISTOPHER E. GOODELL
EXPIRES: JUNE 30, 2025

PRELIMINARY NOT FOR CONSTRUCTION

RENEWS: JUNE 30, 2025

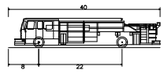
JOB NUMBER:	9028
DATE:	07/12/2024
DESIGNED BY:	TMI
DRAWN BY:	AMJ
CHECKED BY:	CEG

P07

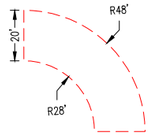
AKS DRAWING FILE: 9028 P07 STREETDWG | LAYOUT: P07

LEGEND

- NEW ASPHALT
- NEW CONCRETE
- FIRE HYDRANT HOSE LAY (600' MAXIMUM)
- FIRE APPARATUS HOSE LAY (150' MAXIMUM)
- VEHICLE BODY
- TIRE PATH



Pumper Fire Truck	
Overall Length	40.000ft
Overall Width	8.167ft
Overall Body Height	7.745ft
Min Body Ground Clearance	0.656ft
Track Width	8.167ft
Lock-to-lock time	5.00s
Max Wheel Angle	45.00°



FIRE TRUCK TURNING MOVEMENT MINIMUM DIMENSIONS
SCALE: 1" = 30'

N

SCALE: 1"= 30 FEET
30 0 6 15 30
ORIGINAL PAGE SIZE: 22" x 34"

TAX LOT 2024
TAX MAP 3S 2W 16

WETLAND BOUNDARY
STREAM CORRIDOR BOUNDARY
FEMA FLOODPLAIN BOUNDARY
10' PUE PER PP. NO. 2014-19
±150 LF
±150 LF
FIRE TRUCK TURNING MOVEMENT AUTOCAD VEHICLE TRACKING
BUILDING E
3-STORY
24 UNITS
FIRE RISER ROOM
TAX LOT 2025
TAX MAP 3S 2W 16
TAX LOT 2024
TAX MAP 3S 2W 16
WETLAND BOUNDARY
STREAM CORRIDOR BOUNDARY
FEMA FLOODPLAIN BOUNDARY
±128 LF
±136 LF
BUILDING B
3-STORY
12 UNITS
FIRE RISER ROOM
±470 LF
±150 LF
±163 LF
FIRE RISER ROOM
R52'
R28'
BUILDING C
3-STORY
24 UNITS
NO PARKING, FIRE LANE SIGNAGE WITH PAINTED CURB (TYP.)
FIRE TRUCK TURNAROUND
R28'
R28'
70.0'
TAX LOT 2017
TAX MAP 3S 2W 16
24.0'
R52'
R28'
FDC LOCATION
NEW FIRE HYDRANT
R5'
R20'
R8' (TYP.)
NO PARKING, FIRE LANE SIGNAGE WITH PAINTED CURB (TYP.)
24.0'
31.0'
29.5'
24.0'
R3'
BUILDING A
3-STORY
12 UNITS
FIRE RISER ROOM
±83 LF
±150 LF
10' PUE PER PP. NO. 2014-19
HAYES STREET
±430 LF
FIRE RISER ROOM
BUILDING D
3-STORY
24 UNITS
10' PRIVATE STORM DRAINAGE EASEMENT PER PP. NO. 2013-03
±86 LF
±86 LF
±150 LF
±150 LF
N SPRINGBROOK ROAD

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PRELIMINARY FIRE ACCESS PLAN
WEST BRANCH APARTMENTS
DMKS, LLC
NEWBERG, OREGON

REGISTERED PROFESSIONAL ENGINEER
OREGON
JULY 13, 2010
CHRISTOPHER E. GREGORY

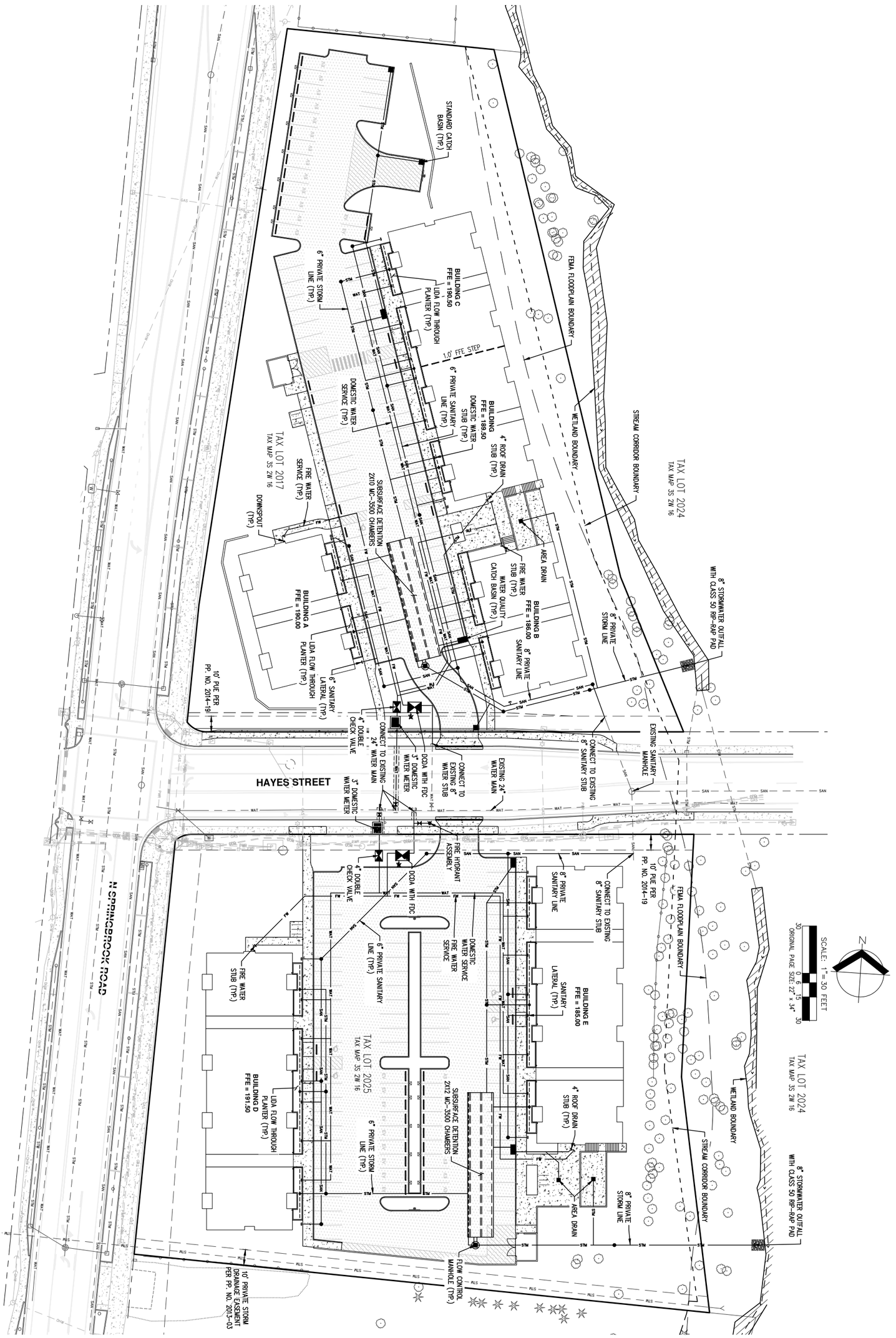
PRELIMINARY
NOT FOR CONSTRUCTION

RENEWS: JUNE 30, 2025

JOB NUMBER:	9028
DATE:	07/12/2024
DESIGNED BY:	TMI
DRAWN BY:	AMJ
CHECKED BY:	CEG

P08

AKS DRAWING FILE: 9028 P08 FIRE.DWG | LAYOUT: P08



PRELIMINARY COMPOSITE UTILITY PLAN
WEST BRANCH APARTMENTS
DMKS, LLC
NEWBERG, OREGON

REGISTERED PROFESSIONAL ENGINEER
OREGON
JULY 19, 2005
EDWARD GIBSON
RENEWAL: JUNE 30, 2025

PRELIMINARY NOT FOR CONSTRUCTION

JOB NUMBER:	9028
DATE:	07/12/2024
DESIGNED BY:	TMI
DRAWN BY:	AMJ
CHECKED BY:	CDG

P09

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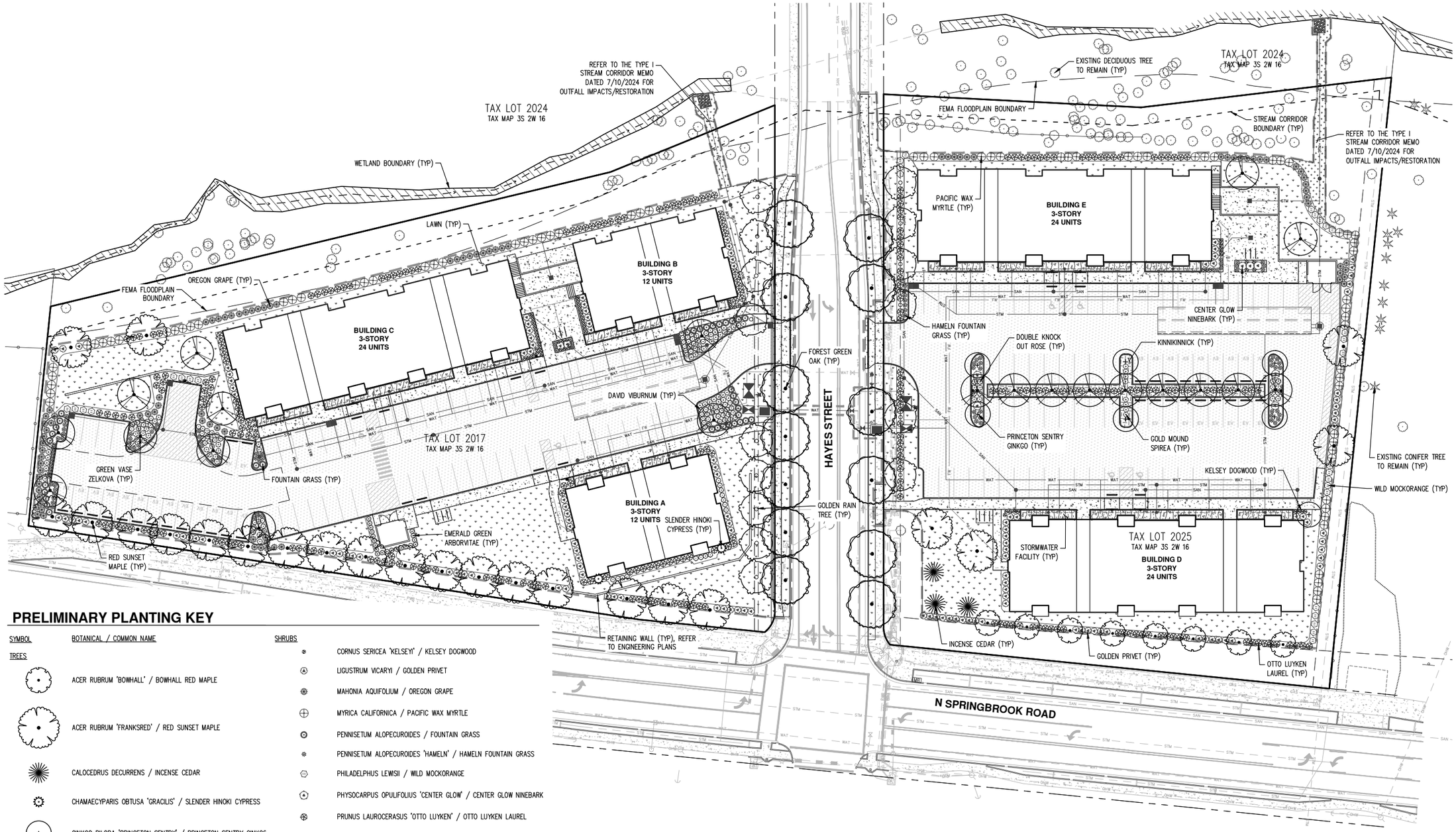

PRELIMINARY PLANTING KEY

SYMBOL	BOTANICAL / COMMON NAME
TREES	
	ACER RUBRUM 'BOWHALL' / BOWHALL RED MAPLE
	ACER RUBRUM 'FRANKSRED' / RED SUNSET MAPLE
	CALOCEDRUS DECURRENS / INCENSE CEDAR
	CHAMAECYPARIS OBTUSA 'GRACILIS' / SLENDER HINOKI CYPRESS
	GINKGO BILOBA 'PRINCETON SENTRY' / PRINCETON SENTRY GINKGO
	KOELREUTERIA PANICULATA / GOLDEN RAIN TREE
	ZELKOVA SERRATA 'GREEN VASE' / GREEN VASE ZELKOVA
STREET TREES	
	QUERCUS FRAINETTO 'SCHMIDT' / FOREST GREEN OAK

SYMBOL	BOTANICAL / COMMON NAME
SHRUBS	
	CORNUS SERICEA 'KELSEYI' / KELSEY DOGWOOD
	LIGUSTRUM VICARYI / GOLDEN PRIVET
	MAHONIA AQUIFOLIUM / OREGON GRAPE
	MYRICA CALIFORNICA / PACIFIC WAX MYRTLE
	PENNISETUM ALOPECUROIDES / FOUNTAIN GRASS
	PENNISETUM ALOPECUROIDES 'HAMELN' / HAMELN FOUNTAIN GRASS
	PHILADELPHUS LEWISII / WILD MOCKORANGE
	PHYSOCARPUS OPULIFOLIUS 'CENTER GLOW' / CENTER GLOW NINEBARK
	PRUNUS LAUROCERASUS 'OTTO LUYKEN' / OTTO LUYKEN LAUREL
	ROSA X 'RADTKO' / DOUBLE KNOCK OUT RED ROSE
	SPIRAEA X BUMALDA 'GOLDMOUND' / GOLD MOUND SPIREA
	THUJA OCCIDENTALIS 'SMARAGD' / EMERALD GREEN ARBORVITAE
	VIBURNUM DAVIDII / DAVID VIBURNUM
GROUND COVERS	
	ARCTOSTAPHYLOS UVA-URSI / KINNIKINNICK
	NATIVE E/C SEED MIX
	STORMWATER FACILITY TO BE PLANTED PER CITY OF NEWBERG STANDARDS
	LAWN: NORTHWEST SUPREME LAWN SEED MIX

GENERAL LANDSCAPE NOTE

REFER TO SHEET P11 FOR LANDSCAPE DETAILS, NOTES, AND FULL PLANTING SCHEDULE

LANDSCAPE DATA

TOTAL PARKING LOT AREA: ±50,745 SF

TOTAL SITE AREA: ±193,062 SF
TOTAL LANDSCAPE REQUIRED: ±28,960 SF (15%)
TOTAL LANDSCAPE PROVIDED: ±84,933 SF (44%)

TOTAL PARKING SPACES: 159
TOTAL PARKING LOT TREES REQUIRED: 23 (1 TREE PER 7 PARKING SPACES)
TOTAL PARKING LOT TREES PROVIDED: 23

SCALE: 1" = 30 FEET
30 0 6 15 30
ORIGINAL PAGE SIZE: 22" x 34"

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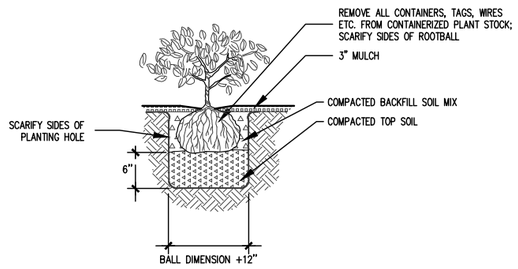
PRELIMINARY LANDSCAPE PLAN
WEST BRANCH APARTMENTS
DMKS, LLC
NEWBERG, OREGON

REGISTERED LANDSCAPE ARCHITECT
OREGON
TIMOTHY E. BAUER
14979
PRELIMINARY NOT FOR CONSTRUCTION

JOB NUMBER:	9028
DATE:	07/12/2024
DESIGNED BY:	CLM
DRAWN BY:	CLM
CHECKED BY:	TEB

P10

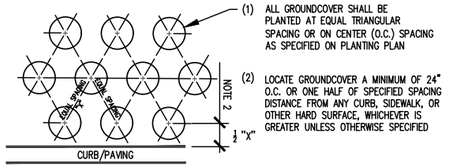
AKS DRAWING FILE: 9028 P010 LANDSCAPE.DWG | LAYOUT: P10



1 / P11 TYPICAL SHRUB PLANTING DETAIL

NTS

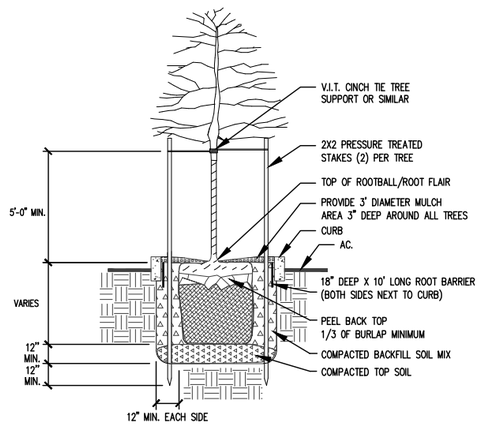
NOTES:
1. BACKFILL SOIL MIX SHALL BE 1/3 ORGANIC MATERIALS, 1/3 TOPSOIL, AND 1/3 SANDY LOAM.
2. REMOVE ALL CONTAINERS, METAL, TWINE, TAGS, AND OTHER NON-BIODEGRADABLE MATERIALS PRIOR TO PLANTING.
3. ALL CONTAINERIZED PLANT STOCK SHALL BE VIGOROUS, FREE OF DISEASE AND PESTS, EVENLY FORMED, AND BE FULLY ROOTED IN THE CONTAINER IN WHICH THEY ARE DELIVERED. ALL PLANTS SHALL FOLLOW ANSI Z60.1 STANDARDS FOR NURSERY STOCK FOR CONTAINER SIZE, HEIGHT, ETC.
4. CONTRACTOR SHALL WATER-SETTLE PLANTING HOLES TO REMOVE AIR POCKETS PRIOR TO SPREADING MULCH.
5. CARE SHALL BE TAKEN TO AVOID COVERING ROOT CROWN OR FOLIAGE OF PLANTS WITH BARK MULCH.



3 / P11 TYPICAL GROUNDCOVER PLANTING DETAIL

NTS

NOTES:
1. BACKFILL SOIL MIX SHALL BE 1/3 ORGANIC MATERIALS, 1/3 TOPSOIL, AND 1/3 SANDY LOAM.
2. REMOVE ALL CONTAINERS, METAL, TWINE, TAGS, AND OTHER NON-BIODEGRADABLE MATERIALS PRIOR TO PLANTING.
3. ALL CONTAINERIZED PLANT STOCK SHALL BE VIGOROUS, FREE OF DISEASE AND PESTS, EVENLY FORMED, AND BE FULLY ROOTED IN THE CONTAINER IN WHICH THEY ARE DELIVERED. ALL PLANTS SHALL FOLLOW ANSI Z60.1 STANDARDS FOR NURSERY STOCK FOR CONTAINER SIZE, HEIGHT, ETC.
4. CONTRACTOR SHALL WATER-SETTLE PLANTING HOLES TO REMOVE AIR POCKETS PRIOR TO SPREADING MULCH. DO NOT COVER FOLIAGE OR ROOT CROWN OF GROUNDCOVER PLANTS.



2 / P11 TYPICAL TREE PLANTING DETAIL

NTS

NOTES:
1. DRIVE STAKES OUTSIDE OF ROOTBALL.
2. SET TREE 2" ABOVE FINISH GRADE TO ALLOW FOR SETTLING OF SOIL.
3. BACKFILL SOIL MIX FOR TREE PLANTING TO BE 1/3 ORGANIC MATERIALS, 1/3 TOPSOIL, AND 1/3 SANDY LOAM.
4. REMOVE ALL WIRES, METAL BASKETS, TWINE, AND OTHER NON-COMPOSTABLE MATERIALS FROM TREE ROOTBALL PRIOR TO PLANTING.

GENERAL LANDSCAPE NOTES

1. CONTRACTOR IS RESPONSIBLE FOR VERIFYING PLANT AND MATERIAL QUANTITIES. IF DISCREPANCIES OCCUR, DESIGN INTENT PREVAILS OVER QUANTITIES LISTED.
2. PLANT SUBSTITUTIONS MAY BE ALLOWED, WITH APPROVAL BASED ON UNFORESEEN SITE CONDITIONS, NURSERY STOCK AVAILABILITY, ETC. WHERE ALLOWED BY CITY OF NEWBERG DESIGN STANDARDS.
3. ALL PLANTS AND PLANTINGS SHALL CONFORM TO APPLICABLE CITY OF NEWBERG LANDSCAPE DESIGN STANDARDS AND TO AMERICAN STANDARD FOR NURSERY STOCK ANSI Z60.1, CURRENT EDITION. PLANT IN ACCORDANCE WITH ACCEPTED 'BEST-PRACTICE' INDUSTRY STANDARDS, SUCH AS THOSE ADOPTED BY THE OREGON LANDSCAPE CONTRACTOR'S BOARD (OLCB).
4. TREES SHALL, WHERE APPLICABLE, BE CENTERED IN THE PLANTING ISLAND BETWEEN CURBS. OTHER TREES SHALL BE PLANTED A MINIMUM OF 3' O.C. FROM BACK OF SIDEWALK OR OTHER HARDSCAPING. FIELD ADJUST IF NECESSARY TO AVOID CONFLICTS WITH LIGHTS, WATER METERS, HYDRANTS, AND OTHER UTILITIES.
5. HATCHED AREAS ARE MEANT TO CONVEY GENERAL PLANT LOCATIONS. PLANT COVERAGE, SPACING, AND LAYOUT SHALL BE CONSISTENT WITH THE SPACING LISTED IN THE PLANT SCHEDULE FOR FULL COVERAGE. FIELD ADJUST PLANTING AS REQUIRED TO AVOID CONFLICTS WITH UTILITIES, LIGHTS, VAULTS, EXISTING VEGETATION, ETC.
6. LAWN WITHIN ANY DISTURBED AREAS SHALL BE RESTORED TO PRE-CONSTRUCTION CONDITION.
7. IRRIGATION: LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND INSTALLING A PERMANENT, UNDERGROUND 'DESIGN-BUILD' AUTOMATIC IRRIGATION SYSTEM TO WATER ALL TREES AND PLANTING BEDS. COORDINATE POINT OF CONNECTION, DOUBLE CHECK VALVE ASSEMBLY OF A TYPE APPROVED BY LOCAL AND STATE JURISDICTIONS, AND SLEEVING LOCATIONS WITH GENERAL CONTRACTOR PRIOR TO INSTALLATION OF HARD SURFACING (SIDEWALKS, DRIVEWAYS, ETC.).
8. SOIL PREPARATION: GROWING MEDIUM IN ALL NEW PLANTING BEDS SHALL BE SUFFICIENT DEPTH FOR HEALTHY PLANT ESTABLISHMENT AND GROWTH. EXISTING, NON-COMPACTED, NATIVE SOIL MAY COUNT TOWARDS THIS REQUIREMENT. REUSE SURFACE SOIL STOCKPILED ON THE SITE AND/OR IMPORT NEW TOPSOIL TO MAKE UP REQUIRED AMOUNTS FOR INSTALLATION.
9. MULCH: APPLY 3" DEEP WELL-AGED MEDIUM GRIND OR SHREDDED DARK HEMLOCK BARK MULCH UNDER AND AROUND ALL TREES AND SHRUBS. DO NOT COVER FOLIAGE OR ROOT CROWNS OF PLANTS WITH BARK MULCH. TREES AND OTHER PLANTS SHALL BE SET TO ACCOMMODATE MULCH APPLICATION WITHOUT BURYING ROOT CROWNS.
10. MAINTENANCE: ALL LANDSCAPE AREAS SHALL BE MAINTAINED FOR THE DURATION OF THE PLANTING TO ENCOURAGE HEALTH OF PLANT MATERIAL AS WELL AS PUBLIC HEALTH AND SAFETY. ALL TREES AND SHRUBS SHALL BE PRUNED TO MAINTAIN HEALTH AND STRUCTURE OF THE PLANT MATERIAL FOR PUBLIC SAFETY PURPOSES.

PRELIMINARY PLANTING SCHEDULE

SYMBOL	QTY	BOTANICAL NAME	COMMON NAME	SIZE/CONTAINER	SPACING
TREES					
	8	ACER RUBRUM 'BOWHALL'	BOWHALL RED MAPLE	2" CAL. B&B	AS SHOWN
	23	ACER RUBRUM 'FRANKSRED'	RED SUNSET MAPLE	2" CAL. B&B	AS SHOWN
	3	CALOCEDRUS DECURRENS	INCENSE CEDAR	6' HT. B&B	AS SHOWN
	2	CHAMAECYPARIS OBTUSA 'GRACILIS'	SLENDER HINOKI CYPRESS	5'-6' HT. B&B	AS SHOWN
	7	GINKGO BILOBA 'PRINCETON SENTRY'	PRINCETON SENTRY GINKGO	2" CAL. B&B	AS SHOWN
	15	KOELREUTERIA PANICULATA	GOLDEN RAIN TREE	2" CAL. B&B	AS SHOWN
	21	ZELKOVA SERRATA 'GREEN VASE'	GREEN VASE ZELKOVA	2" CAL. B&B	AS SHOWN
STREET TREES					
	13	QUERCUS FRAINETTO 'SCHMIDT'	FOREST GREEN OAK	2" CAL. B&B	AS SHOWN

SYMBOL	QTY	BOTANICAL NAME	COMMON NAME	SIZE/CONTAINER	SPACING
SHRUBS					
	79	CORNUS SERICEA 'KELSEYI'	KELSEY DOGWOOD	2 GAL. CONT.	24" o.c.
	132	LIGUSTRUM VICARYI	GOLDEN PRIVET	2 GAL CONT.	48" o.c.
	89	MAHONIA AQUIFOLIUM	OREGON GRAPE	2 GAL. CONT.	48" o.c.
	75	MYRICA CALIFORNICA	PACIFIC WAX MYRTLE	2 GAL. CONT.	60" o.c.
	35	PENNISETUM ALOPECUROIDES	FOUNTAIN GRASS	1 GAL. CONT.	48" o.c.
	80	PENNISETUM ALOPECUROIDES 'HAMELN'	HAMELN FOUNTAIN GRASS	1 GAL. CONT.	30" o.c.
	31	PHILADELPHUS LEWISII	WILD MOCKORANGE	2 GAL. CONT.	48" o.c.
	9	PHYSOCARPUS OPULIFOLIUS 'CENTER GLOW'	CENTER GLOW NINEBARK	2 GAL. CONT.	60" o.c.
	279	PRUNUS LAUROCERASUS 'OTTO LUYKEN'	OTTO LUYKEN LAUREL	2 GAL. CONT.	48" o.c.
	41	ROSA X 'RADTKO'	DOUBLE KNOCK OUT RED ROSE	2 GAL. CONT.	36" o.c.
	40	SPIRAEA X BUMALDA 'GOLDMOUND'	GOLD MOUND SPIREA	2 GAL. CONT.	36" o.c.
	20	THUJA OCCIDENTALIS 'SMARAGD'	EMERALD GREEN ARBORVITAE	6' HT. B&B	36" o.c.
	86	VIBURNUM DAVIDII	DAVID VIBURNUM	2 GAL. CONT.	36" o.c.
GROUND COVERS					
	243	ARCTOSTAPHYLOS UVA-URSI	KINNIKINNICK	1 GAL. CONT.	24" o.c.
	1,220 SF±	NATIVE E/C MIX – SUNMARK SEEDS (OR APPROVED EQUAL) MEADOW BARLEY 40%; CALIFORNIA BROME 35%; NATIVE RED FESCUE 20%; TUFTED HAIRGRASS 3%; SPIKE BENTGRASS 2%; ADD ECOLIVE ORGANICS WITH MYCHORRHIZE AT A RATE 1.5 LBS. PER 1,000 SF APPLY AT A RATE OF 1 LB. PER 1,000 SF OR AS RECOMMENDED BY SUPPLIER			
		STORMWATER FACILITY TO BE PLANTED PER CITY OF NEWBERG STANDARDS			
	29,892 SF±	LAWN: NORTHWEST SUPREME LAWN SEED MIX – SUNMARK SEEDS (OR APPROVED EQUAL) DASHER 3 PERENNIAL RYEGRASS (LOLIUM PERENNE VAR. DASHER 3) 35%; CUTTER II PERENNIAL RYEGRASS (LOLIUM PERENNE VAR. CUTTER II) 35%; GARNET CREEPING RED FESCUE (FESTUCA RUBRA VAR. GARNET) 15%; WINDWARD CHEWINGS FESCUE (FESTUCA RUBRA SPP FALLAX VAR. WINDWARD) 15% APPLY AT A RATE OF 8 LBS. PER 1,000 SF OR AS RECOMMENDED BY SUPPLIER			

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PRELIMINARY LANDSCAPE DETAILS, NOTES & PLANTING SCHEDULE

WEST BRANCH APARTMENTS

DMKS, LLC
NEWBERG, OREGON

REGISTERED LANDSCAPE ARCHITECT
OREGON
THERESE BRUCE
2007
11/19/19
PRELIMINARY NOT FOR CONSTRUCTION

JOB NUMBER:	9028
DATE:	07/12/2024
DESIGNED BY:	CLM
DRAWN BY:	CLM
CHECKED BY:	TEB

P11

AKS DRAWING FILE: 9028 P010 LANDSCAPE.DWG | LAYOUT: P11

Exhibit B: Architectural Drawings

FILE PATH: C:\Revit_Local\24017 West Branch Site_bhoeft.rvt

LEGEND

— — — — PROPERTY LINE

– – – – – EASEMENT

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Portland, OR 97214 seallp.com

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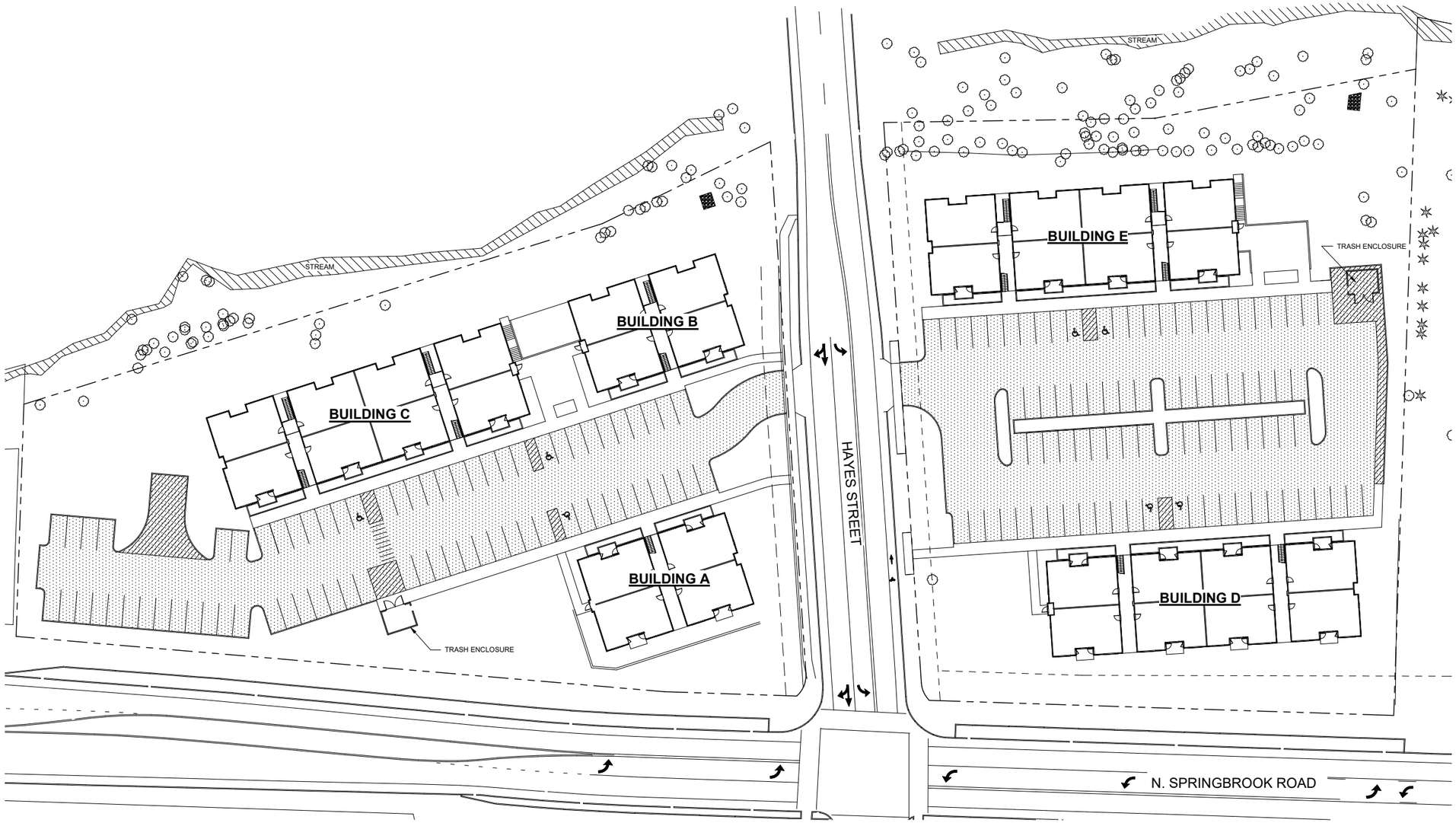
WEST BRANCH APTS

Job Number: 24017

3200 BLOCK E HAYES STREET
NEWBERG, OR 97132



NORTH

1 **SITE PLAN**
1" = 30'-0"

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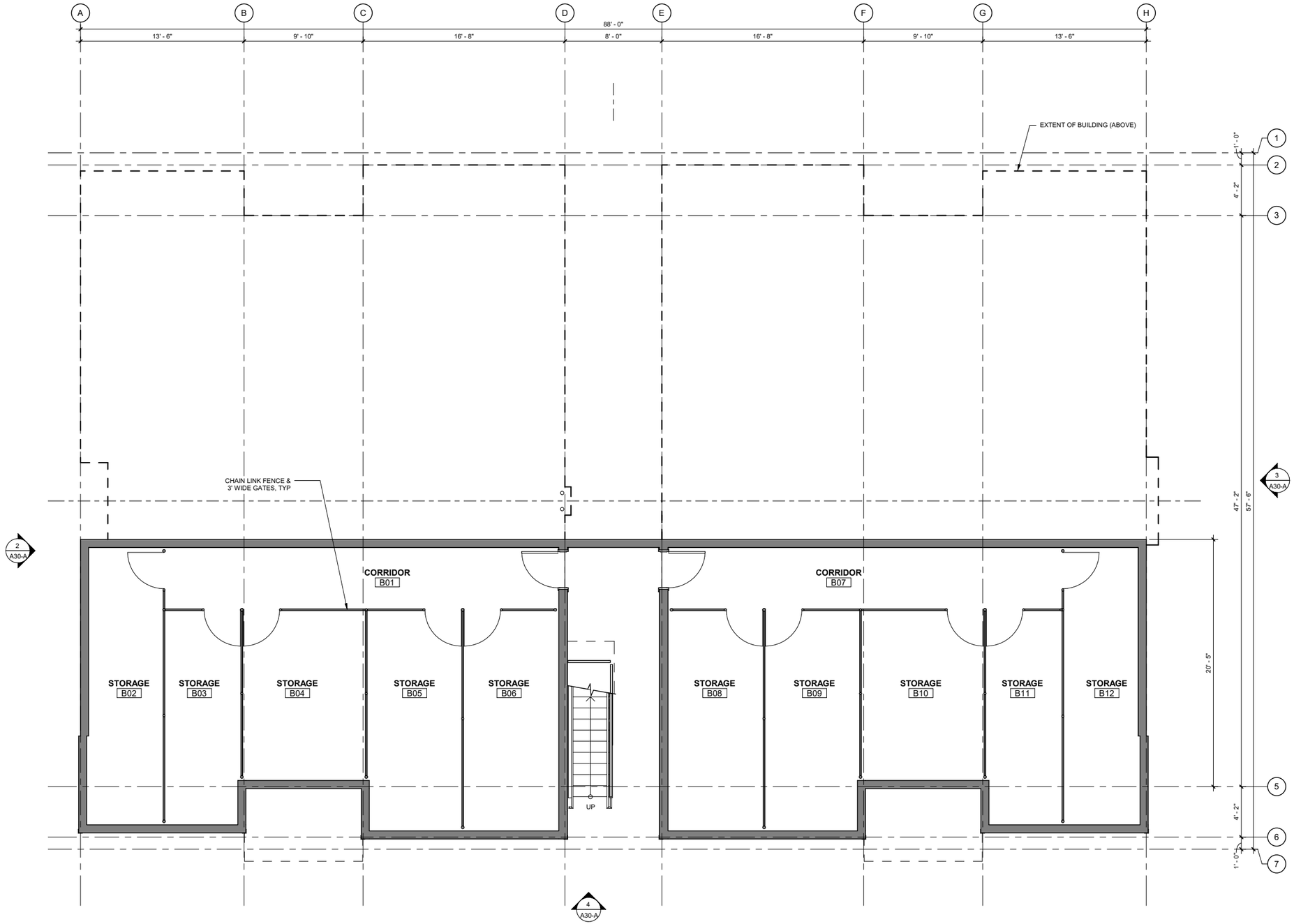
Issue	Date
CONDITIONAL USE PERMIT	06.28.24

Drawing:

SITE PLAN

Sheet No:

A201



NORTH

1 BASEMENT FLOOR PLAN

1/4" = 1'-0"

NOTE: BUILDING A DOES NOT HAVE A BASEMENT.

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Job Number: 24017

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Issue	Date
CONDITIONAL USE PERMIT	06.28.24

Drawing:

BASEMENT FLOOR PLAN
BUILDING B

Sheet No:

A20-A

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1 FIRST FLOOR PLAN

1/4" = 1'-0"

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WEST BRANCH APTS

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CONDITIONAL USE PERMIT	06.28.24
Issue	Date

Drawing:

FIRST FLOOR PLAN
BUILDING A & B

Sheet No:

A21-A

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1 SECOND FLOOR PLAN
1/4" = 1'-0"

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WEST BRANCH APTS

Job Number: 24017

3200 BLOCK E HAYES STREET
NEWBERG, OR 97132

Issue	Date
CONDITIONAL USE PERMIT	06.28.24

Drawing:

SECOND FLOOR PLAN BUILDING A & B

Sheet No:

A22-A

1 THIRD FLOOR PLAN

1/4" = 1'-0"

NORTH

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WEST BRANCH APTS

Job Number: 24017

3200 BLOCK E HAYES STREET
NEWBERG, OR 97132

CONDITIONAL USE PERMIT	06.28.24
Issue	Date

Drawing:

THIRD FLOOR PLAN
BUILDINGS A & B

Sheet No:

A23-A

FILE PATH: C:\Revit_Local\24017 West Branch Bldg B_bhoeft.rvt

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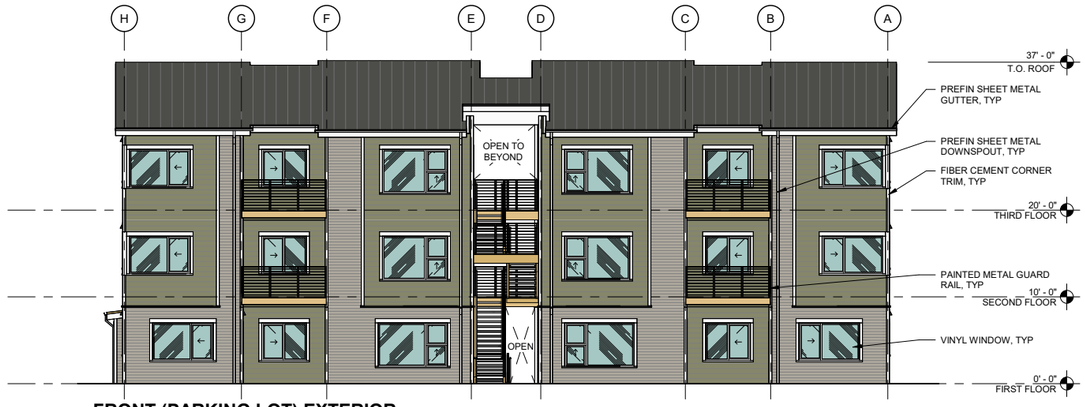
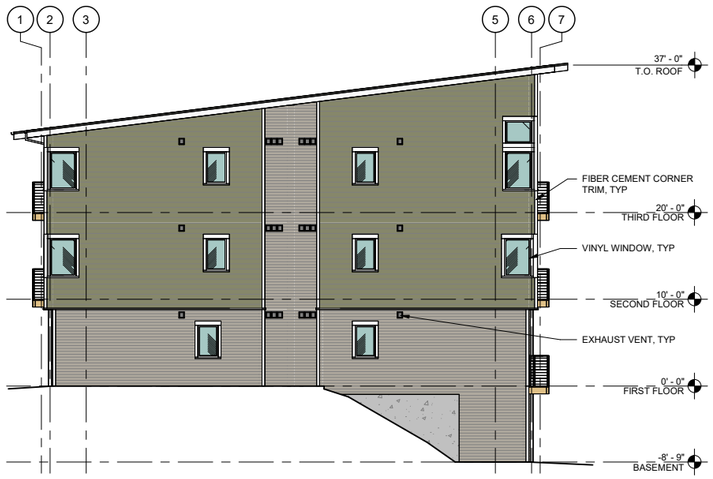
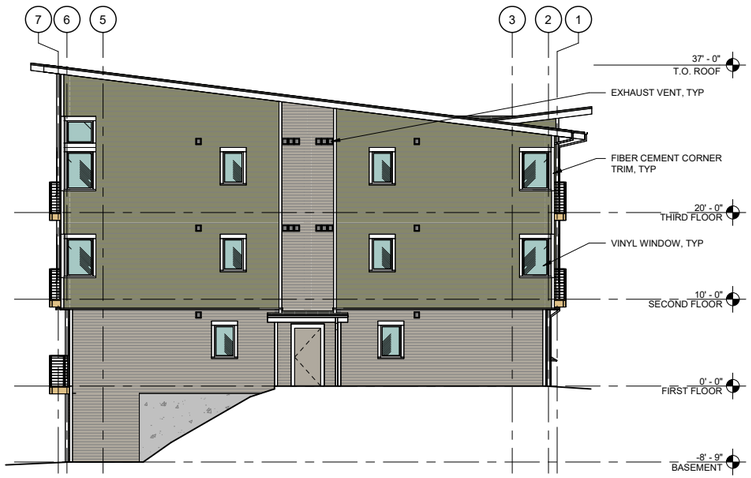


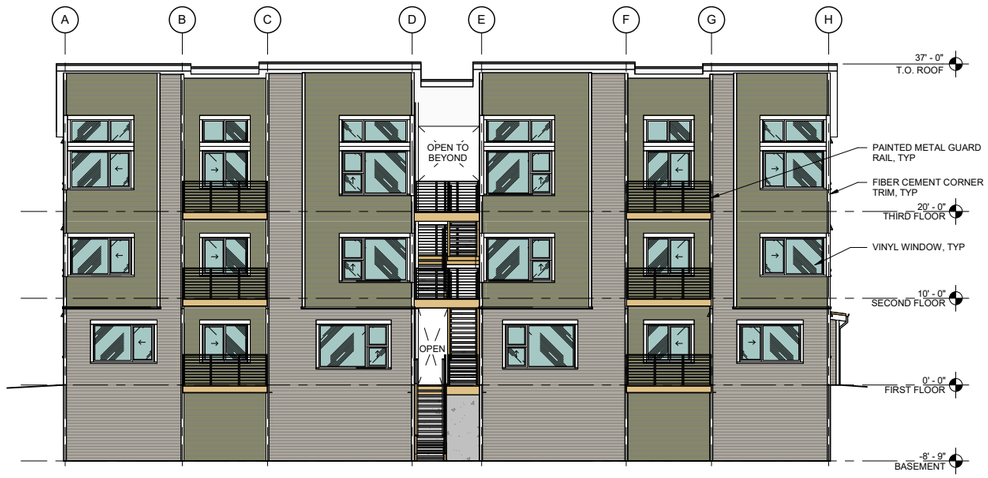
1 FRONT (PARKING LOT) EXTERIOR ELEVATION
1/8" = 1'-0"



2 SIDE EXTERIOR ELEVATION NOTE: BUILDING A DOES NOT HAVE A BASEMENT.
1/8" = 1'-0"



3 SIDE EXTERIOR ELEVATION AT RISER ROOM NOTE: BUILDING A DOES NOT HAVE A BASEMENT.
1/8" = 1'-0"



4 BACK EXTERIOR ELEVATION NOTE: BUILDING A DOES NOT HAVE A BASEMENT.
1/8" = 1'-0"

LEGEND

- STANDING SEAM METAL ROOFING
- FIBER CEMENT LAP SIDING - 4" REVEAL
- FIBER CEMENT LAP SIDING - 7" REVEAL
- CONCRETE WALL

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NOT FOR CONSTRUCTION

WEST BRANCH APTS

Job Number: 24017

3200 BLOCK E HAYES STREET
NEWBERG, OR 97132

Issue	Date
CONDITIONAL USE PERMIT	06.28.24

Drawing:

EXTERIOR ELEVATIONS

Sheet No:

A30-A

FILE PATH: C:\Revit_Local\24017 West Branch Bldg B_bhoeft.rvt

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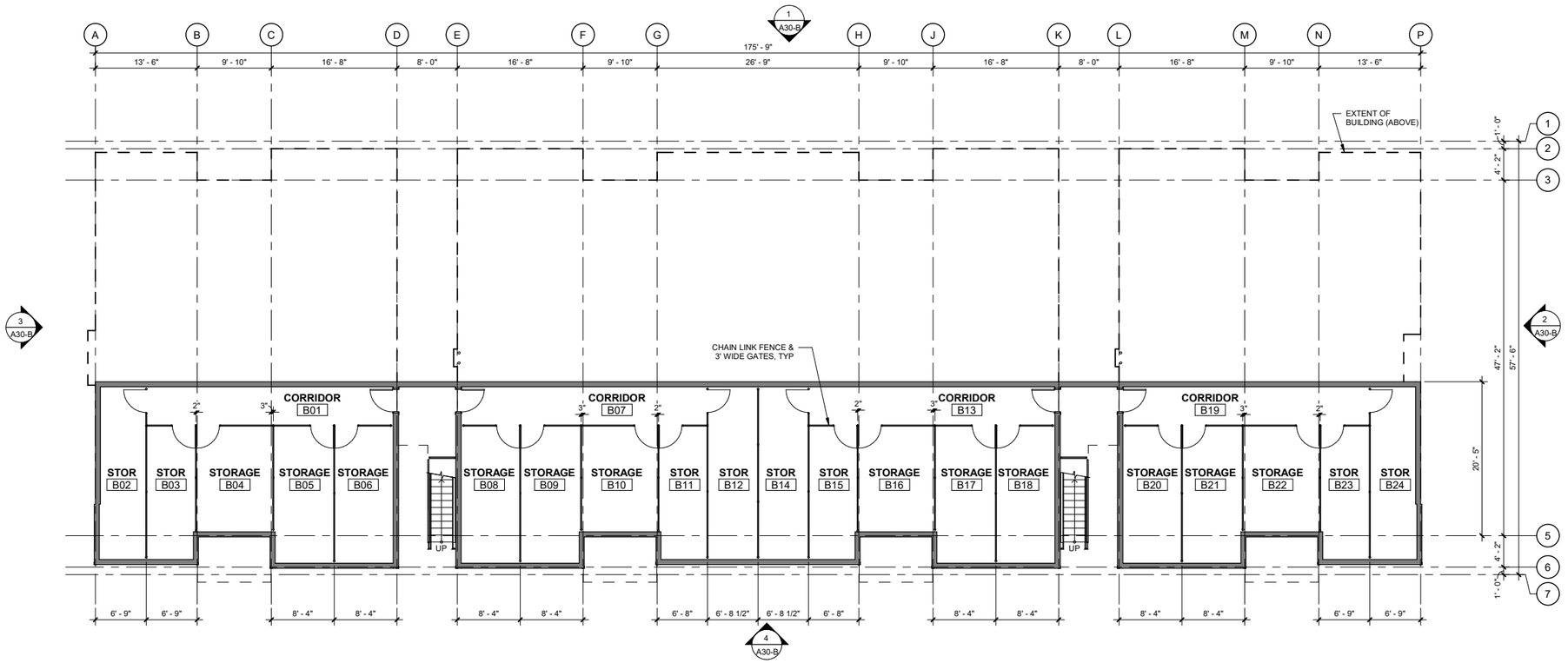

1 BASEMENT FLOOR PLAN

1/8" = 1'-0"

NOTE: BUILDING D DOES NOT HAVE A BASEMENT.

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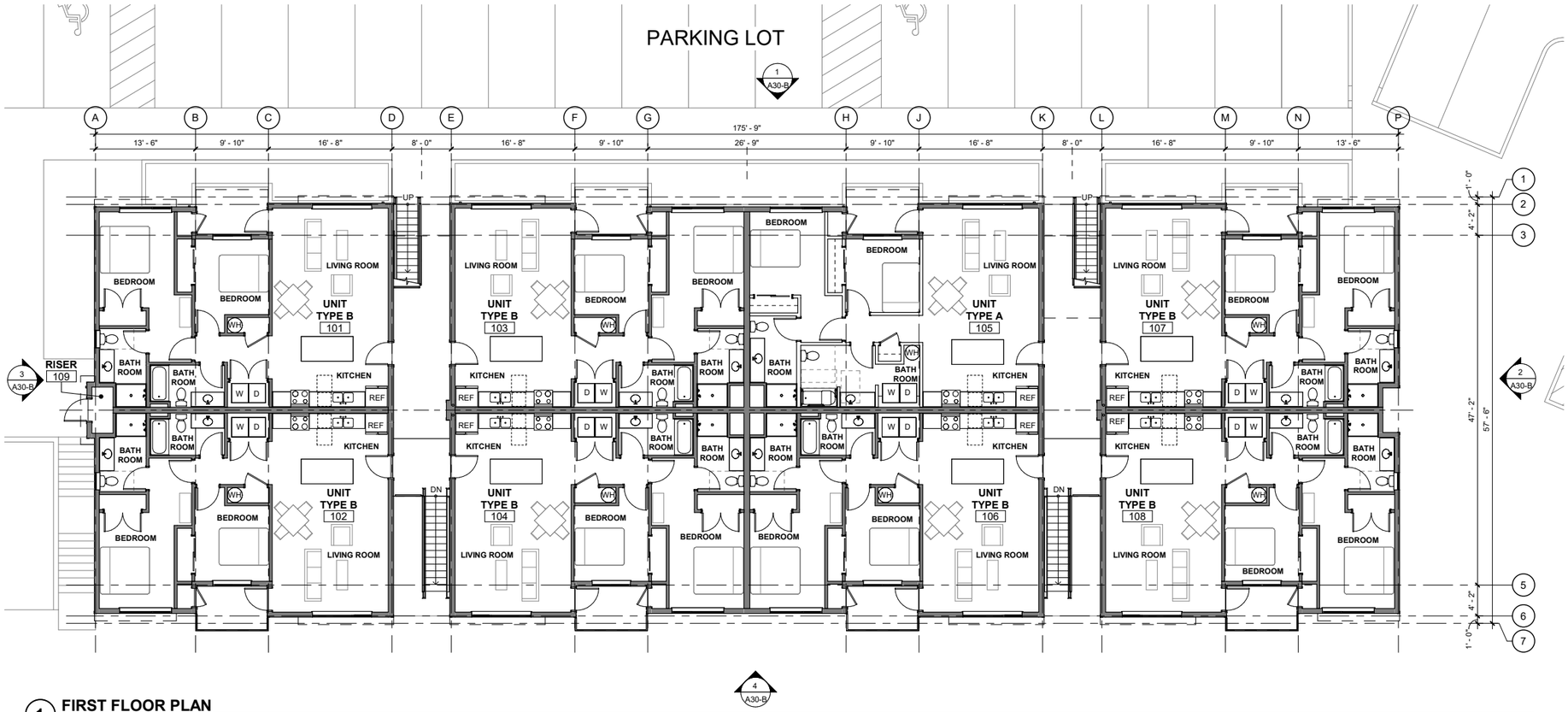
Issue	Date

Drawing:

BASEMENT FLOOR PLAN BUILDINGS C, E

Sheet No:

A20-B



1 FIRST FLOOR PLAN

1/8" = 1'-0"

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CONDITIONAL USE PERMIT	06.28.24
Issue	Date

Drawing:

FIRST FLOOR PLAN
BUILDINGS C, D, E

Sheet No:

A21-B

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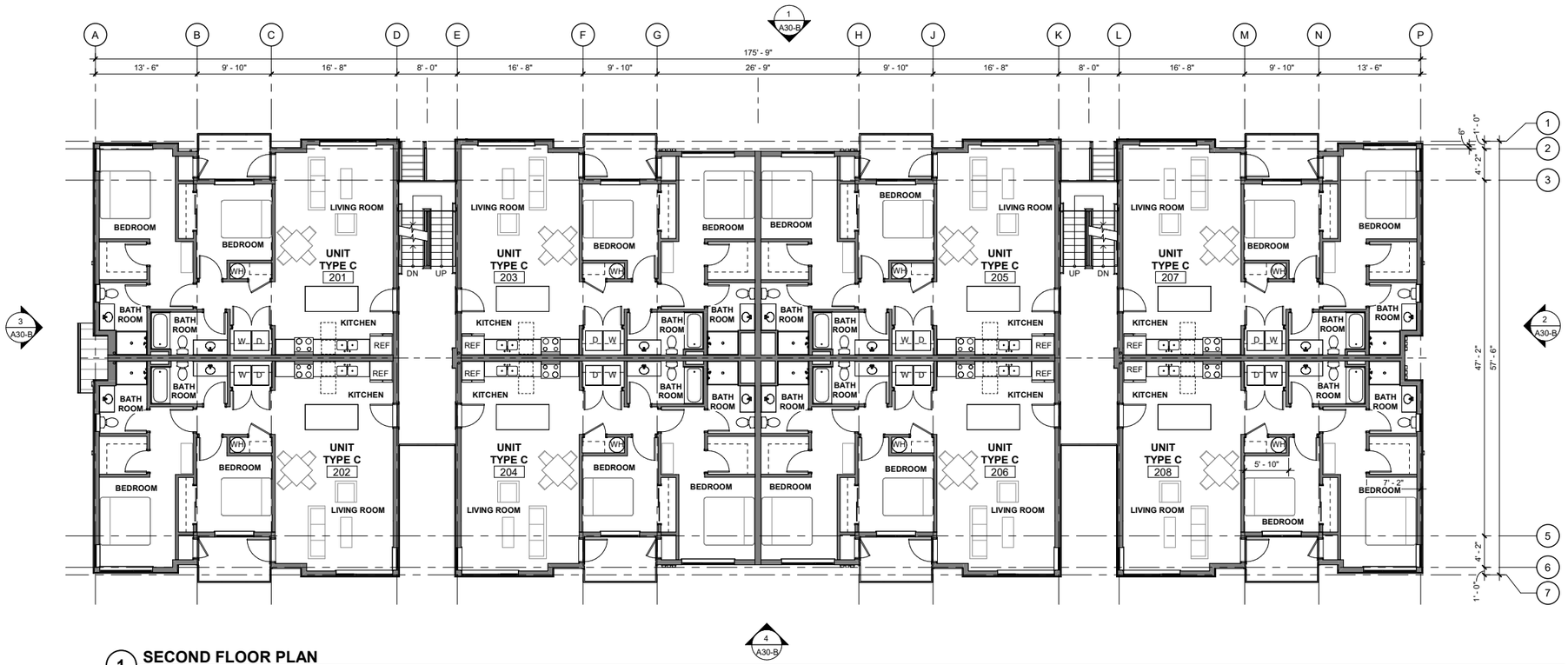

1 SECOND FLOOR PLAN

1/8" = 1'-0"

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NEWBERG, OR 97132

Issue	Date
CONDITIONAL USE PERMIT	06.28.24

Drawing:

SECOND FLOOR PLAN BUILDINGS C, D, E

Sheet No:

A22-B

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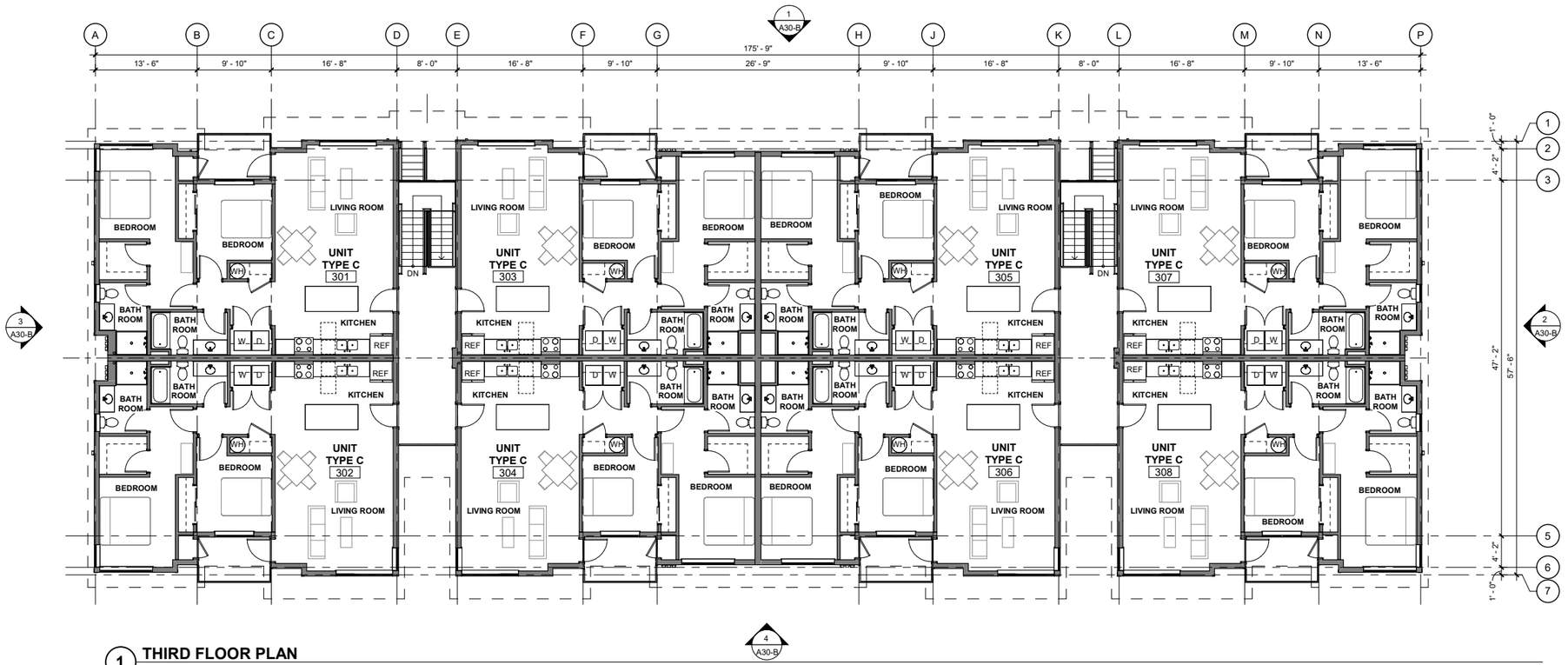

1 **THIRD FLOOR PLAN**
1/8" = 1'-0"

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CONDITIONAL USE PERMIT	06.28.24
Issue	Date

Drawing:

THIRD FLOOR PLAN
BUILDINGS C, D, E

Sheet No:

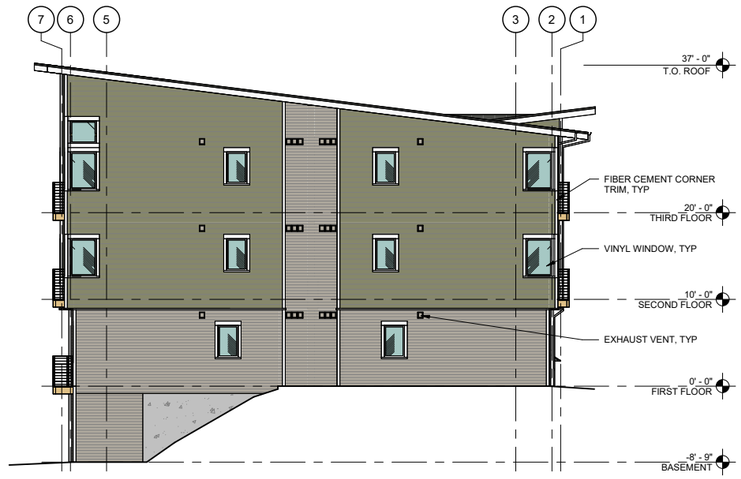
A23-B

FRONT (PARKING LOT) EXTERIOR ELEVATION

1 1/8" = 1'-0"

LEGEND

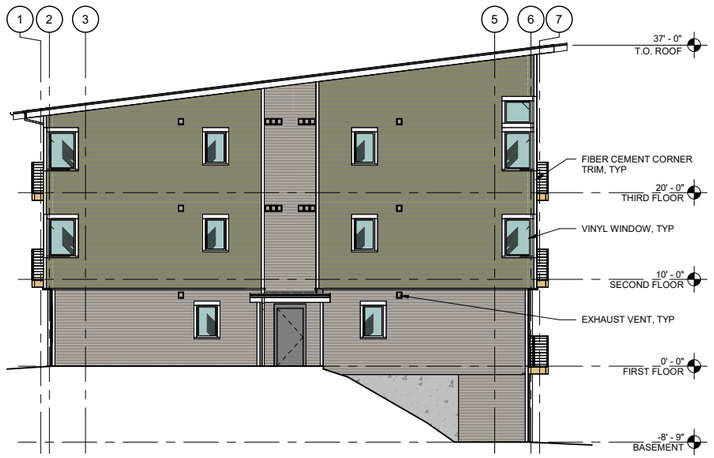
- STANDING SEAM METAL ROOFING
- FIBER CEMENT LAP SIDING - 4" REVEAL
- FIBER CEMENT LAP SIDING - 7" REVEAL
- CONCRETE WALL



SIDE EXTERIOR ELEVATION

2 1/8" = 1'-0"

NOTE: BUILDING D DOES NOT HAVE A BASEMENT.



SIDE EXTERIOR ELEVATION AT RISER ROOM

3 1/8" = 1'-0"

NOTE: BUILDING D DOES NOT HAVE A BASEMENT.

BACK EXTERIOR ELEVATION

4 1/8" = 1'-0"

NOTE: BUILDING D DOES NOT HAVE A BASEMENT.

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WEST BRANCH APTS

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CONDITIONAL USE PERMIT	06.28.24
Issue	Date

Drawing:

EXTERIOR ELEVATIONS BUILDINGS C, D, E

Sheet No:

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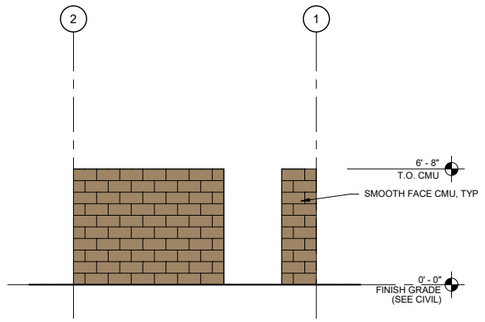
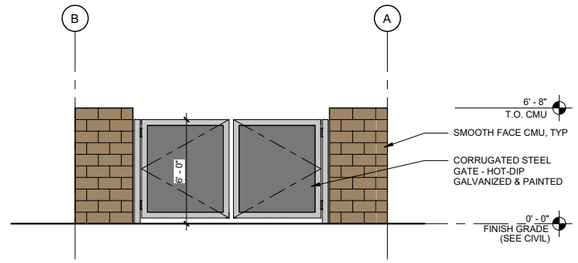
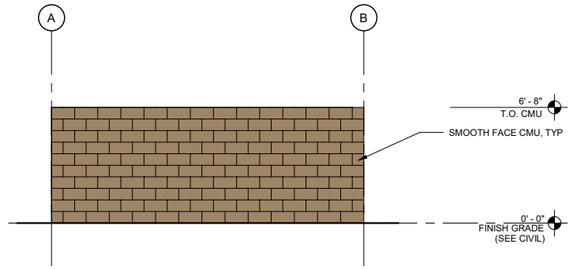


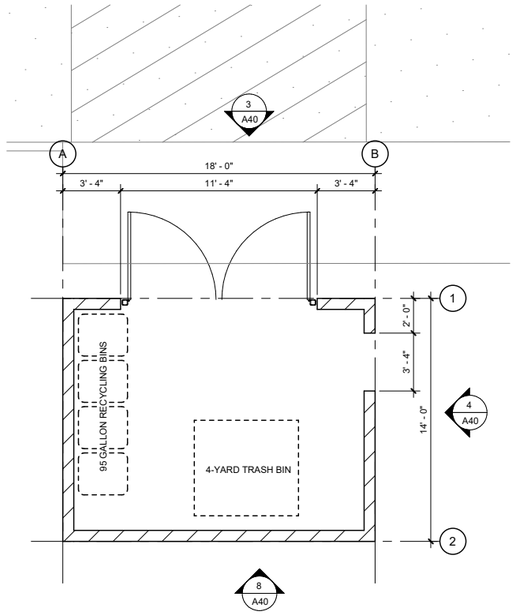
4 SIDE EXTERIOR ELEVATION
1/4" = 1'-0"



3 FRONT EXTERIOR ELEVATION
1/4" = 1'-0"



8 BACK EXTERIOR ELEVATION
1/4" = 1'-0"



7 TRASH ENCLOSURE PLAN
1/4" = 1'-0"

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WEST BRANCH APTS

Job Number: 24017

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NEWBERG, OR 97132

Issue	Date
CONDITIONAL USE PERMIT	06.28.24

Drawing:

TRASH ENCLOSURE

Sheet No:

A40

Exhibit C: Transportation Impact Study

lancaster mobley

West Branch Apartments

Transportation Impact Study

Newberg, Oregon

Date:
July 8, 2024

Prepared for:
Mike Gougler
DMKS LLC

Prepared by:
Daniel Stumpf, PE

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Executive Summary

1. The proposed West Branch Apartments project will include the construction of six, three-story apartment buildings consisting of 96 residential dwelling units on two properties near 3411 E Hayes Street in Newberg, Oregon. Access to the site will be provided via two driveways along E Hayes Street, each located opposite one another.

2. The trip generation calculations show that the proposed development is projected to generate 53 morning peak hour trips, 62 evening peak hour trips, and 690 average weekday trips.

3. No significant trends or crash patterns were identified at any of the study intersections that are indicative of safety concerns. Note the intersection of N Springbrook Road at E Haworth Avenue exhibits a high number of angle/turning movement collisions during the five-year analysis period. Following installation of a traffic signal at the intersection once sufficient proportionate share contributions have been collected (TSP project I09), it is expected the number of these recurring crashes will decrease significantly. No other safety mitigation is recommended per the crash data analysis.

4. Adequate sight distance is available to the east/west of the proposed site access intersection to allow safe and efficient operation along E Haworth Avenue. No sight distance related mitigation is necessary or recommended at the access intersection.

5. Traffic signal warrants were examined for the intersection of N Springbrook Road at E Haworth Avenue to determine whether the installation of a new traffic signal will be warranted at the intersection by the 2030 planning year with the proposed development constructed. Warrant 7 *Crash Experience* is triggered given the number of recurring crashes at the intersection over a single 12-month period that could be mitigated by the installation of a traffic signal. Per the City of Newberg's TSP project I09, a traffic signal is planned for installation at the intersection after sufficient proportionate share contributions have been collected. Aside from contributing an appropriate proportionate share fee toward this improvement project, no further mitigation is necessary or recommended as part of the proposed development application.

6. All study intersections are currently operating acceptably per jurisdictional standards and are projected to continue operating acceptably through the 2025 site buildout year. The intersection of N Springbrook Road at E 2nd Street/E Fernwood Road is projected to exceed ODOT mobility targets during the evening peak hour by the and the future 2030 planning year; however, the planned Newberg-Dundee Bypass project is expected to reroute traffic from the intersection and improve operations to acceptable levels once constructed. Aside from the planned installation of a traffic signal at the intersection of N Springbrook Road at E Haworth Avenue and the planned construction of the Newberg-Dundee Bypass project, no additional operational mitigation is necessary or recommended at the study intersections.

7. No queuing related mitigations are recommended at the intersections of N Springbrook Road at E Haworth Avenue and N Springbrook Road at OR-99W, which are projected to experience occasional 95th percentile queues which exceed some of the available lane storages. All other study intersections and their respective turning movements are provided adequate vehicle storage space. No intersection queuing related mitigation is necessary or recommended as part of the proposed development project.

Project Description

Introduction

The proposed West Branch Apartments project will include the construction of six, three-story apartment buildings consisting of 96 residential dwelling units on two properties near 3411 E Hayes Street in Newberg, Oregon. Access to the site will be provided via two driveways along E Hayes Street, each located opposite one another.

Based on the Pre-Application Meeting Notes, dated March 22, 2023, and correspondence with City of Newberg and Oregon Department of Transportation (ODOT) staff, this report conducts safety and capacity/level of service analyses at the following intersections during the morning and evening peak hours:

1. N Springbrook Road at E Haworth Avenue
2. N Springbrook Road at E Portland Road (OR-99W)
3. N Springbrook Road at E Hayes Street
4. N Springbrook Road at E 2nd Street/E Fernwood Road
5. Site Access at E Hayes Street
6. N Brutscher Street at E Hayes Street

The purpose of this study is to determine whether the transportation system within the vicinity of the site is capable of safely and efficiently supporting the existing and proposed uses, and to determine any mitigation that may be necessary to do so. Detailed information on traffic counts, trip generation calculations, safety analyses, and level of service calculations is included in the appendix to this report.

Location Description

The project site is located east of N Springbrook Road along the north and south sides of E Hayes Street in Newberg, Oregon. The subject site is located within a mixed-use area of the City, with residential uses to the east, an electric utility company to the west, a shopping center to the north/northeast, and a community center/single-family houses to the south.

The project site includes two properties (tax lots R3216-02017 and 02025) which encompass an approximate total of ±4.58 acres. The project site is currently undeveloped but following buildout of the proposed use the site will take access onto E Hayes Street approximately midway along the site frontage with the roadway via right-in/right-out driveways.

Figure 1 presents an aerial image of the nearby vicinity with the project site outlined in yellow.

Figure 1: Aerial Photo of Site Vicinity (Image from Google Earth)

Vicinity Streets

The proposed development is expected to impact seven roadways near the site. Table 1 provides a description of each roadway within the immediate site vicinity.

Table 1: Vicinity Roadway Descriptions

Street Name	Jurisdiction	Functional Classification	Speed (MPH)	On-Street Parking	Curbs & Sidewalks	Bicycle Lanes
E Haworth Avenue	City of Newberg	Major Collector	25	Partially Permitted	Both Sides	None
Portland Road (OR-99W)	ODOT	Major Arterial/ Statewide Hwy	35	Not Permitted	Both Sides	Both Sides
E Hayes Street	City of Newberg	Major Collector	25	Partially Permitted	Partial Both Sides	Both Sides
E 2nd Street	City of Newberg	Major Collector	25	Not Permitted	Both Sides	Both Sides
E Fernwood Street	City of Newberg	Major Collector	25	Not Permitted	North Side	North Side

Table Notes: Functional Classification & Jurisdiction based on City of Newberg TSP and ODOT TransGIS website.

Table 1: Vicinity Roadway Descriptions (Functional Classification)

Street Name	Jurisdiction	Functional Classification	Speed (MPH)	On-Street Parking	Curbs & Sidewalks	Bicycle Lanes
N Springbrook Road (OR-18)	City of Newberg/ ODOT	Minor Arterial/ Statewide Hwy	25/35	Not Permitted	Both Sides	Partial Both Sides
N Brutscher Street	City of Newberg	Major Collector	25	Not Permitted	Both Sides	Partial Both Sides

Table Notes: Functional Classification & Jurisdiction based on City of Newberg TSP and ODOT TransGIS website.

Study Intersections

Based on coordination with City of Newberg and ODOT staff, five existing intersections were identified for analysis. A summarized description of these study intersections, under their existing lane and traffic control configurations, is provided in Table 2.

Table 2: Study Intersection Descriptions

Number	Intersection	Geometry	Traffic Control	Phasing/Stopped Approaches
1	N Springbrook Road at E Haworth Avenue	Four-Legged	Stop-Controlled	All-Way Stop-Controlled
2	N Springbrook Road at OR-99W	Four-Legged	Signalized	Protected NB/SB/EB/WB Left-turns, Channliezed Yield-Controlled EB/WB Right-turns, Overlap NB Right-turn
3	N Springbrook Road at E Hayes Street	Four-Legged	Signalized	FYA NB/SB Left-turns, Permitted EB/WB Approaches
4	N Springbrook Road at E 2nd Street/E Fernwood Road	Four-Legged	Signalized	FYA NB/SB Left-turns
6	N Brutscher Street at E Hayes Street	Four-Legged	Roundabout	All Approaches Yield-Controlled

Table Notes: Flashing-Yellow-Arrow denoted as FYA.

Planned Improvements at N Springbrook Road at E Haworth Avenue

According to the City of Newberg's Transportation System Plan (TSP) project I09, a traffic signal is planned for installation at the intersection of N Springbrook Road at E Haworth Avenue. Additionally, it is expected that the existing eastbound travel lanes will be restriped to a dedicated left-turn lane and shared through/right-turn lane.

Proportionate share fees are currently being collected at the intersection for these improvements. Based on the impact fees required for the in-process Meadow Creek Apartment development, it was estimated that the proportionate share fee rate is approximately $342.47 per morning peak hour trip impact. The proposed development is projected to add 8 morning peak hour site trip impacts to this intersection (see the *Site Trips* section of this report) whereby a proportionate share contribution of $2,739.76 may be attributable to the proposed West Branch Apartments project.

For the purposes of this analysis, the intersection was analyzed assuming operation with the traffic signal/eastbound lane configurations installed/revised for future year 2025 and 2030 conditions.

Transit

According to the Yamhill County Transit website, at the time of writing bus *Routes 5 & 7 – Newberg*, have been suspended until further notice. However, assuming service is resumed by the time the proposed development is constructed the following details transit services located near the project site.

The project site is located near bus line *7 – Newberg-Providence*, which has stops located within a quarter-mile walking/biking distance of the project site. The nearest transit stops to the site are located along/near OR-99W and E 2nd Street where complete sidewalks and marked crossings at intermittent public intersections are available between the site and these transit stops. Weekday service is scheduled from approximately 7:05 AM to 6:25 PM with typical headways of approximately 65 minutes. Weekend and holiday bus service is not provided for this transit route.

A vicinity map showing the project site, vicinity streets, and study intersection configurations is shown in Figure 2.

LEGEND

- STUDY INTERSECTION (EXISTING)
- STUDY INTERSECTION (FUTURE/PROPOSED)
- STOP SIGN
- TRAFFIC SIGNAL
- ROUNDABOUT/ TRAFFIC CIRCLE
- BIKE LANE
- PROJECT SITE
- ARTERIAL ROADWAY
- COLLECTOR ROADWAY
- LOCAL ROADWAY

No Scale

Figure 2

West Branch Apartments

7/8/2024

VICINITY MAP

lancaster mobley

Site Trips

Trip Generation

The proposed development will include the construction of 96 apartment units on two currently undeveloped properties. To estimate the number of trips that will be generated by the proposed use, trip equations from the *Trip Generation Manual*[1] were used. Specifically, data from land use code 220, *Multifamily Housing (Low-Rise)*, was used to estimate site trip generation based on the number of dwelling units.

The trip generation calculations show that the proposed development is projected to generate 53 morning peak hour trips, 62 evening peak hour trips, and 690 average weekday trips. The trip generation estimates associated with the proposed development are summarized in Table 3 and detailed trip generation calculations are included in the appendix.

Table 3: Trip Generation Summary

	ITE Code	Size	Morning Peak Hour			Evening Peak Hour			Weekday Total
			Enter	Exit	Total	Enter	Exit	Total	
Proposed Apartment	220	96 units	13	40	53	39	23	62	690

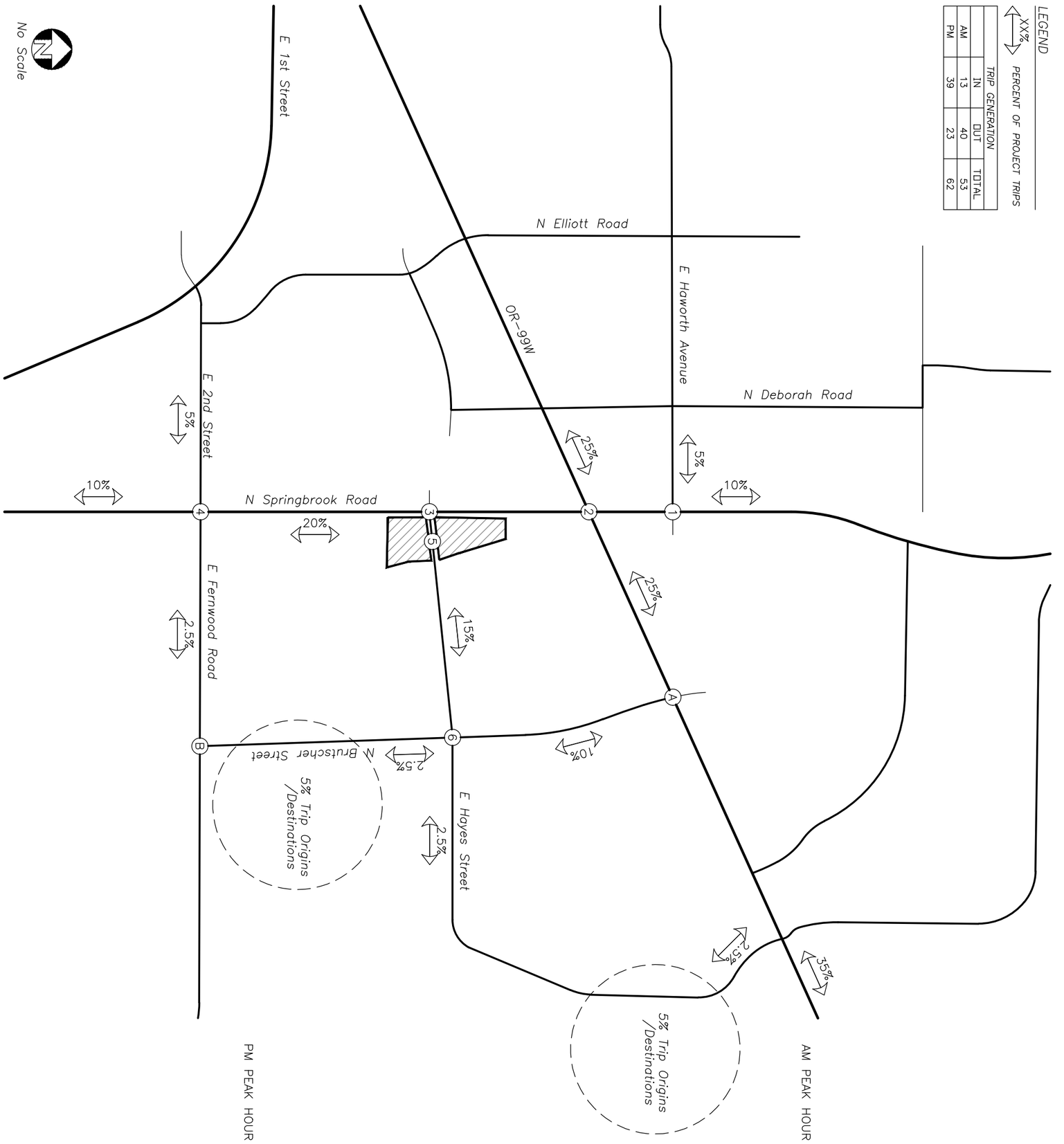
Trip Distribution

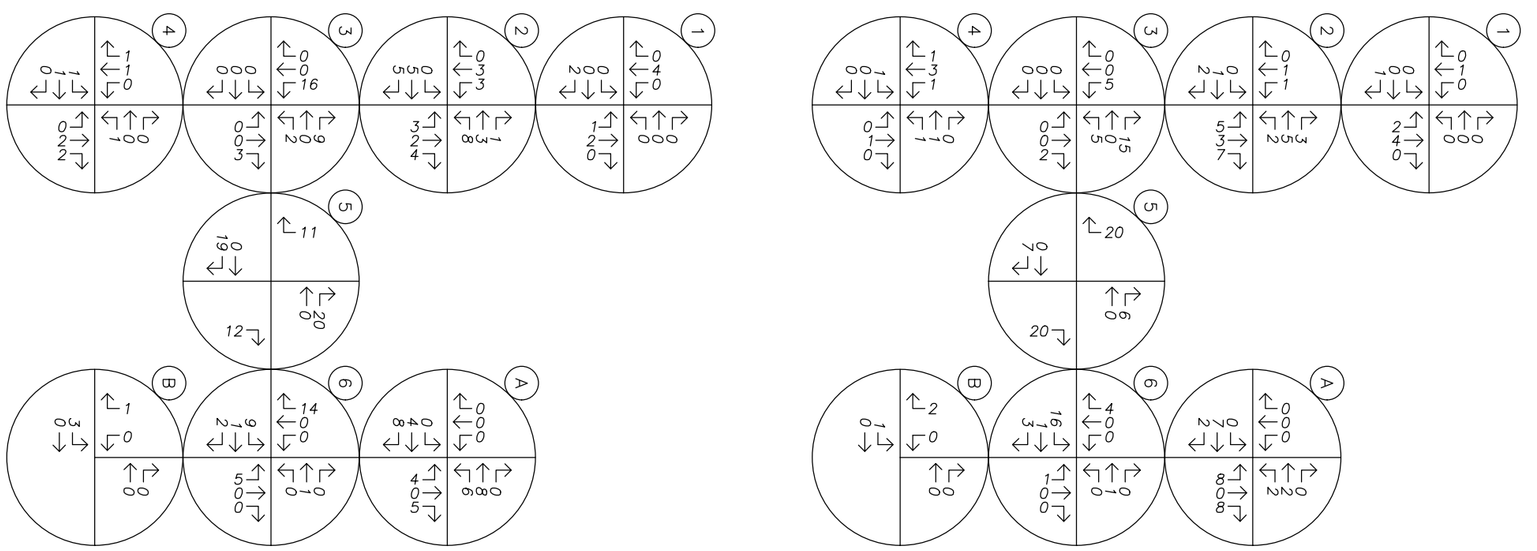
The directional distribution of site trips to/from the project site was estimated based on the locations of likely trip destinations and locations of major transportation facilities in the site vicinity. Based on correspondence with City of Newberg and ODOT staff, the following trip distribution was confirmed and utilized:

- Approximately 35 percent of site trips will travel to/from the east along OR-99W.
- Approximately 25 percent of site trips will travel to/from the west along OR-99W.
- Approximately 10 percent of site trips will travel to/from the north along N Springbrook Road.
- Approximately 10 percent of site trips will travel to/from the south along N Springbrook Road.
- Approximately 5 percent of site trips will travel to/from the west along E Haworth Avenue.
- Approximately 5 percent of site trips will travel to/from the east along E Hayes Street.
- Approximately 10 percent of site trips will travel to/from locales within the immediate site vicinity.

The trip distribution and assignment for the site trips generated during the morning and evening peak hours is shown in the Figure 3.

[1] Institute of Transportation Engineers (ITE), *Trip Generation Manual*, 11th Edition, 2021.





SITE TRIP DISTRIBUTION & ASSIGNMENT

Proposed Development Plan - Site Trips

AM & PM Peak Hours

Figure 3

West Branch Apartments

7/8/2024

Traffic Volumes

2023 Existing Conditions

Traffic counts were conducted at the study intersections on Tuesday, September 12, 2023, from 6:00/7:00 AM to 9:00 AM and from 3:00/4:00 PM to 6:00 PM. Data was used from each intersection's respective morning and evening peak hours.

Per the requirements established in ODOT's *Analysis Procedures Manual*[2] (APM), the following seasonal/average annual adjustment factors were calculated for the September counts and applied to the total intersection peak volumes for study intersections along OR-99W and N Springbrook Road, south of OR-99W:

- OR-99W intersection: 0.9461 (annual average weekday volumes)
- N Springbrook Road intersections: 1.0326 (30th highest hour volumes)

The annual average weekday volumes for OR-99W were calculated in accordance with an Oregon Highway Plan (OHP) amendment, where the Oregon Transportation Commission (OTC) adopted alternative mobility targets for OR-99W at a location from N Springbrook Road to the eastern City limits, as described in the *Alternative Mobility Targets for OR 99W and OR 219 in Newberg* memorandum, dated February 13, 2020. To calculate the annual average weekday volumes the *On-site Automatic Traffic Recorder* (ATR) *Method* was used. This method referenced average weekday September traffic volumes along OR-99W at a location approximately 0.01 miles west of Brutscher Street (ATR Station 36-004) from years 2018 through 2022. Given this ATR Station is located within approximately a quarter mile of the N Springbrook Road at OR-99W intersection and there are no major intermittent intersections between the two locations, the use of the *On-site ATR Method* is appropriate to determine the annual average weekday adjustment factor. Based on this analysis, on average the September weekday volumes at this ATR were approximately 105.7 percent greater than the Annual Average Daily Traffic volumes, whereby an annual average weekday adjustment factor of 0.9461 was calculated.

To determine the 30th highest hour volumes for N Springbrook Road (i.e. the segment south of OR-99W), ODOT's Seasonal Trend Table was referenced. Utilizing Commuter trend data, a 30th highest hour seasonal adjustment factor of 1.0326 was calculated.

Figure 4 shows the existing traffic volumes at the study intersections during the morning and evening peak hours.

[2] Oregon Department of Transportation, *Analysis Procedures Manual Version 2*. December 2019.

2025 Background Conditions

To provide an analysis of the impact of the proposed development on the nearby transportation facilities, an estimate of future traffic volumes is required. It is expected that the proposed development will be constructed and in operation by year 2025.

Volume Growth

In order to approximate the future year 2025 traffic volumes at the study intersections, a linear growth rate of 1.68 percent per year for an assumed buildout condition of two years was applied to the measured 2023 existing traffic volumes. At the direction of ODOT staff, this growth rate was derived utilizing 2018/2040 travel demand modeling data. Note that the 2040 modeling data took into consideration the completion of the Newberg-Dundee Bypass Phase 2 project which subsequently reduces traffic volumes along OR-99W, E 2nd Street, E Fernwood Road, and N Springbrook Road south of OR-99W. To maintain a conservative evaluation of future traffic volumes, construction of this Bypass project was not taken into consideration as part of this analysis, where all applicable roadway segments in the modeling data that showed a decrease in future volumes were disregarded when developing the 1.68 percent per year growth rate.

In-Process Development Traffic

In addition to the traffic volume growth described above, there are several in-process developments within the site vicinity that are currently approved but not yet fully constructed or occupied. The following projects were assumed to be completed and occupied prior to year 2025:

- Meadow Creek Apartments (Phase 2): 74 apartment units at located at tax lots 100 and 200 addressed at 1306 N Springbrook Road.
- Marriot Hotel: 79 guest room hotel located at tax lots 1900 and 2002 north of the Argyle Winery Distribution Center addressed at 800 Brutscher Street.
- Haworth Apartments: 30 apartment units at tax lot 800 west of the Springbrook Plaza Shopping Center addressed at 1000 N Springbrook Road.
- Springbrook District Development Agreement (Collina Subdivision): 405 single-family houses located at tax lots 4900, 5000, 5100, 5200, 5300, 5400, 6200, and 6300 addressed at/near 1421 E Mountainview Drive.

The in-process developments are not currently/fully contributing trips to the transportation system but may potentially be by the assumed 2025 buildout year of the proposed development. Additional trips corresponding to each in-process development were added to the 2023 existing year traffic volumes in addition to the two years of traffic growth at each of the applicable study intersections. To maintain a conservative analysis of operation at the study intersections, the in-process developments were assumed to be fully built-out by year 2025.

Figure 5 shows the projected year 2025 background traffic volumes at the study intersections during the morning and evening peak hours. A figure depicting in-process trips is included in the appendix to this report.

2025 Buildout Conditions

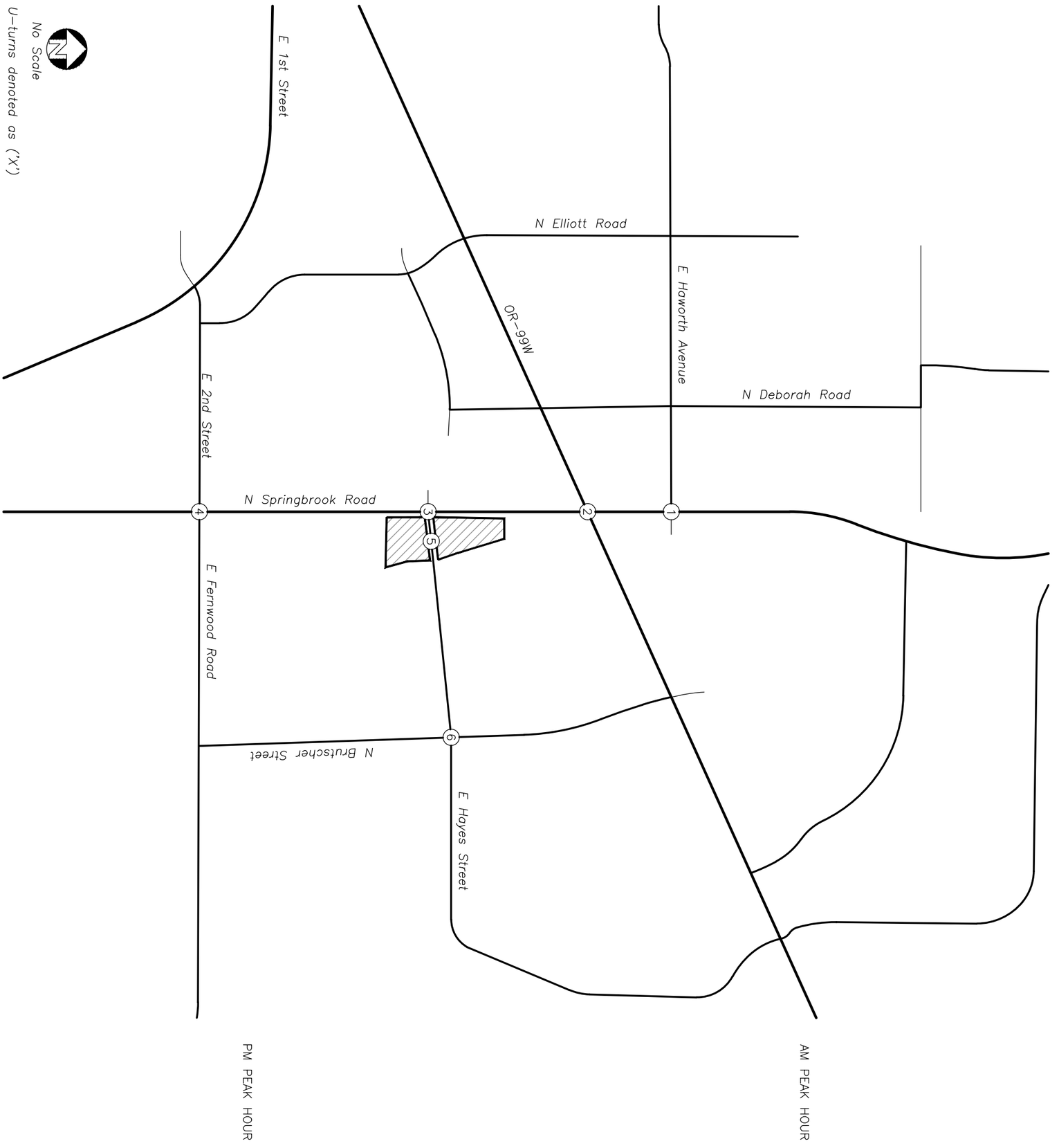
Peak hour trips calculated to be generated by the proposed development, as described earlier within the *Site Trips* section, were added to the projected year 2025 background traffic volumes to obtain the expected 2025 site buildout volumes.

Figure 6 shows year 2025 buildout traffic volumes at the study intersections during the morning and evening peak hours.

2030 Planning Year Conditions

At the direction of City of Newberg staff, an additional future year analysis scenario was prepared which reviews traffic conditions five years beyond the assumed 2025 buildout year of the site. The traffic volumes were estimated in a manner consistent with the methodologies discussed in the aforementioned sections, with the exception the growth rate was applied to the existing year traffic volumes over a seven-year period to estimate 2030 traffic conditions.

Figure 7 shows year 2030 planning year traffic volumes at the study intersections during the morning and evening peak hours.



TRAFFIC VOLUMES

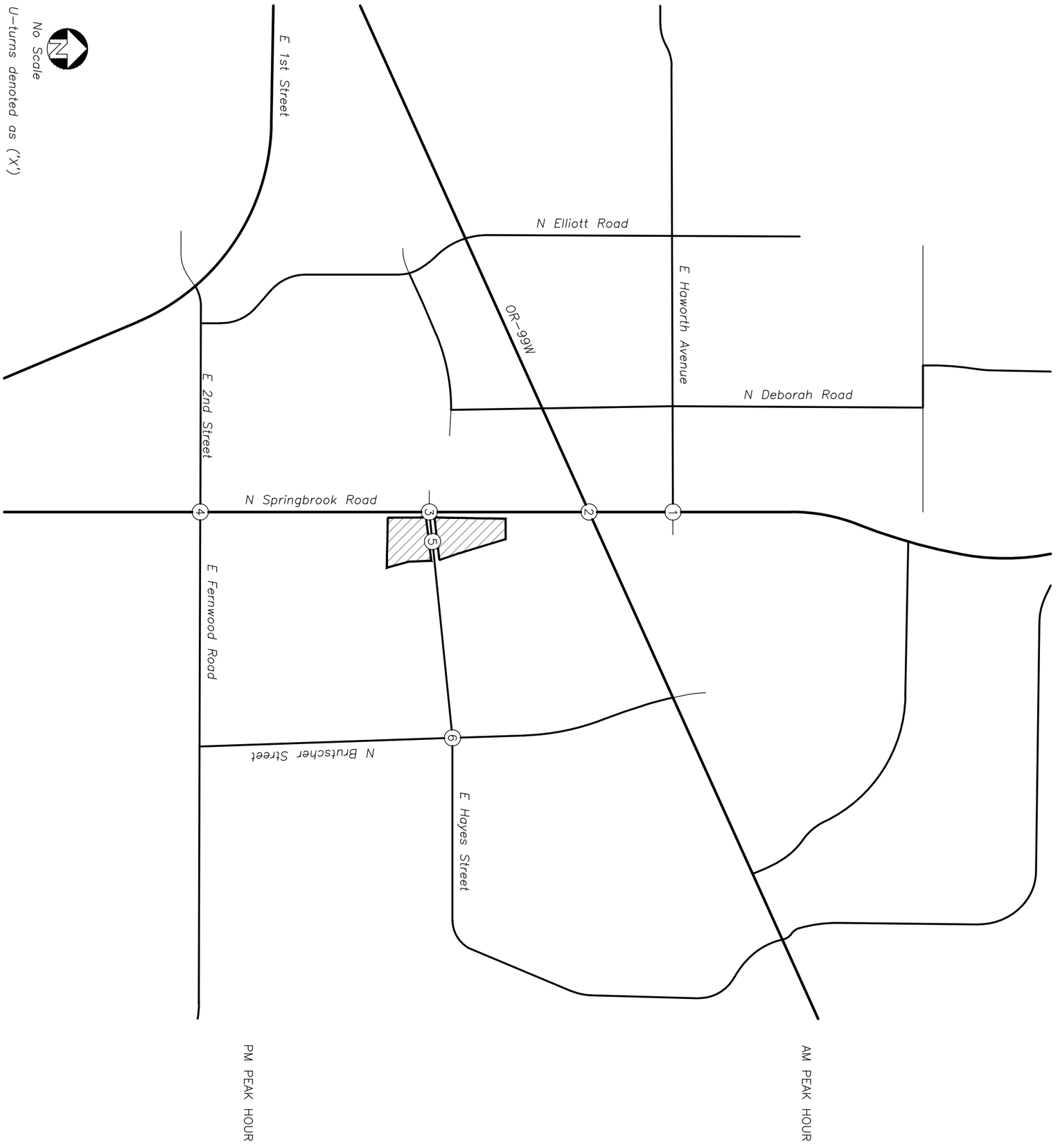
Year 2023 Existing Conditions

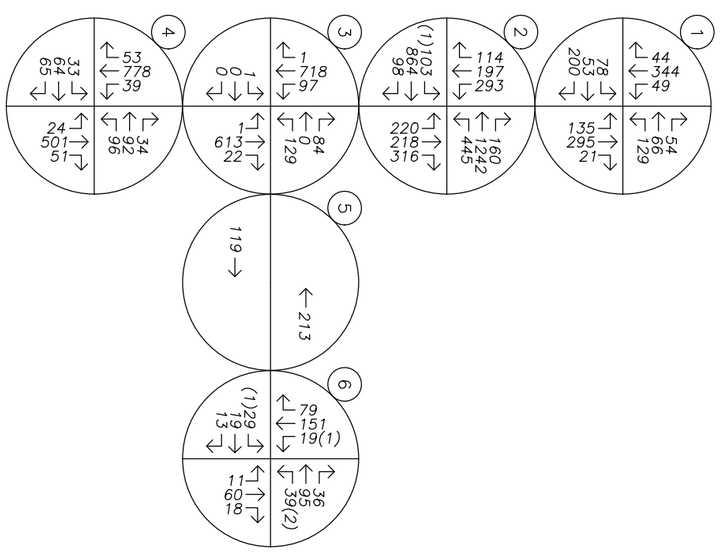
AM & PM Peak Hours

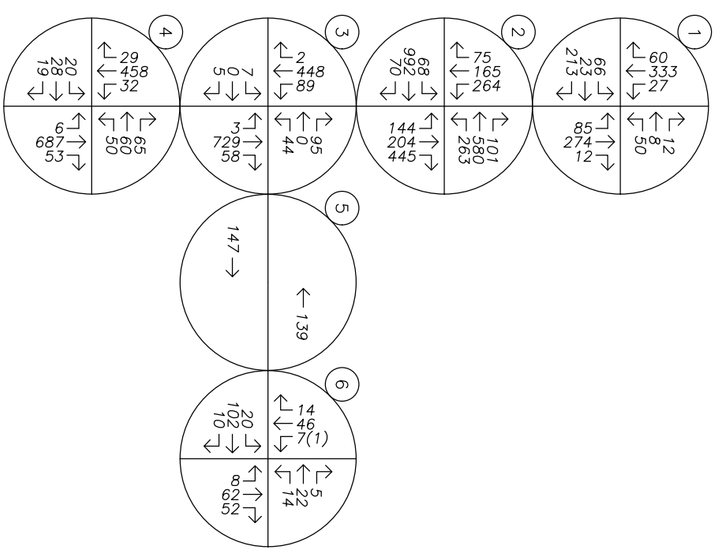
Figure 4

West Branch Apartments

7/8/2024







TRAFFIC VOLUMES

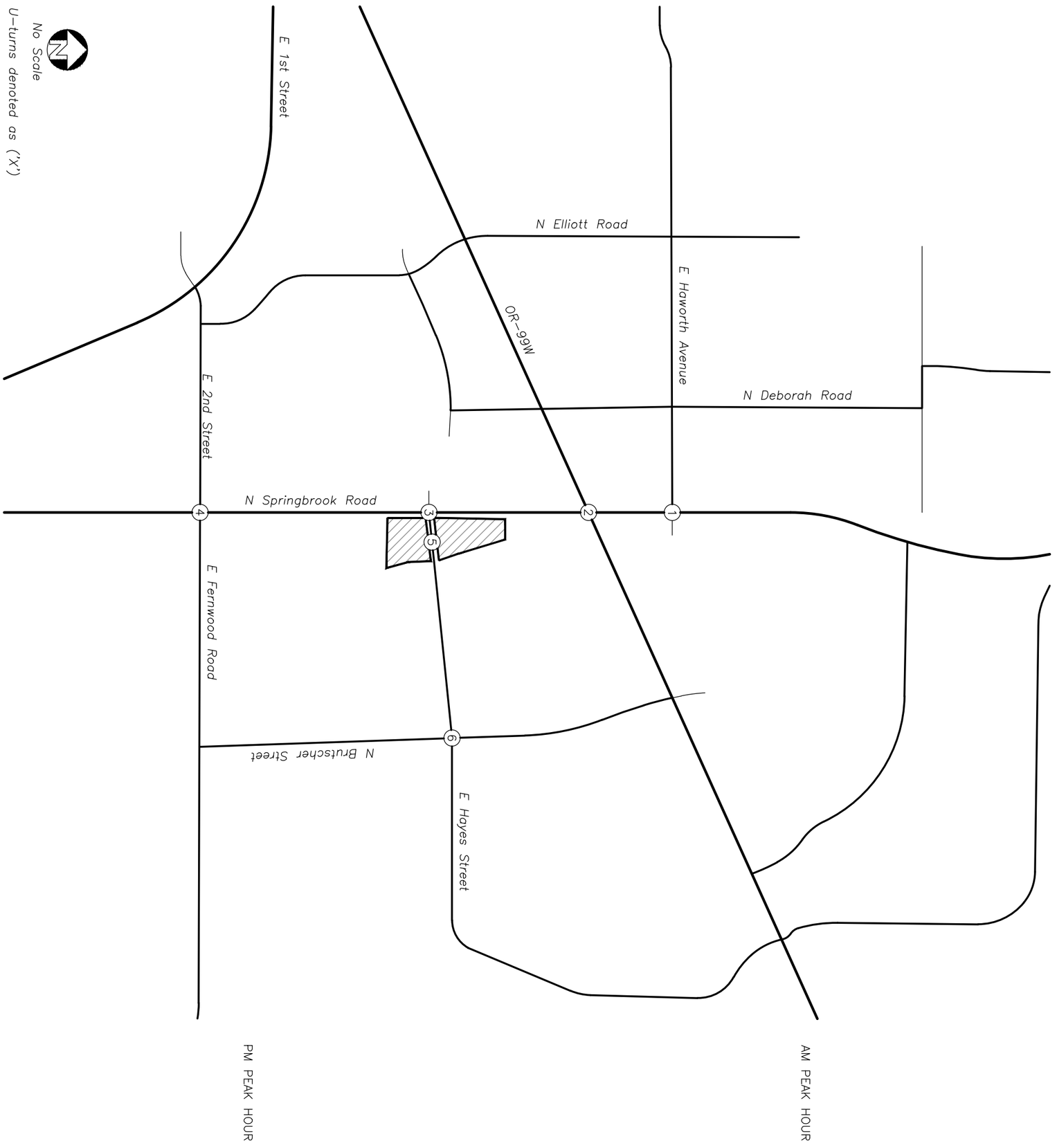
Year 2025 Background Conditions

AM & PM Peak Hours

Figure 5

West Branch Apartments

7/8/2024



TRAFFIC VOLUMES

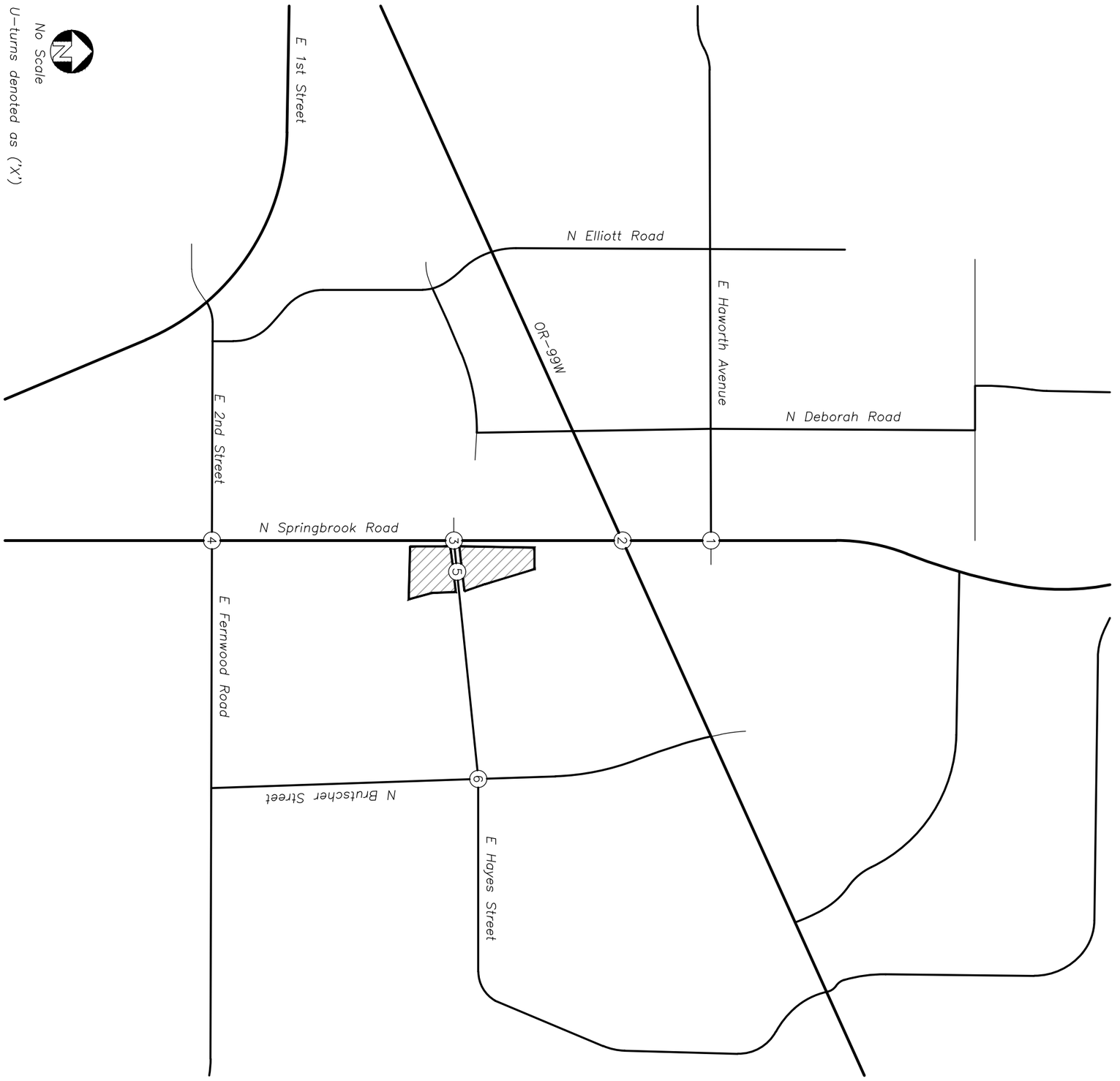
Year 2025 Buildout Conditions

AM & PM Peak Hours

Figure 6

West Branch Apartments

7/8/2024



TRAFFIC VOLUMES

Year 2030 Future Conditions

AM & PM Peak Hours

Figure 7

West Branch Apartments

7/8/2024

Safety Analysis

Crash History Review

Using data obtained from ODOT's Crash Analysis and Reporting Unit, a review was performed of the most recent five years of available crash data at the study intersections (January 2017 through December 2021). The crash data was evaluated based on the number of crashes, the type of collisions, the severity of the collisions, and the resulting crash rate for each intersection.

Crash rates provide the ability to compare safety risks at different intersections by accounting for both the number of crashes that have occurred during the study period and the number of vehicles that typically travel through the intersection. Crash rates were calculated under the common assumption that traffic counted during the evening peak hour represents approximately ten percent of annual average daily traffic (AADT) at each intersection. Crash rates in excess of 1.00 crashes per million entering vehicles (CMEV) may be indicative of design deficiencies and therefore require a need for further investigation and possible mitigation.

The study intersections along N Springbrook Road, along and south of OR-99W, are ODOT facilities which adhere to the crash analysis methodologies in ODOT's APM. According to *Exhibit 4-1: Intersection Crash Rates per MEV by Land Type and Traffic Control* of the APM, intersections which experience crash rates in excess of their respective 90th percentile crash rates should be "flagged for further analysis". For intersections in urban settings, the following average and 90th percentile rates are applicable to the study intersection:

- Signalized, Four-Legged Intersections:
    - Average rate of 0.477 CMEV.
    - 90th percentile rate of 0.860 CMEV.

With regard to crash severity, ODOT classifies crashes in the following categories:

- Property Damage Only (PDO);
- Possible Injury – Complaint of Pain (Injury C);
- Non-Incapacitating Injury (Injury B);
- Incapacitating Injury – Bleeding, Broken Bones (Injury A); and
- Fatality or Fatal Injury.

Table 4 provides a summary of crash types while Table 5 summarizes crash severities and rates for each of the study intersections. Detailed crash data is provided in the appendix to this report.

Table 4: Crash Type Summary

Number	Intersection	Crash Type						Total
		Rear End	Turn/ Angle	Fixed Object	Side swipe	Ped/ Bike	Other	
1	N Springbrook Road at E Haworth Avenue	1	18	0	0	0	0	19
2	N Springbrook Road at OR-99W	46	6	0	7	4	0	63
3	N Springbrook Road at E Hayes Street	8	2	0	0	0	0	10
4	N Springbrook Road at E 2nd Street/Fernwood Road	4	5	0	0	3	0	12
6	N Brutscher Street at E Hayes Street	1	4	0	0	0	0	5

Table 5: Crash Severity and Rate Summary

Number	Intersection	Crash Severity						Total Crashes	AADT	Crash Rate
		PDO	C	B	A	Fatal	Unknown			
1	N Springbrook Road at E Haworth Avenue	9	7	2	1	0	0	19	13,310	0.782
2	N Springbrook Road at OR-99W	27	29	6	1	0	0	63	40,400	0.854
3	N Springbrook Road at E Hayes Street	4	6	0	0	0	0	10	15,860	0.345
4	N Springbrook Road at E 2nd Street/Fernwood Road	3	6	2	1	0	0	12	17,350	0.379
6	N Brutscher Street at E Hayes Street	5	0	0	0	0	0	5	5,290	0.518

Table Notes: ***BOLDED*** *text indicates a crash rate in excess of 1.00 CMEV or ODOT's 90th percentile rate.*

Based on a review of the crash data, there were several crashes that involved either a pedestrian/bicyclist or were classified as Injury A. Detailed descriptions of these crashes and intersections is provided below.

N Springbrook Road at E Haworth Avenue

The intersection of N Springbrook Road at E Haworth Avenue had one reported crash that was classified as Injury A. The crash occurred when the driver of a northbound passenger car disregarded intersection traffic controls and collided with a westbound right-turning passenger car. A third passenger car that was stopped in the eastbound direction of travel was struck by one of the other vehicles after the initial collision. The driver of the vehicle that instigated the collision sustained injuries consistent with Injury B classification while a passenger in the same vehicle sustained injuries consistent with Injury A classification. The occupants of the two other vehicles did not sustain any reported injuries.

Upon closer inspection of the crash data, 18 of the 19 crashes reported at the intersection (i.e. approximately 95 percent of all reported crashes) were classified as angle/turning movement collisions. Per the City of Newberg's TSP project I09, a traffic signal is planned for installation at the intersection. Following installation of the traffic signal after sufficient proportionate share contributions have been collected, it is expected that the number of recurring angle/turning movement collisions at the intersection will decrease.

N Springbrook Road at OR-99W

The intersection of N Springbrook Road at OR-99W had five reported crashes that either involved a pedestrian or was classified as Injury A.

- One of the pedestrian-related crashes occurred when the driver of an eastbound right-turning passenger car failed to yield right-of-way to a pedestrian who was utilizing an intersection crosswalk. The pedestrian sustained injuries consistent with Injury C classification while the driver of the passenger car was uninjured.
- The second pedestrian-related collision occurred when the driver of a northbound right-turning passenger car failed to yield right-of-way to a north/south crossing pedestrian who was utilizing an intersection crosswalk. The pedestrian sustained injuries consistent with Injury B classification while the driver of the passenger car was uninjured.
- The third pedestrian-related collision occurred when the driver of an eastbound right-turning passenger car failed to yield right-of-way to a pedestrian who was utilizing an intersection crosswalk. The pedestrian sustained injuries consistent with Injury C classification while the driver of the passenger car was uninjured.
- The fourth pedestrian-related collision occurred when the driver of a northbound left-turning passenger car was driving carelessly and failed to yield right-of-way to a north/south crossing pedestrian who was utilizing an intersection crosswalk. The pedestrian sustained injuries consistent with Injury C classification while the driver of the passenger car was uninjured.
- The crash that was classified as Injury A occurred when the driver of a southwest-bound passenger car disregarded intersection traffic controls and collided with a southbound passenger car. All occupants of the southbound vehicle sustained injuries consistent with Injury C classification. The driver of the southwest-bound vehicle sustained no injuries while the two passengers of the vehicle sustained injuries classified as Injury C and Injury A.

N Springbrook Road at E 2nd Street/E Fernwood Road

The intersection of N Springbrook Road at E 2nd Street/E Fernwood Road had three reported crashes that either involved a pedestrian/bicyclist or was classified as Injury A.

- One of the pedestrian-related crashes occurred when the driver of an eastbound left-turning passenger car failed to yield right-of-way to an east/west crossing pedestrian who was utilizing an intersection crosswalk. The pedestrian sustained injuries consistent with Injury C classification while the driver of the passenger car was uninjured.
- The second pedestrian-related crash occurred when the driver of a westbound left-turning passenger car failed to yield right-of-way to an east/west crossing pedestrian who was utilizing an intersection crosswalk. The pedestrian sustained injuries consistent with Injury A classification while the driver of the passenger car was uninjured.
- The bicycle-related crash occurred when a westbound traveling bicyclist was traveling in the wrong direction of traffic, disregarded traffic controls, and failed to yield right-of-way to a westbound left-turning passenger car. The bicyclist sustained injuries consistent with Injury C classification while the driver of the passenger car was uninjured.

Analysis Findings

Based on a review of available crash data, no significant trends or crash patterns were identified at any of the study intersections that are indicative of safety concerns. Note the intersection of N Springbrook Road at E Haworth Avenue exhibited a high number of angle/turning movement collisions during the five-year analysis period. Following installation of a traffic signal at the intersection once sufficient proportionate share contributions have been collected (TSP project I09), it is expected the number of these recurring crashes will decrease significantly. No other safety mitigation is recommended per the crash data analysis.

Sight Distance Evaluation

Intersection sight distances were measured at the proposed site access driveways along E Hayes Street and evaluated in accordance with the standards established in *A Policy of Geometric Design of Highways and Streets*[3].

Methodology

According to AASHTO, the driver's eye is assumed to be approximately 15 feet (specifically 14.5 feet) from the near edge of the nearest travel lane of the intersecting street and at a height of 3.5 feet above the minor-street approach pavement. The vehicle driver's eye height along the major-street approach is assumed to be 3.5 feet above the cross-street pavement. Based on a posted speed of 25 mph along E Hayes Street, the minimum recommended intersection sight distances include the following:

- South Site Access Driveway along E Hayes Street: 240 feet to the west for right-turn vehicles.
- North Site Access Driveway along E Hayes Street: 240 feet to the east for right-turn vehicles.

[3] American Association of State Highway and Transportation Officials (AASHTO), *A Policy on Geometric Design of Highways and Streets*, 6th Edition, 2011.

Per the AASHTO manual intersection sight distance is an operation measure intended to provide sufficient line of sight along the major-street so that a driver could turn from the minor-street approach without impeding traffic flow. Conversely, stopping sight distance is considered the minimum requirement to ensure safe operation of an intersection. This is the distance that allows an oncoming driver to see a hazard on the roadway, react, and come to a complete stop, if necessary, to avoid a collision. Based on the posted speed of 25 mph along E Hayes Street, the minimum required stopping sight distance is 165 feet, assuming downhill major-street approach grades of approximately 4.5 percent.

Field Measurements

At the proposed north access driveway along E Hayes Street, sight distance to the west was measured back to the intersection of N Springbrook Road at E Hayes Street, approximately 220 feet away, noting that sight distance extends back into the west intersection leg at a distance greater than 300 feet. At the proposed south access driveway along E Hayes Street, sight distance to the east was measured to be in excess of 300 feet.

Analysis Findings

Based on the above measurements, adequate sight distance is available to the east/west of the proposed site access intersection to allow safe and efficient operation along E Haworth Avenue. No sight distance related mitigation is necessary or recommended at the access intersection.

Warrant Analysis

Traffic signal warrants were examined for the unsignalized study intersection of N Springbrook Road at E Haworth Avenue to determine whether the installation of a new traffic signal will be warranted at the intersection by the 2030 planning year with the proposed development constructed. Referring to the *Crash History Review* section, Warrant 7 *Crash Experience* is triggered given the number of recurring crashes at the intersection over a single 12-month period that could be mitigated by the installation of a traffic signal. Per the City of Newberg's TSP project I09, a traffic signal is planned for installation at the intersection after sufficient proportionate share contributions have been collected. Aside from contributing an appropriate proportionate share fee toward this improvement project, no further mitigation is necessary or recommended as part of the proposed development application.

Intersection Capacity Analysis

A capacity and delay analysis were conducted for each of the study intersections per the signalized and unsignalized intersection analysis methodologies in the *Highway Capacity Manual* (HCM)[4]. Intersections are generally evaluated based on the average control delay experienced by vehicles and are assigned a grade according to their operation. The level of service (LOS) of an intersection can range from LOS A, which indicates very little or no delay experienced by vehicles, to LOS F, which indicates a high degree of congestion and delay. The volume-to-capacity (v/c) ratio is a measure that compares the traffic volumes (demand) against the available capacity of an intersection.

Performance Standards

The operating standards adopted by the City of Newberg and ODOT are summarized below.

City of Newberg

According to the City of Newberg's TSP and Public Works Design and Construction Standards, intersections under City jurisdiction are required to operate at a minimum LOS D or better with a v/c ratio of 0.90 or less.

ODOT

Per an Oregon Highway Plan (OHP) amendment, the Oregon Transportation Commission (OTC) has adopted alternative mobility targets for OR-99W at a location from N Springbrook Road to the eastern City limits. As described in the *Alternative Mobility Targets for OR 99W and OR 219 in Newberg* memorandum, dated February 13, 2020, the intersection of N Springbrook Road at OR-99W is required to operate with a v/c ratio no greater than 1.00.

For the roadway of N Springbrook Road (OR-18) between OR-99W and OR-219, this segment of N Springbrook Road is classified as a Statewide Highway, Freight Route, and Expressway with a posted speed of 35 mph. According to the OHP, intersections along this type of roadway are to operate with a v/c ratio of 0.85 or less.

Delay & Capacity Analysis

The City of Newberg's TSP project I09, a traffic signal is planned for installation at the intersection of N Springbrook Road at E Haworth Avenue. Additionally, it is expected that the existing eastbound travel lanes will be restriped to a dedicated left-turn lane and shared through/right-turn lane. For the purposes of this analysis, the intersection was analyzed assuming operation with the traffic signal/eastbound lane configurations installed/revised for future year 2025 and 2030 conditions.

The LOS, delay, and v/c results of the capacity analysis are shown in Table 6 for the morning and evening peak hours. The TrafficWare Synchro software utilized for analysis does not report the overall v/c ratio of signalized intersections in the HCM 6th Edition capacity reports. For these intersections, the v/c ratio was calculated based on methods detailed in ODOT's APM *Section 13 Signalized Intersection Analysis*. Detailed calculations as well as tables showing the relationship between delay and LOS are included in the appendix to this report.

[4] Transportation Research Board, *Highway Capacity Manual 6th Edition*, 2016.

Table 6: Capacity Analysis Summary

Analysis Scenario	AM Peak Hour			PM Peak Hour		
	LOS	Delay (s)	v/c	LOS	Delay (s)	v/c
1. N Springbrook Road at E Haworth Avenue						
2023 Existing Conditions	C	18	0.73	C	22	0.77
2025 Background Conditions*	B	11	0.51	B	15	0.67
2025 Buildout Conditions*	B	11	0.51	B	15	0.67
2030 Future Conditions*	B	12	0.55	B	16	0.73
2. N Springbrook Road at OR-99W						
2023 Existing Conditions	C	33	0.71	D	37	0.76
2025 Background Conditions	D	36	0.75	D	38	0.81
2025 Buildout Conditions	D	36	0.76	D	39	0.81
2030 Future Conditions	D	39	0.82	D	45	0.87
3. N Springbrook Road at E Hayes Street						
2023 Existing Conditions	A	4	0.70	A	9	0.62
2025 Background Conditions	A	4	0.73	A	10	0.65
2025 Buildout Conditions	A	4	0.74	A	10	0.66
2030 Future Conditions	A	4	0.80	B	11	0.69
4. N Springbrook Road at E 2nd Street/E Fernwood Road						
2023 Existing Conditions	B	12	0.70	B	16	0.76
2025 Background Conditions	B	13	0.74	B	18	0.80
2025 Buildout Conditions	B	13	0.74	B	18	0.81
2030 Future Conditions	B	15	0.80	C	21	**0.88**
5. Site Access at E Hayes Street						
2024 Buildout Conditions	A	9	0.03	A	9	0.01
2029 Future Conditions	A	9	0.03	A	9	0.01
6. N Brutscher Street at E Hayes Street						
2023 Existing Conditions	A	4	0.12	A	4	0.22
2025 Background Conditions	A	4	0.13	A	5	0.24
2025 Buildout Conditions	A	4	0.14	A	5	0.26
2030 Future Conditions	A	4	0.16	A	5	0.28

Table Notes: ***BOLDED*** *text indicates intersection operation above jurisdictional standards.*

** Traffic Signal Installed.*

Based on the results of the operational analysis, the intersection of N Springbrook Road at E 2nd Street/E Fernwood Road is projected to operate with a v/c ratio of 0.88 by the 2030 planning year during the evening peak hour.

According to ODOT's website[5], Phase 2B of the Newberg-Dundee Bypass project will construct a highway connection approximately between the intersection of Hillsboro-Silverton Highway (OR-219) at Salmon River Highway (OR-18) and the intersection of NE Corral Creek Road at OR-99W. The bypass project is expected to reroute some traffic from OR-99W and the segment of N Springbrook Road south of OR-99W to the proposed bypass. This revision in travel patterns is expected to decrease traffic volumes at the intersection of N Springbrook Road at E 2nd Street/E Fernwood Road by approximately 53.9 percent according to ODOT's 2018/2040 travel demand model (a decrease of 41.6 percent between 2023 and 2040), and subsequently decrease the reported v/c ratio at the intersection. While funding for project construction has not been established, since the project is included in ODOT's 2040 travel demand model it is reasonable to assume the bypass project will be completed by 2040.

No mitigation is recommended at the intersection of N Springbrook Road at E 2nd Street/E Fernwood Road as part of the proposed development for the following reasons:

- The planned Newberg-Dundee Bypass project is expected to reduce traffic volumes, and subsequently the intersection v/c ratio, below existing 2023 traffic conditions when constructed.
- The proposal itself will not cause the intersection to exceed agency mobility targets by the anticipated buildout year of the project, rather, future development projects (i.e. background traffic growth) will cause the intersection to exceed standards. Mitigation of future deficiencies in the transportation system that occur years beyond the anticipated buildout year of the development proposal cannot legally be imposed on the applicant. Therefore, the five-year analysis scenarios provided in the TIS are for informational purposes only for use by the reviewing agencies.

All other study intersections are currently operating acceptably per jurisdictional standards and are projected to continue operating acceptably through the 2025 site buildout year and the future 2030 planning year. Aside from the planned installation of a traffic signal at the intersection of N Springbrook Road at E Haworth Avenue and the planned construction of the Newberg-Dundee Bypass project, no additional operational mitigation is necessary or recommended at the study intersections.

[5] Oregon Department of Transportation : Project-Details : Projects : State of Oregon

Intersection Queuing Analysis

A queuing analysis was conducted at the study intersections to determine whether sufficient storage is available at applicable turning movements to accommodate projected queues. The queue lengths were projected based on the results of a Synchro/SimTraffic simulation, with the reported values representing the 95th percentile queue length. The 95th percentile queue is a statistical measurement which indicates there is a 5 percent chance, that the queue may exceed this length during the analysis period; however, given this is a probability, the 95th percentile queue length may theoretically never be met or observed in the field.

The projected 95th percentile queue lengths reported in the simulation are presented in Table 7 for the morning and evening peak hours. Note the available lane storages were rounded to the nearest five feet while the reported queue lengths were rounded up to the nearest five feet. Detailed queuing analysis worksheets are included in the technical appendix to this report.

Table 7: Queuing Analysis Summary

		Available Storage (ft)	AM Peak Hour 95th (ft)	PM Peak Hour 95th (ft)
1. N Springbrook Road at E Haworth Avenue				
2023 Existing Conditions (All-Way Stop-Control)	EB Th/LT Lane	110	65	75
	EB RT Lane	-	85	100
	WB Lane	-	60	115
	NB LT Lane	90	60	90
	NB Th/RT Lane	-	115	150
	SB LT Lane	95	50	**110**
	SB Th/RT Lane	-	150	250
2025 Background Conditions (Traffic Signal)	EB LT Lane	110	90	85
	EB Th/RT Lane	-	125	140
	WB Lane	-	80	220
	NB LT Lane	90	85	**100**
	NB Th/RT Lane	-	150	180
	SB LT Lane	95	55	85
	SB Th/RT Lane	-	190	230
2025 Buildout Conditions (Traffic Signal)	EB LT Lane	110	80	80
	EB Th/RT Lane	-	120	140
	WB Lane	-	85	215
	NB LT Lane	90	80	**110**
	NB Th/RT Lane	-	145	185
	SB LT Lane	95	65	75
	SB Th/RT Lane	-	220	215
2030 Future Conditions (Traffic Signal)	EB LT Lane	110	85	85
	EB Th/RT Lane	-	155	150
	WB Lane	-	85	260
	NB LT Lane	90	90	**120**
	NB Th/RT Lane	-	155	205
	SB LT Lane	95	60	95
	SB Th/RT Lane	-	215	240

Table Notes: ***BOLDED*** *text indicates queue length exceeds avaialble storage.*

Table 7: Queuing Analysis Summary (Continued)

		Available Storage (ft)	AM Peak Hour 95th (ft)	PM Peak Hour 95th (ft)
2. N Springbrook Road at OR-99W				
2023 Existing Conditions	EB LT Lane	350	75	115
	EB Th Lanes	-	325	275
	EB RT Lane	340	0	0
	WB LT Lanes	450	180	275
	WB Th Lanes	-	180	345
	WB RT Lane	335	0	0
	NB LT Lanes	245	90	110
	NB Th Lane	-	160	175
	NB RT Lane	260	260	185
	SB LT Lanes	115	**125**	**140**
	SB Th Lane	-	135	155
	SB RT Lane	125	55	85
2025 Background Conditions	EB LT Lane	350	135	130
	EB Th Lanes	-	410	290
	EB RT Lane	340	45	0
	WB LT Lanes	450	180	300
	WB Th Lanes	-	190	370
	WB RT Lane	335	0	80
	NB LT Lanes	245	105	115
	NB Th Lane	-	245	195
	NB RT Lane	260	**320**	190
	SB LT Lanes	115	**155**	**150**
	SB Th Lane	-	145	170
	SB RT Lane	125	65	105
2025 Buildout Conditions	EB LT Lane	350	80	125
	EB Th Lanes	-	365	305
	EB RT Lane	340	45	0
	WB LT Lanes	450	190	275
	WB Th Lanes	-	185	360
	WB RT Lane	335	0	65
	NB LT Lanes	245	95	120
	NB Th Lane	-	230	210
	NB RT Lane	260	**305**	190
	SB LT Lanes	115	**155**	**170**
	SB Th Lane	-	150	195
	SB RT Lane	125	60	120

Table Notes: ***BOLDED*** *text indicates queue length exceeds avaialble storage.*

Table 7: Queuing Analysis Summary (Continued)

		Available Storage (ft)	AM Peak Hour 95th (ft)	PM Peak Hour 95th (ft)
2. N Springbrook Road at OR-99W				
2030 Future Conditions	EB LT Lane	350	225	165
	EB Th Lanes	-	535	360
	EB RT Lane	340	175	45
	WB LT Lanes	450	205	420
	WB Th Lanes	-	195	510
	WB RT Lane	335	0	260
	NB LT Lanes	245	170	130
	NB Th Lane	-	360	215
	NB RT Lane	260	**385**	220
	SB LT Lanes	115	**175**	**180**
	SB Th Lane	-	180	185
	SB RT Lane	125	60	110
3. N Springbrook Road at E Hayes Street				
2023 Existing Conditions	EB Lane	-	50	10
	WB LT Lane	215	70	125
	WB Th/RT Lane	-	80	65
	NB LT Lane	125	10	5
	NB Th/RT Lane	-	215	190
	SB LT Lane	120	90	70
	SB Th/RT Lane	-	105	185
2025 Background Conditions	EB Lane	-	55	10
	WB LT Lane	215	75	140
	WB Th/RT Lane	-	90	70
	NB LT Lane	125	10	10
	NB Th/RT Lane	-	250	210
	SB LT Lane	120	90	75
	SB Th/RT Lane	-	115	190
2025 Buildout Conditions	EB Lane	-	60	10
	WB LT Lane	215	75	140
	WB Th/RT Lane	-	95	80
	NB LT Lane	125	105	5
	NB Th/RT Lane	-	415	235
	SB LT Lane	120	100	80
	SB Th/RT Lane	-	130	215
2030 Future Conditions	EB Lane	-	60	10
	WB LT Lane	215	90	150
	WB Th/RT Lane	-	110	85
	NB LT Lane	125	55	5
	NB Th/RT Lane	-	455	285
	SB LT Lane	120	105	90
	SB Th/RT Lane	-	150	230

Table Notes: ***BOLDED*** *text indicates queue length exceeds avaialble storage.*

Table 7: Queuing Analysis Summary (Continued)

		Available Storage (ft)	AM Peak Hour 95th (ft)	PM Peak Hour 95th (ft)
4. N Springbrook Road at E 2nd Street/E Fernwood Road				
2023 Existing Conditions	EB Lane	-	85	155
	WB Lane	-	175	215
	NB LT Lane	175	35	55
	NB Th/RT Lane	-	265	235
	SB LT Lane	175	50	100
	SB Th/RT Lane	-	195	350
2025 Background Conditions	EB Lane	-	85	175
	WB Lane	-	170	240
	NB LT Lane	175	20	65
	NB Th/RT Lane	-	305	270
	SB LT Lane	175	60	85
	SB Th/RT Lane	-	190	415
2025 Buildout Conditions	EB Lane	-	95	165
	WB Lane	-	190	265
	NB LT Lane	175	40	80
	NB Th/RT Lane	-	290	285
	SB LT Lane	175	65	120
	SB Th/RT Lane	-	200	420
2030 Future Conditions	EB Lane	-	95	180
	WB Lane	-	205	315
	NB LT Lane	175	25	60
	NB Th/RT Lane	-	365	275
	SB LT Lane	175	65	120
	SB Th/RT Lane	-	230	445
5. Site Access at E Hayes Street				
2025 Buildout Conditions	NB RT Lane	-	45	35
	SB RT Lane	-	40	35
2030 Future Conditions	NB RT Lane	-	45	35
	SB RT Lane	-	45	35
6. N Brutscher Street at E Hayes Street				
2023 Existing Conditions	EB Lane	-	25	35
	WB Lane	-	15	40
	NB Lane	-	40	25
	SB Lane	-	15	50
2025 Background Conditions	EB Lane	-	35	30
	WB Lane	-	20	40
	NB Lane	-	40	25
	SB Lane	-	20	55
2025 Buildout Conditions	EB Lane	-	35	40
	WB Lane	-	20	40
	NB Lane	-	45	25
	SB Lane	-	20	60
2030 Future Conditions	EB Lane	-	35	40
	WB Lane	-	25	40
	NB Lane	-	50	30
	SB Lane	-	20	60

Table Notes: ***BOLDED*** *text indicates queue length exceeds avaialble storage.*

Based on the intersection queuing analysis, the projected 95th percentile queues at the following turning movements are projected to exceed their respective available striped lane storage:

1. N Springbrook Road at E Haworth Avenue (with Traffic Signal Installed)
    a. Northbound left-turn Lane – 120-foot maximum queue
2. N Springbrook Road at OR-99W
    a. Northbound right-turn lane – 385-foot maximum queue
    b. Southbound left-turn lanes – 180-foot maximum queue

N Springbrook Road at E Haworth Avenue

At the intersection of N Springbrook Road at E Haworth Avenue with a traffic signal installed, the northbound left-turn lane is projected to have a maximum queue length of 120 feet by the 2030 planning year. The existing striping of the turn lane allows for approximately 90 feet of storage whereby approximately 30 feet of the 95th percentile queue will extend beyond this space. Although not striped as storage space, there is an additional 50 feet of space beyond the striped queue area that could accommodate this queue without obstructing northbound through traffic at the intersection. Therefore, no queuing related mitigation is necessary at the intersection to accommodate this queue.

Note that all other extended queues that are projected at the intersection when operating under all-way stop-controls are expected to be mitigated following installation of traffic signal. No additional mitigation is necessary or recommended as part of the proposed development application.

N Springbrook Road at OR-99W

At the intersection of N Springbrook Road at OR-99W the northbound right-turn and southbound left-turn lanes experienced 95th percentile queues in excess of available striped lane storages by the 2030 planning year.

For the northbound right-turn lane, the maximum queue length of 385 feet exceeds the available striped queue storage of 260 feet by approximately 125 feet. Beyond this striped storage area there is approximately 60 feet of additional storage space for the right turn lane prior to extending into a nearby right-in/right-out shopping center intersection along N Springbrook Road. The remaining 65 feet of storage space (which can be equated to the approximate length of 2-3 queued vehicles) can be accommodated within the northbound through lane without significant impact to the through moving traffic or having the total northbound queue extend back to the intersection of N Springbrook Road at E Hayes Street. Therefore, no queuing related mitigation is necessary at the intersection to accommodate this queue.

For the southbound left-turn lanes, the maximum queue length of 180 feet exceeds the available striped queue storage of 115 feet by approximately 65 feet. Beyond this striped storage area there is approximately 50 feet of additional storage space for both left-turn lanes and approximately 90 additional feet of storage for a single left-turn vehicle queue without having queues obstruct the southbound through movement at the intersection. No queuing related mitigation is necessary at the intersection to accommodate this queue.

Analysis Summary

Based on the above review of 95th percentile queues at the study intersections, no queuing related mitigations are recommended at the intersections of N Springbrook Road at E Haworth Avenue and N Springbrook Road at OR-99W, which are projected to experience occasional 95th percentile queues which exceed some of the available lane storages. All other study intersections and their respective turning movements are provided adequate vehicle storage space. No intersection queuing related mitigation is necessary or recommended as part of the proposed development project.

Conclusions

No significant trends or crash patterns were identified at any of the study intersections that are indicative of safety concerns. Note the intersection of N Springbrook Road at E Haworth Avenue exhibits a high number of angle/turning movement collisions during the five-year analysis period. Following installation of a traffic signal at the intersection once sufficient proportionate share contributions have been collected (TSP project I09), it is expected the number of these recurring crashes will decrease significantly. No other safety mitigation is recommended per the crash data analysis.

Adequate sight distance is available to the east/west of the proposed site access intersection to allow safe and efficient operation along E Haworth Avenue. No sight distance related mitigation is necessary or recommended at the access intersection.

Traffic signal warrants were examined for the intersection of N Springbrook Road at E Haworth Avenue to determine whether the installation of a new traffic signal will be warranted at the intersection by the 2030 planning year with the proposed development constructed. Warrant 7 *Crash Experience* is triggered given the number of recurring crashes at the intersection over a single 12-month period that could be mitigated by the installation of a traffic signal. Per the City of Newberg's TSP project I09, a traffic signal is planned for installation at the intersection after sufficient proportionate share contributions have been collected. Aside from contributing an appropriate proportionate share fee toward this improvement project, no further mitigation is necessary or recommended as part of the proposed development application.

All study intersections are currently operating acceptably per jurisdictional standards and are projected to continue operating acceptably through the 2025 site buildout year. The intersection of N Springbrook Road at E 2nd Street/E Fernwood Road is projected to exceed ODOT mobility targets during the evening peak hour by the and the future 2030 planning year; however, the planned Newberg-Dundee Bypass project is expected to reroute traffic from the intersection and improve operations to acceptable levels once constructed. Aside from the planned installation of a traffic signal at the intersection of N Springbrook Road at E Haworth Avenue and the planned construction of the Newberg-Dundee Bypass project, no additional operational mitigation is necessary or recommended at the study intersections.

No queuing related mitigations are recommended at the intersections of N Springbrook Road at E Haworth Avenue and N Springbrook Road at OR-99W, which are projected to experience occasional 95th percentile queues which exceed some of the available lane storages. All other study intersections and their respective turning movements are provided adequate vehicle storage space. No intersection queuing related mitigation is necessary or recommended as part of the proposed development project.

Appendix A

Site Plan

DEVELOPMENT SUMMARY – TAX LOT 2017

TOTAL AREA = 96,017 SF

UNITS
ASSUMED BEDROOMS PER UNIT = 2
TOTAL DWELLING UNITS = 48

PARKING
REQUIRED = 1.5 SPACES PER DWELLING UNIT (15% OF TOTAL TO BE UNASSIGNED, 0.2 VISITOR SPACES PER DWELLING UNIT)
= 51 ASSIGNED SPACES, 11 UNASSIGNED SPACES, 10 VISITOR SPACES = 72 TOTAL SPACES
PROVIDED = 72 TOTAL SPACES

OPEN SPACE
REQUIRED = 200 SF PER DWELLING UNIT = 9,600 SF
PROVIDED = ±12,500 SF

DEVELOPMENT SUMMARY – TAX LOT 2025

TOTAL AREA = 97,041 SF

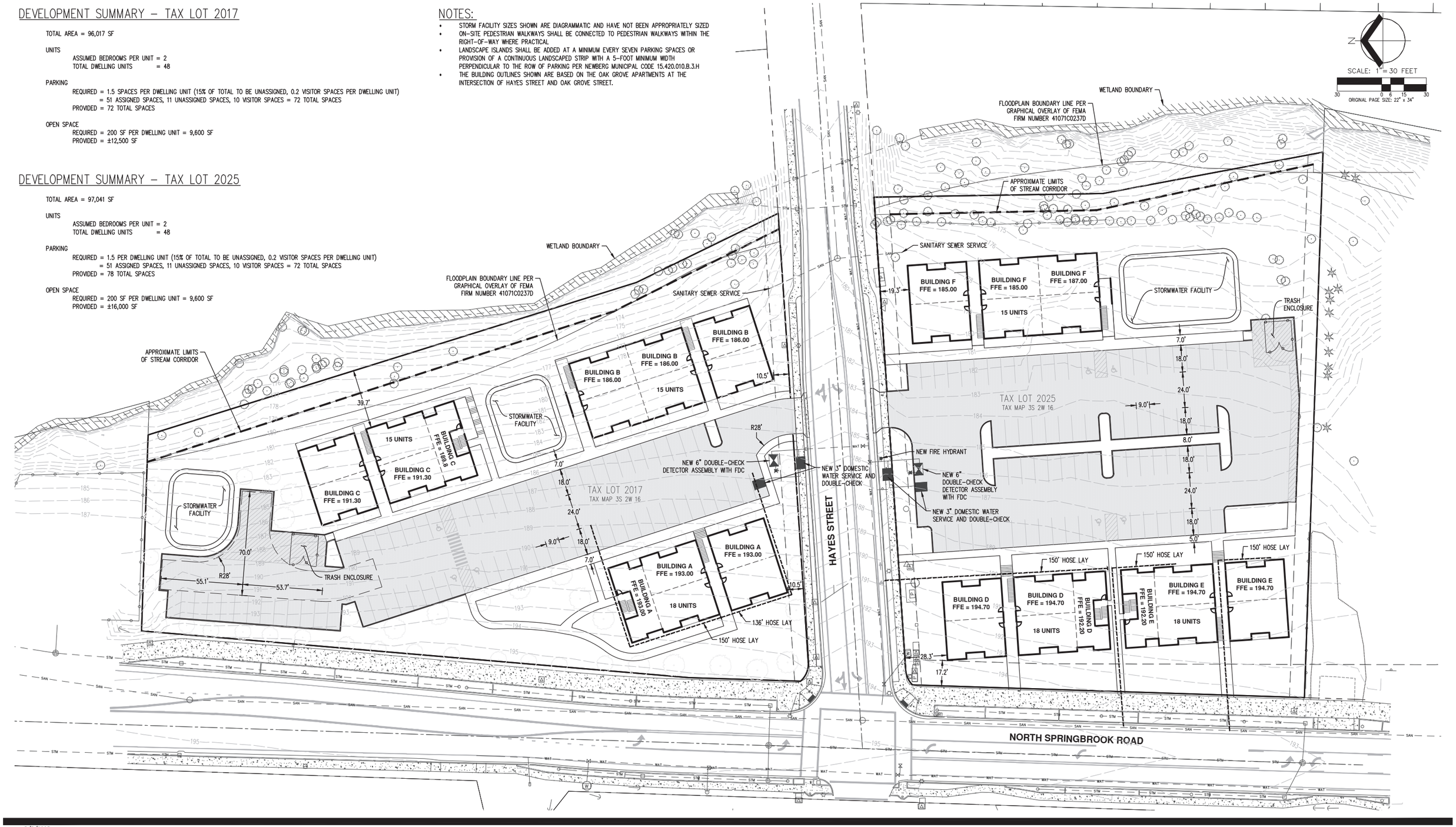
UNITS
ASSUMED BEDROOMS PER UNIT = 2
TOTAL DWELLING UNITS = 48

PARKING
REQUIRED = 1.5 PER DWELLING UNIT (15% OF TOTAL TO BE UNASSIGNED, 0.2 VISITOR SPACES PER DWELLING UNIT)
= 51 ASSIGNED SPACES, 11 UNASSIGNED SPACES, 10 VISITOR SPACES = 72 TOTAL SPACES
PROVIDED = 78 TOTAL SPACES

OPEN SPACE
REQUIRED = 200 SF PER DWELLING UNIT = 9,600 SF
PROVIDED = ±16,000 SF

NOTES:

- STORM FACILITY SIZES SHOWN ARE DIAGRAMMATIC AND HAVE NOT BEEN APPROPRIATELY SIZED
- ON-SITE PEDESTRIAN WALKWAYS SHALL BE CONNECTED TO PEDESTRIAN WALKWAYS WITHIN THE RIGHT-OF-WAY WHERE PRACTICAL
- LANDSCAPE ISLANDS SHALL BE ADDED AT A MINIMUM EVERY SEVEN PARKING SPACES OR PROVISION OF A CONTINUOUS LANDSCAPED STRIP WITH A 5-FOOT MINIMUM WIDTH PERPENDICULAR TO THE ROW OF PARKING PER NEWBERG MUNICIPAL CODE 15.420.010.B.3.H
- THE BUILDING OUTLINES SHOWN ARE BASED ON THE OAK GROVE APARTMENTS AT THE INTERSECTION OF HAYES STREET AND OAK GROVE STREET.



DATE: 3/3/2023 AKS JOB: 9028

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PRELIMINARY SITE LAYOUT

WEST BRANCH APARTMENTS

MIKE GOUGLER
NEWBERG, OREGON

Appendix B

Trip Generation Calculations

TRIP GENERATION CALCULATIONS
Source: Trip Generation Manual, 11th Edition

Land Use:	Multifamily Housing (Low-Rise)
Land Use Code:	220
Land Use Subcategory:	Not Close to Rail Transit
Setting/Location	General Urban/Suburban
Variable:	Dwelling Units
Trip Type:	Vehicle
Formula Type:	Equation
Variable Quantity:	96

AM PEAK HOUR

Trip Rate: =0.31*($X5)+22.85

	Enter	Exit	Total
Directional Split	24%	76%	
Trip Ends	13	40	53

PM PEAK HOUR

Trip Rate: =0.43*($X5)+20.55

	Enter	Exit	Total
Directional Split	63%	37%	
Trip Ends	39	23	62

WEEKDAY

Trip Rate: =6.41*($X5)+75.31

	Enter	Exit	Total
Directional Split	50%	50%	
Trip Ends	345	345	690

SATURDAY

Trip Rate: =4.55*($X5)

	Enter	Exit	Total
Directional Split	50%	50%	
Trip Ends	218	218	436

Caution: Small Sample Size

Appendix C

Traffic Counts

ODOT Growth Modeling Data

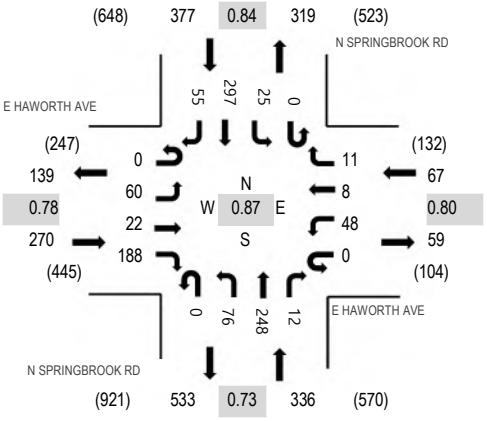
In-Process Development Trips

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

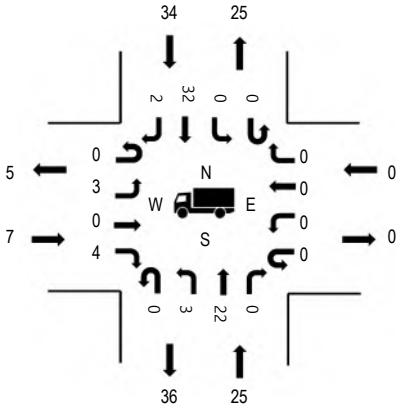
Location: 1 N SPRINGBROOK RD & E HAWORTH AVE AM
Date: Tuesday, September 12, 2023
Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes: 08:00 AM - 08:15 AM

Peak Hour

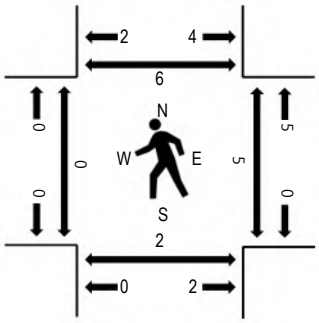
Motorized Vehicles



Heavy Vehicles



Pedestrians



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	2.6%	0.78
WB	0.0%	0.80
NB	7.4%	0.73
SB	9.0%	0.84
All	6.3%	0.87

Traffic Counts - Motorized Vehicles

Interval Start Time	E HAWORTH AVE Eastbound				E HAWORTH AVE Westbound				N SPRINGBROOK RD Northbound				N SPRINGBROOK RD Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
7:00 AM	0	5	0	15	0	1	0	0	0	7	10	0	0	0	11	8	57	869
7:05 AM	0	2	1	12	0	4	0	2	0	7	16	0	0	1	19	3	67	913
7:10 AM	0	1	2	10	0	3	0	0	0	6	16	0	0	3	19	2	62	940
7:15 AM	0	1	1	7	0	3	0	2	0	6	12	1	0	2	18	3	56	984
7:20 AM	0	2	1	9	0	1	0	2	0	6	18	3	0	1	16	1	60	1,015
7:25 AM	0	3	1	14	0	5	0	1	0	5	12	0	0	1	18	3	63	1,049
7:30 AM	0	6	0	13	0	2	1	1	0	4	20	0	0	1	21	4	73	1,050
7:35 AM	0	8	1	23	0	3	1	0	0	2	16	1	0	1	21	4	81	1,038
7:40 AM	0	6	1	19	0	1	0	1	0	7	17	3	0	3	29	6	93	1,026
7:45 AM	0	5	3	22	0	8	1	2	0	6	24	1	0	3	21	8	104	993
7:50 AM	0	6	2	12	0	3	0	1	0	8	16	1	0	2	22	2	75	948
7:55 AM	0	3	4	14	0	2	1	0	0	4	22	0	0	2	24	2	78	939
8:00 AM	0	4	2	14	0	5	1	0	0	11	30	1	0	2	23	8	101	926
8:05 AM	0	3	0	16	0	5	1	1	0	9	30	1	0	2	21	5	94	
8:10 AM	0	6	5	22	0	7	1	1	0	11	22	1	0	2	27	1	106	
8:15 AM	0	8	2	10	0	4	1	0	0	6	17	2	0	0	31	6	87	
8:20 AM	0	4	0	13	0	5	0	2	0	5	19	1	0	4	34	7	94	
8:25 AM	0	1	2	10	0	3	0	2	0	3	15	0	0	3	23	2	64	
8:30 AM	0	3	2	10	0	8	1	3	0	7	8	1	0	2	15	1	61	
8:35 AM	0	2	2	16	0	4	4	0	0	2	12	1	0	0	24	2	69	
8:40 AM	0	3	0	8	0	1	0	2	0	4	17	2	0	1	20	2	60	
8:45 AM	0	2	1	12	0	1	2	1	0	3	14	0	0	4	14	5	59	
8:50 AM	0	2	2	13	0	5	0	1	0	4	12	1	0	2	23	1	66	
8:55 AM	0	1	3	6	0	5	3	0	0	4	16	1	0	2	18	6	65	
Count Total	0	87	38	320	0	89	18	25	0	137	411	22	0	44	512	92	1,795	
Peak Hour	0	60	22	188	0	48	8	11	0	76	248	12	0	25	297	55	1,050	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles on Crosswalk

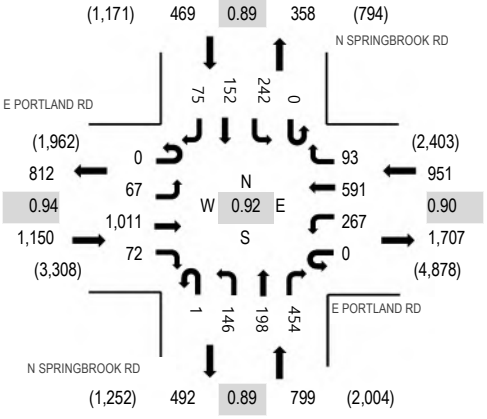
Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
7:00 AM	1	0	1	1	3	7:00 AM	0	0	0	0	0	7:00 AM	0	0	0	0	0
7:05 AM	1	1	0	1	3	7:05 AM	0	0	0	0	0	7:05 AM	1	1	1	0	3
7:10 AM	1	1	0	3	5	7:10 AM	0	0	0	0	0	7:10 AM	1	0	0	1	2
7:15 AM	0	1	0	0	1	7:15 AM	0	0	0	0	0	7:15 AM	1	0	0	0	1
7:20 AM	0	3	0	1	4	7:20 AM	0	0	0	0	0	7:20 AM	2	0	0	0	2
7:25 AM	3	1	0	2	6	7:25 AM	0	0	0	0	0	7:25 AM	2	0	1	0	3
7:30 AM	1	0	0	1	2	7:30 AM	0	0	0	0	0	7:30 AM	0	0	0	0	0
7:35 AM	0	2	0	0	2	7:35 AM	0	0	0	0	0	7:35 AM	1	1	1	0	3
7:40 AM	0	3	0	0	3	7:40 AM	0	0	0	0	0	7:40 AM	0	1	1	1	3
7:45 AM	1	5	0	2	8	7:45 AM	0	0	0	0	0	7:45 AM	0	0	2	2	4
7:50 AM	0	0	0	1	1	7:50 AM	1	0	0	1	2	7:50 AM	0	0	0	2	2
7:55 AM	0	4	0	1	5	7:55 AM	0	0	0	0	0	7:55 AM	0	1	0	0	1
8:00 AM	1	4	0	3	8	8:00 AM	0	0	0	0	0	8:00 AM	0	0	0	0	0
8:05 AM	2	4	0	4	10	8:05 AM	0	0	0	0	0	8:05 AM	0	0	0	0	0
8:10 AM	1	0	0	7	8	8:10 AM	0	0	0	0	0	8:10 AM	0	0	0	0	0
8:15 AM	1	1	0	9	11	8:15 AM	0	0	0	0	0	8:15 AM	0	0	0	0	0
8:20 AM	0	2	0	4	6	8:20 AM	0	0	0	0	0	8:20 AM	0	0	0	0	0
8:25 AM	0	0	0	2	2	8:25 AM	0	0	0	1	1	8:25 AM	0	0	1	1	2
8:30 AM	0	0	0	2	2	8:30 AM	0	0	0	0	0	8:30 AM	1	1	0	0	2
8:35 AM	1	3	0	2	6	8:35 AM	0	0	0	0	0	8:35 AM	0	0	1	0	1
8:40 AM	0	2	0	0	2	8:40 AM	0	0	0	0	0	8:40 AM	0	0	0	1	1
8:45 AM	1	1	0	1	3	8:45 AM	0	0	0	0	0	8:45 AM	0	0	0	0	0
8:50 AM	0	1	0	0	1	8:50 AM	0	0	0	0	0	8:50 AM	1	0	0	0	1
8:55 AM	1	0	0	1	2	8:55 AM	0	0	0	0	0	8:55 AM	0	2	2	1	5
Count Total	16	39	1	48	104	Count Total	1	0	0	2	3	Count Total	10	7	10	9	36
Peak Hour	7	25	0	34	66	Peak Hour	1	0	0	2	3	Peak Hour	1	3	5	6	15

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

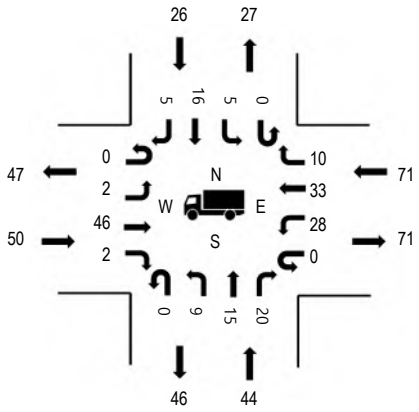
Location: 2 N SPRINGBROOK RD & E PORTLAND RD AM
Date: Tuesday, September 12, 2023
Peak Hour: 07:15 AM - 08:15 AM
Peak 15-Minutes: 07:35 AM - 07:50 AM

Peak Hour

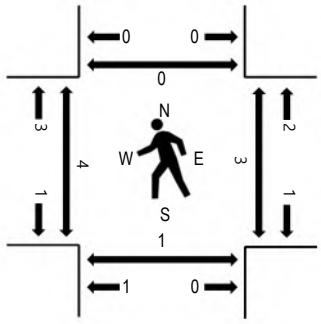
Motorized Vehicles



Heavy Vehicles



Pedestrians



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	4.3%	0.94
WB	7.5%	0.90
NB	5.5%	0.89
SB	5.5%	0.89
All	5.7%	0.92

Traffic Counts - Motorized Vehicles

Interval Start Time	E PORTLAND RD Eastbound				E PORTLAND RD Westbound				N SPRINGBROOK RD Northbound				N SPRINGBROOK RD Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
6:00 AM	0	2	49	2	0	7	10	1	0	5	4	28	0	12	5	3	128	2,520
6:05 AM	0	2	97	1	0	6	12	6	0	4	2	32	0	11	5	2	180	2,634
6:10 AM	0	0	75	3	0	8	19	4	0	2	4	26	0	16	4	0	161	2,700
6:15 AM	0	0	80	2	0	8	12	2	0	4	7	28	0	10	5	0	158	2,802
6:20 AM	1	2	93	2	0	9	22	4	0	10	8	37	0	20	4	1	213	2,905
6:25 AM	0	4	96	4	0	16	37	2	0	3	8	32	0	10	6	1	219	2,952
6:30 AM	0	3	79	3	0	30	28	5	0	7	9	42	0	8	5	2	221	3,026
6:35 AM	0	1	80	5	0	12	23	3	0	4	6	31	0	33	13	2	213	3,069
6:40 AM	0	3	124	4	0	14	30	3	0	6	8	27	0	18	8	7	252	3,153
6:45 AM	0	4	93	2	0	24	35	5	0	4	10	50	0	13	8	3	251	3,203
6:50 AM	0	2	92	9	0	20	27	9	0	11	18	39	0	20	7	2	256	3,271
6:55 AM	0	4	105	3	0	18	34	11	0	11	14	40	0	17	5	6	268	3,286
7:00 AM	0	0	87	3	0	30	47	4	0	6	8	32	0	13	5	7	242	3,278
7:05 AM	0	4	72	9	0	24	36	11	0	7	16	43	0	16	6	2	246	3,337
7:10 AM	0	1	114	2	0	15	44	9	0	2	11	28	0	22	10	5	263	3,335
7:15 AM	0	6	105	6	0	21	28	8	0	8	11	42	0	15	9	2	261	3,369
7:20 AM	0	4	92	5	0	14	28	6	0	16	13	51	0	20	6	5	260	3,346
7:25 AM	0	3	106	2	0	26	67	8	0	10	13	26	0	12	13	7	293	3,357
7:30 AM	0	2	80	5	0	19	52	5	0	10	15	40	0	22	8	6	264	3,295
7:35 AM	0	3	100	7	0	29	50	7	0	10	12	35	0	26	14	4	297	3,293
7:40 AM	0	4	66	9	0	29	57	7	0	14	19	55	0	22	15	5	302	3,286
7:45 AM	0	7	101	7	0	14	70	7	0	14	18	35	0	30	11	5	319	3,210
7:50 AM	0	7	57	5	0	37	48	4	0	13	14	42	0	21	16	7	271	3,153
7:55 AM	0	5	81	3	0	16	54	10	0	6	16	38	0	13	8	10	260	3,121
8:00 AM	0	9	80	10	0	22	60	11	0	16	25	25	0	20	17	6	301	3,088
8:05 AM	0	3	43	10	0	22	26	10	1	19	27	39	0	19	18	7	244	
8:10 AM	0	14	100	3	0	18	51	10	0	10	15	26	0	22	17	11	297	
8:15 AM	0	3	89	5	0	19	30	6	0	5	10	30	0	18	13	10	238	

8:20 AM	0	5	58	9	0	27	43	7	0	12	17	41	0	25	16	11	271
8:25 AM	0	3	84	7	0	17	50	7	0	15	4	13	0	20	7	4	231
8:30 AM	0	1	52	11	0	33	46	8	0	11	13	46	0	17	12	12	262
8:35 AM	0	10	88	8	0	23	73	5	0	10	9	27	0	16	15	6	290
8:40 AM	1	6	70	5	0	25	34	4	0	8	9	34	0	18	5	7	226
8:45 AM	0	8	69	2	0	30	61	5	0	17	8	36	0	11	11	4	262
8:50 AM	0	3	61	3	0	29	53	5	0	7	6	35	0	21	7	9	239
8:55 AM	0	4	63	7	0	16	51	9	0	6	17	25	0	14	7	8	227
Count Total	2	142	2,981	183	0	727	1,448	228	1	323	424	1,256	0	641	341	189	8,886
Peak Hour	0	67	1,011	72	0	267	591	93	1	146	198	454	0	242	152	75	3,369

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles on Crosswalk

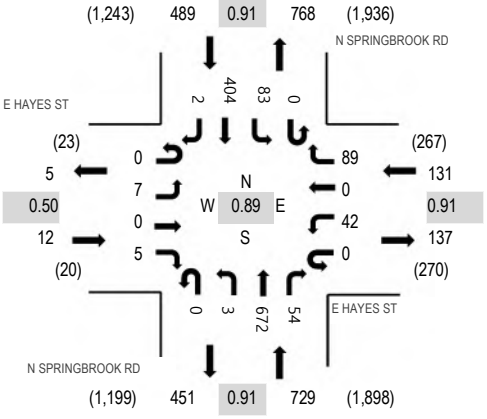
Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
6:00 AM	2	2	1	3	8	6:00 AM	0	0	0	0	0	6:00 AM	0	0	0	0	0
6:05 AM	0	1	1	0	2	6:05 AM	0	0	0	0	0	6:05 AM	0	0	0	0	0
6:10 AM	2	1	1	1	5	6:10 AM	0	0	0	0	0	6:10 AM	0	0	0	0	0
6:15 AM	0	4	3	1	8	6:15 AM	0	0	0	0	0	6:15 AM	0	0	0	0	0
6:20 AM	4	1	1	0	6	6:20 AM	0	0	0	0	0	6:20 AM	0	0	0	0	0
6:25 AM	3	3	4	1	11	6:25 AM	0	0	0	0	0	6:25 AM	1	0	0	0	1
6:30 AM	1	2	5	0	8	6:30 AM	0	0	0	0	0	6:30 AM	0	0	0	0	0
6:35 AM	0	7	2	2	11	6:35 AM	0	0	0	0	0	6:35 AM	0	0	0	0	0
6:40 AM	5	1	5	2	13	6:40 AM	0	0	0	0	0	6:40 AM	0	0	0	0	0
6:45 AM	2	2	9	0	13	6:45 AM	0	0	0	0	0	6:45 AM	0	0	0	0	0
6:50 AM	3	3	7	0	13	6:50 AM	0	0	0	0	0	6:50 AM	0	0	0	0	0
6:55 AM	2	4	7	1	14	6:55 AM	0	0	0	0	0	6:55 AM	0	0	0	0	0
7:00 AM	1	3	5	2	11	7:00 AM	0	0	0	0	0	7:00 AM	0	0	0	0	0
7:05 AM	2	1	5	2	10	7:05 AM	1	0	0	0	1	7:05 AM	0	0	0	0	0
7:10 AM	5	3	5	4	17	7:10 AM	0	0	1	0	1	7:10 AM	0	0	0	0	0
7:15 AM	5	4	8	0	17	7:15 AM	0	0	0	0	0	7:15 AM	0	0	0	0	0
7:20 AM	3	8	2	1	14	7:20 AM	0	0	0	0	0	7:20 AM	0	0	0	0	0
7:25 AM	6	3	8	4	21	7:25 AM	0	0	0	0	0	7:25 AM	0	0	0	0	0
7:30 AM	4	0	9	1	14	7:30 AM	0	0	0	0	0	7:30 AM	1	0	0	0	1
7:35 AM	3	3	5	0	11	7:35 AM	0	0	0	0	0	7:35 AM	0	0	0	0	0
7:40 AM	3	3	7	0	13	7:40 AM	0	0	0	0	0	7:40 AM	1	0	1	0	2
7:45 AM	2	2	5	2	11	7:45 AM	0	0	0	0	0	7:45 AM	0	0	0	0	0
7:50 AM	1	7	6	2	16	7:50 AM	0	0	0	0	0	7:50 AM	2	0	0	0	2
7:55 AM	4	2	10	1	17	7:55 AM	0	0	0	0	0	7:55 AM	1	1	2	0	4
8:00 AM	7	5	4	3	19	8:00 AM	0	0	0	0	0	8:00 AM	0	0	0	0	0
8:05 AM	5	5	5	5	20	8:05 AM	0	0	0	0	0	8:05 AM	0	0	1	0	1
8:10 AM	7	2	2	7	18	8:10 AM	0	0	0	0	0	8:10 AM	0	0	0	0	0
8:15 AM	7	4	3	7	21	8:15 AM	0	0	0	0	0	8:15 AM	0	0	0	0	0
8:20 AM	0	4	8	6	18	8:20 AM	0	0	0	0	0	8:20 AM	0	1	1	0	2
8:25 AM	5	2	2	0	9	8:25 AM	0	0	0	0	0	8:25 AM	0	0	0	0	0
8:30 AM	2	4	5	4	15	8:30 AM	0	0	0	0	0	8:30 AM	1	0	0	0	1
8:35 AM	2	3	5	2	12	8:35 AM	0	0	0	0	0	8:35 AM	0	0	0	0	0
8:40 AM	3	4	3	0	10	8:40 AM	0	0	0	0	0	8:40 AM	1	0	0	0	1
8:45 AM	2	2	12	1	17	8:45 AM	0	0	0	0	0	8:45 AM	0	0	0	0	0
8:50 AM	3	2	7	1	13	8:50 AM	0	0	0	0	0	8:50 AM	1	1	1	1	4
8:55 AM	2	3	4	1	10	8:55 AM	0	0	0	0	0	8:55 AM	1	0	0	0	1
Count Total	108	110	181	67	466	Count Total	1	0	1	0	2	Count Total	10	3	6	1	20
Peak Hour	50	44	71	26	191	Peak Hour	0	0	0	0	0	Peak Hour	5	1	4	0	10

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

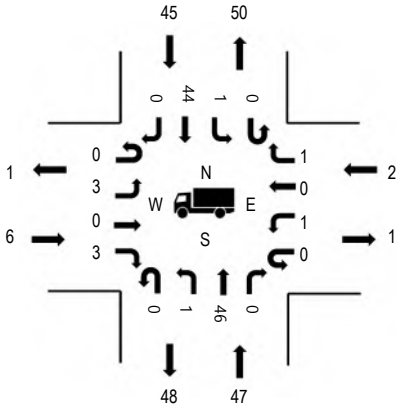
Location: 3 N SPRINGBROOK RD & E HAYES ST AM
Date: Tuesday, September 12, 2023
Peak Hour: 07:15 AM - 08:15 AM
Peak 15-Minutes: 07:40 AM - 07:55 AM

Peak Hour

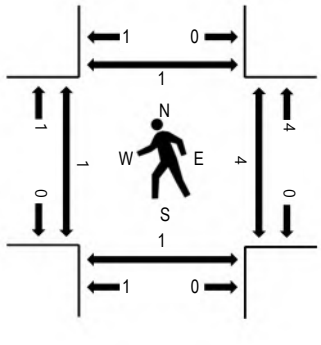
Motorized Vehicles



Heavy Vehicles



Pedestrians



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	50.0%	0.50
WB	1.5%	0.91
NB	6.4%	0.91
SB	9.2%	0.91
All	7.3%	0.89

Traffic Counts - Motorized Vehicles

Interval Start Time	E HAYES ST Eastbound				E HAYES ST Westbound				N SPRINGBROOK RD Northbound				N SPRINGBROOK RD Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
6:00 AM	0	0	0	0	0	1	0	4	0	0	29	4	0	1	12	0	51	950
6:05 AM	0	0	0	0	0	0	0	1	0	0	42	1	0	2	14	0	60	970
6:10 AM	0	0	0	0	0	1	0	1	0	0	35	0	0	0	13	1	51	1,028
6:15 AM	0	0	0	0	0	1	0	5	0	0	36	1	0	0	12	1	56	1,059
6:20 AM	0	0	0	0	0	1	0	3	0	2	56	0	0	1	16	1	80	1,116
6:25 AM	0	0	0	1	0	2	0	2	0	0	37	4	0	3	22	1	72	1,134
6:30 AM	0	0	0	2	0	0	0	2	0	1	47	3	0	1	27	2	85	1,165
6:35 AM	0	0	0	1	0	4	0	3	0	0	36	2	0	2	34	1	83	1,184
6:40 AM	0	1	0	0	0	2	0	2	0	1	58	3	0	0	26	0	93	1,219
6:45 AM	0	0	0	0	0	2	0	4	0	0	60	6	0	1	27	1	101	1,262
6:50 AM	0	0	0	0	0	1	0	5	0	1	52	6	0	5	34	2	106	1,277
6:55 AM	0	0	0	0	0	3	0	6	0	1	67	9	0	0	26	0	112	1,301
7:00 AM	0	0	0	0	0	4	0	3	0	1	33	1	0	3	26	0	71	1,287
7:05 AM	0	0	0	0	0	5	0	4	0	0	59	2	0	3	45	0	118	1,327
7:10 AM	0	0	0	0	0	3	0	3	0	0	45	4	0	5	22	0	82	1,339
7:15 AM	0	1	0	1	0	2	0	6	0	0	64	4	0	8	27	0	113	1,361
7:20 AM	0	0	0	0	0	8	0	5	0	0	54	7	0	3	21	0	98	1,344
7:25 AM	0	0	0	0	0	4	0	8	0	0	50	1	0	3	37	0	103	1,350
7:30 AM	0	0	0	0	0	5	0	5	0	0	57	6	0	4	27	0	104	1,332
7:35 AM	0	1	0	0	0	3	0	6	0	1	55	3	0	6	42	1	118	1,339
7:40 AM	0	0	0	0	0	2	0	9	0	0	68	6	0	13	37	1	136	1,331
7:45 AM	0	2	0	0	0	3	0	9	0	1	60	6	0	9	26	0	116	1,274
7:50 AM	0	3	0	1	0	3	0	8	0	0	55	3	0	7	50	0	130	1,252
7:55 AM	0	0	0	0	0	3	0	6	0	1	61	4	0	3	20	0	98	1,203
8:00 AM	0	0	0	2	0	1	0	8	0	0	48	1	0	9	42	0	111	1,191
8:05 AM	0	0	0	1	0	1	0	12	0	0	57	8	0	11	40	0	130	
8:10 AM	0	0	0	0	0	7	0	7	0	0	43	5	0	7	35	0	104	
8:15 AM	0	0	0	0	0	2	0	4	0	0	53	2	0	3	32	0	96	

8:20 AM	0	1	0	0	0	4	0	5	0	1	47	5	0	5	36	0	104
8:25 AM	0	1	0	0	0	4	0	3	0	0	31	5	0	7	34	0	85
8:30 AM	0	0	0	0	0	7	0	5	0	0	52	1	0	7	39	0	111
8:35 AM	0	1	0	0	0	3	0	1	0	0	46	5	0	2	52	0	110
8:40 AM	0	0	0	0	0	3	0	1	0	0	39	1	0	0	35	0	79
8:45 AM	0	0	0	0	0	3	0	7	0	0	39	4	0	3	38	0	94
8:50 AM	0	0	0	0	0	0	0	2	0	0	45	0	0	4	30	0	81
8:55 AM	0	0	0	0	0	4	0	0	0	0	44	4	0	2	32	0	86
Count Total	0	11	0	9	0	102	0	165	0	11	1,760	127	0	143	1,088	12	3,428
Peak Hour	0	7	0	5	0	42	0	89	0	3	672	54	0	83	404	2	1,361

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles on Crosswalk

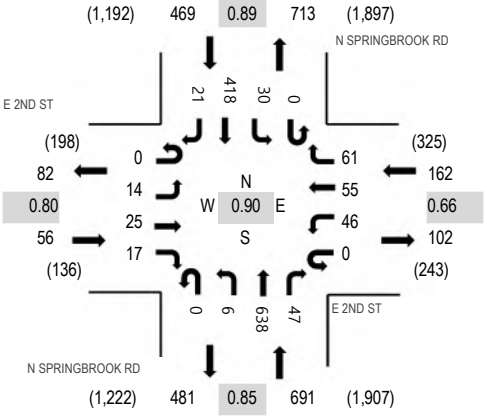
Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
6:00 AM	0	1	0	1	2	6:00 AM	0	0	0	0	0	6:00 AM	0	0	0	0	0
6:05 AM	0	1	0	0	1	6:05 AM	0	0	0	0	0	6:05 AM	0	0	0	0	0
6:10 AM	0	2	0	0	2	6:10 AM	0	0	0	0	0	6:10 AM	0	0	0	0	0
6:15 AM	0	4	0	3	7	6:15 AM	0	0	0	0	0	6:15 AM	0	0	0	0	0
6:20 AM	0	1	0	0	1	6:20 AM	0	0	0	1	1	6:20 AM	0	0	0	0	0
6:25 AM	0	5	0	1	6	6:25 AM	0	0	0	0	0	6:25 AM	0	0	0	0	0
6:30 AM	1	7	0	0	8	6:30 AM	0	0	0	0	0	6:30 AM	0	0	0	0	0
6:35 AM	1	3	0	2	6	6:35 AM	0	0	0	0	0	6:35 AM	0	0	0	0	0
6:40 AM	0	2	0	3	5	6:40 AM	0	0	0	0	0	6:40 AM	0	0	0	0	0
6:45 AM	0	2	0	5	7	6:45 AM	0	0	0	0	0	6:45 AM	0	0	0	0	0
6:50 AM	0	2	0	5	7	6:50 AM	0	0	0	0	0	6:50 AM	0	0	0	0	0
6:55 AM	0	6	1	4	11	6:55 AM	0	0	0	0	0	6:55 AM	1	0	0	0	1
7:00 AM	0	2	0	5	7	7:00 AM	0	0	0	0	0	7:00 AM	0	0	1	0	1
7:05 AM	0	3	0	2	5	7:05 AM	0	0	0	0	0	7:05 AM	0	0	0	0	0
7:10 AM	0	6	0	2	8	7:10 AM	0	0	0	0	0	7:10 AM	0	0	0	0	0
7:15 AM	1	5	0	3	9	7:15 AM	0	0	0	0	0	7:15 AM	0	0	0	0	0
7:20 AM	0	2	0	2	4	7:20 AM	0	0	0	0	0	7:20 AM	0	0	0	0	0
7:25 AM	0	4	0	5	9	7:25 AM	0	0	0	0	0	7:25 AM	0	0	0	0	0
7:30 AM	0	1	0	2	3	7:30 AM	0	0	0	0	0	7:30 AM	1	0	0	0	1
7:35 AM	0	4	0	3	7	7:35 AM	0	0	0	0	0	7:35 AM	0	0	2	0	2
7:40 AM	0	2	1	2	5	7:40 AM	0	0	0	0	0	7:40 AM	0	0	0	0	0
7:45 AM	1	6	0	1	8	7:45 AM	0	0	0	0	0	7:45 AM	1	1	1	0	3
7:50 AM	3	4	1	5	13	7:50 AM	0	0	0	0	0	7:50 AM	0	0	0	0	0
7:55 AM	0	2	0	3	5	7:55 AM	0	0	0	1	1	7:55 AM	0	0	0	0	0
8:00 AM	0	8	0	5	13	8:00 AM	0	0	0	0	0	8:00 AM	1	1	2	1	5
8:05 AM	1	5	0	6	12	8:05 AM	0	0	0	0	0	8:05 AM	0	0	0	0	0
8:10 AM	0	4	0	8	12	8:10 AM	0	0	0	0	0	8:10 AM	0	0	0	0	0
8:15 AM	0	4	0	9	13	8:15 AM	0	1	0	0	1	8:15 AM	0	0	0	0	0
8:20 AM	0	4	0	6	10	8:20 AM	0	0	0	0	0	8:20 AM	0	0	0	0	0
8:25 AM	1	4	0	3	8	8:25 AM	0	0	0	0	0	8:25 AM	0	0	1	0	1
8:30 AM	0	3	0	2	5	8:30 AM	0	0	0	0	0	8:30 AM	1	0	0	0	1
8:35 AM	0	2	0	5	7	8:35 AM	0	0	0	0	0	8:35 AM	0	0	1	0	1
8:40 AM	0	3	0	3	6	8:40 AM	0	0	0	0	0	8:40 AM	0	0	0	0	0
8:45 AM	0	2	0	4	6	8:45 AM	0	0	0	0	0	8:45 AM	0	0	2	0	2
8:50 AM	0	5	0	2	7	8:50 AM	0	0	0	0	0	8:50 AM	0	0	2	0	2
8:55 AM	0	3	0	2	5	8:55 AM	0	0	0	0	0	8:55 AM	0	0	0	0	0
Count Total	9	124	3	114	250	Count Total	0	1	0	2	3	Count Total	5	2	12	1	20
Peak Hour	6	47	2	45	100	Peak Hour	0	0	0	1	1	Peak Hour	3	2	5	1	11

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

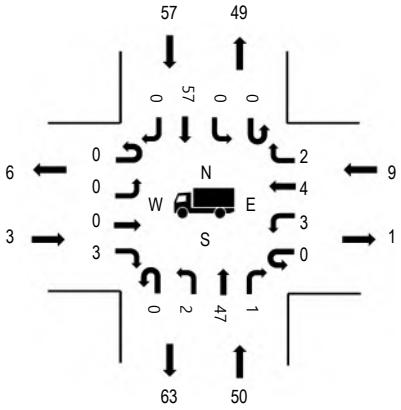
Location: 4 N SPRINGBROOK RD & E 2ND ST AM
Date: Tuesday, September 12, 2023
Peak Hour: 07:25 AM - 08:25 AM
Peak 15-Minutes: 07:50 AM - 08:05 AM

Peak Hour

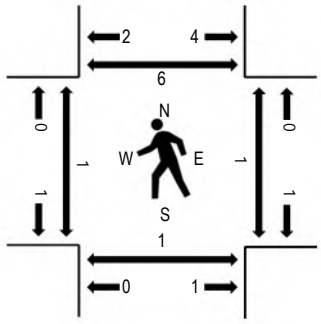
Motorized Vehicles



Heavy Vehicles



Pedestrians



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	5.4%	0.80
WB	5.6%	0.66
NB	7.2%	0.85
SB	12.2%	0.89
All	8.6%	0.90

Traffic Counts - Motorized Vehicles

Interval Start Time	E 2ND ST Eastbound				E 2ND ST Westbound				N SPRINGBROOK RD Northbound				N SPRINGBROOK RD Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
6:00 AM	0	1	0	2	0	2	0	0	0	0	30	1	0	0	9	0	45	994
6:05 AM	0	2	1	1	0	2	2	0	0	0	36	2	0	0	12	2	60	1,024
6:10 AM	0	1	0	1	0	1	4	1	0	0	35	3	0	0	14	0	60	1,085
6:15 AM	0	1	0	0	0	1	1	2	0	2	32	1	0	1	10	1	52	1,112
6:20 AM	0	0	0	0	0	2	0	1	0	2	58	6	0	0	15	0	84	1,167
6:25 AM	0	0	1	2	0	5	0	1	0	0	43	3	0	2	24	2	83	1,171
6:30 AM	0	1	0	0	0	1	1	0	0	1	50	4	0	0	24	1	83	1,198
6:35 AM	0	2	3	2	0	2	0	3	0	0	29	2	0	1	34	3	81	1,225
6:40 AM	0	0	1	1	0	4	2	3	0	1	63	5	0	1	33	0	114	1,252
6:45 AM	0	3	0	0	0	2	2	0	0	0	59	4	0	1	23	3	97	1,270
6:50 AM	0	2	2	1	0	8	4	3	0	1	56	6	0	2	27	1	113	1,287
6:55 AM	0	2	3	1	0	0	4	2	0	1	69	6	0	1	33	0	122	1,311
7:00 AM	0	0	0	1	0	1	2	1	0	1	35	4	0	1	28	1	75	1,307
7:05 AM	0	1	1	0	0	5	3	3	0	1	59	1	0	2	45	0	121	1,361
7:10 AM	0	1	3	2	0	1	3	4	0	0	42	2	0	1	27	1	87	1,346
7:15 AM	0	1	0	0	0	2	2	2	0	0	70	3	0	0	26	1	107	1,365
7:20 AM	0	1	0	1	0	2	5	1	0	0	51	0	0	2	25	0	88	1,373
7:25 AM	0	0	2	0	0	0	3	5	0	0	49	6	0	2	42	1	110	1,378
7:30 AM	0	4	1	2	0	7	2	7	0	0	52	2	0	4	29	0	110	1,366
7:35 AM	0	0	1	1	0	5	6	6	0	0	57	2	0	3	27	0	108	1,352
7:40 AM	0	2	0	4	0	0	3	6	0	2	66	6	0	3	37	3	132	1,372
7:45 AM	0	2	0	1	0	4	6	6	0	2	52	5	0	1	33	2	114	1,331
7:50 AM	0	0	4	0	0	5	4	3	0	0	72	8	0	3	36	2	137	1,326
7:55 AM	0	1	1	1	0	6	12	11	0	1	48	2	0	2	31	2	118	1,276
8:00 AM	0	0	4	2	0	5	8	3	0	0	53	6	0	4	42	2	129	1,259
8:05 AM	0	1	3	0	0	4	4	9	0	0	47	2	0	2	33	1	106	
8:10 AM	0	1	4	0	0	5	3	1	0	0	44	2	0	3	41	2	106	
8:15 AM	0	1	1	3	0	4	1	0	0	0	60	2	0	2	37	4	115	

8:20 AM	0	2	4	3	0	1	3	4	0	1	38	4	0	1	30	2	93
8:25 AM	0	0	1	1	0	1	1	4	0	1	43	3	0	3	37	3	98
8:30 AM	0	0	3	2	0	2	6	2	0	0	42	3	0	1	33	2	96
8:35 AM	0	0	4	1	0	3	4	1	0	1	50	1	0	5	52	6	128
8:40 AM	0	2	2	3	0	4	7	1	0	1	37	4	0	1	28	1	91
8:45 AM	0	1	1	1	0	1	3	2	0	1	46	7	0	1	41	4	109
8:50 AM	0	3	2	2	0	2	6	1	0	0	39	5	0	1	25	1	87
8:55 AM	0	1	0	1	0	2	6	1	0	1	45	6	0	4	34	0	101
Count Total	0	40	53	43	0	102	123	100	0	21	1,757	129	0	61	1,077	54	3,560
Peak Hour	0	14	25	17	0	46	55	61	0	6	638	47	0	30	418	21	1,378

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles on Crosswalk

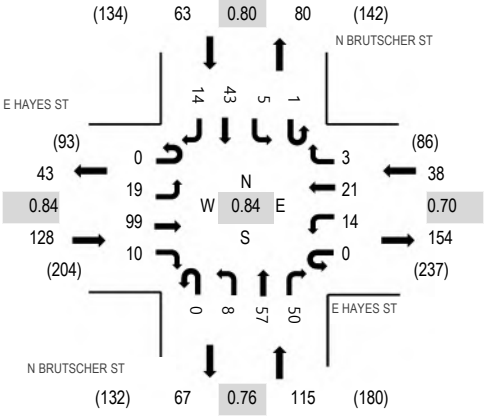
Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
6:00 AM	0	2	0	1	3	6:00 AM	0	0	0	0	0	6:00 AM	1	0	1	0	2
6:05 AM	0	0	0	0	0	6:05 AM	0	0	0	0	0	6:05 AM	0	0	0	0	0
6:10 AM	0	6	1	0	7	6:10 AM	0	0	0	0	0	6:10 AM	0	0	0	0	0
6:15 AM	0	2	0	3	5	6:15 AM	0	0	0	0	0	6:15 AM	0	0	0	0	0
6:20 AM	0	2	0	0	2	6:20 AM	0	0	0	0	0	6:20 AM	0	0	0	0	0
6:25 AM	0	3	0	1	4	6:25 AM	0	0	0	0	0	6:25 AM	0	0	0	0	0
6:30 AM	0	7	0	0	7	6:30 AM	0	0	0	0	0	6:30 AM	1	0	0	0	1
6:35 AM	0	3	0	3	6	6:35 AM	0	0	0	0	0	6:35 AM	0	0	0	0	0
6:40 AM	0	3	0	3	6	6:40 AM	0	0	0	0	0	6:40 AM	0	0	0	0	0
6:45 AM	0	3	0	5	8	6:45 AM	0	0	0	0	0	6:45 AM	0	0	0	0	0
6:50 AM	0	2	0	5	7	6:50 AM	1	0	0	0	1	6:50 AM	0	0	0	0	0
6:55 AM	1	8	0	5	14	6:55 AM	0	0	0	0	0	6:55 AM	0	0	0	0	0
7:00 AM	0	2	0	5	7	7:00 AM	0	0	0	0	0	7:00 AM	0	0	0	0	0
7:05 AM	0	3	1	2	6	7:05 AM	0	0	0	0	0	7:05 AM	0	0	0	0	0
7:10 AM	2	3	1	2	8	7:10 AM	0	0	0	0	0	7:10 AM	0	0	0	1	1
7:15 AM	0	5	2	4	11	7:15 AM	0	0	0	0	0	7:15 AM	0	0	0	0	0
7:20 AM	1	1	0	2	4	7:20 AM	0	0	0	0	0	7:20 AM	0	0	0	1	1
7:25 AM	0	4	0	5	9	7:25 AM	0	0	0	0	0	7:25 AM	0	0	0	0	0
7:30 AM	0	1	0	2	3	7:30 AM	0	0	0	0	0	7:30 AM	0	0	0	0	0
7:35 AM	1	4	0	2	7	7:35 AM	0	0	0	0	0	7:35 AM	0	0	0	1	1
7:40 AM	1	8	0	2	11	7:40 AM	0	0	0	0	0	7:40 AM	0	0	0	0	0
7:45 AM	0	4	1	2	7	7:45 AM	0	0	0	0	0	7:45 AM	0	0	2	2	4
7:50 AM	0	6	1	3	10	7:50 AM	0	0	0	0	0	7:50 AM	0	0	0	0	0
7:55 AM	0	2	3	4	9	7:55 AM	0	0	0	0	0	7:55 AM	0	0	0	0	0
8:00 AM	1	7	3	5	16	8:00 AM	0	0	0	0	0	8:00 AM	0	0	0	1	1
8:05 AM	0	4	1	6	11	8:05 AM	0	0	0	0	0	8:05 AM	1	0	0	1	2
8:10 AM	0	1	0	8	9	8:10 AM	0	0	0	0	0	8:10 AM	0	0	0	1	1
8:15 AM	0	5	0	13	18	8:15 AM	0	1	0	0	1	8:15 AM	0	0	0	0	0
8:20 AM	0	4	0	5	9	8:20 AM	0	0	0	0	0	8:20 AM	0	1	0	0	1
8:25 AM	0	6	0	4	10	8:25 AM	0	0	0	0	0	8:25 AM	0	0	0	1	1
8:30 AM	0	2	0	2	4	8:30 AM	0	1	0	0	1	8:30 AM	0	0	0	0	0
8:35 AM	0	2	1	5	8	8:35 AM	0	0	0	0	0	8:35 AM	0	0	0	0	0
8:40 AM	0	3	0	3	6	8:40 AM	0	0	0	0	0	8:40 AM	0	0	0	2	2
8:45 AM	0	4	0	4	8	8:45 AM	0	0	0	0	0	8:45 AM	0	0	0	0	0
8:50 AM	2	2	0	1	5	8:50 AM	0	0	0	0	0	8:50 AM	0	0	0	0	0
8:55 AM	0	2	0	2	4	8:55 AM	0	0	0	0	0	8:55 AM	0	0	0	1	1
Count Total	9	126	15	119	269	Count Total	1	2	0	0	3	Count Total	3	1	3	12	19
Peak Hour	3	50	9	57	119	Peak Hour	0	1	0	0	1	Peak Hour	1	1	2	6	10

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

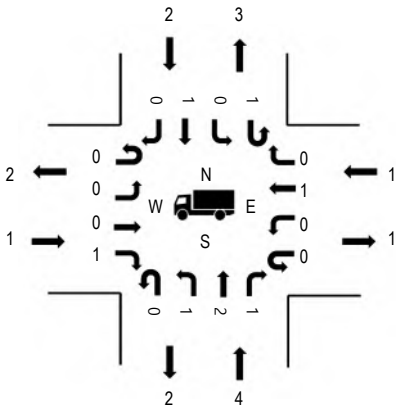
Location: 5 N BRUTSCHER ST & E HAYES ST AM
Date: Tuesday, September 12, 2023
Peak Hour: 07:15 AM - 08:15 AM
Peak 15-Minutes: 07:40 AM - 07:55 AM

Peak Hour

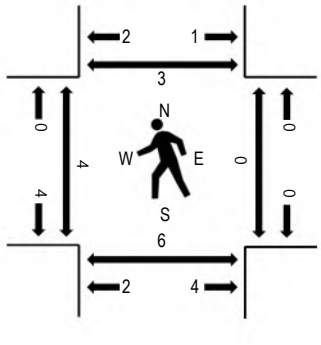
Motorized Vehicles



Heavy Vehicles



Pedestrians



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	0.8%	0.84
WB	2.6%	0.70
NB	3.5%	0.76
SB	3.2%	0.80
All	2.3%	0.84

Traffic Counts - Motorized Vehicles

Interval Start Time	E HAYES ST Eastbound				E HAYES ST Westbound				N BRUTSCHER ST Northbound				N BRUTSCHER ST Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
7:00 AM	0	4	4	0	0	0	1	0	0	1	2	0	0	1	3	1	17	315
7:05 AM	0	0	4	1	0	1	2	1	0	0	5	2	1	0	0	0	17	329
7:10 AM	0	0	7	2	0	0	1	0	0	0	6	2	0	0	2	0	20	336
7:15 AM	0	5	12	1	0	1	1	1	0	1	0	10	0	2	3	0	37	344
7:20 AM	0	2	12	1	0	1	4	0	0	0	6	2	0	0	2	1	31	326
7:25 AM	0	0	5	0	0	0	1	1	0	1	5	4	0	1	1	2	21	324
7:30 AM	0	2	8	0	0	1	2	0	0	0	3	2	0	1	3	1	23	325
7:35 AM	0	0	3	0	0	1	3	0	0	0	5	2	0	0	4	0	18	325
7:40 AM	0	0	12	3	0	1	1	0	0	1	3	7	0	1	5	0	34	331
7:45 AM	0	1	10	2	0	1	2	0	0	0	7	3	0	0	7	0	33	316
7:50 AM	0	1	9	0	0	1	3	0	0	1	7	7	0	0	4	2	35	314
7:55 AM	0	2	4	0	0	4	0	1	0	0	6	6	0	0	4	2	29	296
8:00 AM	0	2	9	1	0	2	2	0	0	3	7	2	0	0	3	0	31	289
8:05 AM	0	2	7	1	0	0	1	0	0	1	5	3	0	0	2	2	24	
8:10 AM	0	2	8	1	0	1	1	0	0	0	3	2	1	0	5	4	28	
8:15 AM	0	1	4	0	0	2	3	0	0	1	1	2	0	2	3	0	19	
8:20 AM	0	1	9	1	0	0	3	2	0	0	3	2	0	0	6	2	29	
8:25 AM	0	1	4	0	0	0	2	0	0	1	3	2	0	0	6	3	22	
8:30 AM	0	1	3	1	0	2	5	1	0	0	2	3	0	1	2	2	23	
8:35 AM	0	2	5	3	0	3	2	1	0	0	1	1	0	0	4	2	24	
8:40 AM	0	2	0	0	0	1	3	1	0	0	4	3	0	1	3	1	19	
8:45 AM	0	0	6	1	0	1	3	2	0	1	4	2	0	2	6	3	31	
8:50 AM	0	2	1	1	0	1	0	1	0	0	1	3	0	1	6	0	17	
8:55 AM	0	1	3	1	0	0	3	0	0	0	5	2	0	1	2	4	22	
Count Total	0	34	149	21	0	25	49	12	0	12	94	74	2	14	86	32	604	
Peak Hour	0	19	99	10	0	14	21	3	0	8	57	50	1	5	43	14	344	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles on Crosswalk

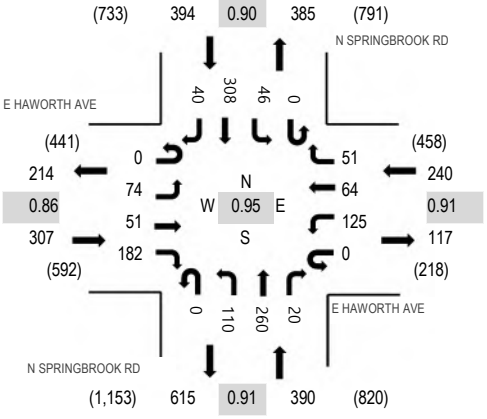
Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
7:00 AM	0	1	0	0	1	7:00 AM	0	0	0	0	0	7:00 AM	0	0	0	0	0
7:05 AM	0	0	0	1	1	7:05 AM	0	0	0	0	0	7:05 AM	0	1	0	0	1
7:10 AM	0	2	0	0	2	7:10 AM	0	0	0	0	0	7:10 AM	3	1	0	0	4
7:15 AM	0	0	0	0	0	7:15 AM	0	0	0	0	0	7:15 AM	1	1	0	0	2
7:20 AM	0	0	0	0	0	7:20 AM	0	0	0	0	0	7:20 AM	0	0	0	0	0
7:25 AM	0	0	0	0	0	7:25 AM	0	0	0	0	0	7:25 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0	7:30 AM	0	0	0	0	0	7:30 AM	0	0	0	0	0
7:35 AM	0	0	1	0	1	7:35 AM	0	0	0	0	0	7:35 AM	0	0	0	0	0
7:40 AM	1	1	0	0	2	7:40 AM	0	0	0	0	0	7:40 AM	1	1	0	1	3
7:45 AM	0	1	0	1	2	7:45 AM	0	0	0	0	0	7:45 AM	0	0	0	2	2
7:50 AM	0	1	0	0	1	7:50 AM	0	0	0	0	0	7:50 AM	1	1	0	0	2
7:55 AM	0	1	0	0	1	7:55 AM	1	0	0	0	1	7:55 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0	8:00 AM	1	0	0	0	1	8:00 AM	0	1	0	0	1
8:05 AM	0	0	0	0	0	8:05 AM	0	0	0	0	0	8:05 AM	0	0	0	0	0
8:10 AM	0	0	0	1	1	8:10 AM	0	0	0	0	0	8:10 AM	1	2	0	0	3
8:15 AM	0	0	0	0	0	8:15 AM	0	0	0	0	0	8:15 AM	0	0	0	0	0
8:20 AM	0	0	0	0	0	8:20 AM	0	0	0	0	0	8:20 AM	0	0	0	0	0
8:25 AM	1	0	0	0	1	8:25 AM	0	0	0	0	0	8:25 AM	1	1	0	2	4
8:30 AM	0	0	0	0	0	8:30 AM	0	0	0	0	0	8:30 AM	0	0	0	2	2
8:35 AM	0	0	1	0	1	8:35 AM	0	0	0	0	0	8:35 AM	0	1	0	0	1
8:40 AM	0	1	0	0	1	8:40 AM	0	0	0	0	0	8:40 AM	0	1	0	1	2
8:45 AM	0	0	0	0	0	8:45 AM	0	0	0	0	0	8:45 AM	0	0	0	1	1
8:50 AM	1	1	0	0	2	8:50 AM	0	0	0	0	0	8:50 AM	0	0	0	0	0
8:55 AM	0	0	0	0	0	8:55 AM	0	0	0	0	0	8:55 AM	0	0	0	0	0
Count Total	3	9	2	3	17	Count Total	2	0	0	0	2	Count Total	8	11	0	9	28
Peak Hour	1	4	1	2	8	Peak Hour	2	0	0	0	2	Peak Hour	4	6	0	3	13

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

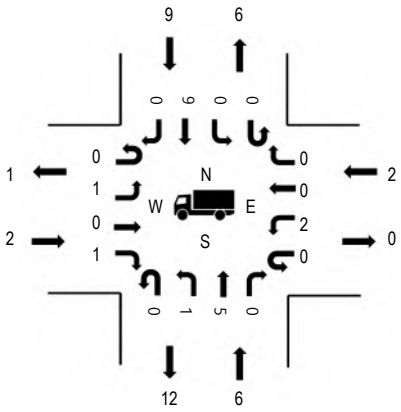
Location: 1 N SPRINGBROOK RD & E HAWORTH AVE PM
Date: Tuesday, September 12, 2023
Peak Hour: 04:05 PM - 05:05 PM
Peak 15-Minutes: 04:10 PM - 04:25 PM

Peak Hour

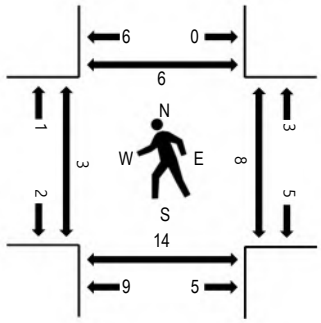
Motorized Vehicles



Heavy Vehicles



Pedestrians



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	0.7%	0.86
WB	0.8%	0.91
NB	1.5%	0.91
SB	2.3%	0.90
All	1.4%	0.95

Traffic Counts - Motorized Vehicles

Interval Start Time	E HAWORTH AVE Eastbound				E HAWORTH AVE Westbound				N SPRINGBROOK RD Northbound				N SPRINGBROOK RD Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
4:00 PM	0	7	6	9	0	11	4	6	0	15	24	2	0	5	14	3	106	1,325
4:05 PM	0	3	3	14	0	6	6	6	0	5	22	4	0	5	35	2	111	1,331
4:10 PM	0	10	6	13	0	14	5	2	0	13	25	2	0	3	24	3	120	1,319
4:15 PM	0	6	3	15	0	9	5	4	0	12	22	1	0	4	27	4	112	1,315
4:20 PM	0	9	3	20	0	14	6	2	0	11	19	3	0	6	23	3	119	1,307
4:25 PM	0	7	3	8	0	8	3	3	0	6	25	0	0	3	28	4	98	1,307
4:30 PM	0	3	3	13	0	16	3	6	0	10	16	2	0	7	19	5	103	1,308
4:35 PM	0	9	7	16	0	12	8	4	0	5	20	1	0	1	30	6	119	1,302
4:40 PM	0	8	4	20	0	11	3	4	0	11	22	4	0	5	32	4	128	1,292
4:45 PM	0	9	6	11	0	10	4	3	0	11	19	1	0	3	21	1	99	1,266
4:50 PM	0	2	4	18	0	10	10	7	0	7	23	2	0	3	30	1	117	1,284
4:55 PM	0	3	3	14	0	9	1	5	0	10	25	0	0	1	19	3	93	1,282
5:00 PM	0	5	6	20	0	6	10	5	0	9	22	0	0	5	20	4	112	1,278
5:05 PM	0	8	4	9	0	9	4	5	0	11	21	3	0	1	21	3	99	
5:10 PM	0	12	4	15	0	14	3	9	0	10	20	1	0	4	22	2	116	
5:15 PM	0	5	2	10	0	9	2	5	0	12	17	5	0	2	32	3	104	
5:20 PM	0	3	2	15	0	12	2	7	0	18	25	3	0	3	26	3	119	
5:25 PM	0	9	4	18	0	10	3	4	0	10	16	0	0	1	21	3	99	
5:30 PM	0	8	2	7	0	9	6	2	0	9	24	3	0	3	21	3	97	
5:35 PM	0	6	5	18	0	10	1	2	0	12	19	2	0	7	22	5	109	
5:40 PM	0	2	4	21	0	6	3	4	0	12	26	1	0	1	19	3	102	
5:45 PM	0	10	4	18	0	7	6	8	0	9	28	1	0	3	20	3	117	
5:50 PM	0	7	0	13	0	11	4	3	0	12	27	1	0	4	27	6	115	
5:55 PM	0	5	5	8	0	8	6	3	0	12	19	0	0	3	16	4	89	
Count Total	0	156	93	343	0	241	108	109	0	252	526	42	0	83	569	81	2,603	
Peak Hour	0	74	51	182	0	125	64	51	0	110	260	20	0	46	308	40	1,331	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles on Crosswalk

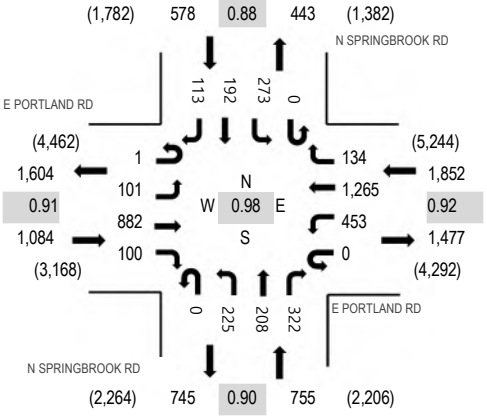
Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
4:00 PM	1	0	0	0	1	4:00 PM	0	0	0	0	0	4:00 PM	2	0	0	0	2
4:05 PM	0	1	0	1	2	4:05 PM	0	1	0	0	1	4:05 PM	0	0	0	0	0
4:10 PM	0	0	0	0	0	4:10 PM	0	0	0	2	2	4:10 PM	1	3	0	0	4
4:15 PM	0	1	0	0	1	4:15 PM	0	0	1	0	1	4:15 PM	1	0	0	1	2
4:20 PM	1	1	0	4	6	4:20 PM	0	0	0	0	0	4:20 PM	0	2	2	0	4
4:25 PM	0	2	1	0	3	4:25 PM	0	0	0	0	0	4:25 PM	0	1	1	1	3
4:30 PM	0	0	0	0	0	4:30 PM	0	1	1	0	2	4:30 PM	1	3	2	2	8
4:35 PM	0	1	0	1	2	4:35 PM	0	0	0	1	1	4:35 PM	0	1	2	0	3
4:40 PM	1	0	0	1	2	4:40 PM	0	0	1	0	1	4:40 PM	0	2	0	0	2
4:45 PM	0	0	0	1	1	4:45 PM	0	0	0	0	0	4:45 PM	1	0	0	2	3
4:50 PM	0	0	0	0	0	4:50 PM	0	0	1	0	1	4:50 PM	0	0	0	0	0
4:55 PM	0	0	0	1	1	4:55 PM	0	0	0	0	0	4:55 PM	0	2	0	0	2
5:00 PM	0	0	1	0	1	5:00 PM	0	0	0	0	0	5:00 PM	0	0	1	0	1
5:05 PM	0	0	0	1	1	5:05 PM	0	0	0	0	0	5:05 PM	0	1	0	0	1
5:10 PM	2	0	0	1	3	5:10 PM	0	0	0	0	0	5:10 PM	0	0	0	2	2
5:15 PM	0	1	0	0	1	5:15 PM	0	0	0	1	1	5:15 PM	0	1	0	0	1
5:20 PM	0	1	0	1	2	5:20 PM	0	0	0	0	0	5:20 PM	0	2	0	0	2
5:25 PM	0	0	1	0	1	5:25 PM	0	0	0	0	0	5:25 PM	1	0	0	1	2
5:30 PM	0	1	0	0	1	5:30 PM	1	0	0	1	2	5:30 PM	0	0	0	0	0
5:35 PM	0	0	0	0	0	5:35 PM	0	0	0	0	0	5:35 PM	0	0	0	0	0
5:40 PM	0	0	0	0	0	5:40 PM	0	0	0	0	0	5:40 PM	0	1	1	1	3
5:45 PM	0	1	0	0	1	5:45 PM	0	0	0	0	0	5:45 PM	0	1	0	0	1
5:50 PM	0	0	0	0	0	5:50 PM	0	0	0	0	0	5:50 PM	0	0	0	0	0
5:55 PM	0	0	0	0	0	5:55 PM	0	0	0	0	0	5:55 PM	0	0	0	0	0
Count Total	5	10	3	12	30	Count Total	1	2	4	5	12	Count Total	7	20	9	10	46
Peak Hour	2	6	2	9	19	Peak Hour	0	2	4	3	9	Peak Hour	4	14	8	6	32

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

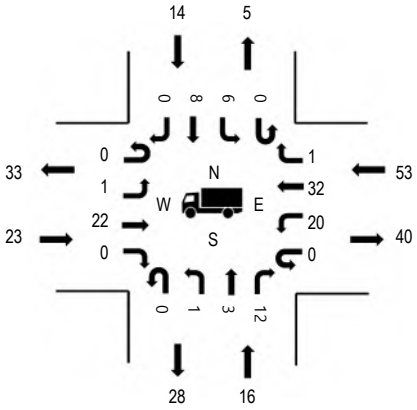
Location: 2 N SPRINGBROOK RD & E PORTLAND RD PM
Date: Tuesday, September 12, 2023
Peak Hour: 04:15 PM - 05:15 PM
Peak 15-Minutes: 04:15 PM - 04:30 PM

Peak Hour

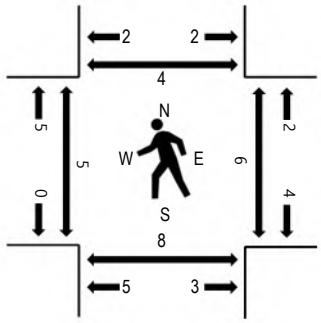
Motorized Vehicles



Heavy Vehicles



Pedestrians



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	2.1%	0.91
WB	2.9%	0.92
NB	2.1%	0.90
SB	2.4%	0.88
All	2.5%	0.98

Traffic Counts - Motorized Vehicles

Interval Start Time	E PORTLAND RD Eastbound				E PORTLAND RD Westbound				N SPRINGBROOK RD Northbound				N SPRINGBROOK RD Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
3:00 PM	1	9	71	10	0	19	70	12	0	15	26	26	0	18	17	9	303	4,035
3:05 PM	0	8	98	5	0	35	95	10	0	23	11	25	0	17	13	4	344	4,045
3:10 PM	0	15	76	10	0	28	64	11	0	32	22	16	0	17	25	6	322	4,054
3:15 PM	0	6	64	9	0	48	86	16	0	17	15	22	0	31	16	8	338	4,063
3:20 PM	0	11	73	9	0	21	68	13	0	24	24	20	0	30	22	6	321	4,102
3:25 PM	0	6	77	7	0	63	102	10	0	19	9	35	0	33	18	10	389	4,117
3:30 PM	0	12	68	9	0	31	61	12	0	26	18	26	0	30	23	13	329	4,103
3:35 PM	0	7	74	11	0	51	100	7	0	15	8	18	0	26	16	8	341	4,111
3:40 PM	0	9	47	6	0	27	64	14	1	16	17	21	0	36	23	12	293	4,141
3:45 PM	0	9	68	7	0	50	108	13	0	27	7	20	0	17	16	12	354	4,187
3:50 PM	0	13	67	11	0	23	80	12	0	11	22	24	0	30	21	15	329	4,161
3:55 PM	0	9	76	6	0	56	113	12	0	20	13	22	0	27	12	6	372	4,212
4:00 PM	0	12	49	7	0	35	84	19	0	31	19	17	0	16	15	9	313	4,220
4:05 PM	0	4	77	10	0	44	110	9	0	12	15	24	0	21	17	10	353	4,225
4:10 PM	0	11	67	7	0	33	78	15	0	25	21	19	0	26	19	10	331	4,260
4:15 PM	0	9	68	7	0	52	127	16	0	15	9	29	0	20	16	9	377	4,269
4:20 PM	0	8	62	9	0	28	87	10	0	21	21	26	0	29	21	14	336	4,258
4:25 PM	0	8	80	5	0	53	125	9	0	16	15	30	0	14	11	9	375	4,254
4:30 PM	1	10	66	16	0	34	75	11	0	24	16	28	0	29	19	8	337	4,248
4:35 PM	0	6	66	5	0	42	135	9	0	17	15	29	0	23	16	8	371	4,234
4:40 PM	0	8	77	5	0	16	102	8	0	14	24	23	0	29	22	11	339	4,228
4:45 PM	0	7	73	7	0	28	89	13	0	20	16	22	0	19	21	13	328	4,220
4:50 PM	0	7	72	7	0	48	111	18	0	24	15	26	0	27	13	12	380	4,258
4:55 PM	0	11	97	7	0	49	135	8	0	19	9	19	0	15	7	4	380	4,211
5:00 PM	0	10	56	6	0	29	81	13	0	15	26	30	0	26	19	7	318	4,145
5:05 PM	0	2	102	16	0	43	127	10	0	12	16	31	0	11	10	8	388	
5:10 PM	0	15	63	10	0	31	71	9	0	28	26	29	0	31	17	10	340	
5:15 PM	0	5	86	8	0	40	97	25	0	13	16	27	0	25	14	10	366	

5:20 PM	0	13	68	7	0	37	85	17	0	19	10	20	0	20	20	16	332
5:25 PM	1	6	84	6	0	62	97	15	0	13	11	29	0	24	17	4	369
5:30 PM	0	10	63	8	0	32	83	18	0	17	22	24	0	19	16	11	323
5:35 PM	0	7	65	11	0	33	120	10	0	23	14	38	0	16	11	17	365
5:40 PM	0	5	66	10	0	36	71	24	0	22	17	34	0	17	17	12	331
5:45 PM	1	10	67	7	0	37	119	15	0	15	14	36	0	28	9	8	366
5:50 PM	0	13	57	6	0	31	85	15	0	26	26	19	0	20	24	11	333
5:55 PM	0	9	57	10	0	39	105	12	0	15	7	28	0	16	9	7	314
Count Total	4	320	2,547	297	0	1,364	3,410	470	1	701	592	912	0	833	602	347	12,400
Peak Hour	1	101	882	100	0	453	1,265	134	0	225	208	322	0	273	192	113	4,269

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles on Crosswalk

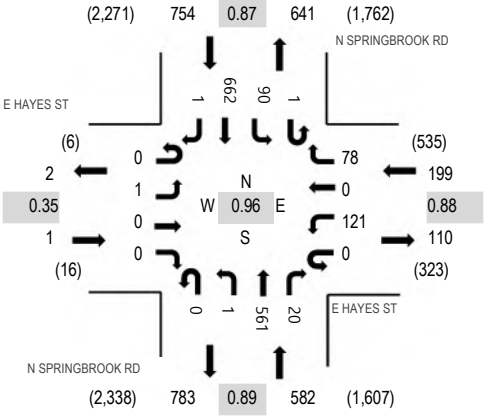
Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
3:00 PM	7	5	4	2	18	3:00 PM	0	0	0	0	0	3:00 PM	1	0	1	1	3
3:05 PM	6	3	3	5	17	3:05 PM	0	0	0	0	0	3:05 PM	0	1	0	0	1
3:10 PM	3	3	5	2	13	3:10 PM	0	0	0	0	0	3:10 PM	0	0	1	0	1
3:15 PM	2	6	4	2	14	3:15 PM	0	0	0	0	0	3:15 PM	1	2	0	1	4
3:20 PM	2	3	4	0	9	3:20 PM	0	0	0	0	0	3:20 PM	0	1	1	0	2
3:25 PM	2	0	3	1	6	3:25 PM	0	0	0	0	0	3:25 PM	2	2	0	0	4
3:30 PM	2	4	5	0	11	3:30 PM	0	0	0	0	0	3:30 PM	0	0	1	0	1
3:35 PM	5	2	6	4	17	3:35 PM	0	1	0	0	1	3:35 PM	0	2	0	0	2
3:40 PM	4	1	4	4	13	3:40 PM	0	0	0	1	1	3:40 PM	1	2	1	0	4
3:45 PM	5	3	8	0	16	3:45 PM	1	0	0	0	1	3:45 PM	1	2	0	0	3
3:50 PM	3	2	5	4	14	3:50 PM	0	0	0	0	0	3:50 PM	2	1	0	1	4
3:55 PM	4	3	6	0	13	3:55 PM	0	0	0	0	0	3:55 PM	0	2	1	1	4
4:00 PM	2	0	6	2	10	4:00 PM	1	0	0	0	1	4:00 PM	0	0	0	0	0
4:05 PM	5	0	2	0	7	4:05 PM	0	0	0	0	0	4:05 PM	4	4	0	0	8
4:10 PM	3	2	4	0	9	4:10 PM	0	0	0	2	2	4:10 PM	1	0	0	0	1
4:15 PM	1	2	2	0	5	4:15 PM	0	0	0	0	0	4:15 PM	0	2	2	2	6
4:20 PM	0	2	4	4	10	4:20 PM	0	0	0	0	0	4:20 PM	1	0	0	1	2
4:25 PM	1	3	8	1	13	4:25 PM	0	0	0	0	0	4:25 PM	0	0	0	0	0
4:30 PM	2	1	6	0	9	4:30 PM	0	1	0	1	2	4:30 PM	0	0	1	0	1
4:35 PM	3	1	7	1	12	4:35 PM	0	0	0	0	0	4:35 PM	2	0	1	0	3
4:40 PM	2	3	2	2	9	4:40 PM	0	0	0	0	0	4:40 PM	0	0	0	0	0
4:45 PM	5	1	2	1	9	4:45 PM	0	0	0	0	0	4:45 PM	2	1	2	0	5
4:50 PM	1	0	3	0	4	4:50 PM	0	0	0	0	0	4:50 PM	2	3	0	1	6
4:55 PM	1	0	5	1	7	4:55 PM	0	0	0	0	0	4:55 PM	0	1	0	0	1
5:00 PM	2	1	6	1	10	5:00 PM	0	0	0	0	0	5:00 PM	0	0	1	0	1
5:05 PM	4	0	5	1	10	5:05 PM	0	0	0	0	0	5:05 PM	0	1	0	0	1
5:10 PM	1	2	3	2	8	5:10 PM	1	0	0	0	1	5:10 PM	0	0	0	0	0
5:15 PM	3	0	2	0	5	5:15 PM	0	0	0	0	0	5:15 PM	0	0	0	0	0
5:20 PM	2	1	2	1	6	5:20 PM	0	0	0	0	0	5:20 PM	0	0	1	1	2
5:25 PM	1	0	5	1	7	5:25 PM	2	0	0	0	2	5:25 PM	0	0	0	0	0
5:30 PM	0	3	2	0	5	5:30 PM	0	0	0	0	0	5:30 PM	1	0	0	0	1
5:35 PM	1	0	2	0	3	5:35 PM	0	0	0	0	0	5:35 PM	0	2	0	0	2
5:40 PM	0	1	2	0	3	5:40 PM	0	0	0	0	0	5:40 PM	1	0	2	1	4
5:45 PM	3	1	0	0	4	5:45 PM	0	0	0	0	0	5:45 PM	0	2	0	1	3
5:50 PM	7	1	1	0	9	5:50 PM	0	0	0	0	0	5:50 PM	0	0	1	1	2
5:55 PM	0	1	2	0	3	5:55 PM	0	0	0	0	0	5:55 PM	0	0	0	0	0
Count Total	95	61	140	42	338	Count Total	5	2	0	4	11	Count Total	22	31	17	12	82
Peak Hour	23	16	53	14	106	Peak Hour	1	1	0	1	3	Peak Hour	7	8	7	4	26

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

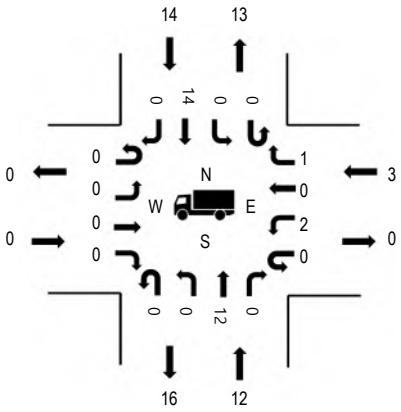
Location: 3 N SPRINGBROOK RD & E HAYES ST PM
Date: Tuesday, September 12, 2023
Peak Hour: 04:50 PM - 05:50 PM
Peak 15-Minutes: 05:25 PM - 05:40 PM

Peak Hour

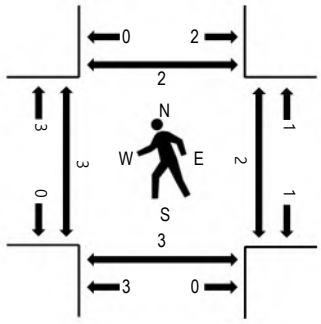
Motorized Vehicles



Heavy Vehicles



Pedestrians



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	0.0%	0.35
WB	1.5%	0.88
NB	2.1%	0.89
SB	1.9%	0.87
All	1.9%	0.96

Traffic Counts - Motorized Vehicles

Interval Start Time	E HAYES ST Eastbound				E HAYES ST Westbound				N SPRINGBROOK RD Northbound				N SPRINGBROOK RD Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
3:00 PM	0	1	0	0	0	7	0	8	0	0	49	1	0	12	43	0	121	1,474
3:05 PM	0	0	0	0	0	10	0	11	0	0	36	1	0	2	56	0	116	1,472
3:10 PM	0	1	0	0	0	11	0	7	0	0	27	0	0	6	55	1	108	1,482
3:15 PM	0	1	0	0	0	6	0	6	0	0	44	5	0	5	64	0	131	1,492
3:20 PM	0	0	0	1	0	11	0	11	0	0	42	1	0	10	47	0	123	1,480
3:25 PM	0	3	0	5	0	4	0	2	0	0	50	3	1	7	81	0	156	1,481
3:30 PM	0	0	0	0	0	6	0	6	0	0	46	2	0	10	55	0	125	1,452
3:35 PM	0	0	0	0	0	11	0	7	0	0	20	3	0	9	67	1	118	1,451
3:40 PM	0	0	0	0	0	6	0	6	0	0	44	3	0	7	47	0	113	1,466
3:45 PM	0	0	1	0	0	13	0	8	0	1	25	2	0	9	66	1	126	1,468
3:50 PM	0	0	0	0	0	9	0	3	0	0	42	2	0	5	50	0	111	1,446
3:55 PM	0	0	0	0	0	5	0	9	0	0	38	4	0	3	67	0	126	1,460
4:00 PM	0	0	0	0	0	8	0	3	0	0	42	4	0	4	58	0	119	1,465
4:05 PM	0	1	0	1	0	10	0	4	0	0	39	2	0	6	63	0	126	1,473
4:10 PM	0	0	0	0	0	9	0	5	0	0	45	1	0	9	49	0	118	1,480
4:15 PM	0	0	0	0	0	7	0	3	0	0	31	4	0	9	65	0	119	1,484
4:20 PM	0	0	0	0	0	13	0	3	0	0	51	1	0	7	49	0	124	1,490
4:25 PM	0	0	0	0	0	9	0	3	0	0	43	1	0	7	64	0	127	1,484
4:30 PM	0	0	0	0	0	7	0	4	0	0	48	0	0	6	59	0	124	1,500
4:35 PM	0	0	0	0	0	7	0	4	0	0	54	2	0	6	60	0	133	1,497
4:40 PM	0	0	0	0	0	10	0	9	0	0	52	2	0	3	39	0	115	1,501
4:45 PM	0	0	0	0	0	6	0	7	0	0	35	3	0	3	50	0	104	1,519
4:50 PM	0	0	0	0	0	14	0	10	0	1	33	1	0	6	60	0	125	1,536
4:55 PM	0	0	0	0	0	7	0	7	0	0	44	5	0	5	63	0	131	1,519
5:00 PM	0	0	0	0	0	9	0	8	0	0	57	2	0	9	42	0	127	1,490
5:05 PM	0	0	0	0	0	8	0	7	0	0	46	0	0	10	62	0	133	
5:10 PM	0	0	0	0	0	15	0	9	0	0	43	0	0	11	44	0	122	
5:15 PM	0	0	0	0	0	6	0	2	0	0	47	3	0	9	58	0	125	

5:20 PM	0	0	0	0	0	11	0	3	0	0	38	2	0	5	59	0	118
5:25 PM	0	0	0	0	0	12	0	5	0	0	47	0	0	7	71	1	143
5:30 PM	0	1	0	0	0	5	0	5	0	0	47	2	1	10	50	0	121
5:35 PM	0	0	0	0	0	15	0	8	0	0	55	3	0	9	47	0	137
5:40 PM	0	0	0	0	0	14	0	11	0	0	50	0	0	4	54	0	133
5:45 PM	0	0	0	0	0	5	0	3	0	0	54	2	0	5	52	0	121
5:50 PM	0	0	0	0	0	8	0	5	0	0	36	1	0	10	48	0	108
5:55 PM	0	0	0	0	0	4	0	5	0	0	35	2	0	7	49	0	102
Count Total	0	8	1	7	0	318	0	217	0	2	1,535	70	2	252	2,013	4	4,429
Peak Hour	0	1	0	0	0	121	0	78	0	1	561	20	1	90	662	1	1,536

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles on Crosswalk

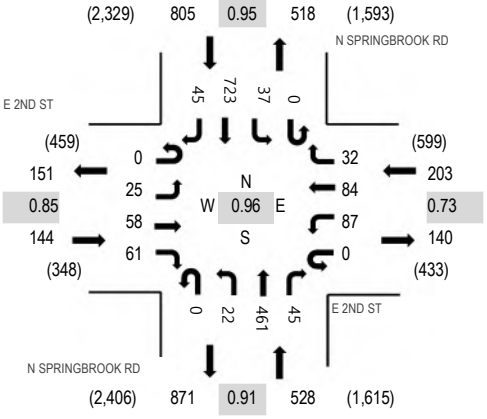
Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
3:00 PM	0	8	0	3	11	3:00 PM	0	0	1	0	1	3:00 PM	0	0	1	1	2
3:05 PM	0	4	0	6	10	3:05 PM	0	0	0	0	0	3:05 PM	0	0	0	0	0
3:10 PM	0	3	0	2	5	3:10 PM	0	0	0	0	0	3:10 PM	0	0	1	0	1
3:15 PM	0	6	0	4	10	3:15 PM	0	0	0	0	0	3:15 PM	0	0	0	0	0
3:20 PM	0	1	0	3	4	3:20 PM	0	0	0	0	0	3:20 PM	0	0	0	0	0
3:25 PM	0	0	0	1	1	3:25 PM	0	0	0	0	0	3:25 PM	1	0	0	0	1
3:30 PM	0	5	0	2	7	3:30 PM	0	0	0	0	0	3:30 PM	0	0	0	0	0
3:35 PM	0	0	1	6	7	3:35 PM	0	0	0	0	0	3:35 PM	0	0	0	0	0
3:40 PM	0	2	0	5	7	3:40 PM	0	0	0	0	0	3:40 PM	0	0	0	0	0
3:45 PM	0	3	1	5	9	3:45 PM	0	0	0	1	1	3:45 PM	0	0	0	0	0
3:50 PM	0	4	0	1	5	3:50 PM	0	0	0	0	0	3:50 PM	0	0	0	0	0
3:55 PM	0	2	1	6	9	3:55 PM	0	0	0	0	0	3:55 PM	0	0	0	0	0
4:00 PM	0	0	0	5	5	4:00 PM	0	0	0	0	0	4:00 PM	0	0	0	0	0
4:05 PM	0	1	0	0	1	4:05 PM	0	0	0	0	0	4:05 PM	0	0	1	0	1
4:10 PM	0	3	1	3	7	4:10 PM	0	0	0	2	2	4:10 PM	0	0	0	0	0
4:15 PM	0	2	0	2	4	4:15 PM	0	0	0	0	0	4:15 PM	0	0	0	0	0
4:20 PM	0	2	0	5	7	4:20 PM	0	0	0	0	0	4:20 PM	0	0	0	0	0
4:25 PM	0	3	0	6	9	4:25 PM	0	0	0	0	0	4:25 PM	0	0	0	0	0
4:30 PM	0	2	1	5	8	4:30 PM	0	0	1	1	2	4:30 PM	1	0	0	0	1
4:35 PM	0	1	0	4	5	4:35 PM	0	0	0	0	0	4:35 PM	1	0	0	0	1
4:40 PM	0	1	0	1	2	4:40 PM	0	0	0	0	0	4:40 PM	0	0	2	0	2
4:45 PM	0	1	0	2	3	4:45 PM	0	0	1	0	1	4:45 PM	0	0	1	0	1
4:50 PM	0	0	1	0	1	4:50 PM	0	0	0	0	0	4:50 PM	0	0	0	0	0
4:55 PM	0	2	0	1	3	4:55 PM	0	0	0	0	0	4:55 PM	0	0	0	1	1
5:00 PM	0	1	1	1	3	5:00 PM	0	0	0	0	0	5:00 PM	0	0	0	0	0
5:05 PM	0	1	0	2	3	5:05 PM	0	0	0	0	0	5:05 PM	0	0	1	0	1
5:10 PM	0	2	0	1	3	5:10 PM	0	0	0	0	0	5:10 PM	0	0	0	0	0
5:15 PM	0	1	0	1	2	5:15 PM	0	0	0	0	0	5:15 PM	0	0	0	0	0
5:20 PM	0	0	0	0	0	5:20 PM	0	0	0	0	0	5:20 PM	0	0	0	0	0
5:25 PM	0	1	0	1	2	5:25 PM	0	0	0	0	0	5:25 PM	0	0	0	0	0
5:30 PM	0	2	0	4	6	5:30 PM	0	0	0	0	0	5:30 PM	0	0	0	1	1
5:35 PM	0	0	1	0	1	5:35 PM	0	0	0	0	0	5:35 PM	3	3	0	0	6
5:40 PM	0	1	0	2	3	5:40 PM	0	0	0	0	0	5:40 PM	0	0	1	0	1
5:45 PM	0	1	0	1	2	5:45 PM	0	0	0	0	0	5:45 PM	0	0	0	0	0
5:50 PM	0	1	0	0	1	5:50 PM	0	0	0	0	0	5:50 PM	1	0	0	1	2
5:55 PM	0	0	0	1	1	5:55 PM	0	0	0	0	0	5:55 PM	0	0	0	1	1
Count Total	0	67	8	92	167	Count Total	0	0	3	4	7	Count Total	7	3	8	5	23
Peak Hour	0	12	3	14	29	Peak Hour	0	0	0	0	0	Peak Hour	3	3	2	2	10

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

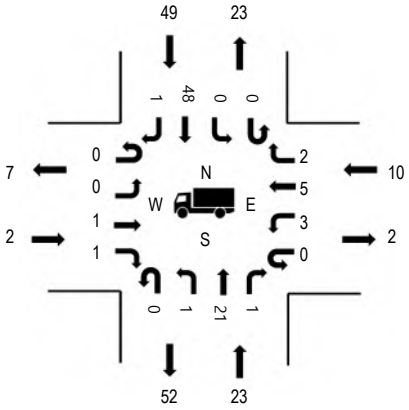
Location: 4 N SPRINGBROOK RD & E 2ND ST PM
Date: Tuesday, September 12, 2023
Peak Hour: 03:40 PM - 04:40 PM
Peak 15-Minutes: 04:25 PM - 04:40 PM

Peak Hour

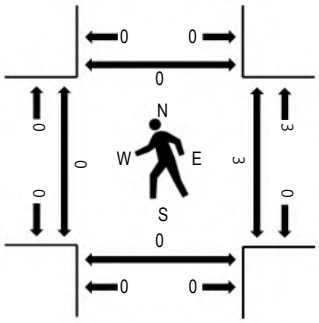
Motorized Vehicles



Heavy Vehicles



Pedestrians



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	1.4%	0.85
WB	4.9%	0.73
NB	4.4%	0.91
SB	6.1%	0.95
All	5.0%	0.96

Traffic Counts - Motorized Vehicles

Interval Start Time	E 2ND ST Eastbound				E 2ND ST Westbound				N SPRINGBROOK RD Northbound				N SPRINGBROOK RD Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
3:00 PM	0	1	5	2	0	0	11	6	0	2	38	2	0	2	57	0	126	1,603
3:05 PM	0	2	2	1	0	6	10	2	0	2	35	4	0	7	48	9	128	1,620
3:10 PM	0	2	5	2	0	9	10	3	0	2	20	4	0	5	54	2	118	1,638
3:15 PM	0	3	2	5	0	2	8	4	0	3	46	4	0	9	59	4	149	1,658
3:20 PM	0	2	8	7	0	3	4	6	0	1	37	8	0	2	53	5	136	1,641
3:25 PM	0	4	4	2	0	5	3	4	0	1	48	2	0	7	73	2	155	1,644
3:30 PM	0	3	5	3	0	4	6	5	0	0	33	2	0	7	58	2	128	1,633
3:35 PM	0	2	2	5	0	3	8	3	0	2	22	5	0	2	61	5	120	1,650
3:40 PM	0	1	6	7	0	8	6	2	0	1	38	3	0	2	60	5	139	1,680
3:45 PM	0	2	8	5	0	6	9	1	0	1	24	1	0	3	56	5	121	1,674
3:50 PM	0	1	6	3	0	3	17	1	0	2	40	6	0	2	56	10	147	1,674
3:55 PM	0	1	4	3	0	7	2	7	0	2	37	0	0	6	65	2	136	1,665
4:00 PM	0	2	10	6	0	11	6	3	0	1	35	2	0	3	62	2	143	1,670
4:05 PM	0	2	4	4	0	9	6	5	0	1	37	5	0	5	64	4	146	1,673
4:10 PM	0	2	5	8	0	9	7	2	0	1	39	3	0	2	56	4	138	1,668
4:15 PM	0	2	3	4	0	5	5	2	0	1	40	7	0	4	58	1	132	1,658
4:20 PM	0	1	4	6	0	6	6	0	0	1	43	4	0	1	62	5	139	1,674
4:25 PM	0	1	7	5	0	6	7	3	0	2	38	5	0	3	65	2	144	1,668
4:30 PM	0	3	1	3	0	9	8	0	0	5	47	5	0	2	58	4	145	1,669
4:35 PM	0	7	0	7	0	8	5	6	0	4	43	4	0	4	61	1	150	1,674
4:40 PM	0	1	6	3	0	8	10	4	0	2	45	4	0	1	48	1	133	1,658
4:45 PM	0	0	4	1	0	7	4	1	0	2	41	4	0	3	47	7	121	1,661
4:50 PM	0	1	1	7	0	5	8	2	0	3	30	8	0	5	59	9	138	1,676
4:55 PM	0	2	5	3	0	6	7	1	0	1	46	3	0	1	63	3	141	1,650
5:00 PM	0	1	4	4	0	6	7	3	0	3	53	7	0	1	54	3	146	1,618
5:05 PM	0	5	0	2	0	8	4	1	0	1	45	4	0	1	66	4	141	
5:10 PM	0	3	3	9	0	8	9	6	0	0	37	7	0	2	41	3	128	
5:15 PM	0	3	5	2	0	7	17	5	0	0	38	1	0	8	54	8	148	

5:20 PM	0	1	5	1	0	11	10	2	0	0	33	10	0	3	53	4	133
5:25 PM	0	4	4	0	0	5	5	3	0	1	40	1	0	6	72	4	145
5:30 PM	0	2	2	4	0	9	7	4	0	0	47	9	0	4	60	2	150
5:35 PM	0	3	2	1	0	4	6	4	0	0	49	5	0	7	52	1	134
5:40 PM	0	0	1	2	0	2	11	3	0	0	49	3	0	5	53	7	136
5:45 PM	0	2	3	1	0	3	8	5	0	3	47	3	0	7	51	3	136
5:50 PM	0	1	3	5	0	5	7	2	0	0	28	5	0	1	52	3	112
5:55 PM	0	0	2	1	0	6	4	1	0	2	40	4	0	5	42	2	109
Count Total	0	73	141	134	0	219	268	112	0	53	1,408	154	0	138	2,053	138	4,891
Peak Hour	0	25	58	61	0	87	84	32	0	22	461	45	0	37	723	45	1,680

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles on Crosswalk

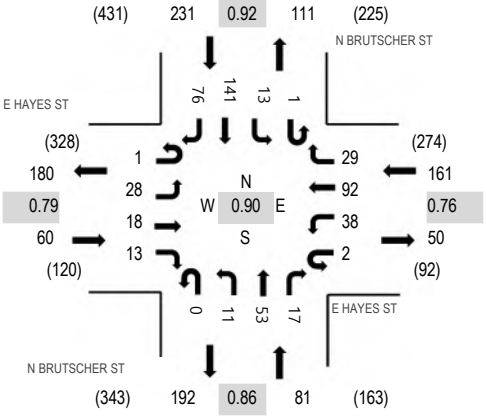
Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
3:00 PM	1	4	1	5	11	3:00 PM	1	0	0	0	1	3:00 PM	0	1	1	1	3
3:05 PM	0	4	1	7	12	3:05 PM	0	0	0	0	0	3:05 PM	0	0	1	0	1
3:10 PM	0	2	1	1	4	3:10 PM	0	0	0	0	0	3:10 PM	0	0	0	0	0
3:15 PM	0	5	1	3	9	3:15 PM	0	0	0	0	0	3:15 PM	0	0	0	0	0
3:20 PM	2	1	0	2	5	3:20 PM	0	0	0	0	0	3:20 PM	0	0	0	0	0
3:25 PM	0	1	0	2	3	3:25 PM	0	0	0	0	0	3:25 PM	1	0	0	0	1
3:30 PM	0	4	0	2	6	3:30 PM	0	0	0	0	0	3:30 PM	0	0	0	0	0
3:35 PM	0	2	0	5	7	3:35 PM	0	0	0	0	0	3:35 PM	0	0	0	1	1
3:40 PM	1	1	2	5	9	3:40 PM	0	0	1	0	1	3:40 PM	0	0	0	0	0
3:45 PM	0	4	1	4	9	3:45 PM	0	0	0	0	0	3:45 PM	0	0	0	0	0
3:50 PM	0	2	2	3	7	3:50 PM	0	0	0	0	0	3:50 PM	0	0	2	0	2
3:55 PM	0	2	1	7	10	3:55 PM	1	0	0	0	1	3:55 PM	0	0	0	0	0
4:00 PM	0	0	1	4	5	4:00 PM	0	0	0	0	0	4:00 PM	0	0	0	0	0
4:05 PM	0	1	0	1	2	4:05 PM	0	0	0	0	0	4:05 PM	0	0	0	0	0
4:10 PM	0	3	1	4	8	4:10 PM	0	0	0	2	2	4:10 PM	0	0	0	0	0
4:15 PM	0	1	2	1	4	4:15 PM	0	0	0	0	0	4:15 PM	0	0	0	0	0
4:20 PM	1	3	0	5	9	4:20 PM	0	0	0	0	0	4:20 PM	0	0	0	0	0
4:25 PM	0	3	0	6	9	4:25 PM	0	0	0	0	0	4:25 PM	0	0	0	0	0
4:30 PM	0	2	0	6	8	4:30 PM	0	0	0	2	2	4:30 PM	0	0	1	1	2
4:35 PM	0	1	0	3	4	4:35 PM	0	0	0	0	0	4:35 PM	0	0	0	0	0
4:40 PM	0	1	0	2	3	4:40 PM	0	0	0	0	0	4:40 PM	0	0	0	0	0
4:45 PM	0	1	1	2	4	4:45 PM	0	0	0	0	0	4:45 PM	0	2	0	1	3
4:50 PM	0	0	0	0	0	4:50 PM	0	0	0	0	0	4:50 PM	0	0	0	0	0
4:55 PM	0	1	0	1	2	4:55 PM	0	0	0	0	0	4:55 PM	0	0	0	0	0
5:00 PM	0	1	0	1	2	5:00 PM	0	0	0	0	0	5:00 PM	0	0	0	0	0
5:05 PM	0	2	0	2	4	5:05 PM	0	0	0	0	0	5:05 PM	0	0	0	2	2
5:10 PM	0	2	0	2	4	5:10 PM	0	0	0	0	0	5:10 PM	1	0	0	1	2
5:15 PM	1	1	0	1	3	5:15 PM	1	0	0	0	1	5:15 PM	0	0	0	0	0
5:20 PM	0	0	0	0	0	5:20 PM	0	0	0	0	0	5:20 PM	0	0	0	1	1
5:25 PM	0	1	0	1	2	5:25 PM	0	0	0	0	0	5:25 PM	0	0	0	0	0
5:30 PM	0	4	0	3	7	5:30 PM	0	0	0	0	0	5:30 PM	0	0	0	0	0
5:35 PM	0	0	2	2	4	5:35 PM	0	0	0	0	0	5:35 PM	0	0	0	0	0
5:40 PM	0	1	0	2	3	5:40 PM	0	0	0	0	0	5:40 PM	0	0	0	2	2
5:45 PM	0	0	0	0	0	5:45 PM	0	0	0	0	0	5:45 PM	0	0	2	0	2
5:50 PM	1	1	0	1	3	5:50 PM	0	0	0	1	1	5:50 PM	0	0	0	0	0
5:55 PM	0	0	0	1	1	5:55 PM	0	0	0	0	0	5:55 PM	0	0	0	0	0
Count Total	7	62	17	97	183	Count Total	3	0	1	5	9	Count Total	2	3	7	10	22
Peak Hour	2	23	10	49	84	Peak Hour	1	0	1	4	6	Peak Hour	0	0	3	1	4

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

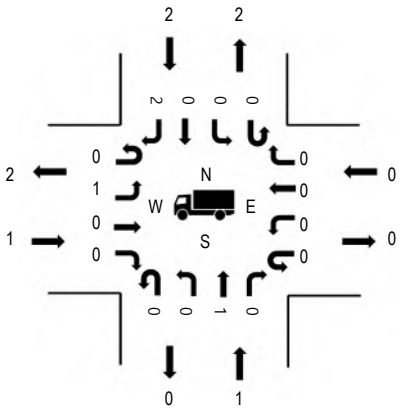
Location: 5 N BRUTSCHER ST & E HAYES ST PM
Date: Tuesday, September 12, 2023
Peak Hour: 04:30 PM - 05:30 PM
Peak 15-Minutes: 04:35 PM - 04:50 PM

Peak Hour

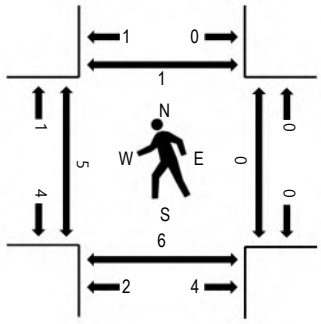
Motorized Vehicles



Heavy Vehicles



Pedestrians



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	1.7%	0.79
WB	0.0%	0.76
NB	1.2%	0.86
SB	0.9%	0.92
All	0.8%	0.90

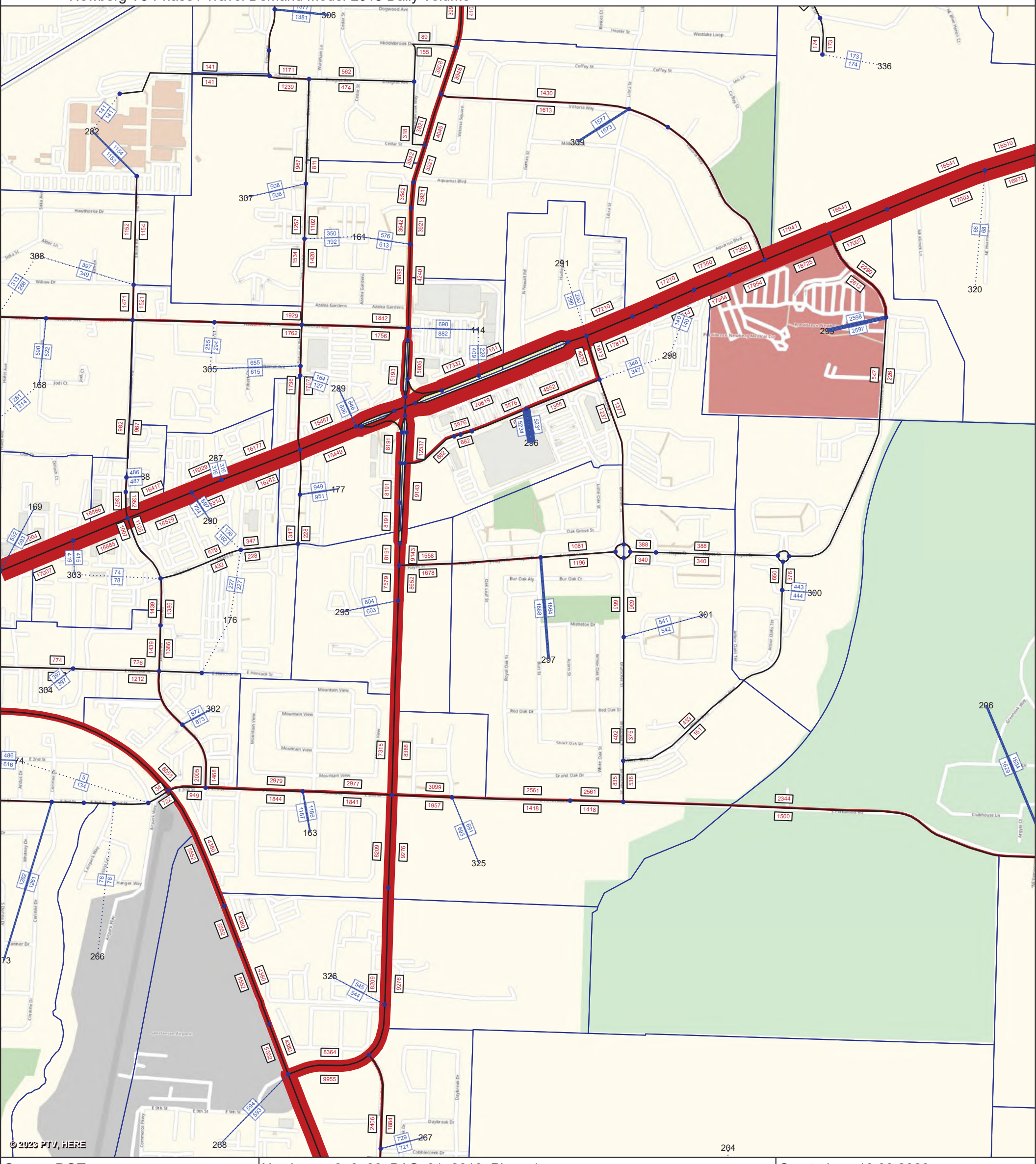
Traffic Counts - Motorized Vehicles

Interval Start Time	E HAYES ST Eastbound				E HAYES ST Westbound				N BRUTSCHER ST Northbound				N BRUTSCHER ST Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
4:00 PM	0	2	3	0	0	2	4	3	0	1	3	2	0	0	14	4	38	522
4:05 PM	0	2	1	3	0	6	8	1	0	1	7	3	1	1	7	13	54	529
4:10 PM	0	3	5	1	0	3	8	4	0	2	3	1	0	1	10	5	46	520
4:15 PM	0	3	3	0	0	1	2	4	0	0	7	1	0	1	8	6	36	523
4:20 PM	0	3	2	1	0	2	7	1	0	0	4	1	1	1	14	9	46	527
4:25 PM	0	2	2	0	0	1	5	3	0	0	5	0	0	0	9	5	32	520
4:30 PM	0	2	1	0	0	2	8	5	0	1	5	1	1	2	11	3	42	533
4:35 PM	1	0	3	2	1	4	12	3	0	1	4	3	0	2	8	2	46	519
4:40 PM	0	3	3	0	0	4	10	3	0	1	6	2	0	2	9	6	49	520
4:45 PM	0	2	2	1	0	2	9	5	0	1	4	2	0	2	18	5	53	504
4:50 PM	0	5	0	0	1	3	4	2	0	2	3	2	0	0	12	10	44	477
4:55 PM	0	3	2	0	0	3	7	1	0	3	3	0	0	0	13	1	36	464
5:00 PM	0	3	1	1	0	2	7	0	0	0	7	0	0	1	14	9	45	466
5:05 PM	0	2	0	2	0	5	8	3	0	1	4	2	0	3	10	5	45	
5:10 PM	0	3	3	2	0	1	12	1	0	0	3	3	0	0	13	8	49	
5:15 PM	0	1	1	3	0	5	5	2	0	1	3	1	0	0	11	7	40	
5:20 PM	0	4	2	1	0	3	4	1	0	0	6	0	0	0	8	10	39	
5:25 PM	0	0	0	1	0	4	6	3	0	0	5	1	0	1	14	10	45	
5:30 PM	0	1	1	1	0	2	2	2	0	0	4	2	0	1	10	2	28	
5:35 PM	0	4	3	1	0	1	10	0	0	0	7	1	0	0	8	12	47	
5:40 PM	0	2	0	0	0	0	9	2	0	1	4	0	0	0	8	7	33	
5:45 PM	0	1	1	2	0	4	3	0	0	0	4	1	0	0	7	3	26	
5:50 PM	0	2	1	0	0	0	2	2	0	0	6	0	0	0	13	5	31	
5:55 PM	0	1	0	3	0	3	5	1	0	0	9	2	0	1	6	7	38	
Count Total	1	54	40	25	2	63	157	52	0	16	116	31	3	19	255	154	988	
Peak Hour	1	28	18	13	2	38	92	29	0	11	53	17	1	13	141	76	533	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles on Crosswalk

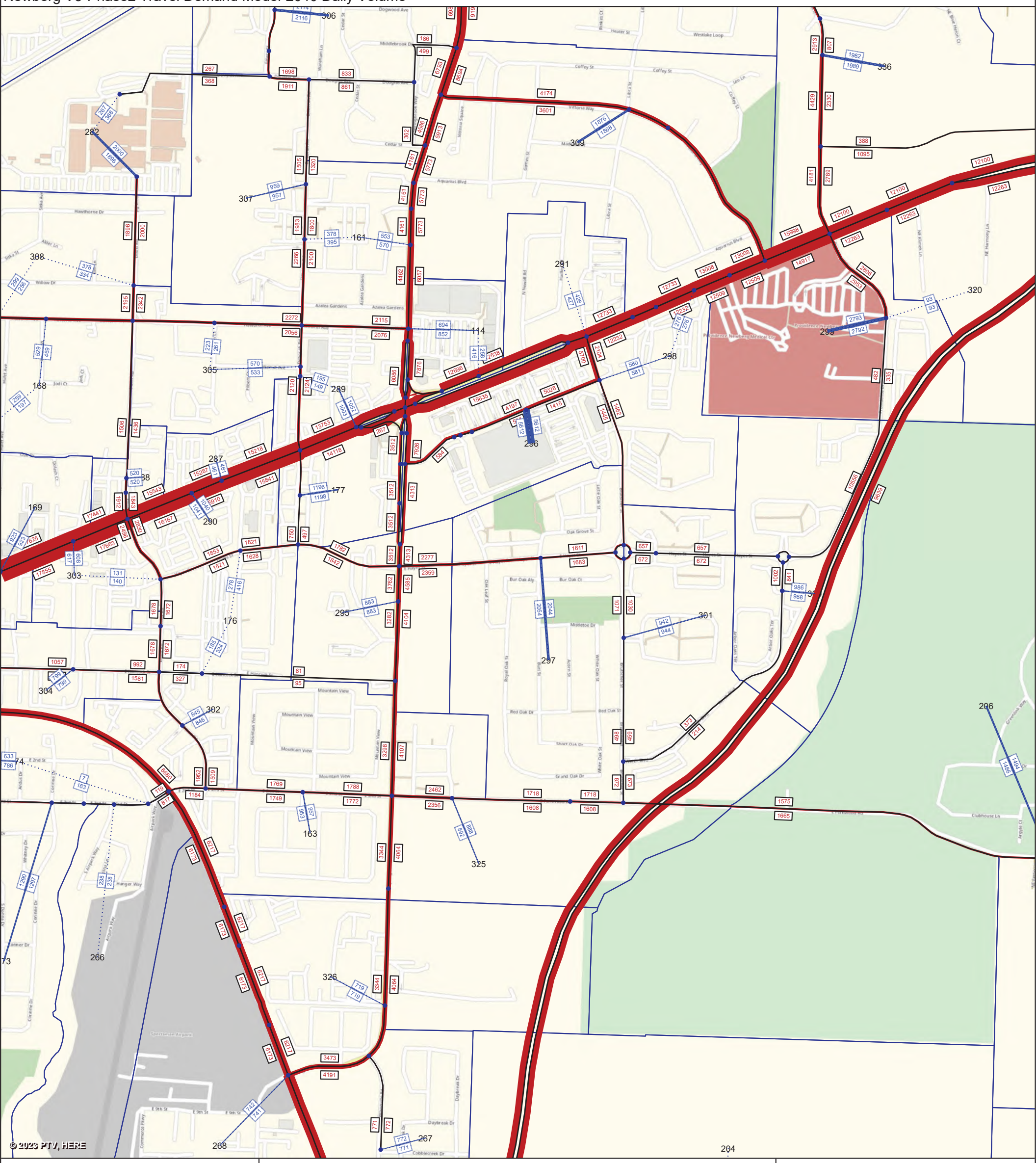
Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
4:00 PM	0	0	0	0	0	4:00 PM	0	0	0	0	0	4:00 PM	0	0	0	0	0
4:05 PM	0	0	1	1	2	4:05 PM	0	0	0	0	0	4:05 PM	0	0	0	0	0
4:10 PM	0	0	0	0	0	4:10 PM	0	0	0	0	0	4:10 PM	0	0	0	0	0
4:15 PM	0	0	0	1	1	4:15 PM	0	0	0	0	0	4:15 PM	2	0	0	0	2
4:20 PM	0	0	0	0	0	4:20 PM	0	0	0	0	0	4:20 PM	0	0	0	0	0
4:25 PM	0	0	0	0	0	4:25 PM	0	0	0	0	0	4:25 PM	0	2	0	0	2
4:30 PM	0	0	0	1	1	4:30 PM	0	0	1	0	1	4:30 PM	0	0	0	0	0
4:35 PM	0	0	0	0	0	4:35 PM	0	0	0	0	0	4:35 PM	4	1	0	1	6
4:40 PM	1	0	0	0	1	4:40 PM	0	0	0	0	0	4:40 PM	0	0	0	0	0
4:45 PM	0	0	0	1	1	4:45 PM	0	0	1	0	1	4:45 PM	0	0	0	0	0
4:50 PM	0	1	0	0	1	4:50 PM	0	0	0	0	0	4:50 PM	0	0	0	0	0
4:55 PM	0	0	0	0	0	4:55 PM	0	0	0	0	0	4:55 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0	5:00 PM	0	0	0	0	0	5:00 PM	0	0	0	0	0
5:05 PM	0	0	0	0	0	5:05 PM	0	0	0	0	0	5:05 PM	1	1	0	0	2
5:10 PM	0	0	0	0	0	5:10 PM	0	0	0	0	0	5:10 PM	0	1	0	0	1
5:15 PM	0	0	0	0	0	5:15 PM	0	0	0	0	0	5:15 PM	0	0	0	0	0
5:20 PM	0	0	0	0	0	5:20 PM	0	0	0	0	0	5:20 PM	0	1	0	0	1
5:25 PM	0	0	0	0	0	5:25 PM	0	0	0	0	0	5:25 PM	0	2	0	0	2
5:30 PM	0	0	0	0	0	5:30 PM	0	0	0	0	0	5:30 PM	0	1	1	0	2
5:35 PM	0	0	0	1	1	5:35 PM	0	0	0	0	0	5:35 PM	0	3	0	0	3
5:40 PM	0	0	0	0	0	5:40 PM	0	0	0	0	0	5:40 PM	2	1	0	0	3
5:45 PM	0	1	0	0	1	5:45 PM	0	0	0	0	0	5:45 PM	0	0	0	0	0
5:50 PM	0	0	0	0	0	5:50 PM	0	0	0	0	0	5:50 PM	1	0	0	0	1
5:55 PM	0	0	0	0	0	5:55 PM	0	0	0	2	2	5:55 PM	1	0	0	0	1
Count Total	1	2	1	5	9	Count Total	0	0	2	2	4	Count Total	11	13	1	1	26
Peak Hour	1	1	0	2	4	Peak Hour	0	0	2	0	2	Peak Hour	5	6	0	1	12

Newberg V3-Phase1 Travel Demand Model-2018 Daily Volume

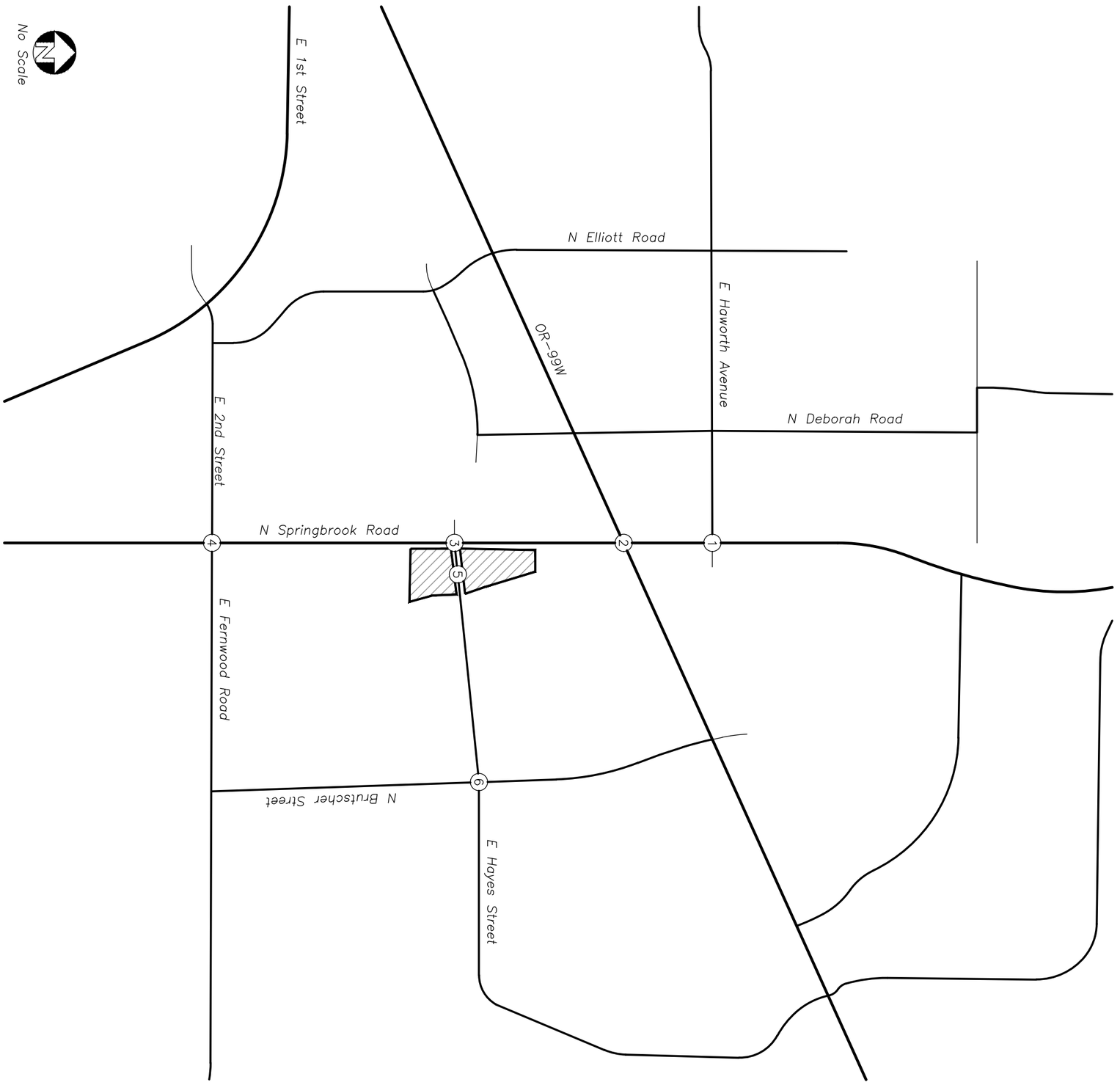


Oregon DOT	Newberg_v3_0_00_BAS_01_2018_Phase1.ver	Created on: 10.08.2023

Newberg V3-Phase2 Travel Demand Model-2040 Daily Volume



Oregon DOT	Newberg_v3_0_00_COM_01_2040_Phase2.ver	Created on: 10.08.2023



TRAFFIC VOLUMES

In-Process Development Trips

AM & PM Peak Hours

Figure A

West Branch Apartments

7/8/2024

Appendix D

Crash History Data

CITY OF NEWBERG, YAMHILL COUNTY

SPRINGBROOK RD and HAWORTH AVE, City of Newberg, Yamhill County, 01/01/2017 to 12/31/2021

1 - 21 of 21 Crash records shown. (19 REPORTED CRASHES APPLICABLE TO INTERSECTION)

SER#	S P	D R	M J	S	W	DATE	CLASS	CITY STREET	INT-TYPE						SPCL USE													
INVEST	E	A	U	I	C	O	DAY	DIST	FIRST STREET	RD CHAR	(MEDIAN)	INT-REL	OFFRD	WTHR	CRASH		TRLR	QTY	MOVE				A	S					
RD DPT	E	L	G	N	H	R	TIME	FROM	SECOND STREET	DIRECT	LEGS	TRAF-	RNDBT	SURF	COLL		OWNER		FROM		PRTC	INJ	G	E	LICNS	PED			
UNLOC?	D	C	S	V	L	K	LAT	LONG	LRS	LOCTN	(#LANES)	CONTL	DRVWY	LIGHT	SVRTY	V#	TYPE		TO	P#	TYPE	SVRTY	E	X	RES	LOC	ERROR	ACT	EVENT	CAUSE
00866	N	N	N	N			08/15/2017	16	HAWORTH AVE	INTER	3-LEG	N	N	CLR	ANGL-OTH	01	NONE	0	STRGHT											03
NO RPT							TU	0	SPRINGBROOK RD	CN		STOP SIGN	N	DRY	TURN		PRVTE		N -S									000		00
N							4P			03	0		N	DAY	INJ		PSNGR CAR			01	DRVR	NONE	55	M	OR-Y		021	000		03
N							45 18 28.73	-122 56 48.98																	OR>25					
																02	NONE	0	TURN-L											
																	PRVTE		W -N									000		00
																	PSNGR CAR			01	DRVR	INJC	67	F	OR-Y		000	000		00
																									OR<25					
00889	N	N	N	N			08/20/2017	16	HAWORTH AVE	INTER	3-LEG	N	N	CLR	ANGL-OTH	01	NONE	0	TURN-R										013	03
CITY							SU	0	SPRINGBROOK RD	CN		STOP SIGN	N	DRY	TURN		PRVTE		E -N									018		00
N							8P			02	0		Y	DUSK	INJ		PSNGR CAR			01	DRVR	NONE	25	F	OTH-Y		000	000		00
N							45 18 28.73	-122 56 48.98																	N-RES					
																02	NONE	0	STRGHT											
																	PRVTE		S -N									000	013	00
																	PSNGR CAR			01	DRVR	INJB	23	F	NONE		021	000		03
																									OR>25					
																02	NONE	0	STRGHT											
																	PRVTE		S -N									000	013	00
																	PSNGR CAR			02	PSNG	INJA	26	F			000	000		00
																03	NONE	0	STOP											
																	PRVTE		W -E									022		00
																	PSNGR CAR			01	DRVR	NONE	46	F	OR-Y		000	000		00
																									OR<25					
00983	Y	N	Y	N	N	N	09/12/2017	16	HAWORTH AVE	INTER	3-LEG	N	N	CLR	O-1 L-TURN	01	NONE	0	STRGHT											02,30
CITY							TU	0	SPRINGBROOK RD	CN		STOP SIGN	N	DRY	TURN		PRVTE		N -S									000		00
N							6P			01	0		N	DAY	INJ		PSNGR CAR			01	DRVR	NONE	34	M	OR-Y		028,050	000		02,30
N							45 18 28.73	-122 56 48.98																	OR>25					
																02	NONE	0	TURN-L											

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CITY OF NEWBERG, YAMHILL COUNTY

SPRINGBROOK RD and HAWORTH AVE, City of Newberg, Yamhill County, 01/01/2017 to 12/31/2021

1 - 21 of 21 Crash records shown. (19 REPORTED CRASHES APPLICABLE TO INTERSECTION)

															PRVTE	S -W												000		00
															PSNGR CAR			01	DRVR	INJB	58	M	OR-Y		000		000		00
																							OR<25								
00188	N	N	N	N	02/24/2017		16	HAWORTH AVE	INTER	3-LEG	N		N	RAIN	ANGL-OTH	01	NONE	9	STRGHT												03
NONE					FR		0	SPRINGBROOK RD	CN		STOP SIGN		N	WET	TURN		N/A		N -S										000		00
N					12P				03	0			N	DAY	PDO		UNKNOWN			01	DRVR	NONE	00	Unk	UNK		000		000		00
N					45 18 28.73		-122 56 48.98																		UNK							
																02	NONE	9	TURN-R												
															N/A				W -S										015		00
															PSNGR CAR			01	DRVR	NONE	00	Unk	UNK		000		000		00
																							UNK								
00599	N	N	N	N	06/16/2017		16	HAWORTH AVE	INTER	3-LEG	N		N	CLR	ANGL-OTH	01	NONE	9	STRGHT												02
NONE					FR		0	SPRINGBROOK RD	CN		STOP SIGN		N	DRY	ANGL		N/A		S -N										000		00
N					10A				04	0			N	DAY	PDO		PSNGR CAR			01	DRVR	NONE	00	Unk	UNK		000		000		00
N					45 18 28.73		-122 56 48.98																		UNK							
																02	NONE	9	STRGHT												
															N/A				W -E										000		00
															PSNGR CAR			01	DRVR	NONE	00	Unk	UNK		000		000		00
																							UNK								
00098	N	N	N	N	N	N	01/19/2018		16	HAWORTH AVE	INTER	3-LEG	N		N	CLD	O-1 L-TURN	01	NONE	0	STRGHT												33,03,27
CITY					FR		0	SPRINGBROOK RD	CN		STOP SIGN		N	WET	TURN		PRVTE		S -N										000		00
N					7P				02	0			N	DLIT	INJ		PSNGR CAR			01	DRVR	INJC	17	M	OTH-Y		051,021,016		038		33,03,27
N					45 18 28.73		-122 56 48.98																		N-RES							
																01	NONE	0	STRGHT												
															PRVTE				S -N										000		00
															PSNGR CAR			02	PSNG	INJB	16	F			000		000		00
																01	NONE	0	STRGHT												
															PRVTE				S -N										000		00
															PSNGR CAR			03	PSNG	INJB	16	F			000		000		00
																01	NONE	0	STRGHT												
															PRVTE				S -N										000		00
															PSNGR CAR			04	PSNG	INJB	18	M			000		000		00

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02 NONE 0 TURN-L
PRVTE N -E 015 00
PSNGR CAR 01 DRVR INJB 21 F OR-Y 000 000 00
OR<25

00146 N N N N N N 02/03/2018 16 HAWORTH AVE INTER 3-LEG N N CLR ANGL-OTH 01 NONE 0 STRGHT 02
CITY SA 0 SPRINGBROOK RD CN STOP SIGN N DRY ANGL PRVTE N -S 015 00
N 10P 01 0 N DLIT INJ PSNGR CAR 01 DRVR INJC 51 F OR-Y 028 000 02
N 45 18 28.73 -122 56 48.98 OR<25
02 NONE 0 STRGHT
PRVTE E -W 015 00
PSNGR CAR 01 DRVR NONE 33 F OTH-Y 000 000 00
OR<25

00538 N N N N 05/30/2018 16 HAWORTH AVE INTER 3-LEG N N CLR ANGL-OTH 01 NONE 0 STRGHT 02
NONE WE 0 SPRINGBROOK RD CN STOP SIGN N DRY ANGL PRVTE N -S 000 00
N 3P 01 0 Y DAY INJ PSNGR CAR 01 DRVR NONE 30 M OR-Y 000 000 00
N 45 18 28.73 -122 56 48.98 OR<25
02 NONE 0 STRGHT
PRVTE E -W 018 00
PSNGR CAR 01 DRVR INJC 60 M OTH-Y 028 000 02
N-RES
02 NONE 0 STRGHT
PRVTE E -W 018 00
PSNGR CAR 02 PSNG INJC 53 F 000 000 00

00838 N N N N 08/17/2018 16 HAWORTH AVE INTER 3-LEG N N CLR ANGL-OTH 01 NONE 9 STRGHT 02
NONE FR 0 HAWORTH AVE CN STOP SIGN N DRY ANGL N/A E -W 000 00
N 10A 01 0 Y DAY PDO PSNGR CAR 01 DRVR NONE 00 Unk UNK 000 000 00
N 45 18 28.8 -122 56 49 UNK
02 NONE 9 STRGHT
N/A S -N 000 00
PSNGR CAR 01 DRVR NONE 00 Unk UNK 000 000 00
UNK

01194 N N N N 11/20/2018 16 HAWORTH AVE INTER CROSS N N CLR ANGL-OTH 01 NONE 9 STRGHT 03
NONE TU 0 SPRINGBROOK RD CN STOP SIGN N DRY ANGL N/A N -S 000 00

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CITY OF NEWBERG, YAMHILL COUNTY

SPRINGBROOK RD and HAWORTH AVE, City of Newberg, Yamhill County, 01/01/2017 to 12/31/2021

1 - 21 of 21 Crash records shown. (19 REPORTED CRASHES APPLICABLE TO INTERSECTION)

N		7P					03	0		N	DLIT	PDO		PSNGR CAR			01	DRVR	NONE	00	Unk	UNK		000		000		00
N		45 18 28.77	-122 56 49																			UNK								
													02	NONE	9	TURN-L														
														N/A		W -N									015		00			
														PSNGR CAR			01	DRVR	NONE	00	Unk	UNK		000		000		00		
																						UNK								
01259	N N N N	12/06/2018	17	HAWORTH AVE	INTER	CROSS	N	N	CLR	ANGL-OTH	01	NONE	9	STRGHT															02	
NO RPT		TH	0	SPRINGBROOK RD	CN		STOP SIGN	N	DRY	ANGL		N/A		S -N											015		00			
N		6P			04	0		N	DLIT	PDO		PSNGR CAR			01	DRVR	NONE	00	Unk	UNK		000		000		00				
N		45 18 28.76	-122 56 48.96																			UNK								
													02	NONE	9	STRGHT														
														N/A		W -E									015		00			
														PSNGR CAR			01	DRVR	NONE	00	Unk	UNK		000		000		00		
																						UNK								
01330	N N N N	12/25/2018	16	HAWORTH AVE	INTER	CROSS	N	N	RAIN	ANGL-OTH	01	NONE	9	STRGHT															02	
NONE		TU	0	SPRINGBROOK RD	CN		STOP SIGN	N	WET	ANGL		N/A		E -W											015		00			
N		5P			01	0		N	DLIT	PDO		PSNGR CAR			01	DRVR	NONE	00	Unk	UNK		000		000		00				
N		45 18 28.73	-122 56 48.98																			UNK								
													02	NONE	9	STRGHT														
														N/A		N -S									015		00			
														PSNGR CAR			01	DRVR	NONE	00	Unk	UNK		000		000		00		
																						UNK								
00401	N N N N	05/02/2019	16	HAWORTH AVE	INTER	3-LEG	N	N	CLR	ANGL-OTH	01	NONE		STRGHT															02	
NONE		TH	0	SPRINGBROOK RD	CN		STOP SIGN	N	DRY	ANGL		PRVTE		S -N											015		00			
N		2P			04	0		N	DAY	INJ		PSNGR CAR			01	DRVR	NONE	79	M	OR-Y	028		000		02				
N		45 18 28.73	-122 56 48.98																			OR<25								
													02	NONE		STRGHT														
														PRVTE		W -E									000		00			
														PSNGR CAR			01	DRVR	INJC	55	F	OR-Y	000		000		00			
																						OR<25								
90218	N N N N N	04/05/2019	16	HAWORTH AVE	INTER	3-LEG	N	N	RAIN	O-1 L-TURN	01	NONE	9	STRGHT															02	
CITY		FR	0	SPRINGBROOK RD	CN		STOP SIGN	N	WET	TURN		N/A		N -S											015		00			
N		11A			01	0		N	DAY	PDO		PSNGR CAR			01	DRVR	NONE	00	Unk	UNK		000		000		00				

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N 45 18 28.74 -122 56 49 UNK

02 NONE 9 TURN-L

N/A S -W 000 00

PSNGR CAR 01 DRVR NONE 00 Unk UNK 000 000 00

UNK

00750 N N N N N N 08/07/2019 16 HAWORTH AVE INTER CROSS N N CLR ANGL-OTH 01 NONE 9 STRGHT 03

CITY WE 0 SPRINGBROOK RD CN STOP SIGN N DRY ANGL N/A W -E 000 00

N 10A 03 0 N DAY PDO PSNGR CAR 01 DRVR NONE 00 Unk UNK 000 000 00

N 45 18 28.73 -122 56 49 UNK

02 NONE 9 STRGHT

N/A N -S 000 00

PSNGR CAR 01 DRVR NONE 00 Unk UNK 000 000 00

UNK

00775 N N N N N 08/13/2019 16 HAWORTH AVE INTER 3-LEG N N CLR ANGL-OTH 01 NONE 9 TURN-R 02

CITY TU 0 SPRINGBROOK RD CN STOP SIGN N DRY TURN N/A N -W 000 00

N 10A 01 0 N DAY PDO SEMI TOW 01 DRVR NONE 00 Unk UNK 000 000 00

N 45 18 28.73 -122 56 49 UNK

02 NONE 9 STRGHT

N/A E -W 000 00

PSNGR CAR 01 DRVR NONE 00 Unk UNK 000 000 00

UNK

00726 N N N N N 09/22/2020 17 HAWORTH AVE INTER 3-LEG N N CLR ANGL-OTH 01 NONE STRGHT 03,02

NONE TU 0 SPRINGBROOK RD CN STOP SIGN N DRY ANGL PRVTE S -N 000 00

N 12P 04 0 Y DAY INJ PSNGR CAR 01 DRVR NONE 68 F OR-Y 028 000 03,02

N 45 18 28.73 -122 56 48.99 OR>25

02 NONE STRGHT

PRVTE W -E 000 00

PSNGR CAR 01 DRVR INJC 80 F OR-Y 000 000 00

OR<25

01014 N N N N 12/20/2020 16 HAWORTH AVE INTER 3-LEG N N RAIN ANGL-OTH 01 NONE STRGHT 02

NONE SU 0 SPRINGBROOK RD CN STOP SIGN N WET ANGL PRVTE E -W 018 00

N 10A 01 0 Y DAY INJ PSNGR CAR 01 DRVR INJC 49 F OR-Y 000,097 000 02

N 45 18 28.73 -122 56 48.99 OR<25

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CITY OF NEWBERG, YAMHILL COUNTY

SPRINGBROOK RD and HAWORTH AVE, City of Newberg, Yamhill County, 01/01/2017 to 12/31/2021

1 - 21 of 21 Crash records shown. (19 REPORTED CRASHES APPLICABLE TO INTERSECTION)

02 NONE STRGHT

PRVTE N -S 000 00

PSNGR CAR 01 DRVR INJC 49 F OR-Y 000,097 000 02

OR<25

01221 N N N N N N 11/03/2017 16 SPRINGBROOK RD STRGHT N N CLD S-1STOP 01 NONE 0 STRGHT 07

CITY FR 150 HAWORTH AVE N (NONE) NONE N WET REAR PRVTE N -S 000 00

N 7A 08 N DAY INJ PSNGR CAR 01 DRVR INJC 53 F OR-Y 043 000 07

N 45 18 30.43 -122 56 48.97 (02) OR<25

02 NONE 0 STOP

PRVTE N -S 011 00

PSNGR CAR 01 DRVR INJC 53 F OR-Y 000 000 00

OR<25

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SER# / INVEST / RD DPT / UNLOC?	S P E D R E J A L D U I G C N S H V L R K W O T	DATE / DAY / TIME / LAT	CLASS / DIST / FROM / LONG	CITY STREET / FIRST STREET / SECOND STREET / LRS	INT-TYPE / RD CHAR / DIRECT / LOCTN	(MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY / PED	SPCL USE / TRLR QTY / OWNER / V# TYPE	MOVE / FROM / TO	P# TYPE	PRTC / INJ / SVRTY	A G E	S F X	LICNS / RES / PED / LOC	ERROR	ACT / EVENT	CAUSE
00271	N N N N N N	03/13/2021	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	PED	01 NONE 0	TURN-R								02,19
UNK		SA		SPRINGBROOK RD	UN		YIELD	N	DRY	PED	PRVTE	SW-S							052	00
N		4P			09	2		N	DAY	INJ	PSNGR CAR		01 DRVR	NONE	50	F	OR-Y	029	000	02
N		45 18 23.12	-122 56 48.94	009100100S00													OR>25			
												-								
												STRGHT	01 PED	INJC	87	M	I XWLK	000	035	19
												UN UN								
85544	N N N N	10/22/2019	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	S-1STOP	01 NONE 9	TURN-R								08
NONE		TU		SPRINGBROOK RD	N		TRF SIGNAL	N	DRY	SS-O	N/A	N -SW							000	00
N		7A			06	2		N	DAY	PDO	SEMI TOW		01 DRVR	NONE	00	Unk	UNK	000	000	00
N		45 18 23.12	-122 56 48.94	009100100S00													UNK			
											02 NONE 9	STOP								
											N/A	N -S							011	00
											PSNGR CAR		01 DRVR	NONE	00	Unk	UNK	000	000	00
																	UNK			
01434	N N N N	12/31/2017	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	S-1STOP	01 NONE 0	STRGHT								29
NO RPT		SU		SPRINGBROOK RD	NE		TRF SIGNAL	N	DRY	REAR	PRVTE	NE-SW							000	00
N		4P			06	2		N	DAY	INJ	PSNGR CAR		01 DRVR	NONE	45	F	OR-Y	026	000	29
N		45 18 23.12	-122 56 48.94	009100100S00													OR<25			
											02 NONE 0	STOP								
											PRVTE	NE-SW							011	00
											PSNGR CAR		01 DRVR	NONE	38	M	OR-Y	000	000	00
																	OR<25			
											02 NONE 0	STOP								
											PRVTE	NE-SW							011	00
											PSNGR CAR		02 PSNG	INJC	41	F		000	000	00
											02 NONE 0	STOP								

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CITY OF NEWBERG, YAMHILL COUNTY

SPRINGBROOK RD and PACIFIC HY 99W, City of Newberg, Yamhill County, 01/01/2017 to 12/31/2021

1 - 80 of 80 Crash records shown. (63 REPORTED CRASHES APPLICABLE TO INTERSECTION)

| | | |

											PSNGR CAR		01 DRVR	INJC	25	F	OR-Y		000		000			00
																	OR<25											
00802	N	N	N	N	N	N	08/09/2018	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE	STRGHT									013		32,27,29
CITY							TH		SPRINGBROOK RD	NE		TRF SIGNAL	N	DRY	REAR		PRVTE	NE-SW								000		00
N							6P			06	0		N	DAY	INJ		PSNGR CAR		01 DRVR	NONE	20	M	OR-Y	052,026		038		32,27,29
N							45 18 23.12	-122 56 48.94	009100100S00														OR<25					
																02	NONE	STOP											
																	PRVTE	NE-SW								011	013	00
																	PSNGR CAR		01 DRVR	INJB	56	M	OR-Y	000		000		00
																							OR<25					
																03	NONE	STOP											
																	PRVTE	NE-SW								011		00
																	PSNGR CAR		01 DRVR	NONE	28	M	OTH-Y	000		000		00
																							N-RES					
00941	N	N	N	N			09/12/2018	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE	STRGHT											29
NONE							WE		SPRINGBROOK RD	NE		TRF SIGNAL	N	DRY	REAR		PRVTE	NE-SW								000		00
N							10A			06	0		N	DAY	INJ		PSNGR CAR		01 DRVR	NONE	56	F	OR-Y	026		000		29
N							45 18 23.12	-122 56 48.94	009100100S00														OR>25					
																02	NONE	STOP											
																	PRVTE	NE-SW								011		00
																	PSNGR CAR		01 DRVR	INJC	42	F	OR-Y	000		000		00
																							OR>25					
01136	N	N	N	N			11/05/2018	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	PED	01	NONE	TURN-R											02
CITY							MO		SPRINGBROOK RD	NE		TRF SIGNAL	N	DRY	PED		PRVTE	S -NE								000		00
N							5P			05	0		N	DLIT	INJ		PSNGR CAR		01 DRVR	NONE	25	F	OR-Y	029		000		02
N							45 18 23.13	-122 56 48.94	009100100S00														OR<25					
																		-											
																		STRGHT	01 CONV	INJB	16	M	I XWLK	000		035		00
																		S N											
00028	N	N	N	N			01/10/2019	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE	STRGHT									013		07,29
CITY							TH		SPRINGBROOK RD	NE		TRF SIGNAL	N	DRY	REAR		PRVTE	NE-SW								088		00
N							6P			06	0		N	DLIT	INJ		PSNGR CAR		01 DRVR	INJB	45	F	OR-Y	043,026		088		07,29
N							45 18 23.14	-122 56 48.95	009100100S00														OR<25					

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02 NONE STOP
PRVTE NE-SW 012 013 00
PSNGR CAR 01 DRVR INJC 47 F OR-Y 000 000 00
OR<25

03 NONE STOP
PRVTE NE-SW 012 013 00
PSNGR CAR 01 DRVR INJC 34 F OR-Y 000 000 00
OR>25

04 NONE STOP
PRVTE NE-SW 012 00
PSNGR CAR 01 DRVR NONE 28 M OTH-Y 000 000 00
OR>25

01167 N N N N 11/21/2019 14 PACIFIC HY 99W INTER CROSS N N CLR S-1STOP 01 NONE STRGHT 29,27
CITY TH SPRINGBROOK RD E TRF SIGNAL N DRY REAR PRVTE E -W 000 00
N 1P 06 2 N DAY INJ PSNGR CAR 01 DRVR INJB 78 F OR-Y 026 000 29,27
N 45 18 23.72 -122 56 47.2 009100100S00 OR<25

02 NONE STOP
PRVTE E -W 012 00
PSNGR CAR 01 DRVR NONE 71 M OR-Y 000 000 00
OR<25

02 NONE STOP
PRVTE E -W 012 00
PSNGR CAR 02 PSNG INJC 67 F 000 000 00

00050 N N N N N N 01/12/2017 16 PACIFIC HY 99W INTER CROSS N N CLR S-1STOP 01 NONE 9 STRGHT 07
CITY TH SPRINGBROOK RD S TRF SIGNAL N DRY REAR N/A S -N 000 00
N 1P 06 2 N DAY PDO PSNGR CAR 01 DRVR NONE 00 Unk UNK 000 000 00
N 45 18 23.12 -122 56 48.94 003900100S00 UNK

02 NONE 9 STOP
N/A S -N 011 00
PSNGR CAR 01 DRVR NONE 00 Unk UNK 000 000 00
UNK

00877 N N N N 08/29/2018 16 PACIFIC HY 99W INTER CROSS N N CLR S-1STOP 01 NONE STRGHT 27,29
CITY WE SPRINGBROOK RD S TRF SIGNAL N DRY REAR PRVTE S -N 000 00
N 8P 06 0 N DUSK INJ PSNGR CAR 01 DRVR NONE 33 M SUSP 026 038 27,29

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CITY OF NEWBERG, YAMHILL COUNTY

SPRINGBROOK RD and PACIFIC HY 99W, City of Newberg, Yamhill County, 01/01/2017 to 12/31/2021

1 - 80 of 80 Crash records shown. (63 REPORTED CRASHES APPLICABLE TO INTERSECTION)

N 45 18 23.13 -122 56 48.94 003900100S00 OR<25

02 NONE STOP

PRVTE S -N 011 00

PSNGR CAR 01 DRVR NONE 39 M NONE 000 000 00

OR<25

02 NONE STOP

PRVTE S -N 011 00

PSNGR CAR 02 PSNG INJC 38 F 000 000 00

00748 N N N N 08/02/2019 16 PACIFIC HY 99W INTER 2-LEG N N CLR S-1STOP 01 NONE 9 STRGHT 07

NONE FR SPRINGBROOK RD S TRF SIGNAL N DRY REAR N/A S -N 000 00

N 7A 06 2 N DAY PDO PSNGR CAR 01 DRVR NONE 00 Unk UNK 000 000 00

N 45 18 22.09 -122 56 49.06 003900100S00 UNK

02 NONE 9 STOP

N/A S -N 012 00

PSNGR CAR 01 DRVR NONE 00 Unk UNK 000 000 00

UNK

00877 Y N N N N 09/09/2019 16 PACIFIC HY 99W INTER CROSS N N RAIN S-1STOP 01 NONE 9 STRGHT 01,07

NONE MO SPRINGBROOK RD S TRF SIGNAL N WET REAR N/A S -N 000 00

N 11A 06 2 N DAY PDO TRUCK 01 DRVR NONE 00 Unk UNK 000 000 00

N 45 18 22.1 -122 56 49.06 003900100S00 UNK

02 NONE 9 STOP

N/A S -N 012 00

PSNGR CAR 01 DRVR NONE 00 Unk UNK 000 000 00

UNK

00753 N N N N 08/08/2019 16 PACIFIC HY 99W INTER CROSS N N CLR S-1STOP 01 NONE 9 STRGHT 29

NONE TH SPRINGBROOK RD S TRF SIGNAL N DRY REAR N/A S -N 000 00

N UNK 06 2 N DAY PDO PSNGR CAR 01 DRVR NONE 00 Unk UNK 000 000 00

N 45 18 23.12 -122 56 48.94 003900100S00 UNK

02 NONE 9 STOP

N/A S -N 011 00

PSNGR CAR 01 DRVR NONE 00 Unk UNK 000 000 00

UNK

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CITY OF NEWBERG, YAMHILL COUNTY

SPRINGBROOK RD and PACIFIC HY 99W, City of Newberg, Yamhill County, 01/01/2017 to 12/31/2021

1 - 80 of 80 Crash records shown. (63 REPORTED CRASHES APPLICABLE TO INTERSECTION)

00670	N N N N N	09/05/2020	16	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE		STRGHT												29,07
NONE		SA		SPRINGBROOK RD	S		L-GRN-SIG	N	DRY	REAR		PRVTE		S -N										000		00
N		9P			06	2		N	DLIT	INJ		PSNGR CAR			01	DRVR	NONE	58	M	OR-Y	000,026	000		29,07
N		45 18 22.62	-122 56 48.99	003900100S00																OR<25				
											02	NONE		STOP											
												PRVTE		S -N										012		00
												PSNGR CAR			01	DRVR	INJC	62	F	OR-Y	000	000		00
																				OR<25				
											02	NONE		STOP											
												PRVTE		S -N										012		00
												PSNGR CAR			02	PSNG	INJC	05	F		000	000		00
											02	NONE		STOP											
												PRVTE		S -N										012		00
												PSNGR CAR			03	PSNG	INJC	66	F		000	000		00
											02	NONE		STOP											
												PRVTE		S -N										012		00
												PSNGR CAR			04	PSNG	INJC	07	F		000	000		00
00148	N N N N	02/23/2021	16	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE	0	STRGHT												29
NO RPT		TU		SPRINGBROOK RD	S		TRF SIGNAL	N	DRY	REAR		PRVTE		S -N										000		00
N		2P			06	2		N	DAY	INJ		PSNGR CAR			01	DRVR	NONE	21	M	OR-Y	026	000		29
N		45 18 23.12	-122 56 48.94	003900100S00																OR>25				
											02	NONE	0	STOP											
												PRVTE		S -N										011		00
												PSNGR CAR			01	DRVR	NONE	78	M	OR-Y	000	000		00
																				OR>25				
											02	NONE	0	STOP											
												PRVTE		S -N										011		00
												PSNGR CAR			02	PSNG	INJC	78	F		000	000		00
00907	N N N N	09/05/2018	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE		STRGHT												07,29
NONE		WE		SPRINGBROOK RD	SW		TRF SIGNAL	N	DRY	REAR		PRVTE		SW-NE										000		00
N		12P			06	0		N	DAY	INJ		PSNGR CAR			01	DRVR	NONE	24	M	OR-Y	026,014	000		07,29

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N 45 18 23.12 -122 56 48.94 009100100S00 OR<25

02 NONE STOP

PRVTE SW-NE 011 00

PSNGR CAR 01 DRVR INJC 57 F OR-Y 000 000 00

OR<25

00007 N N N N N 01/03/2019 14 PACIFIC HY 99W INTER CROSS N N CLR S-1STOP 01 NONE 9 STRGHT 07

NONE TH SPRINGBROOK RD SW TRF SIGNAL N DRY REAR N/A SW-NE 000 00

N 10P 06 2 N DLIT PDO PSNGR CAR 01 DRVR NONE 00 Unk UNK 000 000 00

N 45 18 22.8 -122 56 50.21 009100100S00 UNK

02 NONE 9 STOP

N/A SW-NE 011 00

PSNGR CAR 01 DRVR NONE 00 Unk UNK 000 000 00

UNK

00107 Y N N N 02/05/2020 14 PACIFIC HY 99W INTER CROSS N N CLR S-1STOP 01 NONE STRGHT 013 32,01,27

CITY WE SPRINGBROOK RD SW TRF SIGNAL N DRY REAR PRVTE SW-NE 000 00

N 5P 06 2 N DUSK INJ PSNGR CAR 01 DRVR NONE 53 M OR-Y 026 000 32,01,27

N 45 18 22.77 -122 56 50.24 009100100S00 OR>25

02 NONE STOP

PRVTE SW-NE 011 013 00

PSNGR CAR 01 DRVR INJB 33 M OR-Y 000 000 00

OR<25

03 NONE STOP

PRVTE SW-NE 011 00

PSNGR CAR 01 DRVR NONE 29 M OR-Y 000 000 00

OR<25

00689 N N N N N N 09/12/2020 16 PACIFIC HY 99W INTER CROSS N N CLR S-1STOP 01 NONE STRGHT 07

CITY SA SPRINGBROOK RD SW YIELD N DRY REAR PRVTE N -S 000 00

N 1P 09 2 N DAY INJ PSNGR CAR 01 DRVR NONE 20 F OR-Y 043 000 07

N 45 18 22.1 -122 56 49.05 003900100S00 OR<25

02 NONE STOP

PRVTE N -S 012 00

PSNGR CAR 01 DRVR INJC 59 F OR-Y 000 000 00

OR<25

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CITY OF NEWBERG, YAMHILL COUNTY

SPRINGBROOK RD and PACIFIC HY 99W, City of Newberg, Yamhill County, 01/01/2017 to 12/31/2021

1 - 80 of 80 Crash records shown. (63 REPORTED CRASHES APPLICABLE TO INTERSECTION)

00275	N	N	N	N	N	N	03/25/2021	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	PED	01	NONE	0	TURN-R											02,19
UNK							TH		SPRINGBROOK RD	SW		YIELD	N	DRY	PED		PRVTE		SW-S										052		00
N							3P			09	2		N	DAY	INJ		PSNGR CAR			01	DRVR	NONE	22	F	OR-Y		029		000		02
N							45 18 23.12	-122 56 48.94	009100100S00																OR<25						
																			-											
																			STRGHT	01	PED	INJC	40	F		I XWLK	000		035		19
																			UN	UN										
00926	N	N	N	N			09/23/2019	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE		STRGHT												07
NONE							MO		SPRINGBROOK RD	W		TRF SIGNAL	N	DRY	REAR		PRVTE		W -E										000		00
N							1P			06	0		N	DAY	INJ		PSNGR CAR			01	DRVR	NONE	26	F	OR-Y		026		000		07
N							45 18 22.71	-122 56 50.36	009100100S00																OR>25						
																02	NONE		STOP												
																	PRVTE		W -E										012		00
																	PSNGR CAR			01	DRVR	INJC	37	M	OR-Y		000		000		00
																									OR<25						
00140	N	N	N	N		Y	02/15/2017	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLD	ANGL-OTH	01	NONE	0	STRGHT												04
CITY							WE		SPRINGBROOK RD	CN		TRF SIGNAL	N	SNO	TURN		PRVTE		NE-SW										000		00
N							5A			01	2		N	DLIT	INJ		PSNGR CAR			01	DRVR	NONE	46	M	OR-Y		020		000		04
N							45 18 23.12	-122 56 48.94	009100100S00																OR<25						
																02	NONE	0	TURN-L												
																	PRVTE		N -NE										000		00
																	PSNGR CAR			01	DRVR	INJC	63	F	OR-Y		000		000		00
																									OR<25						
00608	N	N	N	N			06/17/2018	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	ANGL-OTH	01	NONE	0	STRGHT												04
NO RPT							SU		SPRINGBROOK RD	CN		TRF SIGNAL	N	DRY	ANGL		PRVTE		N -S										000		00
N							6A			01	2		N	DAWN	INJ		PSNGR CAR			01	DRVR	INJC	49	M	OR-Y		000		000		00
N							45 18 23.12	-122 56 48.94	009100100S00																OR<25						
																01	NONE	0	STRGHT												
																	PRVTE		N -S										000		00
																	PSNGR CAR			02	PSNG	INJC	41	F			000		000		00
																01	NONE	0	STRGHT												
																	PRVTE		N -S										000		00

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														PSNGR CAR			03 PSNG	INJC	15	F					000	000		00
													01 NONE	0	STRGHT															
														PRVTE		N -S												000		00
														PSNGR CAR			04 PSNG	INJC	18	F					000	000		00
													02 NONE	0	STRGHT															
														PRVTE		NE-SW												000		00
														PSNGR CAR			01 DRVR	NONE	57	M	OR-Y				020	000		04
																					OR>25								
													02 NONE	0	STRGHT															
														PRVTE		NE-SW												000		00
														PSNGR CAR			02 PSNG	INJA	45	F					000	000		00
													02 NONE	0	STRGHT															
														PRVTE		NE-SW												000		00
														PSNGR CAR			03 PSNG	INJC	91	F					000	000		00
00499	N	N	N	N	05/17/2018	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	ANGL-STP	01 NONE	1	TURN-L															08
CITY					TH		SPRINGBROOK RD	CN		TRF SIGNAL	N	DRY	TURN		N/A		SW-N										000		00
N					2P			03	2		N	DAY	PDO		TRUCK			01 DRVR	NONE	00	Unk	UNK				000	000		00
N					45 18 23.14	-122 56 48.95	009100100S00															UNK								
													02 NONE	9	STOP															
															N/A		N -NE										013		00
															PSNGR CAR			01 DRVR	NONE	00	Unk	UNK				000	000		00
																						UNK								
00299	N	N	N	N	04/04/2019	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLD	S-1STOP	01 NONE		TURN-R															07,29
CITY					TH		SPRINGBROOK RD	CN		TRF SIGNAL	N	DRY	REAR		PRVTE		S -NE										013		00
N					1P			04	2		N	DAY	INJ		PSNGR CAR			01 DRVR	NONE	63	M	OR-Y				043,026	000		07,29
N					45 18 23.15	-122 56 48.94	009100100S00															OR>25								
													02 NONE		TURN-R															
															PRVTE		S -NE										000		00
															PSNGR CAR			01 DRVR	INJC	63	F	OTH-Y				000	000		00
																						N-RES								
00303	N	N	N	N	04/05/2019	14	PACIFIC HY 99W	INTER	CROSS	N	N	RAIN	PED	01 NONE		TURN-L															02,32

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CITY OF NEWBERG, YAMHILL COUNTY

SPRINGBROOK RD and PACIFIC HY 99W, City of Newberg, Yamhill County, 01/01/2017 to 12/31/2021

1 - 80 of 80 Crash records shown. (63 REPORTED CRASHES APPLICABLE TO INTERSECTION)

CITY FR SPRINGBROOK RD CN TRF SIGNAL N WET PED PRVTE S -SW 000 00
N 10P 01 2 N DLIT INJ PSNGR CAR 01 DRVR NONE 19 M OR-Y 029,052 000 02,32
N 45 18 23.12 -122 56 48.94 009100100S00 OR<25
\- STRGHT 01 PED INJC 34 M I XWLK 000 000 00
S N

00687 N N N N 07/21/2019 14 PACIFIC HY 99W INTER CROSS N N CLR S-1STOP 01 NONE STRGHT 07,29
NO RPT SU SPRINGBROOK RD CN TRF SIGNAL N DRY REAR PRVTE S -N 000 00
N 12P 06 2 N DAY INJ PSNGR CAR 01 DRVR NONE 70 M OR-Y 026 000 07,29
N 45 18 23.12 -122 56 48.94 009100100S00 OR>25
02 NONE 0 STOP
PRVTE S -N 011 00
PSNGR CAR 01 DRVR INJC 29 F OR-Y 000 000 00
OR>25

00396 N N N N N N 05/01/2019 14 PACIFIC HY 99W INTER CROSS N N CLR S-1STOP 01 NONE 9 TURN-L 07
CITY WE SPRINGBROOK RD CN TRF SIGNAL N DRY REAR N/A NE-S 000 00
N 9P 04 2 N DLIT PDO PSNGR CAR 01 DRVR NONE 00 Unk UNK 000 000 00
N 45 18 23.35 -122 56 48.31 009100100S00 UNK
02 NONE 9 TURN-L
N/A NE-S 013 00
PSNGR CAR 01 DRVR NONE 00 Unk UNK 000 000 00
UNK

00828 N N N N N N 10/19/2020 14 PACIFIC HY 99W INTER CROSS N N CLD ANGL-OTH 01 NONE 9 STRGHT 04,02
CITY MO SPRINGBROOK RD CN TRF SIGNAL N DRY TURN N/A SW-NE 000 00
N 1P 04 2 N DAY PDO PSNGR CAR 01 DRVR NONE 00 Unk UNK 000 000 00
N 45 18 23.14 -122 56 48.95 009100100S00 UNK
02 NONE 9 TURN-R
N/A S -NE 088 00
PSNGR CAR 01 DRVR NONE 00 Unk UNK 000 000 00
UNK

00311 N N N N N N 04/16/2021 14 PACIFIC HY 99W INTER CROSS N N CLR ANGL-OTH 01 NONE 0 STRGHT 04
CITY FR SPRINGBROOK RD CN TRF SIGNAL N DRY ANGL PRVTE NE-SW 000 00

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CITY OF NEWBERG, YAMHILL COUNTY

SPRINGBROOK RD and PACIFIC HY 99W, City of Newberg, Yamhill County, 01/01/2017 to 12/31/2021

1 - 80 of 80 Crash records shown. (63 REPORTED CRASHES APPLICABLE TO INTERSECTION)

N		11P				01	0		N	DLIT	INJ		PSNGR CAR			01 DRVR	NONE	37	M	OTH-Y	020	000		04
N		45 18 23.13	-122 56 48.96	009100100S00																N-RES				
												02 NONE	0	STRGHT										
													PRVTE		N -S							000		00
													PSNGR CAR			01 DRVR	INJC	17	F	OR-Y	000	000		00
																				OR<25				
00786	N N N N N N	08/18/2021	14	PACIFIC HY 99W	INTER	CROSS	N	N	CLR	ANGL-OTH	01 NONE	0	STRGHT											04,27
CITY		WE		SPRINGBROOK RD	CN		TRF SIGNAL	N	DRY	ANGL		PRVTE		SW-NE								000		00
N		3P			03	2		N	DAY	INJ		PSNGR CAR			01 DRVR	INJC	40	M	OR-Y	000	000		00
N		45 18 23.12	-122 56 48.94	009100100S00																OR>25				
												02 NONE	0	STRGHT										
													PRVTE		N -S							000		00
													PSNGR CAR			01 DRVR	INJC	50	M	OR-Y	020,016	000		04,27
																				OR>25				
00502	N N N N	05/17/2018	14	PACIFIC HY 99W	STRGHT		N	N	CLR	S-STRGHT	01 NONE	9	STRGHT											07,29
NONE		TH		SPRINGBROOK RD	N	(NONE)	UNKNOWN	N	DRY	REAR		N/A		N -S								000		00
N		5P			03			N	DAY	PDO		PSNGR CAR			01 DRVR	NONE	00	Unk	UNK	000	000		00
N		45 18 25.55	-122 56 41.12	009100100S00		(04)														UNK				
												02 NONE	9	STRGHT										
													N/A		N -S							000		00
													PSNGR CAR			01 DRVR	NONE	00	Unk	UNK	000	000		00
																				UNK				
01199	N N N N	11/21/2018	14	PACIFIC HY 99W	STRGHT		N	N	CLD	S-STRGHT	01 NONE	9	STRGHT										115	27,07
CITY		WE		SPRINGBROOK RD	N	(NONE)	TRF SIGNAL	N	WET	REAR		N/A		N -S								000		00
N		12P			03			N	DAY	PDO		PSNGR CAR			01 DRVR	NONE	00	Unk	UNK	000	000		00
N		45 18 23.97	-122 56 46.34	009100100S00		(04)														UNK				
												02 NONE	9	STOP										
													N/A		N -S							012		00
													PSNGR CAR			01 DRVR	NONE	00	Unk	UNK	000	000		00
																				UNK				
01222	N N N N	11/28/2018	14	PACIFIC HY 99W	STRGHT		Y	N	RAIN	S-1STOP	01 NONE	9	STRGHT											07,29
NONE		WE		SPRINGBROOK RD	N	(NONE)	TRF SIGNAL	N	WET	REAR		N/A		N -S								000		00
N		1P			03			N	DAY	PDO		PSNGR CAR			01 DRVR	NONE	00	Unk	UNK	000	000		00

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CITY OF NEWBERG, YAMHILL COUNTY

SPRINGBROOK RD and PACIFIC HY 99W, City of Newberg, Yamhill County, 01/01/2017 to 12/31/2021

1 - 80 of 80 Crash records shown. (63 REPORTED CRASHES APPLICABLE TO INTERSECTION)

N 45 18 23.68 -122 56 47.22 009100100S00 (04)

02 NONE 9 STOP

N/A N -S 011 00

PSNGR CAR 01 DRVR NONE 00 Unk UNK 000 000 00

UNK

00622 N N N N 06/28/2019 14 PACIFIC HY 99W STRGHT N N CLR S-1STOP 01 NONE STRGHT 29,27,07

NONE FR SPRINGBROOK RD N (NONE) TRF SIGNAL N DRY REAR PRVTE N -S 000 00

N 5P 08 N DAY INJ PSNGR CAR 01 DRVR NONE 20 M OR-Y 026 000 29,27,07

N 45 18 24.22 -122 56 45.48 009100100S00 (04)

OR<25

02 NONE STOP

PRVTE N -S 011 00

PSNGR CAR 01 DRVR NONE 20 M OR-Y 000 000 00

OR<25

02 NONE STOP

PRVTE N -S 011 00

PSNGR CAR 02 PSNG INJC 21 F 000 000 00

00278 N N N N 03/09/2018 16 SPRINGBROOK RD STRGHT Y N CLR S-1STOP 01 NONE 9 STRGHT 07,29

NO RPT FR 29 PACIFIC HY 99W N (NONE) TRF SIGNAL N DRY REAR N/A W -E 000 00

N 4P 06 N DAY PDO PSNGR CAR 01 DRVR NONE 00 Unk UNK 000 000 00

N 45 18 24.05 -122 56 48.95 (03)

UNK

02 NONE 9 STRGHT

N/A W -E 012 00

PSNGR CAR 01 DRVR NONE 00 Unk UNK 000 000 00

UNK

00350 N N N N 04/07/2017 16 SPRINGBROOK RD STRGHT Y N CLR S-1STOP 01 NONE 9 STRGHT 29

NONE FR 50 PACIFIC HY 99W N (RSDMD) L-GRN-SIG N DRY REAR N/A N -S 000 00

N 9A 06 N DAY PDO PSNGR CAR 01 DRVR NONE 00 Unk UNK 000 000 00

N 45 18 24.24 -122 56 48.95 (03)

UNK

02 NONE 9 STOP

N/A N -S 012 00

PSNGR CAR 01 DRVR NONE 00 Unk UNK 000 000 00

UNK

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CITY OF NEWBERG, YAMHILL COUNTY

SPRINGBROOK RD and PACIFIC HY 99W, City of Newberg, Yamhill County, 01/01/2017 to 12/31/2021

1 - 80 of 80 Crash records shown. (63 REPORTED CRASHES APPLICABLE TO INTERSECTION)

00841	N N N N	08/19/2018	16	SPRINGBROOK RD	STRGHT		Y	N	CLR	S-1STOP	01	NONE	STRGHT													29
NONE		SU	100	PACIFIC HY 99W	N	(NONE)	UNKNOWN	N	DRY	REAR		PRVTE	N -S											000		00
N		4P			06			N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	26	F	OTH-Y	026		000		29
N		45 18 24.83	-122 56 48.95			(02)													N-RES							
											02	NONE	STOP													
												PRVTE	N -S											011		00
												PSNGR CAR		01	DRVR	INJC	25	M	OR-Y	000		000		00
																			OR>25							
											02	NONE	STOP													
												PRVTE	N -S											011		00
												PSNGR CAR		02	PSNG	INJC	00	F		000		000		00
											02	NONE	STOP													
												PRVTE	N -S											011		00
												PSNGR CAR		03	PSNG	INJC	00	F		000		000		00
											02	NONE	STOP													
												PRVTE	N -S											011		00
												PSNGR CAR		04	PSNG	INJC	00	M		000		000		00
00867	N N N N	08/27/2018	16	SPRINGBROOK RD	STRGHT		N	N	CLR	S-1STOP	01	NONE	STRGHT													13
NO RPT		MO	100	PACIFIC HY 99W	N	(NONE)	UNKNOWN	N	DRY	REAR		PRVTE	N -S											000		00
N		2P			08			N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	30	M	OR-Y	000		000		00
N		45 18 24.81	-122 56 48.95			(02)													OR>25							
											02	NONE	STOP													
												PRVTE	N -S											011		00
												PSNGR CAR		01	DRVR	INJC	37	M	OR-Y	045,009		000		13
																			OR>25							
00999	N N N N	10/18/2021	16	SPRINGBROOK RD	STRGHT		N	N	CLR	S-1STOP	01	NONE	0	STRGHT												29,27
NO RPT		MO	200	PACIFIC HY 99W	N	(RSDMD)	MEDIAN BAR	N	DRY	REAR		PRVTE		S -N										000		00
N		5A			07			N	DLIT	INJ		PSNGR CAR		01	DRVR	INJC	39	F	OR-Y	016,026		000		29,27
N		45 18 25.8	-122 56 48.96			(02)													OR<25							
											02	NONE	0	STOP												
												PRVTE		S -N										011		00

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													PSNGR CAR			01 DRVR		INJC	30	M	OR-Y		000		000		00
																					OR<25										
00261	N	N	N	N	Y	03/14/2017	14	PACIFIC HY 99W	STRGHT		Y	N	RAIN	S-1STOP	01	NONE	0	STRGHT										013		07		
CITY						TU		SPRINGBROOK RD	NE	(RSDMD)	UNKNOWN	N	WET	REAR		PRVTE		NE-SW									000		00		
N						6P			04			N	DAY	INJ		PSNGR CAR			01 DRVR		NONE	46	F	OR-Y		043		000		07		
N						45 18 23.94	-122 56 46.35	009100100S00		(04)														OR<25									
															02	NONE	0	STOP														
																PRVTE		NE-SW									011	013		00		
																PSNGR CAR			01 DRVR		INJC	29	F	EXP		000		000		00		
																								OR<25								
															03	NONE	0	STOP														
																PRVTE		NE-SW									022	013		00		
																PSNGR CAR			01 DRVR		NONE	69	F	OR-Y		000		000		00		
																								OR<25								
															04	NONE	0	STOP														
																PRVTE		NE-SW									022	013		00		
																PSNGR CAR			01 DRVR		NONE	45	F	OR-Y		000		000		00		
																								OR<25								
															05	NONE	0	STOP														
																PRVTE		NE-SW									022			00		
																PSNGR CAR			01 DRVR		NONE	32	M	OR-Y		000		000		00		
																								OR<25								
01336	N	N	N	N	N	N	12/15/2017	14	PACIFIC HY 99W	STRGHT		N	N	CLD	S-1STOP	01	NONE	0	STRGHT													27,29,32	
CITY						FR		SPRINGBROOK RD	NE	(RSDMD)	UNKNOWN	N	DRY	REAR		PRVTE		NE-SW									000		00		
N						4P			03			N	DUSK	INJ		PSNGR CAR			01 DRVR		NONE	44	M	OR-Y		016,026,052		038		27,29,32		
N						45 18 23.94	-122 56 46.35	009100100S00		(04)														OR>25									
															02	NONE	0	STOP														
																PRVTE		NE-SW									011			00		
																PSNGR CAR			01 DRVR		INJC	57	F	OR-Y		000		000		00		
																								OR<25								
00801	N	N	N	N		08/01/2017	14	PACIFIC HY 99W	STRGHT		Y	N	CLR	S-STRGHT	01	NONE	9	STRGHT													13	
NONE						TU		SPRINGBROOK RD	NE	(RSDMD)	UNKNOWN	N	DRY	SS-O		N/A		NE-SW									000		00		
N						8P			03			N	DUSK	PDO		PSNGR CAR			01 DRVR		NONE	00	Unk	UNK		000		000		00		
N						45 18 23.67	-122 56 47.21	009100100S00		(04)														UNK									

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CITY OF NEWBERG, YAMHILL COUNTY

SPRINGBROOK RD and PACIFIC HY 99W, City of Newberg, Yamhill County, 01/01/2017 to 12/31/2021

1 - 80 of 80 Crash records shown. (63 REPORTED CRASHES APPLICABLE TO INTERSECTION)

02 NONE 9 STRGHT

N/A NE-SW 006 00

PSNGR CAR 01 DRVR NONE 00 Unk UNK 000 000 00

UNK

00835 N N N N Y 08/10/2017 14 PACIFIC HY 99W STRGHT Y N CLR S-1STOP 01 NONE 9 STRGHT 29,27

CITY TH SPRINGBROOK RD NE (RSDMD) UNKNOWN N DRY REAR N/A NE-SW 006 00

N 12P 03 N DAY PDO PSNGR CAR 01 DRVR NONE 00 Unk UNK 000 000 00

N 45 18 24.52 -122 56 44.49 009100100S00 (04) UNK

02 NONE 9 STOP

N/A NE-SW 011 00

PSNGR CAR 01 DRVR NONE 00 Unk UNK 000 000 00

UNK

00540 N N N N N N 06/07/2019 14 PACIFIC HY 99W STRGHT N N CLR S-1STOP 01 NONE 9 STRGHT 07

CITY FR SPRINGBROOK RD NE (DIVMD) UNKNOWN N DRY REAR N/A NE-SW 000 00

N 2P 04 N DAY PDO PSNGR CAR 01 DRVR NONE 00 Unk UNK 000 000 00

N 45 18 24.21 -122 56 45.63 009100100S00 (04) UNK

02 NONE 9 STOP

N/A NE-SW 011 00

PSNGR CAR 01 DRVR NONE 00 Unk UNK 000 000 00

UNK

00980 N N N N N 12/14/2020 14 PACIFIC HY 99W STRGHT N N CLR S-1STOP 01 NONE STRGHT 013 07

NO RPT MO SPRINGBROOK RD NE (RSDMD) UNKNOWN N DRY REAR PRVTE NE-SW 000 00

N 5P 04 N DLIT INJ PSNGR CAR 01 DRVR NONE 49 M OR-Y 026 000 07

N 45 18 23.98 -122 56 46.31 009100100S00 (04) OR<25

02 NONE STOP

PRVTE NE-SW 011 013 00

PSNGR CAR 01 DRVR INJC 55 M OR-Y 000 000 00

OR<25

03 NONE STOP

PRVTE NE-SW 011 013 00

PSNGR CAR 01 DRVR NONE 52 F OR-Y 000 000 00

OR<25

04 NONE STOP

PRVTE NE-SW 022 00

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OREGON.. DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANAYLYSIS AND REPORTING UNIT
URBAN NON-SYSTEM CRASH LISTING

CITY OF NEWBERG, YAMHILL COUNTY

SPRINGBROOK RD and PACIFIC HY 99W, City of Newberg, Yamhill County, 01/01/2017 to 12/31/2021

1 - 80 of 80 Crash records shown. (63 REPORTED CRASHES APPLICABLE TO INTERSECTION)

													PSNGR CAR			01 DRVR	NONE	27	M	OTH-Y			000		000		00
																				N-RES										
00949	N	N	N	N	12/03/2020	14	PACIFIC HY 99W	STRGHT		Y	N	CLR	S-1STOP	01 NONE	9	STRGHT														07
NONE					TH		SPRINGBROOK RD	NE	(RSDMD)	UNKNOWN	N	DRY	REAR	N/A		NE-SW											088		00
N					UNK			04			N	UNK	PDO	PSNGR CAR			01 DRVR	NONE	00	Unk	UNK			000		000		00
N					45 18 23.97	-122 56 46.29	009100100S00		(04)													UNK									
														02 NONE	9	STOP														
														N/A		NE-SW											011		00
														PSNGR CAR			01 DRVR	NONE	00	Unk	UNK			000		000		00
																					UNK									
00248	N	N	N	N	04/04/2021	14	PACIFIC HY 99W	STRGHT		Y	N	CLR	S-1STOP	01 NONE	0	STRGHT														13,29
NONE					SU		SPRINGBROOK RD	NE	(RSDMD)	L-GRN-SIG	N	DRY	SS-O	PRVTE		NE-SW											000		00
N					2P			06			N	DAY	INJ	PSNGR CAR			01 DRVR	NONE	58	F	OR-Y			045,082,026		000		13,29
N					45 18 23.98	-122 56 46.3	009100100S00		(04)													OR>25									
														02 NONE	0	STOP														
														PRVTE		NE-SW											012		00
														PSNGR CAR			01 DRVR	INJC	40	F	OTH-Y			000		000		00
																					N-RES									
														02 NONE	0	STOP														
														PRVTE		NE-SW											012		00
														PSNGR CAR			02 PSNG	INJC	41	M				000		000		00
														02 NONE	0	STOP														
														PRVTE		NE-SW											012		00
														PSNGR CAR			03 PSNG	INJC	12	M				000		000		00
00649	N	N	N	N	07/20/2021	14	PACIFIC HY 99W	STRGHT		Y	N	CLR	S-1STOP	01 NONE	1	STRGHT												013		29
NONE					TU		SPRINGBROOK RD	NE	(RSDMD)	TRF SIGNAL	N	DRY	REAR	PRVTE		NE-SW											000		00
N					3P			06			N	DAY	INJ	PSNGR CAR			01 DRVR	NONE	44	M	OTH-Y			026		000		29
N					45 18 23.76	-122 56 46.95	009100100S00		(04)													OR<25									
														02 NONE	0	STOP														
														PRVTE		NE-SW											011	013	00
														PSNGR CAR			01 DRVR	NONE	40	F	OR-Y			000		000		00
																					OR>25									

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CITY OF NEWBERG, YAMHILL COUNTY

SPRINGBROOK RD and PACIFIC HY 99W, City of Newberg, Yamhill County, 01/01/2017 to 12/31/2021

1 - 80 of 80 Crash records shown. (63 REPORTED CRASHES APPLICABLE TO INTERSECTION)

03 NONE 0 STOP

PRVTE NE-SW 022 00

PSNGR CAR 01 DRVR INJC 40 M OR-Y 000 022 00

OR<25

00221 N N N N 01/21/2021 14 PACIFIC HY 99W STRGHT N N CLR S-STRGHT 01 NONE 9 STRGHT 13

CITY TH SPRINGBROOK RD NE (RSDMD) UNKNOWN N DRY SS-O N/A NE-SW 052 00

N 12P 04 N DAY PDO PSNGR CAR 01 DRVR NONE 00 Unk UNK 000 000 00

N 45 18 23.54 -122 56 47.61 009100100S00 (04) UNK

02 NONE 9 STRGHT

N/A NE-SW 000 00

PSNGR CAR 01 DRVR NONE 00 Unk UNK 000 000 00

UNK

00254 N N N N 04/06/2021 14 PACIFIC HY 99W STRGHT Y N CLR S-1STOP 01 NONE 9 STRGHT 29

NONE TU SPRINGBROOK RD NE (RSDMD) R-GRN-SIG N DRY REAR N/A NE-SW 000 00

N 1P 03 N DAY PDO PSNGR CAR 01 DRVR NONE 00 Unk UNK 000 000 00

N 45 18 24.18 -122 56 45.62 009100100S00 (04) UNK

02 NONE 9 STOP

N/A NE-SW 011 00

PSNGR CAR 01 DRVR NONE 00 Unk UNK 000 000 00

UNK

00974 N N N N 09/21/2018 14 PACIFIC HY 99W STRGHT Y N CLR S-1STOP 01 NONE 9 STRGHT 07,29

NONE FR SPRINGBROOK RD S (NONE) TRF SIGNAL N DRY REAR N/A S -N 000 00

N 5P 06 N DAY PDO PSNGR CAR 01 DRVR NONE 00 Unk UNK 000 000 00

N 45 18 22.71 -122 56 50.36 009100100S00 (04) UNK

02 NONE 9 STOP

N/A S -N 011 00

PSNGR CAR 01 DRVR NONE 00 Unk UNK 000 000 00

UNK

00686 N N N N N N 07/27/2021 16 SPRINGBROOK RD STRGHT Y N CLD S-1STOP 01 NONE 0 STRGHT 013 07,27,29

CITY TU PACIFIC HY 99W S (RSDMD) R-GRN-SIG N DRY REAR PRVTE S -N 000 00

N 4P 03 N DAY INJ PSNGR CAR 01 DRVR NONE 36 M OR-Y 043,016,026 000 07,27,29

N 45 18 21.57 -122 56 49.08 003900100S00 (03) OR<25

02 NONE 0 STOP

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												PRVTE		S -N														011	013		00
												PSNGR CAR				01	DRVR	INJC	21	M	OR-Y		000		000				00
																					OR<25										
											02	NONE	0	STOP																	
												PRVTE		S -N														011	013		00
												PSNGR CAR				02	PSNG	INJC	21	F			000		000				00
											03	NONE	0	STOP																	
												PRVTE		S -N														022			00
												PSNGR CAR				01	DRVR	INJB	43	F	OR-Y		000		022				00
																					OR<25										

00034	N	N	N	N	01/10/2017	14	PACIFIC HY 99W	STRGHT		Y	N	RAIN	S-1STOP	01	NONE	0	STRGHT											013		29
NONE					TU		SPRINGBROOK RD	SW	(RSDMD)	UNKNOWN	N	WET	REAR		PRVTE		SW-NE											000		00
N					5A			08			N	DLIT	INJ		PSNGR CAR				01	DRVR	NONE	34	M	OR-Y	026		000		29
N					45 18 22.51	-122 56 51.05	009100100S00		(04)																OR<25						
														02	NONE	0	STOP														
															PRVTE		SW-NE											011	013		00
															PSNGR CAR				01	DRVR	NONE	00	M	UNK	000		000			00
																								UNK						
														03	NONE	0	STOP														
															PRVTE		SW-NE											022			00
															PSNGR CAR				01	DRVR	INJC	47	M	OR-Y	000		000			00
																								OR<25						

00947	N	N	N	N	09/05/2017	14	PACIFIC HY 99W	STRGHT		Y	N	CLR	S-STRGHT	01	NONE	0	STRGHT														13
NONE					TU		SPRINGBROOK RD	SW	(RSDMD)	L-GRN-SIG	N	DRY	SS-O		UNKN		SW-NE											000		00
N					11A			05			N	DAY	INJ		PSNGR CAR				01	DRVR	INJC	33	M	OR-Y	045		000		13
N					45 18 22.3	-122 56 51.76	009100100S00		(05)																OR>25						
														01	NONE	0	STRGHT														
															UNKN		SW-NE											000		00
															PSNGR CAR				02	PSNG	INJC	10	M		000		000			00
														01	NONE	0	STRGHT														
															UNKN		SW-NE											000		00
															PSNGR CAR				03	PSNG	INJC	06	M		000		000			00
														01	NONE	0	STRGHT														

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UNKN SW-NE 000 00
PSNGR CAR 04 PSNG INJC 50 F 000 000 00

02 NONE 0 STRGHT

PRVTE SW-NE 000 00
PSNGR CAR 01 DRVR NONE 25 M OR-Y 000 000 00
OR<25

00082 N N N N 01/25/2017 14 PACIFIC HY 99W STRGHT N N RAIN S-STRGHT 01 NONE 9 STRGHT 13
NONE WE SPRINGBROOK RD SW (RSDMD) UNKNOWN N WET SS-O N/A SW-NE 000 00
N 7A 06 N DAWN PDO PSNGR CAR 01 DRVR NONE 00 Unk UNK 000 000 00
N 45 18 22.71 -122 56 50.35 009100100S00 (04) UNK

02 NONE 9 STRGHT

N/A SW-NE 000 00
PSNGR CAR 01 DRVR NONE 00 Unk UNK 000 000 00
UNK

01130 N N N N N N 10/25/2018 14 PACIFIC HY 99W STRGHT Y N RAIN S-STRGHT 01 NONE 9 STRGHT 27,07
CITY TH SPRINGBROOK RD SW (RSDMD) TRF SIGNAL N WET REAR N/A SW-NE 000 00
N 5P 09 N DAY PDO PSNGR CAR 01 DRVR NONE 00 Unk UNK 000 000 00
N 45 18 22.71 -122 56 50.36 009100100S00 (04) UNK

02 NONE 9 STRGHT

N/A SW-NE 006 00
PSNGR CAR 01 DRVR NONE 00 Unk UNK 000 000 00
UNK

00886 N N N N N 11/06/2020 14 PACIFIC HY 99W STRGHT N N UNK S-1STOP 01 NONE STRGHT 07
NONE FR SPRINGBROOK RD SW (RSDMD) UNKNOWN N WET REAR PRVTE SW-NE 000 00
N 12P 06 N DAY INJ PSNGR CAR 01 DRVR INJC 72 F OR-Y 026 000 07
N 45 18 22.19 -122 56 52.16 009100100S00 (04) OR<25

01 NONE STRGHT

PRVTE SW-NE 000 00
PSNGR CAR 02 PSNG INJC 53 F 000 000 00

02 NONE STOP

PRVTE SW-NE 011 00
PSNGR CAR 01 DRVR NONE 25 M OR-Y 000 000 00
OR<25

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00358 N N N N 05/23/2020 14 PACIFIC HY 99W STRGHT Y N CLR S-STRGHT 01 NONE 9 STRGHT 06,13

NONE SA SPRINGBROOK RD SW (RSDMD) L-GRN-SIG N DRY SS-O N/A SW-NE 052 00

N 10A 05 N DAY PDO PSNGR CAR 01 DRVR NONE 00 Unk UNK 000 000 00

N 45 18 22.19 -122 56 52.16 009100100S00 (04) UNK

02 NONE 9 STRGHT

N/A SW-NE 000 00

PSNGR CAR 01 DRVR NONE 00 Unk UNK 000 000 00

UNK

00213 N N N N N N 03/20/2021 14 PACIFIC HY 99W STRGHT Y N CLR S-1STOP 01 NONE 9 STRGHT 27,29

CITY SA SPRINGBROOK RD SW (RSDMD) TRF SIGNAL N DRY REAR N/A SW-NE 000 00

N 2P 06 N DAY PDO PSNGR CAR 01 DRVR NONE 00 Unk UNK 000 000 00

N 45 18 22.56 -122 56 50.87 009100100S00 (04) UNK

02 NONE 9 STOP

N/A SW-NE 011 00

PSNGR CAR 01 DRVR NONE 00 Unk UNK 000 000 00

UNK

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CITY OF NEWBERG, YAMHILL COUNTY

SPRINGBROOK RD and HAYES ST, City of Newberg, Yamhill County, 01/01/2017 to 12/31/2021

1 - 16 of 16 Crash records shown. (10 REPORTED CRASHES APPLICABLE TO INTERSECTION)

SER# / INVEST / RD DPT / UNLOC?	S P E D	D R E C	M J L S	S W H V	W O R L	DATE / DAY / TIME / LAT	CLASS / DIST / FROM / LONG	CITY STREET / FIRST STREET / SECOND STREET / LRS	INT-TYPE / RD CHAR / DIRECT / LOCTN	(MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER	MOVE / FROM / TO	P#	PRTC	INJ	A G	S E	LICNS / RES	PED / LOC	ERROR	ACT	EVENT	CAUSE
00841	N	N	N	N		08/30/2019	16	HAYES ST	INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE	STRGHT										013	29,10
CITY						FR		SPRINGBROOK RD	N		TRF SIGNAL	N	DRY	REAR		PRVTE	N -S									000		00
N						2P			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	22	F	OR-Y		014,026	000		10,29
N						45 18 12.19	-122 56 49.15	003900100S00															OR<25					
															02	NONE	STOP											
																PRVTE	N -S									011	013	00
																PSNGR CAR		01	DRVR	INJC	32	F	OR-Y		000	000		00
																							OR<25					
															02	NONE	STOP											
																PRVTE	N -S									011	013	00
																PSNGR CAR		02	PSNG	INJC	32	F			000	000		00
															03	NONE	STOP											
																PRVTE	N -S									011		00
																PSNGR CAR		01	DRVR	NONE	59	M	OR-Y		000	000		00
																							OR<25					
00168	N	N	N	N		02/26/2020	16	HAYES ST	INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE 9	STRGHT										07	
NONE						WE		SPRINGBROOK RD	N		TRF SIGNAL	N	DRY	REAR		N/A	N -S									088		00
N						5P			06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	Unk	UNK		000	000		00
N						45 18 12.71	-122 56 49.15	003900100S00															UNK					
															02	NONE 9	STOP											
																N/A	N -S									011		00
																PSNGR CAR		01	DRVR	NONE	00	Unk	UNK		000	000		00
																							UNK					
01237	Y	N	N	N		12/11/2019	16	HAYES ST	INTER	3-LEG	N	N	RAIN	S-STRGHT	01	NONE	STRGHT											01,07,29
NO RPT						WE		SPRINGBROOK RD	S		UNKNOWN	N	WET	REAR		PRVTE	N -S									000		00
N						3P			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	21	M	OR-Y		000	000		01,07,29
N						45 18 11.69	-122 56 49.15	003900100S00															OR<25					
															02	NONE	STRGHT											

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is

													PRVTE		N -S																006		00
													PSNGR CAR					01	DRVR	INJC	53	F	OR-Y				000		000		00
																							OR<25										
00972	N	N	N	N	12/10/2020	16	HAYES ST	INTER	3-LEG	N	N	RAIN	S-1STOP	01	NONE	9	STRGHT																07
NO RPT					TH		SPRINGBROOK RD	S		TRF SIGNAL	N	WET	REAR		N/A		S -N														088		00
N					6P			06	0		N	DLIT	PDO		PSNGR CAR			01	DRVR	NONE	00	Unk	UNK				000		000		00
N					45 18 12.21	-122 56 49.16	003900100S00																	UNK									
														02	NONE	9	STOP																
													N/A		S -N																012		00
													PSNGR CAR					01	DRVR	NONE	00	Unk	UNK				000		000		00
																							UNK										
00056	N	N	N	N	01/19/2019	16	HAYES ST	INTER	CROSS	N	N	CLD	ANGL-OTH	01	NONE		STRGHT																04
CITY					SA		SPRINGBROOK RD	CN		TRF SIGNAL	N	WET	TURN		PRVTE		S -N														000		00
N					7A			02	0		N	DAWN	INJ		PSNGR CAR			01	DRVR	NONE	41	F	OR-Y				020		000		04
N					45 18 12.21	-122 56 49.15	003900100S00																	OR>25									
														02	NONE		TURN-L																
													PRVTE		E -S																000		00
													PSNGR CAR					01	DRVR	INJC	69	F	OR-Y				000		000		00
																							OR<25										
00185	N	N	N	N	N	N	03/04/2020	16	HAYES ST	INTER	3-LEG	N	N	CLR	ANGL-OTH	01	NONE	9	STRGHT																04,10,27
CITY					WE		SPRINGBROOK RD	CN		TRF SIGNAL	N	DRY	ANGL		N/A		E -W														088		00
N					6A			02	0		N	DAY	PDO		PSNGR CAR			01	DRVR	NONE	00	Unk	UNK				000		000		00
N					45 18 12.2	-122 56 49.15	003900100S00																	UNK									
														02	NONE	9	STRGHT																
													N/A		S -N																000		00
													PSNGR CAR					01	DRVR	NONE	00	Unk	UNK				000		000		00
																							UNK										
01179	N	N	N	N	11/15/2018	16	HAYES ST	STRGHT		N	N	CLR	S-1STOP	01	NONE	9	STRGHT																40,07,29
NONE					TH		SPRINGBROOK RD	UN	(NONE)	UNKNOWN	N	DRY	REAR		N/A		S -N														000		00
N					4P			03			N	DUSK	PDO		PSNGR CAR			01	DRVR	NONE	00	Unk	UNK				000		000		00
N					45 18 6.98	-122 56 49.17	003900100S00		(02)															UNK									
														02	NONE	9	STOP																
													N/A		S -N																011		00

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OREGON.. DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANAYLYSIS AND REPORTING UNIT
URBAN NON-SYSTEM CRASH LISTING

CITY OF NEWBERG, YAMHILL COUNTY

SPRINGBROOK RD and HAYES ST, City of Newberg, Yamhill County, 01/01/2017 to 12/31/2021

1 - 16 of 16 Crash records shown. (10 REPORTED CRASHES APPLICABLE TO INTERSECTION)

													PSNGR CAR		01 DRVR	NONE	00	Unk	UNK	000	000	00
																			UNK			
01095	N N N N	11/05/2019	16	SPRINGBROOK RD	STRGHT		N	N	CLR	S-STRGHT	01	NONE	STRGHT									07,29
NONE		TU		HAYES ST	N	(NONE)	UNKNOWN	N	UNK	REAR		PRVTE	N -S								000	00
N		6P			04			N	DLIT	INJ		PSNGR CAR			01 DRVR	NONE	66	F	OR-Y	042	000	07,29
N		45 18 15.31	-122 56 49.01	003900100S00		(02)													OR<25			
											02	NONE	STRGHT									
												PRVTE	N -S								000	00
												PSNGR CAR			01 DRVR	INJC	63	M	OR-Y	000	000	00
																			OR>25			
00705	N N N N N N	07/30/2021	16	SPRINGBROOK RD	STRGHT		Y	N	CLR	S-1STOP	01	NONE 0	STRGHT									32,16,29
CITY		FR		HAYES ST	N	(NONE)	UNKNOWN	N	DRY	REAR		PRVTE	N -S								000	00
N		11A			04			N	DAY	INJ		PSNGR CAR			01 DRVR	INJC	33	M	OTH-Y	052,016,026	025	32,16,29
N		45 18 13.25	-122 56 49.14	003900100S00		(02)													OR<25			
											02	NONE 0	STOP									
												PRVTE	N -S								011	00
												PSNGR CAR			01 DRVR	NONE	49	M	OR-Y	000	000	00
																			OR>25			
00821	N N N N	06/19/2018	16	SPRINGBROOK RD	STRGHT		Y	N	CLR	S-1STOP	01	NONE 0	STRGHT									29,27
NONE		TU		HAYES ST	S	(NONE)	TRF SIGNAL	N	DRY	REAR		PRVTE	S -N								000	00
N		3P			03			N	DAY	INJ		PSNGR CAR			01 DRVR	NONE	23	M	OR-Y	026,016	000	29,27
N		45 18 11.67	-122 56 49.15	003900100S00		(02)													OR<25			
											02	NONE 0	STOP									
												PRVTE	S -N								011	00
												PSNGR CAR			01 DRVR	INJC	70	M	OR-Y	000	000	00
																			OR<25			

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CITY OF NEWBERG, YAMHILL COUNTY

SPRINGBROOK RD and 2ND ST, City of Newberg, Yamhill County, 01/01/2017 to 12/31/2021

1 - 8 of 8 Crash records shown. (5 REPORTED CRASHES APPLICABLE TO INTERSECTION)

SER# / INVEST / RD DPT / UNLOC?	S P E L D C	D R A G M J U N S I H V C O R L K	DATE / DAY / TIME / LAT	CLASS / DIST / FROM / LONG	CITY STREET / FIRST STREET / SECOND STREET / LRS	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	SPCL USE / TRLR QTY / OWNER	V#	MOVE / FROM / TO	P#	TYPE	SVRTY	A G	S E	LICNS / RES	PED LOC	ERROR	ACT	EVENT	CAUSE
01268	N	N N N N	11/16/2017	16	SPRINGBROOK RD	INTER	CROSS	N	N	RAIN	PED	NONE 0	01	TURN-L											02
NO RPT			TH		2ND ST	N		STOP SIGN	N	WET	PED	PRVTE		W -N									000		00
N			5P			05	0		N	DARK	INJ	PSNGR CAR			01	DRVR	NONE	29 M	OR-Y		029	000		02
N			45 17 56.04	-122 56 49.14	003900100S00														OR>25					
														-											
														STRGHT	01	PED	INJC	20 M		I XWLK	000	035		00
														W E											
00903	N	N N N N N N	08/22/2017	16	SPRINGBROOK RD	INTER	CROSS	N	N	CLD	ANGL-OTH	NONE 0	01	STRGHT											03
CITY			TU		2ND ST	CN		STOP SIGN	N	SNO	ANGL	PRVTE		E -W									015		00
N			7P			01	0		N	DAY	INJ	PSNGR CAR			01	DRVR	NONE	26 F	OR-Y		000	000		00
N			45 17 56.04	-122 56 49.14	003900100S00														OR<25					
												NONE 0	01	STRGHT											
												PRVTE		E -W									015		00
												PSNGR CAR			02	PSNG	NO<5	02 F			000	000		00
												NONE 0	02	STRGHT											
												PRVTE		N -S									015		00
												PSNGR CAR			01	DRVR	NONE	19 F	OR-Y		021	000		03
																			OR<25					
												NONE 0	02	STRGHT											
												PRVTE		N -S									015		00
												PSNGR CAR			02	PSNG	INJC	10 F			000	000		00
												NONE 0	02	STRGHT											
												PRVTE		N -S									015		00
												PSNGR CAR			03	PSNG	INJC	00 F			000	000		00
00552	N	N N N N N N	06/02/2018	16	SPRINGBROOK RD	INTER	CROSS	N	N	CLR	O-1 L-TURN	NONE 0	01	TURN-L											02,08
CITY			SA		2ND ST	CN		TRF SIGNAL	N	DRY	TURN	PRVTE		E -S									000		00

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CITY OF NEWBERG, YAMHILL COUNTY

SPRINGBROOK RD and 2ND ST, City of Newberg, Yamhill County, 01/01/2017 to 12/31/2021

1 - 8 of 8 Crash records shown. (5 REPORTED CRASHES APPLICABLE TO INTERSECTION)

| | | |

CITY OF NEWBERG, YAMHILL COUNTY

SPRINGBROOK RD and 2ND ST, City of Newberg, Yamhill County, 01/01/2017 to 12/31/2021

1 - 8 of 8 Crash records shown. (5 REPORTED CRASHES APPLICABLE TO INTERSECTION)

	PRVTE	N -S									022		00
	PSNGR CAR		01	DRVR	INJC	67	F	OR-Y		000	000		00
								OR<25					

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CITY OF NEWBERG, YAMHILL COUNTY

SPRINGBROOK RD and FERNWOOD RD, City of Newberg, Yamhill County, 01/01/2017 to 12/31/2021

1 - 9 of 9 Crash records shown. (7 REPORTED CRASHES APPLICABLE TO INTERSECTION)

SER# / INVEST / RD DPT / UNLOC?	S P E L D C	D R A G M J	S	W	DATE / DAY / TIME / LAT	CLASS / DIST / FROM / LONG	CITY STREET / FIRST STREET / SECOND STREET / LRS	INT-TYPE / RD CHAR / DIRECT / LOCTN	(MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC / TYPE	INJ / SVRTY	A G E	S X	LICNS / RES	PED / LOC	ERROR	ACT	EVENT	CAUSE
01305	N	N	N	N	11/24/2017	16	FERNWOOD RD	INTER	CROSS	N	N	CLD	PED	01	NONE 0	TURN-L										02
CITY					FR		SPRINGBROOK RD	S		STOP SIGN	N	DRY	PED		PRVTE	E -S								000		00
N					3P			05	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	56 F		OR-Y		029	000		02
N					45 17 56.04	-122 56 49.14	003900100S00																OR<25					
																- STRGHT E W	01	PED	INJA	63 M			I XWLK	000	035		00
00055	N	N	N	N	01/22/2020	16	FERNWOOD RD	INTER	CROSS	N	N	CLD	S-1TURN	01	NONE	STRGHT										013	07
CITY					WE		SPRINGBROOK RD	S		TRF SIGNAL	N	WET	REAR		PRVTE	S -N								000		00
N					5P			06	0		N	DUSK	INJ		PSNGR CAR		01	DRVR	NONE	40 F		OR-Y		000,042	000		07
N					45 17 56.06	-122 56 49.15	003900100S00																OR>25					
														02	NONE	TURN-R											
															PRVTE	S -E									006	013	00
															PSNGR CAR		01	DRVR	INJC	33 F		OR-Y		000	000		00
																						OR<25					
														03	NONE	STOP											
															PRVTE	E -W									012		00
															PSNGR CAR		01	DRVR	NONE	00 F		OR-Y		000	000		00
																						OR<25					
00061	N	N	N	N	N N	01/23/2020	16	FERNWOOD RD	INTER	CROSS	N	N	CLD	BIKE	01	NONE	TURN-L										110	14,15
CITY					TH		SPRINGBROOK RD	S		TRF SIGNAL	N	WET	ANGL		PRVTE	E -S								000		00
N					5P			05	0		N	DLIT	INJ		PSNGR CAR		01	DRVR	NONE	55 M		OR-Y		000	000		00
N					45 17 56.07	-122 56 49.14	003900100S00																OR<25					
																- STRGHT E W	01	BIKE	INJC	25 M			I XWLK	028,020	047	110	14,15
00447	N	N	N	N	N N	06/22/2020	16	FERNWOOD RD	INTER	CROSS	N	N	CLR	O-1 L-TURN	01	NONE 9	STRGHT											02

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CITY OF NEWBERG, YAMHILL COUNTY

SPRINGBROOK RD and FERNWOOD RD, City of Newberg, Yamhill County, 01/01/2017 to 12/31/2021

1 - 9 of 9 Crash records shown. (7 REPORTED CRASHES APPLICABLE TO INTERSECTION)

| | | |

CITY OF NEWBERG, YAMHILL COUNTY

SPRINGBROOK RD and FERNWOOD RD, City of Newberg, Yamhill County, 01/01/2017 to 12/31/2021

1 - 9 of 9 Crash records shown. (7 REPORTED CRASHES APPLICABLE TO INTERSECTION)

N 45 17 55.53 -122 56 49.13 003900100S00 (02) UNK

02 NONE 9 STRGHT

N/A S -N 012 00

PSNGR CAR 01 DRVR NONE 00 Unk UNK 000 000 00

UNK

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CITY OF NEWBERG, YAMHILL COUNTY

BRUTSCHER ST and HAYES ST, City of Newberg, Yamhill County, 01/01/2017 to 12/31/2021

1 - 5 of 5 Crash records shown.

SER# / INVEST / RD DPT / UNLOC?	S P E D	D R E C	M J L S	S W G V	W O H L	DATE / DAY / TIME / LAT	CLASS / DIST / FROM / LONG	CITY STREET / FIRST STREET / SECOND STREET / LRS	INT-TYPE / RD CHAR / DIRECT / LOCTN	(MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER	MOVE / FROM / TO	P#	PRTC	INJ	A G	S E X	LICNS / RES	PED LOC	ERROR	ACT	EVENT	CAUSE
01046	N	N	N	N	N	10/21/2019	17	BRUTSCHER ST	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 9	STRGHT										004	07
NO RPT						MO	0	HAYES ST	N		CHANNEL	Y	DRY	REAR		N/A	S -N									000		00
N						1P			05	4		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	Unk	UNK		000	000		00
N						45 18 14.53	-122 56 27.3																UNK					
															02	NONE 9	STOP											
																N/A	S -N									011		00
																PSNGR CAR		01	DRVR	NONE	00	Unk	UNK		000	000		00
																							UNK					
01261	N	N	N	N		11/15/2017	17	BRUTSCHER ST	INTER	CROSS	N	N	RAIN	ANGL-OTH	01	NONE 9	TURN-R											14
NONE						WE	0	HAYES ST	CN		YIELD	Y	WET	ANGL		N/A	S -E									000		00
N						7P			04	0		N	DLIT	PDO		PSNGR CAR		01	DRVR	NONE	00	Unk	UNK		000	000		00
N						45 18 13.12	-122 56 27.23																UNK					
															02	NONE 9	STRGHT											
																N/A	W -E									000		00
																PSNGR CAR		01	DRVR	NONE	00	Unk	UNK		000	000		00
																							UNK					
00385	N	N	N	N		04/12/2018	17	BRUTSCHER ST	INTER	CROSS	N	N	RAIN	ANGL-OTH	01	NONE 9	STRGHT											02
NONE						TH	0	HAYES ST	CN		YIELD	Y	WET	ANGL		N/A	N -S									000		00
N						5A			03	0		N	DAWN	PDO		PSNGR CAR		01	DRVR	NONE	00	Unk	UNK		000	000		00
N						45 18 13.12	-122 56 27.23			(01)													UNK					
															02	NONE 9	STRGHT											
																N/A	W -E									000		00
																PSNGR CAR		01	DRVR	NONE	00	Unk	UNK		000	000		00
																							UNK					
01164	N	N	N	N	N N	11/20/2019	17	BRUTSCHER ST	INTER	CROSS	N	N	CLR	ANGL-OTH	01	NONE 9	TURN-L											06,15
CITY						WE	0	HAYES ST	CN		ONE-WAY	Y	DRY	TURN		N/A	W -N									000		00
N						7P			02	0		N	DLIT	PDO		PSNGR CAR		01	DRVR	NONE	00	Unk	UNK		000	000		00
N						45 18 14.17	-122 56 27.29																UNK					

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02 NONE 9 STRGHT

N/A N -S 000 00

PSNGR CAR 01 DRVR NONE 00 Unk UNK 000 000 00

UNK

01012 N N N N 10/13/2019 17 BRUTSCHER ST INTER CROSS N N CLR ANGL-OTH 01 NONE 9 TURN-R 02

NONE SU 0 HAYES ST CN YIELD Y DRY TURN N/A S -E 000 00

N 6A 04 0 N DLIT PDO PSNGR CAR 01 DRVR NONE 00 Unk UNK 000 000 00

N 45 18 13.12 -122 56 27.23 UNK

02 NONE 9 STRGHT

N/A W -E 000 00

PSNGR CAR 01 DRVR NONE 00 Unk UNK 000 000 00

UNK

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Appendix E

Level of Service Descriptions

Synchro Capacity Reports

ODOT APM V/C Ratio Calculations

SimTraffic Queuing Reports

Level of Service Definitions

Level of service is used to describe the quality of traffic flow. Levels of service A to C are considered good, and rural roads are usually designed for level of service C. Urban streets and signalized intersections are typically designed for level of service D. Level of service E is considered to be the limit of acceptable delay. For unsignalized intersections, level of service E is generally considered acceptable. Here is a more complete description of levels of service:

- *Level of service A:* Very low delay at intersections, with all traffic signal cycles clearing and no vehicles waiting through more than one signal cycle. On highways, low volume and high speeds, with speeds not restricted by other vehicles.
- *Level of service B:* Operating speeds beginning to be affected by other traffic; short traffic delays at intersections. Higher average intersection delay than for level of service A resulting from more vehicles stopping.
- *Level of service C:* Operating speeds and maneuverability closely controlled by other traffic; higher delays at intersections than for level of service B due to a significant number of vehicles stopping. Not all signal cycles clear the waiting vehicles. This is the recommended design standard for rural highways.
- *Level of service D:* Tolerable operating speeds; long traffic delays occur at intersections. The influence of congestion is noticeable. At traffic signals many vehicles stop, and the proportion of vehicles not stopping declines. The number of signal cycle failures, for which vehicles must wait through more than one signal cycle, are noticeable. This is typically the design level for urban signalized intersections.
- *Level of service E:* Restricted speeds, very long traffic delays at traffic signals, and traffic volumes near capacity. Flow is unstable so that any interruption, no matter how minor, will cause queues to form and service to deteriorate to level of service F. Traffic signal cycle failures are frequent occurrences. For unsignalized intersections, level of service E or better is generally considered acceptable.
- *Level of service F:* Extreme delays, resulting in long queues which may interfere with other traffic movements. There may be stoppages of long duration, and speeds may drop to zero. There may be frequent signal cycle failures. Level of service F will typically result when vehicle arrival rates are greater than capacity. It is considered unacceptable by most drivers.

Level of Service Criteria
For Signalized Intersections

Level of Service (LOS)	Control Delay per Vehicle (Seconds)
A	<10
B	10-20
C	20-35
D	35-55
E	55-80
F	>80

Level of Service Criteria
For Unsignalized Intersections

Level of Service (LOS)	Control Delay per Vehicle (Seconds)
A	<10
B	10-15
C	15-25
D	25-35
E	35-50
F	>50

Intersection	
Intersection Delay, s/veh	18.1
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	60	22	188	48	8	11	76	248	12	25	297	55
Future Vol, veh/h	60	22	188	48	8	11	76	248	12	25	297	55
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles, %	3	3	3	0	0	0	7	7	7	9	9	9
Mvmt Flow	69	25	216	55	9	13	87	285	14	29	341	63
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	13	12.5	16.1	24.6
HCM LOS	B	B	C	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	73%	0%	72%	100%	0%
Vol Thru, %	0%	95%	27%	0%	12%	0%	84%
Vol Right, %	0%	5%	0%	100%	16%	0%	16%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	76	260	82	188	67	25	352
LT Vol	76	0	60	0	48	25	0
Through Vol	0	248	22	0	8	0	297
RT Vol	0	12	0	188	11	0	55
Lane Flow Rate	87	299	94	216	77	29	405
Geometry Grp	7	7	7	7	6	7	7
Degree of Util (X)	0.176	0.556	0.198	0.39	0.168	0.057	0.738
Departure Headway (Hd)	7.239	6.695	7.581	6.492	7.848	7.19	6.568
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	498	541	473	553	457	500	554
Service Time	4.953	4.409	5.324	4.234	5.905	4.902	4.28
HCM Lane V/C Ratio	0.175	0.553	0.199	0.391	0.168	0.058	0.731
HCM Control Delay	11.5	17.5	12.2	13.3	12.5	10.3	25.6
HCM Lane LOS	B	C	B	B	B	B	D
HCM 95th-tile Q	0.6	3.4	0.7	1.8	0.6	0.2	6.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	63	957	68	253	559	88	138	187	430	229	144	71
Future Volume (veh/h)	63	957	68	253	559	88	138	187	430	229	144	71
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1695	1695	1695	1641	1641	1641	1668	1668	1668	1668	1668	1668
Adj Flow Rate, veh/h	63	957	0	253	559	0	138	187	394	229	144	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	8	8	8	6	6	6	6	6	6
Cap, veh/h	78	1032		329	1186		204	457	539	299	509	431
Arrive On Green	0.05	0.32	0.00	0.11	0.38	0.00	0.07	0.27	0.27	0.10	0.31	0.00
Sat Flow, veh/h	1615	3221	1437	3032	3118	1391	3082	1668	1407	3082	1668	1414
Grp Volume(v), veh/h	63	957	0	253	559	0	138	187	394	229	144	0
Grp Sat Flow(s),veh/h/ln	1615	1611	1437	1516	1559	1391	1541	1668	1407	1541	1668	1414
Q Serve(g_s), s	3.1	23.0	0.0	6.5	10.8	0.0	3.5	7.3	19.2	5.8	5.3	0.0
Cycle Q Clear(g_c), s	3.1	23.0	0.0	6.5	10.8	0.0	3.5	7.3	19.2	5.8	5.3	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	78	1032		329	1186		204	457	539	299	509	431
V/C Ratio(X)	0.81	0.93		0.77	0.47		0.68	0.41	0.73	0.77	0.28	0.00
Avail Cap(c_a), veh/h	141	1047		417	1186		270	457	539	308	509	431
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	0.66	0.66	0.66	1.00	1.00	0.00
Uniform Delay (d), s/veh	37.7	26.3	0.0	34.7	18.7	0.0	36.5	23.7	21.2	35.2	21.1	0.0
Incr Delay (d2), s/veh	17.8	13.7	0.0	6.6	0.3	0.0	2.8	1.8	5.7	10.6	1.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	10.1	0.0	2.6	3.7	0.0	1.4	3.0	6.7	2.6	2.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.5	39.9	0.0	41.3	19.0	0.0	39.3	25.5	26.9	45.9	22.5	0.0
LnGrp LOS	E	D		D	B		D	C	C	D	C	A
Approach Vol, veh/h		1020			812			719			373	
Approach Delay, s/veh		40.9			25.9			28.9			36.9	
Approach LOS		D			C			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.8	25.9	12.7	29.6	9.3	28.4	7.8	34.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	19.0	11.0	26.0	7.0	20.0	7.0	30.0
Max Q Clear Time (g_c+I1), s	7.8	21.2	8.5	25.0	5.5	7.3	5.1	12.8
Green Ext Time (p_c), s	0.0	0.0	0.2	0.6	0.1	0.6	0.0	3.4

Intersection Summary	
HCM 6th Ctrl Delay	33.3
HCM 6th LOS	C

Notes

Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	0	5	43	0	92	3	694	56	86	417	2
Future Volume (veh/h)	7	0	5	43	0	92	3	694	56	86	417	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		1.00	0.99		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1068	1068	1068	1723	1723	1723	1668	1668	1668	1627	1627	1627
Adj Flow Rate, veh/h	8	0	0	48	0	0	3	780	60	97	469	2
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	50	50	50	2	2	2	6	6	6	9	9	9
Cap, veh/h	120	0	0	146	79	0	748	1178	91	634	1322	6
Arrive On Green	0.05	0.00	0.00	0.05	0.00	0.00	0.01	1.00	1.00	0.05	0.82	0.82
Sat Flow, veh/h	869	0	0	1404	1723	0	1589	1529	118	1550	1619	7
Grp Volume(v), veh/h	8	0	0	48	0	0	3	0	840	97	0	471
Grp Sat Flow(s),veh/h/ln	869	0	0	1404	1723	0	1589	0	1647	1550	0	1626
Q Serve(g_s), s	0.8	0.0	0.0	2.1	0.0	0.0	0.0	0.0	0.0	0.9	0.0	6.7
Cycle Q Clear(g_c), s	0.8	0.0	0.0	2.9	0.0	0.0	0.0	0.0	0.0	0.9	0.0	6.7
Prop In Lane	1.00		0.00	1.00		0.00	1.00		0.07	1.00		0.00
Lane Grp Cap(c), veh/h	120	0	0	146	79	0	748	0	1268	634	0	1328
V/C Ratio(X)	0.07	0.00	0.00	0.33	0.00	0.00	0.00	0.00	0.66	0.15	0.00	0.35
Avail Cap(c_a), veh/h	260	0	0	372	356	0	841	0	1268	656	0	1328
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.63	0.00	0.63	0.89	0.00	0.89
Uniform Delay (d), s/veh	41.4	0.0	0.0	42.3	0.0	0.0	2.3	0.0	0.0	1.2	0.0	2.1
Incr Delay (d2), s/veh	0.2	0.0	0.0	1.3	0.0	0.0	0.0	0.0	1.7	0.1	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.6	0.1	0.0	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.6	0.0	0.0	43.6	0.0	0.0	2.3	0.0	1.7	1.3	0.0	2.8
LnGrp LOS	D	A	A	D	A	A	A	A	A	A	A	A
Approach Vol, veh/h		8			48			843			568	
Approach Delay, s/veh		41.6			43.6			1.7			2.5	
Approach LOS		D			D			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.6	73.3		8.1	4.4	77.5		8.1				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	5.8	53.6		18.6	5.6	53.8		18.6				
Max Q Clear Time (g_c+I1), s	2.9	2.0		2.8	2.0	8.7		4.9				
Green Ext Time (p_c), s	0.0	7.8		0.0	0.0	3.2		0.1				

Intersection Summary		
HCM 6th Ctrl Delay		3.6
HCM 6th LOS		A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	26	18	47	57	63	6	659	49	31	432	22
Future Volume (veh/h)	14	26	18	47	57	63	6	659	49	31	432	22
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.98	0.98		0.98	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1682	1682	1682	1668	1668	1668	1654	1654	1654	1586	1586	1586
Adj Flow Rate, veh/h	16	29	3	52	63	44	7	732	51	34	480	22
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	5	5	5	6	6	6	7	7	7	12	12	12
Cap, veh/h	102	152	13	106	97	57	692	1061	74	391	1081	50
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.14	0.01	0.70	0.70	0.06	1.00	1.00
Sat Flow, veh/h	349	1089	96	379	691	409	1576	1526	106	1511	1505	69
Grp Volume(v), veh/h	48	0	0	159	0	0	7	0	783	34	0	502
Grp Sat Flow(s),veh/h/ln	1533	0	0	1480	0	0	1576	0	1633	1511	0	1574
Q Serve(g_s), s	0.0	0.0	0.0	6.7	0.0	0.0	0.1	0.0	25.3	0.6	0.0	0.0
Cycle Q Clear(g_c), s	2.3	0.0	0.0	9.3	0.0	0.0	0.1	0.0	25.3	0.6	0.0	0.0
Prop In Lane	0.33		0.06	0.33		0.28	1.00		0.07	1.00		0.04
Lane Grp Cap(c), veh/h	267	0	0	260	0	0	692	0	1135	391	0	1130
V/C Ratio(X)	0.18	0.00	0.00	0.61	0.00	0.00	0.01	0.00	0.69	0.09	0.00	0.44
Avail Cap(c_a), veh/h	374	0	0	364	0	0	776	0	1135	437	0	1130
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	0.94	0.00	0.94
Uniform Delay (d), s/veh	34.3	0.0	0.0	37.2	0.0	0.0	4.0	0.0	8.0	6.9	0.0	0.0
Incr Delay (d2), s/veh	0.3	0.0	0.0	2.3	0.0	0.0	0.0	0.0	3.4	0.1	0.0	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	0.0	3.5	0.0	0.0	0.0	0.0	7.9	0.1	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.6	0.0	0.0	39.5	0.0	0.0	4.0	0.0	11.5	7.0	0.0	1.2
LnGrp LOS	C	A	A	D	A	A	A	A	B	A	A	A
Approach Vol, veh/h		48			159			790			536	
Approach Delay, s/veh		34.6			39.5			11.4			1.6	
Approach LOS		C			D			B			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.9	66.6		16.6	4.8	68.6		16.6				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	5.6	53.4		19.0	5.6	53.4		19.0				
Max Q Clear Time (g_c+I1), s	2.6	27.3		4.3	2.1	2.0		11.3				
Green Ext Time (p_c), s	0.0	6.2		0.1	0.0	3.6		0.5				

Intersection Summary		
HCM 6th Ctrl Delay	11.6	
HCM 6th LOS	B	

Intersection	
Intersection Delay, s/veh	3.8
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	153	46	138	75
Demand Flow Rate, veh/h	154	48	143	78
Vehicles Circulating, veh/h	78	105	149	54
Vehicles Exiting, veh/h	54	187	83	99
Ped Vol Crossing Leg, #/h	4	0	6	3
Ped Cap Adj	0.999	1.000	0.999	1.000
Approach Delay, s/veh	3.8	3.3	4.2	3.3
Approach LOS	A	A	A	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	154	48	143	78
Cap Entry Lane, veh/h	1274	1240	1185	1306
Entry HV Adj Factor	0.992	0.963	0.967	0.967
Flow Entry, veh/h	153	46	138	75
Cap Entry, veh/h	1264	1194	1145	1262
V/C Ratio	0.121	0.039	0.121	0.060
Control Delay, s/veh	3.8	3.3	4.2	3.3
LOS	A	A	A	A
95th %tile Queue, veh	0	0	0	0

Intersection	
Intersection Delay, s/veh	22.3
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	74	51	182	125	64	51	110	260	20	46	308	40
Future Vol, veh/h	74	51	182	125	64	51	110	260	20	46	308	40
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	1	1	1	1	1	1	2	2	2	2	2	2
Mvmt Flow	78	54	192	132	67	54	116	274	21	48	324	42
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	15	22.1	20.5	30
HCM LOS	B	C	C	D

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	59%	0%	52%	100%	0%
Vol Thru, %	0%	93%	41%	0%	27%	0%	89%
Vol Right, %	0%	7%	0%	100%	21%	0%	11%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	110	280	125	182	240	46	348
LT Vol	110	0	74	0	125	46	0
Through Vol	0	260	51	0	64	0	308
RT Vol	0	20	0	182	51	0	40
Lane Flow Rate	116	295	132	192	253	48	366
Geometry Grp	7	7	7	7	6	7	7
Degree of Util (X)	0.267	0.634	0.309	0.395	0.579	0.111	0.778
Departure Headway (Hd)	8.316	7.747	8.447	7.418	8.247	8.247	7.648
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	434	469	425	485	437	436	476
Service Time	6.033	5.464	6.202	5.173	6.305	5.963	5.363
HCM Lane V/C Ratio	0.267	0.629	0.311	0.396	0.579	0.11	0.769
HCM Control Delay	14	23	15	15	22.1	12	32.4
HCM Lane LOS	B	C	B	B	C	B	D
HCM 95th-tile Q	1.1	4.3	1.3	1.9	3.6	0.4	6.9

Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Volume (veh/h)	1	96	834	95	429	1197	127	213	197	305	258	182	107
Future Volume (veh/h)	1	96	834	95	429	1197	127	213	197	305	258	182	107
Initial Q (Qb), veh		0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach			No			No			No			No	
Adj Sat Flow, veh/h/ln		1723	1723	1723	1709	1709	1709	1723	1723	1723	1723	1723	1723
Adj Flow Rate, veh/h		96	834	0	429	1197	0	213	197	272	258	182	0
Peak Hour Factor		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %		2	2	2	3	3	3	2	2	2	2	2	2
Cap, veh/h		119	1048		496	1313		282	419	577	325	442	374
Arrive On Green		0.07	0.32	0.00	0.16	0.40	0.00	0.09	0.24	0.24	0.10	0.26	0.00
Sat Flow, veh/h		1641	3273	1460	3158	3247	1448	3183	1723	1430	3183	1723	1460
Grp Volume(v), veh/h		96	834	0	429	1197	0	213	197	272	258	182	0
Grp Sat Flow(s),veh/h/ln		1641	1637	1460	1579	1624	1448	1591	1723	1430	1591	1723	1460
Q Serve(g_s), s		5.2	20.9	0.0	11.9	31.3	0.0	5.9	8.8	12.7	7.1	7.9	0.0
Cycle Q Clear(g_c), s		5.2	20.9	0.0	11.9	31.3	0.0	5.9	8.8	12.7	7.1	7.9	0.0
Prop In Lane		1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h		119	1048		496	1313		282	419	577	325	442	374
V/C Ratio(X)		0.80	0.80		0.87	0.91		0.75	0.47	0.47	0.79	0.41	0.00
Avail Cap(c_a), veh/h		146	1127		526	1371		354	419	577	354	442	374
HCM Platoon Ratio		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	0.00	1.00	1.00	0.00	0.81	0.81	0.81	1.00	1.00	0.00
Uniform Delay (d), s/veh		41.1	27.9	0.0	37.0	25.3	0.0	40.0	29.1	20.0	39.5	27.8	0.0
Incr Delay (d2), s/veh		22.8	3.8	0.0	13.6	9.2	0.0	5.7	3.1	2.2	10.9	2.8	0.0
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		2.8	8.3	0.0	5.4	12.9	0.0	2.5	3.9	4.3	3.3	3.6	0.0
Unsig. Movement Delay, s/veh													
LnGrp Delay(d),s/veh		63.9	31.7	0.0	50.6	34.5	0.0	45.7	32.2	22.2	50.4	30.6	0.0
LnGrp LOS		E	C		D	C		D	C	C	D	C	A
Approach Vol, veh/h			930			1626			682			440	
Approach Delay, s/veh			35.1			38.7			32.4			42.2	
Approach LOS			D			D			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.2	25.9	18.1	32.8	12.0	27.1	10.5	40.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	10.0	18.0	15.0	31.0	10.0	18.0	8.0	38.0
Max Q Clear Time (g_c+I1), s	9.1	14.7	13.9	22.9	7.9	9.9	7.2	33.3
Green Ext Time (p_c), s	0.1	0.7	0.2	3.4	0.1	0.6	0.0	3.1

Intersection Summary	
HCM 6th Ctrl Delay	37.1
HCM 6th LOS	D

Notes

User approved ignoring U-Turning movement.

Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	0	0	125	0	81	1	579	21	94	684	1
Future Volume (veh/h)	1	0	0	125	0	81	1	579	21	94	684	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		1.00	0.99		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1750	1750	1750	1723	1723	1723	1723	1723	1723	1723	1723	1723
Adj Flow Rate, veh/h	1	0	0	130	0	0	1	603	20	98	712	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	2	2	2	2	2	2	2	2	2
Cap, veh/h	266	0	0	264	206	0	482	1098	36	567	1237	2
Arrive On Green	0.12	0.00	0.00	0.12	0.00	0.00	0.00	0.66	0.66	0.06	0.72	0.72
Sat Flow, veh/h	1422	0	0	1400	1723	0	1641	1658	55	1641	1720	2
Grp Volume(v), veh/h	1	0	0	130	0	0	1	0	623	98	0	713
Grp Sat Flow(s),veh/h/ln	1422	0	0	1400	1723	0	1641	0	1713	1641	0	1722
Q Serve(g_s), s	0.0	0.0	0.0	6.7	0.0	0.0	0.0	0.0	14.5	1.2	0.0	14.9
Cycle Q Clear(g_c), s	0.0	0.0	0.0	6.8	0.0	0.0	0.0	0.0	14.5	1.2	0.0	14.9
Prop In Lane	1.00		0.00	1.00		0.00	1.00		0.03	1.00		0.00
Lane Grp Cap(c), veh/h	266	0	0	264	206	0	482	0	1134	567	0	1238
V/C Ratio(X)	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00	0.55	0.17	0.00	0.58
Avail Cap(c_a), veh/h	447	0	0	441	425	0	600	0	1134	595	0	1238
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.85	0.00	0.85	0.73	0.00	0.73
Uniform Delay (d), s/veh	29.1	0.0	0.0	32.0	0.0	0.0	5.0	0.0	6.7	4.6	0.0	5.1
Incr Delay (d2), s/veh	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	1.6	0.1	0.0	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	2.4	0.0	0.0	0.0	0.0	4.4	0.2	0.0	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.1	0.0	0.0	33.5	0.0	0.0	5.0	0.0	8.3	4.7	0.0	6.5
LnGrp LOS	C	A	A	C	A	A	A	A	A	A	A	A
Approach Vol, veh/h		1			130			624			811	
Approach Delay, s/veh		29.1			33.5			8.3			6.3	
Approach LOS		C			C			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.4	53.7		13.0	4.1	57.9		13.0				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	5.6	38.9		18.5	5.5	39.0		18.5				
Max Q Clear Time (g_c+I1), s	3.2	16.5		2.0	2.0	16.9		8.8				
Green Ext Time (p_c), s	0.0	4.2		0.0	0.0	5.0		0.2				

Intersection Summary		
HCM 6th Ctrl Delay	9.4	
HCM 6th LOS	A	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	60	63	90	87	33	23	476	46	38	747	46
Future Volume (veh/h)	26	60	63	90	87	33	23	476	46	38	747	46
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1736	1736	1736	1682	1682	1682	1695	1695	1695	1668	1668	1668
Adj Flow Rate, veh/h	27	62	37	94	91	27	24	496	45	40	778	46
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	1	1	1	5	5	5	4	4	4	6	6	6
Cap, veh/h	83	153	78	155	118	31	349	1017	92	557	1050	62
Arrive On Green	0.17	0.17	0.17	0.17	0.17	0.17	0.03	0.66	0.66	0.04	0.67	0.67
Sat Flow, veh/h	207	913	466	583	702	188	1615	1531	139	1589	1557	92
Grp Volume(v), veh/h	126	0	0	212	0	0	24	0	541	40	0	824
Grp Sat Flow(s),veh/h/ln	1586	0	0	1473	0	0	1615	0	1670	1589	0	1649
Q Serve(g_s), s	0.0	0.0	0.0	6.2	0.0	0.0	0.4	0.0	14.5	0.7	0.0	29.3
Cycle Q Clear(g_c), s	6.3	0.0	0.0	12.5	0.0	0.0	0.4	0.0	14.5	0.7	0.0	29.3
Prop In Lane	0.21		0.29	0.44		0.13	1.00		0.08	1.00		0.06
Lane Grp Cap(c), veh/h	314	0	0	304	0	0	349	0	1109	557	0	1112
V/C Ratio(X)	0.40	0.00	0.00	0.70	0.00	0.00	0.07	0.00	0.49	0.07	0.00	0.74
Avail Cap(c_a), veh/h	398	0	0	383	0	0	409	0	1109	600	0	1112
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	0.80	0.00	0.80
Uniform Delay (d), s/veh	33.8	0.0	0.0	36.3	0.0	0.0	9.1	0.0	7.5	5.4	0.0	9.6
Incr Delay (d2), s/veh	0.8	0.0	0.0	4.0	0.0	0.0	0.1	0.0	1.5	0.0	0.0	3.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	0.0	0.0	4.8	0.0	0.0	0.1	0.0	4.7	0.2	0.0	9.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.6	0.0	0.0	40.3	0.0	0.0	9.1	0.0	9.0	5.4	0.0	13.2
LnGrp LOS	C	A	A	D	A	A	A	A	A	A	A	B
Approach Vol, veh/h		126			212			565			864	
Approach Delay, s/veh		34.6			40.3			9.0			12.8	
Approach LOS		C			D			A			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.2	63.8		19.1	6.3	64.7		19.1
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	5.6	52.4		20.0	5.6	52.4		20.0
Max Q Clear Time (g_c+I1), s	2.7	16.5		8.3	2.4	31.3		14.5
Green Ext Time (p_c), s	0.0	3.8		0.5	0.0	6.2		0.5

Intersection Summary		
HCM 6th Ctrl Delay	16.4	
HCM 6th LOS	B	

Intersection	
Intersection Delay, s/veh	4.4
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	66	178	90	256
Demand Flow Rate, veh/h	67	178	91	259
Vehicles Circulating, veh/h	218	106	70	159
Vehicles Exiting, veh/h	200	55	215	125
Ped Vol Crossing Leg, #/h	5	0	6	1
Ped Cap Adj	0.999	1.000	0.999	1.000
Approach Delay, s/veh	3.8	4.1	3.4	5.1
Approach LOS	A	A	A	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	67	178	91	259
Cap Entry Lane, veh/h	1105	1238	1285	1173
Entry HV Adj Factor	0.979	1.000	0.993	0.990
Flow Entry, veh/h	66	178	90	256
Cap Entry, veh/h	1081	1238	1275	1161
V/C Ratio	0.061	0.144	0.071	0.221
Control Delay, s/veh	3.8	4.1	3.4	5.1
LOS	A	A	A	A
95th %tile Queue, veh	0	1	0	1

HCM 6th Signalized Intersection Summary
1: N Springbrook Road & E Haworth Avenue

09/26/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	66	23	213	50	8	12	85	274	12	27	333	60
Future Volume (veh/h)	66	23	213	50	8	12	85	274	12	27	333	60
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.96	0.99		0.98	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1709	1709	1709	1750	1750	1750	1654	1654	1654	1627	1627	1627
Adj Flow Rate, veh/h	76	26	69	57	9	4	98	315	12	31	383	58
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	3	3	3	0	0	0	7	7	7	9	9	9
Cap, veh/h	333	60	158	208	28	8	611	978	37	691	803	122
Arrive On Green	0.15	0.15	0.15	0.15	0.15	0.15	0.07	0.62	0.62	0.03	0.58	0.58
Sat Flow, veh/h	1371	400	1062	665	188	52	1576	1583	60	1550	1375	208
Grp Volume(v), veh/h	76	0	95	70	0	0	98	0	327	31	0	441
Grp Sat Flow(s),veh/h/ln	1371	0	1463	905	0	0	1576	0	1643	1550	0	1583
Q Serve(g_s), s	0.0	0.0	3.5	2.4	0.0	0.0	1.4	0.0	5.7	0.5	0.0	9.6
Cycle Q Clear(g_c), s	2.8	0.0	3.5	5.9	0.0	0.0	1.4	0.0	5.7	0.5	0.0	9.6
Prop In Lane	1.00		0.73	0.81		0.06	1.00		0.04	1.00		0.13
Lane Grp Cap(c), veh/h	333	0	218	244	0	0	611	0	1015	691	0	925
V/C Ratio(X)	0.23	0.00	0.44	0.29	0.00	0.00	0.16	0.00	0.32	0.04	0.00	0.48
Avail Cap(c_a), veh/h	554	0	453	462	0	0	652	0	1015	783	0	925
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	0.90	0.00	0.90	1.00	0.00	1.00
Uniform Delay (d), s/veh	22.9	0.0	23.2	25.1	0.0	0.0	4.8	0.0	5.5	4.6	0.0	7.2
Incr Delay (d2), s/veh	0.3	0.0	1.4	0.6	0.0	0.0	0.1	0.0	0.8	0.0	0.0	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	1.3	1.0	0.0	0.0	0.3	0.0	1.7	0.1	0.0	3.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.3	0.0	24.6	25.7	0.0	0.0	4.9	0.0	6.2	4.6	0.0	9.0
LnGrp LOS	C	A	C	C	A	A	A	A	A	A	A	A
Approach Vol, veh/h		171			70			425			472	
Approach Delay, s/veh		24.0			25.7			5.9			8.7	
Approach LOS		C			C			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.0	41.1		12.9	8.0	39.0		12.9				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	5.6	23.8		18.6	5.6	23.8		18.6				
Max Q Clear Time (g_c+I1), s	2.5	7.7		5.5	3.4	11.6		7.9				
Green Ext Time (p_c), s	0.0	1.8		0.6	0.0	2.3		0.2				

Intersection Summary			
HCM 6th Ctrl Delay		11.0	
HCM 6th LOS		B	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	68	992	70	263	580	101	143	204	445	264	165	75
Future Volume (veh/h)	68	992	70	263	580	101	143	204	445	264	165	75
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1695	1695	1695	1641	1641	1641	1668	1668	1668	1668	1668	1668
Adj Flow Rate, veh/h	68	992	0	263	580	0	143	204	409	264	165	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	8	8	8	6	6	6	6	6	6
Cap, veh/h	84	1047		335	1195		210	441	528	308	494	419
Arrive On Green	0.05	0.32	0.00	0.11	0.38	0.00	0.07	0.26	0.26	0.10	0.30	0.00
Sat Flow, veh/h	1615	3221	1437	3032	3118	1391	3082	1668	1407	3082	1668	1414
Grp Volume(v), veh/h	68	992	0	263	580	0	143	204	409	264	165	0
Grp Sat Flow(s),veh/h/ln	1615	1611	1437	1516	1559	1391	1541	1668	1407	1541	1668	1414
Q Serve(g_s), s	3.3	24.0	0.0	6.8	11.3	0.0	3.6	8.2	20.5	6.7	6.2	0.0
Cycle Q Clear(g_c), s	3.3	24.0	0.0	6.8	11.3	0.0	3.6	8.2	20.5	6.7	6.2	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	84	1047		335	1195		210	441	528	308	494	419
V/C Ratio(X)	0.81	0.95		0.78	0.49		0.68	0.46	0.77	0.86	0.33	0.00
Avail Cap(c_a), veh/h	182	1047		379	1195		270	441	528	308	494	419
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	0.61	0.61	0.61	0.85	0.85	0.00
Uniform Delay (d), s/veh	37.5	26.3	0.0	34.6	18.7	0.0	36.4	24.7	22.0	35.4	22.0	0.0
Incr Delay (d2), s/veh	16.1	16.7	0.0	9.3	0.3	0.0	2.9	2.1	6.7	18.0	1.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	10.9	0.0	2.8	3.8	0.0	1.4	3.3	7.2	3.3	2.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.6	43.0	0.0	43.9	19.0	0.0	39.3	26.8	28.7	53.4	23.5	0.0
LnGrp LOS	D	D		D	B		D	C	C	D	C	A
Approach Vol, veh/h		1060			843			756			429	
Approach Delay, s/veh		43.7			26.8			30.2			41.9	
Approach LOS		D			C			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	25.1	12.9	30.0	9.4	27.7	8.2	34.7
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	20.0	10.0	26.0	7.0	21.0	9.0	27.0
Max Q Clear Time (g_c+I1), s	10.7	22.5	8.8	26.0	5.6	8.2	5.3	13.3
Green Ext Time (p_c), s	0.0	0.0	0.1	0.0	0.1	0.7	0.0	3.2

Intersection Summary	
HCM 6th Ctrl Delay	35.5
HCM 6th LOS	D

Notes

Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	0	5	44	0	95	3	729	58	89	448	2
Future Volume (veh/h)	7	0	5	44	0	95	3	729	58	89	448	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		1.00	0.99		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1068	1068	1068	1723	1723	1723	1668	1668	1668	1627	1627	1627
Adj Flow Rate, veh/h	8	0	0	49	0	0	3	819	62	100	503	2
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	50	50	50	2	2	2	6	6	6	9	9	9
Cap, veh/h	120	0	0	147	80	0	721	1178	89	616	1322	5
Arrive On Green	0.05	0.00	0.00	0.05	0.00	0.00	0.01	1.00	1.00	0.05	0.82	0.82
Sat Flow, veh/h	869	0	0	1404	1723	0	1589	1531	116	1550	1619	6
Grp Volume(v), veh/h	8	0	0	49	0	0	3	0	881	100	0	505
Grp Sat Flow(s),veh/h/ln	869	0	0	1404	1723	0	1589	0	1647	1550	0	1626
Q Serve(g_s), s	0.8	0.0	0.0	2.2	0.0	0.0	0.0	0.0	0.0	1.0	0.0	7.5
Cycle Q Clear(g_c), s	0.8	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	7.5
Prop In Lane	1.00		0.00	1.00		0.00	1.00		0.07	1.00		0.00
Lane Grp Cap(c), veh/h	120	0	0	147	80	0	721	0	1267	616	0	1327
V/C Ratio(X)	0.07	0.00	0.00	0.33	0.00	0.00	0.00	0.00	0.70	0.16	0.00	0.38
Avail Cap(c_a), veh/h	260	0	0	372	356	0	813	0	1267	637	0	1327
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.58	0.00	0.58	0.86	0.00	0.86
Uniform Delay (d), s/veh	41.3	0.0	0.0	42.3	0.0	0.0	2.4	0.0	0.0	1.2	0.0	2.2
Incr Delay (d2), s/veh	0.2	0.0	0.0	1.3	0.0	0.0	0.0	0.0	1.9	0.1	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.7	0.1	0.0	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.5	0.0	0.0	43.6	0.0	0.0	2.4	0.0	1.9	1.3	0.0	2.9
LnGrp LOS	D	A	A	D	A	A	A	A	A	A	A	A
Approach Vol, veh/h		8			49			884			605	
Approach Delay, s/veh		41.5			43.6			1.9			2.7	
Approach LOS		D			D			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.6	73.2		8.2	4.4	77.5		8.2				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	5.8	53.6		18.6	5.6	53.8		18.6				
Max Q Clear Time (g_c+I1), s	3.0	2.0		2.8	2.0	9.5		5.0				
Green Ext Time (p_c), s	0.1	8.5		0.0	0.0	3.6		0.1				

Intersection Summary		
HCM 6th Ctrl Delay		3.7
HCM 6th LOS		A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	28	19	50	60	65	6	687	53	32	458	29
Future Volume (veh/h)	20	28	19	50	60	65	6	687	53	32	458	29
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.98	0.98		0.98	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1682	1682	1682	1668	1668	1668	1654	1654	1654	1586	1586	1586
Adj Flow Rate, veh/h	22	31	4	56	67	48	7	763	56	36	509	30
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	5	5	5	6	6	6	7	7	7	12	12	12
Cap, veh/h	116	137	15	109	100	61	665	1044	77	358	1054	62
Arrive On Green	0.15	0.15	0.15	0.15	0.15	0.15	0.01	0.69	0.69	0.07	1.00	1.00
Sat Flow, veh/h	410	934	101	384	680	415	1576	1520	112	1511	1483	87
Grp Volume(v), veh/h	57	0	0	171	0	0	7	0	819	36	0	539
Grp Sat Flow(s),veh/h/ln	1445	0	0	1479	0	0	1576	0	1632	1511	0	1570
Q Serve(g_s), s	0.0	0.0	0.0	7.2	0.0	0.0	0.1	0.0	28.4	0.6	0.0	0.0
Cycle Q Clear(g_c), s	2.7	0.0	0.0	10.0	0.0	0.0	0.1	0.0	28.4	0.6	0.0	0.0
Prop In Lane	0.39		0.07	0.33		0.28	1.00		0.07	1.00		0.06
Lane Grp Cap(c), veh/h	268	0	0	270	0	0	665	0	1121	358	0	1117
V/C Ratio(X)	0.21	0.00	0.00	0.63	0.00	0.00	0.01	0.00	0.73	0.10	0.00	0.48
Avail Cap(c_a), veh/h	358	0	0	361	0	0	749	0	1121	402	0	1117
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	0.93	0.00	0.93
Uniform Delay (d), s/veh	33.9	0.0	0.0	36.9	0.0	0.0	4.2	0.0	8.9	8.1	0.0	0.0
Incr Delay (d2), s/veh	0.4	0.0	0.0	2.4	0.0	0.0	0.0	0.0	4.2	0.1	0.0	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	0.0	3.8	0.0	0.0	0.0	0.0	9.1	0.2	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.3	0.0	0.0	39.4	0.0	0.0	4.2	0.0	13.1	8.2	0.0	1.4
LnGrp LOS	C	A	A	D	A	A	A	A	B	A	A	A
Approach Vol, veh/h		57			171			826			575	
Approach Delay, s/veh		34.3			39.4			13.0			1.8	
Approach LOS		C			D			B			A	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.0	65.8		17.2	4.8	68.0		17.2
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	5.6	53.6		18.8	5.6	53.6		18.8
Max Q Clear Time (g_c+I1), s	2.6	30.4		4.7	2.1	2.0		12.0
Green Ext Time (p_c), s	0.0	6.4		0.2	0.0	4.0		0.5

Intersection Summary	
HCM 6th Ctrl Delay	12.6
HCM 6th LOS	B

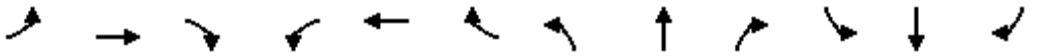
Intersection	
Intersection Delay, s/veh	3.9
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	157	49	146	81
Demand Flow Rate, veh/h	158	51	151	84
Vehicles Circulating, veh/h	84	112	155	55
Vehicles Exiting, veh/h	55	194	87	108
Ped Vol Crossing Leg, #/h	4	0	6	3
Ped Cap Adj	0.999	1.000	0.999	1.000
Approach Delay, s/veh	3.9	3.4	4.3	3.4
Approach LOS	A	A	A	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	158	51	151	84
Cap Entry Lane, veh/h	1267	1231	1178	1305
Entry HV Adj Factor	0.992	0.965	0.967	0.968
Flow Entry, veh/h	157	49	146	81
Cap Entry, veh/h	1256	1188	1138	1262
V/C Ratio	0.125	0.041	0.128	0.064
Control Delay, s/veh	3.9	3.4	4.3	3.4
LOS	A	A	A	A
95th %tile Queue, veh	0	0	0	0

HCM 6th Signalized Intersection Summary
1: N Springbrook Road & E Haworth Avenue

09/25/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	78	53	200	129	66	54	135	295	21	49	344	44
Future Volume (veh/h)	78	53	200	129	66	54	135	295	21	49	344	44
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.97	0.98		0.95	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1736	1736	1736	1736	1736	1736	1723	1723	1723	1723	1723	1723
Adj Flow Rate, veh/h	82	56	77	136	69	41	142	311	18	52	362	39
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	1	1	1	1	1	1	2	2	2	2	2	2
Cap, veh/h	399	170	234	239	111	51	534	790	46	585	706	76
Arrive On Green	0.26	0.26	0.26	0.26	0.26	0.26	0.08	0.49	0.49	0.05	0.46	0.46
Sat Flow, veh/h	1275	651	895	559	427	197	1641	1609	93	1641	1523	164
Grp Volume(v), veh/h	82	0	133	246	0	0	142	0	329	52	0	401
Grp Sat Flow(s),veh/h/ln	1275	0	1546	1182	0	0	1641	0	1703	1641	0	1687
Q Serve(g_s), s	0.0	0.0	4.2	8.2	0.0	0.0	2.6	0.0	7.3	1.0	0.0	10.0
Cycle Q Clear(g_c), s	3.9	0.0	4.2	12.3	0.0	0.0	2.6	0.0	7.3	1.0	0.0	10.0
Prop In Lane	1.00		0.58	0.55		0.17	1.00		0.05	1.00		0.10
Lane Grp Cap(c), veh/h	399	0	404	402	0	0	534	0	835	585	0	782
V/C Ratio(X)	0.21	0.00	0.33	0.61	0.00	0.00	0.27	0.00	0.39	0.09	0.00	0.51
Avail Cap(c_a), veh/h	491	0	515	501	0	0	569	0	835	659	0	782
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	0.84	0.00	0.84	1.00	0.00	1.00
Uniform Delay (d), s/veh	17.8	0.0	17.9	21.5	0.0	0.0	8.0	0.0	9.7	7.7	0.0	11.3
Incr Delay (d2), s/veh	0.3	0.0	0.5	1.5	0.0	0.0	0.2	0.0	1.2	0.1	0.0	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	1.5	3.3	0.0	0.0	0.8	0.0	2.6	0.3	0.0	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.1	0.0	18.4	23.1	0.0	0.0	8.2	0.0	10.8	7.7	0.0	13.7
LnGrp LOS	B	A	B	C	A	A	A	A	B	A	A	B
Approach Vol, veh/h		215			246			471			453	
Approach Delay, s/veh		18.3			23.1			10.0			13.0	
Approach LOS		B			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.9	33.4		19.7	8.5	31.8		19.7				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	5.6	22.4		20.0	5.8	22.2		20.0				
Max Q Clear Time (g_c+I1), s	3.0	9.3		6.2	4.6	12.0		14.3				
Green Ext Time (p_c), s	0.0	1.7		0.9	0.0	1.9		0.7				

Intersection Summary												
HCM 6th Ctrl Delay			14.6									
HCM 6th LOS			B									

Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Volume (veh/h)	1	103	864	98	445	1242	160	220	218	316	293	197	114
Future Volume (veh/h)	1	103	864	98	445	1242	160	220	218	316	293	197	114
Initial Q (Qb), veh		0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach			No			No			No			No	
Adj Sat Flow, veh/h/ln		1723	1723	1723	1709	1709	1709	1723	1723	1723	1723	1723	1723
Adj Flow Rate, veh/h		103	864	0	445	1242	0	220	218	283	293	197	0
Peak Hour Factor		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %		2	2	2	3	3	3	2	2	2	2	2	2
Cap, veh/h		127	1068		515	1337		289	382	555	354	417	353
Arrive On Green		0.08	0.33	0.00	0.16	0.41	0.00	0.09	0.22	0.22	0.11	0.24	0.00
Sat Flow, veh/h		1641	3273	1460	3158	3247	1448	3183	1723	1429	3183	1723	1460
Grp Volume(v), veh/h		103	864	0	445	1242	0	220	218	283	293	197	0
Grp Sat Flow(s),veh/h/ln		1641	1637	1460	1579	1624	1448	1591	1723	1429	1591	1723	1460
Q Serve(g_s), s		5.6	21.7	0.0	12.4	32.8	0.0	6.1	10.1	13.7	8.1	8.8	0.0
Cycle Q Clear(g_c), s		5.6	21.7	0.0	12.4	32.8	0.0	6.1	10.1	13.7	8.1	8.8	0.0
Prop In Lane		1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h		127	1068		515	1337		289	382	555	354	417	353
V/C Ratio(X)		0.81	0.81		0.86	0.93		0.76	0.57	0.51	0.83	0.47	0.00
Avail Cap(c_a), veh/h		146	1091		561	1371		354	382	555	354	417	353
HCM Platoon Ratio		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	0.00	1.00	1.00	0.00	0.73	0.73	0.73	0.82	0.82	0.00
Uniform Delay (d), s/veh		40.8	27.7	0.0	36.7	25.2	0.0	40.0	31.2	21.2	39.2	29.2	0.0
Incr Delay (d2), s/veh		24.9	4.6	0.0	12.5	11.1	0.0	5.6	4.5	2.4	12.7	3.1	0.0
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		3.1	8.7	0.0	5.5	13.7	0.0	2.5	4.6	4.7	3.8	4.0	0.0
Unsig. Movement Delay, s/veh													
LnGrp Delay(d),s/veh		65.7	32.3	0.0	49.2	36.4	0.0	45.5	35.7	23.7	51.8	32.3	0.0
LnGrp LOS		E	C		D	D		D	D	C	D	C	A
Approach Vol, veh/h			967			1687			721			490	
Approach Delay, s/veh			35.9			39.7			34.0			44.0	
Approach LOS			D			D			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	24.0	18.7	33.4	12.2	25.8	11.0	41.1
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	10.0	18.0	16.0	30.0	10.0	18.0	8.0	38.0
Max Q Clear Time (g_c+I1), s	10.1	15.7	14.4	23.7	8.1	10.8	7.6	34.8
Green Ext Time (p_c), s	0.0	0.6	0.3	2.9	0.1	0.6	0.0	2.3

Intersection Summary	
HCM 6th Ctrl Delay	38.2
HCM 6th LOS	D

Notes

User approved ignoring U-Turning movement.

Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	0	0	129	0	84	1	613	22	97	718	1
Future Volume (veh/h)	1	0	0	129	0	84	1	613	22	97	718	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		1.00	0.99		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1750	1750	1750	1723	1723	1723	1723	1723	1723	1723	1723	1723
Adj Flow Rate, veh/h	1	0	0	134	0	1	1	639	21	101	748	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	2	2	2	2	2	2	2	2	2
Cap, veh/h	270	0	0	268	0	177	453	1092	36	536	1231	2
Arrive On Green	0.12	0.00	0.00	0.12	0.00	0.12	0.00	0.66	0.66	0.06	0.72	0.72
Sat Flow, veh/h	1414	0	0	1400	0	1442	1641	1658	54	1641	1720	2
Grp Volume(v), veh/h	1	0	0	134	0	1	1	0	660	101	0	749
Grp Sat Flow(s),veh/h/ln	1414	0	0	1400	0	1442	1641	0	1713	1641	0	1722
Q Serve(g_s), s	0.0	0.0	0.0	6.9	0.0	0.0	0.0	0.0	16.0	1.3	0.0	16.4
Cycle Q Clear(g_c), s	0.1	0.0	0.0	6.9	0.0	0.0	0.0	0.0	16.0	1.3	0.0	16.4
Prop In Lane	1.00		0.00	1.00		1.00	1.00		0.03	1.00		0.00
Lane Grp Cap(c), veh/h	270	0	0	268	0	177	453	0	1128	536	0	1233
V/C Ratio(X)	0.00	0.00	0.00	0.50	0.00	0.01	0.00	0.00	0.58	0.19	0.00	0.61
Avail Cap(c_a), veh/h	446	0	0	442	0	356	571	0	1128	563	0	1233
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	0.81	0.00	0.81	0.70	0.00	0.70
Uniform Delay (d), s/veh	28.9	0.0	0.0	31.9	0.0	28.9	5.3	0.0	7.1	5.1	0.0	5.4
Incr Delay (d2), s/veh	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	1.8	0.1	0.0	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	2.4	0.0	0.0	0.0	0.0	4.9	0.3	0.0	4.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.9	0.0	0.0	33.3	0.0	28.9	5.3	0.0	8.9	5.2	0.0	6.9
LnGrp LOS	C	A	A	C	A	C	A	A	A	A	A	A
Approach Vol, veh/h		1			135			661			850	
Approach Delay, s/veh		28.9			33.3			8.9			6.7	
Approach LOS		C			C			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.4	53.4		13.2	4.1	57.7		13.2				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	5.6	38.9		18.5	5.5	39.0		18.5				
Max Q Clear Time (g_c+I1), s	3.3	18.0		2.1	2.0	18.4		8.9				
Green Ext Time (p_c), s	0.0	4.4		0.0	0.0	5.2		0.2				

Intersection Summary		
HCM 6th Ctrl Delay	9.8	
HCM 6th LOS	A	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	64	65	96	92	34	24	501	51	39	778	53
Future Volume (veh/h)	33	64	65	96	92	34	24	501	51	39	778	53
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1736	1736	1736	1682	1682	1682	1695	1695	1695	1668	1668	1668
Adj Flow Rate, veh/h	34	67	41	100	96	28	25	522	49	41	810	52
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	1	1	1	5	5	5	4	4	4	6	6	6
Cap, veh/h	92	155	80	161	122	32	305	995	93	520	1024	66
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.18	0.03	0.65	0.65	0.04	0.66	0.66
Sat Flow, veh/h	239	863	447	573	683	179	1615	1526	143	1589	1548	99
Grp Volume(v), veh/h	142	0	0	224	0	0	25	0	571	41	0	862
Grp Sat Flow(s),veh/h/ln	1549	0	0	1435	0	0	1615	0	1669	1589	0	1647
Q Serve(g_s), s	0.0	0.0	0.0	6.5	0.0	0.0	0.5	0.0	16.3	0.7	0.0	33.4
Cycle Q Clear(g_c), s	7.2	0.0	0.0	13.6	0.0	0.0	0.5	0.0	16.3	0.7	0.0	33.4
Prop In Lane	0.24		0.29	0.45		0.12	1.00		0.09	1.00		0.06
Lane Grp Cap(c), veh/h	327	0	0	315	0	0	305	0	1088	520	0	1090
V/C Ratio(X)	0.43	0.00	0.00	0.71	0.00	0.00	0.08	0.00	0.52	0.08	0.00	0.79
Avail Cap(c_a), veh/h	392	0	0	376	0	0	364	0	1088	562	0	1090
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	0.74	0.00	0.74
Uniform Delay (d), s/veh	33.2	0.0	0.0	35.8	0.0	0.0	10.9	0.0	8.3	6.1	0.0	10.8
Incr Delay (d2), s/veh	0.9	0.0	0.0	4.9	0.0	0.0	0.1	0.0	1.8	0.0	0.0	4.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	0.0	0.0	5.2	0.0	0.0	0.2	0.0	5.4	0.2	0.0	11.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.1	0.0	0.0	40.8	0.0	0.0	11.0	0.0	10.1	6.1	0.0	15.2
LnGrp LOS	C	A	A	D	A	A	B	A	B	A	A	B
Approach Vol, veh/h		142			224			596			903	
Approach Delay, s/veh		34.1			40.8			10.1			14.8	
Approach LOS		C			D			B			B	

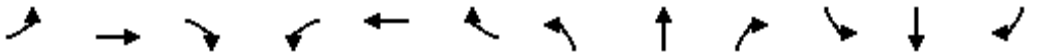
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.2	62.7		20.1	6.3	63.5		20.1				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	5.6	52.4		20.0	5.6	52.4		20.0				
Max Q Clear Time (g_c+I1), s	2.7	18.3		9.2	2.5	35.4		15.6				
Green Ext Time (p_c), s	0.0	4.1		0.5	0.0	6.0		0.5				

Intersection Summary		
HCM 6th Ctrl Delay	17.9	
HCM 6th LOS	B	

Intersection	
Intersection Delay, s/veh	4.6
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	68	191	99	278
Demand Flow Rate, veh/h	69	191	100	281
Vehicles Circulating, veh/h	237	115	79	164
Vehicles Exiting, veh/h	208	64	227	142
Ped Vol Crossing Leg, #/h	5	0	6	1
Ped Cap Adj	0.999	1.000	0.999	1.000
Approach Delay, s/veh	3.9	4.3	3.5	5.3
Approach LOS	A	A	A	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	69	191	100	281
Cap Entry Lane, veh/h	1084	1227	1273	1167
Entry HV Adj Factor	0.979	1.000	0.993	0.990
Flow Entry, veh/h	68	191	99	278
Cap Entry, veh/h	1060	1227	1263	1156
V/C Ratio	0.064	0.156	0.079	0.241
Control Delay, s/veh	3.9	4.3	3.5	5.3
LOS	A	A	A	A
95th %tile Queue, veh	0	1	0	1



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	66	23	214	50	8	12	87	278	12	27	334	60
Future Volume (veh/h)	66	23	214	50	8	12	87	278	12	27	334	60
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.96	0.99		0.98	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1709	1709	1709	1750	1750	1750	1654	1654	1654	1627	1627	1627
Adj Flow Rate, veh/h	76	26	70	57	9	4	100	320	12	31	384	58
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	3	3	3	0	0	0	7	7	7	9	9	9
Cap, veh/h	334	59	159	208	28	8	610	977	37	686	802	121
Arrive On Green	0.15	0.15	0.15	0.15	0.15	0.15	0.07	0.62	0.62	0.03	0.58	0.58
Sat Flow, veh/h	1372	396	1066	662	187	51	1576	1584	59	1550	1376	208
Grp Volume(v), veh/h	76	0	96	70	0	0	100	0	332	31	0	442
Grp Sat Flow(s),veh/h/ln	1372	0	1462	901	0	0	1576	0	1643	1550	0	1583
Q Serve(g_s), s	0.0	0.0	3.6	2.4	0.0	0.0	1.4	0.0	5.8	0.5	0.0	9.7
Cycle Q Clear(g_c), s	2.8	0.0	3.6	5.9	0.0	0.0	1.4	0.0	5.8	0.5	0.0	9.7
Prop In Lane	1.00		0.73	0.81		0.06	1.00		0.04	1.00		0.13
Lane Grp Cap(c), veh/h	334	0	219	243	0	0	610	0	1014	686	0	923
V/C Ratio(X)	0.23	0.00	0.44	0.29	0.00	0.00	0.16	0.00	0.33	0.05	0.00	0.48
Avail Cap(c_a), veh/h	554	0	453	461	0	0	650	0	1014	778	0	923
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	0.89	0.00	0.89	1.00	0.00	1.00
Uniform Delay (d), s/veh	22.9	0.0	23.2	25.1	0.0	0.0	4.8	0.0	5.5	4.6	0.0	7.2
Incr Delay (d2), s/veh	0.3	0.0	1.4	0.6	0.0	0.0	0.1	0.0	0.8	0.0	0.0	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	1.3	1.0	0.0	0.0	0.3	0.0	1.8	0.1	0.0	3.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.2	0.0	24.6	25.7	0.0	0.0	4.9	0.0	6.3	4.7	0.0	9.0
LnGrp LOS	C	A	C	C	A	A	A	A	A	A	A	A
Approach Vol, veh/h		172			70			432			473	
Approach Delay, s/veh		24.0			25.7			6.0			8.7	
Approach LOS		C			C			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.0	41.0		13.0	8.1	39.0		13.0				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	5.6	23.8		18.6	5.6	23.8		18.6				
Max Q Clear Time (g_c+I1), s	2.5	7.8		5.6	3.4	11.7		7.9				
Green Ext Time (p_c), s	0.0	1.9		0.6	0.0	2.3		0.2				

Intersection Summary			
HCM 6th Ctrl Delay		11.0	
HCM 6th LOS		B	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	68	993	72	265	585	104	149	207	452	265	166	75
Future Volume (veh/h)	68	993	72	265	585	104	149	207	452	265	166	75
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1695	1695	1695	1641	1641	1641	1668	1668	1668	1668	1668	1668
Adj Flow Rate, veh/h	68	993	0	265	585	0	149	207	416	265	166	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	8	8	8	6	6	6	6	6	6
Cap, veh/h	84	1047		340	1200		216	438	528	308	488	414
Arrive On Green	0.05	0.32	0.00	0.11	0.38	0.00	0.07	0.26	0.26	0.10	0.29	0.00
Sat Flow, veh/h	1615	3221	1437	3032	3118	1391	3082	1668	1407	3082	1668	1414
Grp Volume(v), veh/h	68	993	0	265	585	0	149	207	416	265	166	0
Grp Sat Flow(s),veh/h/ln	1615	1611	1437	1516	1559	1391	1541	1668	1407	1541	1668	1414
Q Serve(g_s), s	3.3	24.1	0.0	6.8	11.4	0.0	3.8	8.4	21.0	6.8	6.3	0.0
Cycle Q Clear(g_c), s	3.3	24.1	0.0	6.8	11.4	0.0	3.8	8.4	21.0	6.8	6.3	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	84	1047		340	1200		216	438	528	308	488	414
V/C Ratio(X)	0.81	0.95		0.78	0.49		0.69	0.47	0.79	0.86	0.34	0.00
Avail Cap(c_a), veh/h	182	1047		417	1200		270	438	528	308	488	414
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	0.55	0.55	0.55	0.84	0.84	0.00
Uniform Delay (d), s/veh	37.5	26.3	0.0	34.5	18.6	0.0	36.3	24.8	22.2	35.4	22.2	0.0
Incr Delay (d2), s/veh	16.1	16.9	0.0	7.4	0.3	0.0	3.0	2.0	6.5	18.2	1.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	11.0	0.0	2.8	3.9	0.0	1.5	3.4	7.3	3.3	2.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.6	43.2	0.0	42.0	18.9	0.0	39.3	26.8	28.7	53.7	23.8	0.0
LnGrp LOS	D	D		D	B		D	C	C	D	C	A
Approach Vol, veh/h		1061			850			772			431	
Approach Delay, s/veh		43.9			26.1			30.2			42.2	
Approach LOS		D			C			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	25.0	13.0	30.0	9.6	27.4	8.2	34.8
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	19.0	11.0	26.0	7.0	20.0	9.0	28.0
Max Q Clear Time (g_c+I1), s	8.8	23.0	8.8	26.1	5.8	8.3	5.3	13.4
Green Ext Time (p_c), s	0.0	0.0	0.2	0.0	0.1	0.6	0.0	3.3

Intersection Summary	
HCM 6th Ctrl Delay	35.4
HCM 6th LOS	D

Notes

Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	0	5	49	0	110	3	729	60	94	448	2
Future Volume (veh/h)	7	0	5	49	0	110	3	729	60	94	448	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		1.00	0.99		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1068	1068	1068	1723	1723	1723	1668	1668	1668	1627	1627	1627
Adj Flow Rate, veh/h	8	0	0	55	0	0	3	819	64	106	503	2
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	50	50	50	2	2	2	6	6	6	9	9	9
Cap, veh/h	125	0	0	154	89	0	714	1166	91	613	1313	5
Arrive On Green	0.05	0.00	0.00	0.05	0.00	0.00	0.01	1.00	1.00	0.05	0.81	0.81
Sat Flow, veh/h	870	0	0	1405	1723	0	1589	1527	119	1550	1619	6
Grp Volume(v), veh/h	8	0	0	55	0	0	3	0	883	106	0	505
Grp Sat Flow(s),veh/h/ln	870	0	0	1405	1723	0	1589	0	1646	1550	0	1626
Q Serve(g_s), s	0.8	0.0	0.0	2.6	0.0	0.0	0.0	0.0	0.0	1.1	0.0	7.7
Cycle Q Clear(g_c), s	0.8	0.0	0.0	3.3	0.0	0.0	0.0	0.0	0.0	1.1	0.0	7.7
Prop In Lane	1.00		0.00	1.00		0.00	1.00		0.07	1.00		0.00
Lane Grp Cap(c), veh/h	125	0	0	154	89	0	714	0	1257	613	0	1319
V/C Ratio(X)	0.06	0.00	0.00	0.36	0.00	0.00	0.00	0.00	0.70	0.17	0.00	0.38
Avail Cap(c_a), veh/h	260	0	0	372	356	0	807	0	1257	633	0	1319
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.58	0.00	0.58	0.87	0.00	0.87
Uniform Delay (d), s/veh	40.9	0.0	0.0	42.0	0.0	0.0	2.5	0.0	0.0	1.3	0.0	2.3
Incr Delay (d2), s/veh	0.2	0.0	0.0	1.4	0.0	0.0	0.0	0.0	1.9	0.1	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.7	0.1	0.0	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.1	0.0	0.0	43.4	0.0	0.0	2.5	0.0	1.9	1.4	0.0	3.1
LnGrp LOS	D	A	A	D	A	A	A	A	A	A	A	A
Approach Vol, veh/h		8			55			886			611	
Approach Delay, s/veh		41.1			43.4			1.9			2.8	
Approach LOS		D			D			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.6	72.7		8.6	4.4	77.0		8.6				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	5.8	53.6		18.6	5.6	53.8		18.6				
Max Q Clear Time (g_c+I1), s	3.1	2.0		2.8	2.0	9.7		5.3				
Green Ext Time (p_c), s	0.1	8.6		0.0	0.0	3.6		0.1				

Intersection Summary		
HCM 6th Ctrl Delay		3.9
HCM 6th LOS		A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	28	19	51	61	65	6	688	53	33	461	30
Future Volume (veh/h)	21	28	19	51	61	65	6	688	53	33	461	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.98	0.98		0.98	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1682	1682	1682	1668	1668	1668	1654	1654	1654	1586	1586	1586
Adj Flow Rate, veh/h	23	31	4	57	68	48	7	764	56	37	512	31
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	5	5	5	6	6	6	7	7	7	12	12	12
Cap, veh/h	118	134	15	111	101	61	662	1042	76	356	1051	64
Arrive On Green	0.15	0.15	0.15	0.15	0.15	0.15	0.01	0.69	0.69	0.07	1.00	1.00
Sat Flow, veh/h	421	909	99	388	681	411	1576	1520	111	1511	1480	90
Grp Volume(v), veh/h	58	0	0	173	0	0	7	0	820	37	0	543
Grp Sat Flow(s),veh/h/ln	1429	0	0	1480	0	0	1576	0	1632	1511	0	1570
Q Serve(g_s), s	0.0	0.0	0.0	7.3	0.0	0.0	0.1	0.0	28.6	0.6	0.0	0.0
Cycle Q Clear(g_c), s	2.8	0.0	0.0	10.1	0.0	0.0	0.1	0.0	28.6	0.6	0.0	0.0
Prop In Lane	0.40		0.07	0.33		0.28	1.00		0.07	1.00		0.06
Lane Grp Cap(c), veh/h	267	0	0	272	0	0	662	0	1118	356	0	1115
V/C Ratio(X)	0.22	0.00	0.00	0.64	0.00	0.00	0.01	0.00	0.73	0.10	0.00	0.49
Avail Cap(c_a), veh/h	356	0	0	361	0	0	746	0	1118	400	0	1115
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	0.92	0.00	0.92
Uniform Delay (d), s/veh	33.9	0.0	0.0	36.9	0.0	0.0	4.2	0.0	9.0	8.2	0.0	0.0
Incr Delay (d2), s/veh	0.4	0.0	0.0	2.5	0.0	0.0	0.0	0.0	4.3	0.1	0.0	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	0.0	3.8	0.0	0.0	0.0	0.0	9.2	0.2	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.3	0.0	0.0	39.4	0.0	0.0	4.2	0.0	13.2	8.3	0.0	1.4
LnGrp LOS	C	A	A	D	A	A	A	A	B	A	A	A
Approach Vol, veh/h		58			173			827			580	
Approach Delay, s/veh		34.3			39.4			13.2			1.8	
Approach LOS		C			D			B			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.0	65.7		17.3	4.8	67.9		17.3				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	5.6	53.6		18.8	5.6	53.6		18.8				
Max Q Clear Time (g_c+I1), s	2.6	30.6		4.8	2.1	2.0		12.1				
Green Ext Time (p_c), s	0.0	6.4		0.2	0.0	4.0		0.5				

Intersection Summary		
HCM 6th Ctrl Delay	12.7	
HCM 6th LOS	B	

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	147	7	0	139	6	0	0	20	0	0	20
Future Vol, veh/h	0	147	7	0	139	6	0	0	20	0	0	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	165	8	0	156	7	0	0	22	0	0	22

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	-	-	169	-	-	82
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	6.23	-	-	6.93
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.319	-	-	3.319
Pot Cap-1 Maneuver	0	-	-	0	-	-	0	0	874	0	0	962
Stage 1	0	-	-	0	-	-	0	0	-	0	0	-
Stage 2	0	-	-	0	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	874	-	-	962
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	9.2	8.8
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	874	-	-	-	-	962
HCM Lane V/C Ratio	0.026	-	-	-	-	0.023
HCM Control Delay (s)	9.2	-	-	-	-	8.8
HCM Lane LOS	A	-	-	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	-	0.1

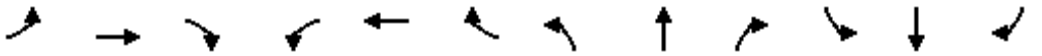
Intersection	
Intersection Delay, s/veh	4.0
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	181	50	147	85
Demand Flow Rate, veh/h	182	52	152	88
Vehicles Circulating, veh/h	84	132	176	57
Vehicles Exiting, veh/h	61	196	90	127
Ped Vol Crossing Leg, #/h	4	0	6	3
Ped Cap Adj	0.999	1.000	0.999	1.000
Approach Delay, s/veh	4.1	3.4	4.4	3.4
Approach LOS	A	A	A	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	182	52	152	88
Cap Entry Lane, veh/h	1267	1206	1153	1302
Entry HV Adj Factor	0.993	0.965	0.967	0.969
Flow Entry, veh/h	181	50	147	85
Cap Entry, veh/h	1257	1164	1115	1262
V/C Ratio	0.144	0.043	0.132	0.068
Control Delay, s/veh	4.1	3.4	4.4	3.4
LOS	A	A	A	A
95th %tile Queue, veh	1	0	0	0

HCM 6th Signalized Intersection Summary
1: N Springbrook Road & E Haworth Avenue

09/25/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	78	53	202	129	66	54	136	297	21	49	348	44
Future Volume (veh/h)	78	53	202	129	66	54	136	297	21	49	348	44
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.97	0.98		0.95	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1736	1736	1736	1736	1736	1736	1723	1723	1723	1723	1723	1723
Adj Flow Rate, veh/h	82	56	78	136	69	41	143	313	18	52	366	39
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	1	1	1	1	1	1	2	2	2	2	2	2
Cap, veh/h	399	169	235	239	111	51	531	789	45	583	706	75
Arrive On Green	0.26	0.26	0.26	0.26	0.26	0.26	0.08	0.49	0.49	0.05	0.46	0.46
Sat Flow, veh/h	1275	646	899	557	426	197	1641	1610	93	1641	1525	162
Grp Volume(v), veh/h	82	0	134	246	0	0	143	0	331	52	0	405
Grp Sat Flow(s),veh/h/ln	1275	0	1545	1179	0	0	1641	0	1703	1641	0	1687
Q Serve(g_s), s	0.0	0.0	4.2	8.2	0.0	0.0	2.6	0.0	7.4	1.0	0.0	10.2
Cycle Q Clear(g_c), s	3.9	0.0	4.2	12.4	0.0	0.0	2.6	0.0	7.4	1.0	0.0	10.2
Prop In Lane	1.00		0.58	0.55		0.17	1.00		0.05	1.00		0.10
Lane Grp Cap(c), veh/h	399	0	404	402	0	0	531	0	834	583	0	781
V/C Ratio(X)	0.21	0.00	0.33	0.61	0.00	0.00	0.27	0.00	0.40	0.09	0.00	0.52
Avail Cap(c_a), veh/h	490	0	515	500	0	0	565	0	834	657	0	781
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	0.84	0.00	0.84	1.00	0.00	1.00
Uniform Delay (d), s/veh	17.8	0.0	17.9	21.5	0.0	0.0	8.0	0.0	9.7	7.7	0.0	11.4
Incr Delay (d2), s/veh	0.3	0.0	0.5	1.5	0.0	0.0	0.2	0.0	1.2	0.1	0.0	2.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	1.5	3.3	0.0	0.0	0.8	0.0	2.7	0.3	0.0	3.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.1	0.0	18.4	23.1	0.0	0.0	8.2	0.0	10.9	7.8	0.0	13.9
LnGrp LOS	B	A	B	C	A	A	A	A	B	A	A	B
Approach Vol, veh/h		216			246			474			457	
Approach Delay, s/veh		18.3			23.1			10.1			13.2	
Approach LOS		B			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.9	33.4		19.7	8.5	31.8		19.7				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	5.6	22.4		20.0	5.8	22.2		20.0				
Max Q Clear Time (g_c+I1), s	3.0	9.4		6.2	4.6	12.2		14.4				
Green Ext Time (p_c), s	0.0	1.7		0.9	0.0	1.9		0.7				

Intersection Summary												
HCM 6th Ctrl Delay			14.6									
HCM 6th LOS			B									

Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Volume (veh/h)	1	103	869	103	453	1245	161	223	220	320	296	200	114
Future Volume (veh/h)	1	103	869	103	453	1245	161	223	220	320	296	200	114
Initial Q (Qb), veh		0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach			No			No			No			No	
Adj Sat Flow, veh/h/ln		1723	1723	1723	1709	1709	1709	1723	1723	1723	1723	1723	1723
Adj Flow Rate, veh/h		103	869	0	453	1245	0	223	220	287	296	200	0
Peak Hour Factor		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %		2	2	2	3	3	3	2	2	2	2	2	2
Cap, veh/h		127	1063		521	1338		290	381	557	354	416	352
Arrive On Green		0.08	0.32	0.00	0.17	0.41	0.00	0.09	0.22	0.22	0.11	0.24	0.00
Sat Flow, veh/h		1641	3273	1460	3158	3247	1448	3183	1723	1429	3183	1723	1460
Grp Volume(v), veh/h		103	869	0	453	1245	0	223	220	287	296	200	0
Grp Sat Flow(s),veh/h/ln		1641	1637	1460	1579	1624	1448	1591	1723	1429	1591	1723	1460
Q Serve(g_s), s		5.6	22.0	0.0	12.6	32.9	0.0	6.2	10.3	13.9	8.2	9.0	0.0
Cycle Q Clear(g_c), s		5.6	22.0	0.0	12.6	32.9	0.0	6.2	10.3	13.9	8.2	9.0	0.0
Prop In Lane		1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h		127	1063		521	1338		290	381	557	354	416	352
V/C Ratio(X)		0.81	0.82		0.87	0.93		0.77	0.58	0.51	0.84	0.48	0.00
Avail Cap(c_a), veh/h		146	1091		561	1371		318	381	557	354	416	352
HCM Platoon Ratio		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	0.00	1.00	1.00	0.00	0.72	0.72	0.72	0.81	0.81	0.00
Uniform Delay (d), s/veh		40.8	27.9	0.0	36.6	25.2	0.0	40.0	31.3	21.2	39.2	29.3	0.0
Incr Delay (d2), s/veh		24.9	4.9	0.0	13.1	11.3	0.0	7.4	4.5	2.4	13.3	3.2	0.0
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		3.1	8.9	0.0	5.6	13.8	0.0	2.7	4.6	4.8	3.8	4.1	0.0
Unsig. Movement Delay, s/veh													
LnGrp Delay(d),s/veh		65.7	32.8	0.0	49.7	36.5	0.0	47.4	35.8	23.6	52.5	32.5	0.0
LnGrp LOS		E	C		D	D		D	D	C	D	C	A
Approach Vol, veh/h			972			1698			730			496	
Approach Delay, s/veh			36.3			40.0			34.6			44.5	
Approach LOS			D			D			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.0	23.9	18.9	33.2	12.2	25.7	11.0	41.1
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	10.0	18.0	16.0	30.0	9.0	19.0	8.0	38.0
Max Q Clear Time (g_c+I1), s	10.2	15.9	14.6	24.0	8.2	11.0	7.6	34.9
Green Ext Time (p_c), s	0.0	0.5	0.3	2.9	0.1	0.6	0.0	2.2

Intersection Summary	
HCM 6th Ctrl Delay	38.6
HCM 6th LOS	D

Notes

User approved ignoring U-Turning movement.

Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	0	0	131	0	93	1	613	25	113	718	1
Future Volume (veh/h)	1	0	0	131	0	93	1	613	25	113	718	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		1.00	0.99		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1750	1750	1750	1723	1723	1723	1723	1723	1723	1723	1723	1723
Adj Flow Rate, veh/h	1	0	0	136	0	0	1	639	24	118	748	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	2	2	2	2	2	2	2	2	2
Cap, veh/h	273	0	0	270	214	0	451	1080	41	533	1229	2
Arrive On Green	0.12	0.00	0.00	0.12	0.00	0.00	0.00	0.65	0.65	0.06	0.71	0.71
Sat Flow, veh/h	1422	0	0	1400	1723	0	1641	1649	62	1641	1720	2
Grp Volume(v), veh/h	1	0	0	136	0	0	1	0	663	118	0	749
Grp Sat Flow(s),veh/h/ln	1423	0	0	1400	1723	0	1641	0	1711	1641	0	1722
Q Serve(g_s), s	0.0	0.0	0.0	7.0	0.0	0.0	0.0	0.0	16.4	1.5	0.0	16.5
Cycle Q Clear(g_c), s	0.0	0.0	0.0	7.1	0.0	0.0	0.0	0.0	16.4	1.5	0.0	16.5
Prop In Lane	1.00		0.00	1.00		0.00	1.00		0.04	1.00		0.00
Lane Grp Cap(c), veh/h	273	0	0	270	214	0	451	0	1121	533	0	1230
V/C Ratio(X)	0.00	0.00	0.00	0.50	0.00	0.00	0.00	0.00	0.59	0.22	0.00	0.61
Avail Cap(c_a), veh/h	447	0	0	442	425	0	569	0	1121	556	0	1230
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.81	0.00	0.81	0.70	0.00	0.70
Uniform Delay (d), s/veh	28.8	0.0	0.0	31.9	0.0	0.0	5.4	0.0	7.3	5.3	0.0	5.4
Incr Delay (d2), s/veh	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0	1.9	0.1	0.0	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	5.0	0.3	0.0	4.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.8	0.0	0.0	33.3	0.0	0.0	5.4	0.0	9.2	5.5	0.0	7.0
LnGrp LOS	C	A	A	C	A	A	A	A	A	A	A	A
Approach Vol, veh/h		1			136			664			867	
Approach Delay, s/veh		28.8			33.3			9.2			6.8	
Approach LOS		C			C			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.6	53.1		13.3	4.1	57.6		13.3				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	5.6	38.9		18.5	5.5	39.0		18.5				
Max Q Clear Time (g_c+I1), s	3.5	18.4		2.0	2.0	18.5		9.1				
Green Ext Time (p_c), s	0.1	4.4		0.0	0.0	5.2		0.2				

Intersection Summary		
HCM 6th Ctrl Delay	9.9	
HCM 6th LOS	A	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	34	65	65	97	92	34	24	503	53	39	779	54
Future Volume (veh/h)	34	65	65	97	92	34	24	503	53	39	779	54
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1736	1736	1736	1682	1682	1682	1695	1695	1695	1668	1668	1668
Adj Flow Rate, veh/h	35	68	42	101	96	28	25	524	51	41	811	53
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	1	1	1	5	5	5	4	4	4	6	6	6
Cap, veh/h	93	155	81	162	122	32	301	988	96	515	1020	67
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.18	0.03	0.65	0.65	0.04	0.66	0.66
Sat Flow, veh/h	242	855	447	573	676	178	1615	1520	148	1589	1546	101
Grp Volume(v), veh/h	145	0	0	225	0	0	25	0	575	41	0	864
Grp Sat Flow(s),veh/h/ln	1544	0	0	1427	0	0	1615	0	1668	1589	0	1647
Q Serve(g_s), s	0.0	0.0	0.0	6.5	0.0	0.0	0.5	0.0	16.6	0.7	0.0	33.8
Cycle Q Clear(g_c), s	7.3	0.0	0.0	13.8	0.0	0.0	0.5	0.0	16.6	0.7	0.0	33.8
Prop In Lane	0.24		0.29	0.45		0.12	1.00		0.09	1.00		0.06
Lane Grp Cap(c), veh/h	329	0	0	316	0	0	301	0	1085	515	0	1087
V/C Ratio(X)	0.44	0.00	0.00	0.71	0.00	0.00	0.08	0.00	0.53	0.08	0.00	0.79
Avail Cap(c_a), veh/h	392	0	0	375	0	0	360	0	1085	557	0	1087
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	0.74	0.00	0.74
Uniform Delay (d), s/veh	33.1	0.0	0.0	35.8	0.0	0.0	11.1	0.0	8.4	6.2	0.0	10.9
Incr Delay (d2), s/veh	0.9	0.0	0.0	5.1	0.0	0.0	0.1	0.0	1.9	0.0	0.0	4.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	0.0	0.0	5.2	0.0	0.0	0.2	0.0	5.5	0.2	0.0	11.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.1	0.0	0.0	40.8	0.0	0.0	11.2	0.0	10.3	6.2	0.0	15.5
LnGrp LOS	C	A	A	D	A	A	B	A	B	A	A	B
Approach Vol, veh/h		145			225			600			905	
Approach Delay, s/veh		34.1			40.8			10.3			15.1	
Approach LOS		C			D			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.2	62.5		20.3	6.3	63.4		20.3				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	5.6	52.4		20.0	5.6	52.4		20.0				
Max Q Clear Time (g_c+I1), s	2.7	18.6		9.3	2.5	35.8		15.8				
Green Ext Time (p_c), s	0.0	4.1		0.5	0.0	6.0		0.5				

Intersection Summary		
HCM 6th Ctrl Delay	18.1	
HCM 6th LOS	B	

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	119	19	0	213	20	0	0	12	0	0	11
Future Vol, veh/h	0	119	19	0	213	20	0	0	12	0	0	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	124	20	0	222	21	0	0	13	0	0	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	-	-	134	-	-	122
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	6.23	-	-	6.93
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.319	-	-	3.319
Pot Cap-1 Maneuver	0	-	-	0	-	-	0	0	914	0	0	907
Stage 1	0	-	-	0	-	-	0	0	-	0	0	-
Stage 2	0	-	-	0	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	914	-	-	907
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	9	9
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	914	-	-	-	-	907
HCM Lane V/C Ratio	0.014	-	-	-	-	0.013
HCM Control Delay (s)	9	-	-	-	-	9
HCM Lane LOS	A	-	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-	0

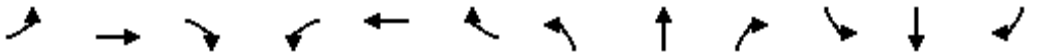
Intersection	
Intersection Delay, s/veh	4.7
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	82	192	105	293
Demand Flow Rate, veh/h	83	192	106	296
Vehicles Circulating, veh/h	237	131	90	171
Vehicles Exiting, veh/h	230	65	230	152
Ped Vol Crossing Leg, #/h	5	0	6	1
Ped Cap Adj	0.999	1.000	0.999	1.000
Approach Delay, s/veh	4.0	4.3	3.6	5.5
Approach LOS	A	A	A	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	83	192	106	296
Cap Entry Lane, veh/h	1084	1207	1259	1159
Entry HV Adj Factor	0.983	1.000	0.994	0.991
Flow Entry, veh/h	82	192	105	293
Cap Entry, veh/h	1064	1207	1250	1148
V/C Ratio	0.077	0.159	0.084	0.255
Control Delay, s/veh	4.0	4.3	3.6	5.5
LOS	A	A	A	A
95th %tile Queue, veh	0	1	0	1

HCM 6th Signalized Intersection Summary
1: N Springbrook Road & E Haworth Avenue

09/26/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	71	25	230	54	9	13	93	299	13	29	359	64
Future Volume (veh/h)	71	25	230	54	9	13	93	299	13	29	359	64
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.96	0.99		0.98	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1709	1709	1709	1750	1750	1750	1654	1654	1654	1627	1627	1627
Adj Flow Rate, veh/h	82	29	74	62	10	5	107	344	13	33	413	63
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	3	3	3	0	0	0	7	7	7	9	9	9
Cap, veh/h	343	65	166	211	30	9	572	961	36	655	787	120
Arrive On Green	0.16	0.16	0.16	0.16	0.16	0.16	0.07	0.61	0.61	0.04	0.57	0.57
Sat Flow, veh/h	1370	413	1054	649	187	58	1576	1584	60	1550	1373	210
Grp Volume(v), veh/h	82	0	103	77	0	0	107	0	357	33	0	476
Grp Sat Flow(s),veh/h/ln	1370	0	1466	894	0	0	1576	0	1643	1550	0	1583
Q Serve(g_s), s	0.0	0.0	3.8	2.6	0.0	0.0	1.6	0.0	6.5	0.5	0.0	11.0
Cycle Q Clear(g_c), s	3.1	0.0	3.8	6.4	0.0	0.0	1.6	0.0	6.5	0.5	0.0	11.0
Prop In Lane	1.00		0.72	0.81		0.06	1.00		0.04	1.00		0.13
Lane Grp Cap(c), veh/h	343	0	231	249	0	0	572	0	997	655	0	907
V/C Ratio(X)	0.24	0.00	0.45	0.31	0.00	0.00	0.19	0.00	0.36	0.05	0.00	0.52
Avail Cap(c_a), veh/h	552	0	455	455	0	0	610	0	997	745	0	907
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	0.84	0.00	0.84	1.00	0.00	1.00
Uniform Delay (d), s/veh	22.6	0.0	22.9	24.9	0.0	0.0	5.3	0.0	5.9	4.9	0.0	7.8
Incr Delay (d2), s/veh	0.4	0.0	1.3	0.7	0.0	0.0	0.1	0.0	0.8	0.0	0.0	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	1.3	1.0	0.0	0.0	0.4	0.0	2.0	0.1	0.0	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.9	0.0	24.2	25.6	0.0	0.0	5.4	0.0	6.8	4.9	0.0	10.0
LnGrp LOS	C	A	C	C	A	A	A	A	A	A	A	A
Approach Vol, veh/h		185			77			464			509	
Approach Delay, s/veh		23.6			25.6			6.4			9.7	
Approach LOS		C			C			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.1	40.4		13.5	8.2	38.4		13.5				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	5.6	23.8		18.6	5.6	23.8		18.6				
Max Q Clear Time (g_c+I1), s	2.5	8.5		5.8	3.6	13.0		8.4				
Green Ext Time (p_c), s	0.0	2.0		0.6	0.0	2.4		0.2				

Intersection Summary			
HCM 6th Ctrl Delay		11.5	
HCM 6th LOS		B	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	73	1074	78	286	632	111	160	223	489	284	178	81
Future Volume (veh/h)	73	1074	78	286	632	111	160	223	489	284	178	81
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1695	1695	1695	1641	1641	1641	1668	1668	1668	1668	1668	1668
Adj Flow Rate, veh/h	73	1074	0	286	632	0	160	223	452	284	178	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	8	8	8	6	6	6	6	6	6
Cap, veh/h	91	1087		359	1246		227	403	507	316	451	382
Arrive On Green	0.06	0.34	0.00	0.12	0.40	0.00	0.07	0.24	0.24	0.10	0.27	0.00
Sat Flow, veh/h	1615	3221	1437	3032	3118	1391	3082	1668	1407	3082	1668	1414
Grp Volume(v), veh/h	73	1074	0	286	632	0	160	223	452	284	178	0
Grp Sat Flow(s),veh/h/ln	1615	1611	1437	1516	1559	1391	1541	1668	1407	1541	1668	1414
Q Serve(g_s), s	3.6	26.5	0.0	7.3	12.2	0.0	4.1	9.4	19.3	7.3	7.0	0.0
Cycle Q Clear(g_c), s	3.6	26.5	0.0	7.3	12.2	0.0	4.1	9.4	19.3	7.3	7.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	91	1087		359	1246		227	403	507	316	451	382
V/C Ratio(X)	0.80	0.99		0.80	0.51		0.71	0.55	0.89	0.90	0.39	0.00
Avail Cap(c_a), veh/h	182	1087		409	1246		231	403	507	316	451	382
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	0.37	0.37	0.37	0.81	0.81	0.00
Uniform Delay (d), s/veh	37.3	26.3	0.0	34.3	18.1	0.0	36.2	26.6	24.1	35.5	23.8	0.0
Incr Delay (d2), s/veh	14.9	24.3	0.0	9.3	0.3	0.0	3.5	2.0	9.1	23.0	2.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	13.0	0.0	3.1	4.1	0.0	1.6	3.8	8.7	3.7	3.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.2	50.6	0.0	43.7	18.4	0.0	39.8	28.6	33.2	58.5	25.9	0.0
LnGrp LOS	D	D		D	B		D	C	C	E	C	A
Approach Vol, veh/h		1147			918			835			462	
Approach Delay, s/veh		50.7			26.3			33.2			45.9	
Approach LOS		D			C			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.2	23.3	13.5	31.0	9.9	25.6	8.5	36.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.2	18.0	10.8	27.0	6.0	20.2	9.0	28.8
Max Q Clear Time (g_c+I1), s	9.3	21.3	9.3	28.5	6.1	9.0	5.6	14.2
Green Ext Time (p_c), s	0.0	0.0	0.2	0.0	0.0	0.7	0.0	3.6

Intersection Summary	
HCM 6th Ctrl Delay	39.0
HCM 6th LOS	D

Notes

Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	0	6	53	0	118	3	788	65	101	483	2
Future Volume (veh/h)	8	0	6	53	0	118	3	788	65	101	483	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		1.00	0.99		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1068	1068	1068	1723	1723	1723	1668	1668	1668	1627	1627	1627
Adj Flow Rate, veh/h	9	0	0	60	0	0	3	885	70	113	543	2
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	50	50	50	2	2	2	6	6	6	9	9	9
Cap, veh/h	129	0	0	161	96	0	677	1157	92	582	1307	5
Arrive On Green	0.06	0.00	0.00	0.06	0.00	0.00	0.01	1.00	1.00	0.05	0.81	0.81
Sat Flow, veh/h	871	0	0	1406	1723	0	1589	1525	121	1550	1620	6
Grp Volume(v), veh/h	9	0	0	60	0	0	3	0	955	113	0	545
Grp Sat Flow(s),veh/h/ln	871	0	0	1406	1723	0	1589	0	1646	1550	0	1626
Q Serve(g_s), s	0.9	0.0	0.0	2.8	0.0	0.0	0.0	0.0	0.0	1.2	0.0	8.8
Cycle Q Clear(g_c), s	0.9	0.0	0.0	3.6	0.0	0.0	0.0	0.0	0.0	1.2	0.0	8.8
Prop In Lane	1.00		0.00	1.00		0.00	1.00		0.07	1.00		0.00
Lane Grp Cap(c), veh/h	129	0	0	161	96	0	677	0	1248	582	0	1312
V/C Ratio(X)	0.07	0.00	0.00	0.37	0.00	0.00	0.00	0.00	0.77	0.19	0.00	0.42
Avail Cap(c_a), veh/h	260	0	0	373	356	0	770	0	1248	601	0	1312
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.46	0.00	0.46	0.85	0.00	0.85
Uniform Delay (d), s/veh	40.5	0.0	0.0	41.8	0.0	0.0	2.6	0.0	0.0	1.4	0.0	2.5
Incr Delay (d2), s/veh	0.2	0.0	0.0	1.4	0.0	0.0	0.0	0.0	2.1	0.1	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.7	0.1	0.0	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.7	0.0	0.0	43.2	0.0	0.0	2.6	0.0	2.1	1.5	0.0	3.4
LnGrp LOS	D	A	A	D	A	A	A	A	A	A	A	A
Approach Vol, veh/h		9			60			958			658	
Approach Delay, s/veh		40.7			43.2			2.1			3.0	
Approach LOS		D			D			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.7	72.3		9.0	4.4	76.6		9.0				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	5.8	53.6		18.6	5.6	53.8		18.6				
Max Q Clear Time (g_c+I1), s	3.2	2.0		2.9	2.0	10.8		5.6				
Green Ext Time (p_c), s	0.1	10.0		0.0	0.0	3.9		0.1				

Intersection Summary		
HCM 6th Ctrl Delay	4.1	
HCM 6th LOS	A	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	30	20	55	66	70	7	743	57	36	497	32
Future Volume (veh/h)	23	30	20	55	66	70	7	743	57	36	497	32
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.98	0.98		0.98	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1682	1682	1682	1668	1668	1668	1654	1654	1654	1586	1586	1586
Adj Flow Rate, veh/h	26	33	6	61	73	54	8	826	60	40	552	34
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	5	5	5	6	6	6	7	7	7	12	12	12
Cap, veh/h	121	131	20	113	105	67	634	1027	75	300	1035	64
Arrive On Green	0.16	0.16	0.16	0.16	0.16	0.16	0.01	0.68	0.68	0.07	1.00	1.00
Sat Flow, veh/h	417	840	128	387	669	426	1576	1521	111	1511	1479	91
Grp Volume(v), veh/h	65	0	0	188	0	0	8	0	886	40	0	586
Grp Sat Flow(s),veh/h/ln	1385	0	0	1482	0	0	1576	0	1632	1511	0	1570
Q Serve(g_s), s	0.0	0.0	0.0	7.8	0.0	0.0	0.1	0.0	34.7	0.7	0.0	0.0
Cycle Q Clear(g_c), s	3.2	0.0	0.0	11.0	0.0	0.0	0.1	0.0	34.7	0.7	0.0	0.0
Prop In Lane	0.40		0.09	0.32		0.29	1.00		0.07	1.00		0.06
Lane Grp Cap(c), veh/h	273	0	0	285	0	0	634	0	1102	300	0	1099
V/C Ratio(X)	0.24	0.00	0.00	0.66	0.00	0.00	0.01	0.00	0.80	0.13	0.00	0.53
Avail Cap(c_a), veh/h	348	0	0	361	0	0	716	0	1102	341	0	1099
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	0.90	0.00	0.90
Uniform Delay (d), s/veh	33.3	0.0	0.0	36.6	0.0	0.0	4.5	0.0	10.4	10.7	0.0	0.0
Incr Delay (d2), s/veh	0.4	0.0	0.0	3.0	0.0	0.0	0.0	0.0	6.3	0.2	0.0	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.0	0.0	4.2	0.0	0.0	0.0	0.0	11.7	0.3	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.8	0.0	0.0	39.6	0.0	0.0	4.5	0.0	16.7	10.9	0.0	1.7
LnGrp LOS	C	A	A	D	A	A	A	A	B	B	A	A
Approach Vol, veh/h		65			188			894			626	
Approach Delay, s/veh		33.8			39.6			16.5			2.3	
Approach LOS		C			D			B			A	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.2	64.8		18.1	4.9	67.0		18.1
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	5.6	53.6		18.8	5.6	53.6		18.8
Max Q Clear Time (g_c+I1), s	2.7	36.7		5.2	2.1	2.0		13.0
Green Ext Time (p_c), s	0.0	6.2		0.2	0.0	4.4		0.5

Intersection Summary		
HCM 6th Ctrl Delay		14.6
HCM 6th LOS		B

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	159	7	0	151	6	0	0	20	0	0	20
Future Vol, veh/h	0	159	7	0	151	6	0	0	20	0	0	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	179	8	0	170	7	0	0	22	0	0	22

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	-	-	183	-	-	89
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	6.23	-	-	6.93
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.319	-	-	3.319
Pot Cap-1 Maneuver	0	-	-	0	-	-	0	0	859	0	0	952
Stage 1	0	-	-	0	-	-	0	0	-	0	0	-
Stage 2	0	-	-	0	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	859	-	-	952
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	9.3	8.9
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	859	-	-	-	-	952
HCM Lane V/C Ratio	0.026	-	-	-	-	0.024
HCM Control Delay (s)	9.3	-	-	-	-	8.9
HCM Lane LOS	A	-	-	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	-	0.1

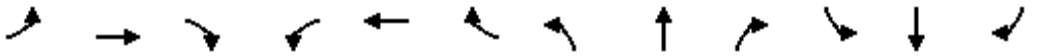
Intersection	
Intersection Delay, s/veh	4.1
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	194	54	159	95
Demand Flow Rate, veh/h	195	56	165	98
Vehicles Circulating, veh/h	93	140	189	62
Vehicles Exiting, veh/h	67	214	99	134
Ped Vol Crossing Leg, #/h	4	0	6	3
Ped Cap Adj	0.999	1.000	0.999	1.000
Approach Delay, s/veh	4.2	3.5	4.6	3.5
Approach LOS	A	A	A	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	195	56	165	98
Cap Entry Lane, veh/h	1255	1196	1138	1295
Entry HV Adj Factor	0.993	0.967	0.962	0.971
Flow Entry, veh/h	194	54	159	95
Cap Entry, veh/h	1246	1156	1094	1257
V/C Ratio	0.155	0.047	0.145	0.076
Control Delay, s/veh	4.2	3.5	4.6	3.5
LOS	A	A	A	A
95th %tile Queue, veh	1	0	1	0

HCM 6th Signalized Intersection Summary
1: N Springbrook Road & E Haworth Avenue

09/25/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	85	57	217	140	72	58	145	319	22	52	374	48
Future Volume (veh/h)	85	57	217	140	72	58	145	319	22	52	374	48
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.98	0.98		0.95	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1736	1736	1736	1736	1736	1736	1723	1723	1723	1723	1723	1723
Adj Flow Rate, veh/h	89	60	90	147	76	45	153	336	19	55	394	44
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	1	1	1	1	1	1	2	2	2	2	2	2
Cap, veh/h	412	174	260	246	117	55	479	755	43	538	670	75
Arrive On Green	0.28	0.28	0.28	0.28	0.28	0.28	0.08	0.47	0.47	0.05	0.44	0.44
Sat Flow, veh/h	1265	617	925	544	416	194	1641	1612	91	1641	1516	169
Grp Volume(v), veh/h	89	0	150	268	0	0	153	0	355	55	0	438
Grp Sat Flow(s),veh/h/ln	1265	0	1542	1154	0	0	1641	0	1703	1641	0	1686
Q Serve(g_s), s	0.0	0.0	4.6	9.1	0.0	0.0	3.0	0.0	8.4	1.1	0.0	11.8
Cycle Q Clear(g_c), s	4.3	0.0	4.6	13.8	0.0	0.0	3.0	0.0	8.4	1.1	0.0	11.8
Prop In Lane	1.00		0.60	0.55		0.17	1.00		0.05	1.00		0.10
Lane Grp Cap(c), veh/h	412	0	434	418	0	0	479	0	798	538	0	745
V/C Ratio(X)	0.22	0.00	0.35	0.64	0.00	0.00	0.32	0.00	0.44	0.10	0.00	0.59
Avail Cap(c_a), veh/h	507	0	550	521	0	0	506	0	798	609	0	745
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	0.79	0.00	0.79	1.00	0.00	1.00
Uniform Delay (d), s/veh	17.0	0.0	17.2	21.2	0.0	0.0	9.0	0.0	10.7	8.4	0.0	12.6
Incr Delay (d2), s/veh	0.3	0.0	0.5	1.8	0.0	0.0	0.3	0.0	1.4	0.1	0.0	3.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	1.6	3.6	0.0	0.0	0.9	0.0	3.1	0.3	0.0	4.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.3	0.0	17.6	23.0	0.0	0.0	9.3	0.0	12.1	8.5	0.0	16.0
LnGrp LOS	B	A	B	C	A	A	A	A	B	A	A	B
Approach Vol, veh/h		239			268			508			493	
Approach Delay, s/veh		17.5			23.0			11.3			15.2	
Approach LOS		B			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.0	32.1		20.9	8.6	30.5		20.9				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	5.6	21.0		21.4	5.6	21.0		21.4				
Max Q Clear Time (g_c+I1), s	3.1	10.4		6.6	5.0	13.8		15.8				
Green Ext Time (p_c), s	0.0	1.6		1.0	0.0	1.7		0.8				

Intersection Summary												
HCM 6th Ctrl Delay			15.6									
HCM 6th LOS			B									

Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Volume (veh/h)	1	111	939	111	489	1346	172	241	236	346	317	215	123
Future Volume (veh/h)	1	111	939	111	489	1346	172	241	236	346	317	215	123
Initial Q (Qb), veh		0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach			No			No			No			No	
Adj Sat Flow, veh/h/ln		1723	1723	1723	1709	1709	1709	1723	1723	1723	1723	1723	1723
Adj Flow Rate, veh/h		111	939	0	489	1346	0	241	236	313	317	215	7
Peak Hour Factor		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %		2	2	2	3	3	3	2	2	2	2	2	2
Cap, veh/h		128	1091		526	1371		307	364	545	354	389	323
Arrive On Green		0.08	0.33	0.00	0.17	0.42	0.00	0.10	0.21	0.21	0.11	0.23	0.23
Sat Flow, veh/h		1641	3273	1460	3158	3247	1448	3183	1723	1429	3183	1723	1430
Grp Volume(v), veh/h		111	939	0	489	1346	0	241	236	313	317	215	7
Grp Sat Flow(s),veh/h/ln		1641	1637	1460	1579	1624	1448	1591	1723	1429	1591	1723	1430
Q Serve(g_s), s		6.0	24.1	0.0	13.7	36.8	0.0	6.7	11.3	15.7	8.8	9.9	0.3
Cycle Q Clear(g_c), s		6.0	24.1	0.0	13.7	36.8	0.0	6.7	11.3	15.7	8.8	9.9	0.3
Prop In Lane		1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h		128	1091		526	1371		307	364	545	354	389	323
V/C Ratio(X)		0.87	0.86		0.93	0.98		0.79	0.65	0.57	0.90	0.55	0.02
Avail Cap(c_a), veh/h		128	1091		526	1371		318	364	545	354	389	323
HCM Platoon Ratio		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	0.00	1.00	1.00	0.00	0.65	0.65	0.65	0.75	0.75	0.75
Uniform Delay (d), s/veh		41.0	28.0	0.0	37.0	25.7	0.0	39.8	32.5	22.3	39.5	30.8	27.1
Incr Delay (d2), s/veh		43.2	7.1	0.0	23.1	20.0	0.0	8.0	5.7	2.9	19.5	4.2	0.1
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		3.9	10.0	0.0	6.8	16.8	0.0	2.9	5.1	5.4	4.4	4.6	0.1
Unsig. Movement Delay, s/veh													
LnGrp Delay(d),s/veh		84.2	35.2	0.0	60.1	45.6	0.0	47.8	38.2	25.2	59.0	35.0	27.2
LnGrp LOS		F	D		E	D		D	D	C	E	D	C
Approach Vol, veh/h			1050			1835			790			539	
Approach Delay, s/veh			40.4			49.5			35.9			49.0	
Approach LOS			D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	23.0	19.0	34.0	12.7	24.3	11.0	42.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	10.0	19.0	15.0	30.0	9.0	20.0	7.0	38.0
Max Q Clear Time (g_c+I1), s	10.8	17.7	15.7	26.1	8.7	11.9	8.0	38.8
Green Ext Time (p_c), s	0.0	0.4	0.0	2.1	0.0	0.7	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	44.6
HCM 6th LOS	D

Notes

User approved ignoring U-Turning movement.

Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	0	0	142	0	100	1	662	26	121	775	1
Future Volume (veh/h)	1	0	0	142	0	100	1	662	26	121	775	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		1.00	0.99		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1750	1750	1750	1723	1723	1723	1723	1723	1723	1723	1723	1723
Adj Flow Rate, veh/h	1	0	0	148	0	0	1	690	25	126	807	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	2	2	2	2	2	2	2	2	2
Cap, veh/h	286	0	0	283	229	0	399	1066	39	485	1214	2
Arrive On Green	0.13	0.00	0.00	0.13	0.00	0.00	0.00	0.65	0.65	0.06	0.71	0.71
Sat Flow, veh/h	1424	0	0	1402	1723	0	1641	1652	60	1641	1720	2
Grp Volume(v), veh/h	1	0	0	148	0	0	1	0	715	126	0	808
Grp Sat Flow(s),veh/h/ln	1424	0	0	1402	1723	0	1641	0	1712	1641	0	1722
Q Serve(g_s), s	0.0	0.0	0.0	7.6	0.0	0.0	0.0	0.0	19.1	1.7	0.0	19.5
Cycle Q Clear(g_c), s	0.0	0.0	0.0	7.7	0.0	0.0	0.0	0.0	19.1	1.7	0.0	19.5
Prop In Lane	1.00		0.00	1.00		0.00	1.00		0.03	1.00		0.00
Lane Grp Cap(c), veh/h	286	0	0	283	229	0	399	0	1104	485	0	1215
V/C Ratio(X)	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00	0.65	0.26	0.00	0.66
Avail Cap(c_a), veh/h	447	0	0	442	425	0	517	0	1104	506	0	1215
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.75	0.00	0.75	0.63	0.00	0.63
Uniform Delay (d), s/veh	28.2	0.0	0.0	31.5	0.0	0.0	6.2	0.0	8.1	6.5	0.0	6.1
Incr Delay (d2), s/veh	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0	2.2	0.2	0.0	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	2.7	0.0	0.0	0.0	0.0	6.0	0.4	0.0	5.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.2	0.0	0.0	33.0	0.0	0.0	6.2	0.0	10.3	6.6	0.0	8.0
LnGrp LOS	C	A	A	C	A	A	A	A	B	A	A	A
Approach Vol, veh/h		1			148			716			934	
Approach Delay, s/veh		28.2			33.0			10.3			7.8	
Approach LOS		C			C			B			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.6	52.4		14.0	4.1	56.9		14.0				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	5.6	38.9		18.5	5.5	39.0		18.5				
Max Q Clear Time (g_c+I1), s	3.7	21.1		2.0	2.0	21.5		9.7				
Green Ext Time (p_c), s	0.1	4.7		0.0	0.0	5.5		0.2				

Intersection Summary		
HCM 6th Ctrl Delay	10.9	
HCM 6th LOS	B	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	70	70	105	99	37	26	543	56	42	842	57
Future Volume (veh/h)	36	70	70	105	99	37	26	543	56	42	842	57
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1736	1736	1736	1682	1682	1682	1695	1695	1695	1668	1668	1668
Adj Flow Rate, veh/h	38	73	47	109	103	32	27	566	54	44	877	57
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	1	1	1	5	5	5	4	4	4	6	6	6
Cap, veh/h	97	163	89	168	128	36	227	965	92	463	994	65
Arrive On Green	0.20	0.20	0.20	0.20	0.20	0.20	0.03	0.63	0.63	0.04	0.64	0.64
Sat Flow, veh/h	240	831	453	562	653	183	1615	1523	145	1589	1547	101
Grp Volume(v), veh/h	158	0	0	244	0	0	27	0	620	44	0	934
Grp Sat Flow(s),veh/h/ln	1524	0	0	1399	0	0	1615	0	1669	1589	0	1647
Q Serve(g_s), s	0.0	0.0	0.0	7.3	0.0	0.0	0.5	0.0	19.5	0.8	0.0	42.1
Cycle Q Clear(g_c), s	8.0	0.0	0.0	15.3	0.0	0.0	0.5	0.0	19.5	0.8	0.0	42.1
Prop In Lane	0.24		0.30	0.45		0.13	1.00		0.09	1.00		0.06
Lane Grp Cap(c), veh/h	349	0	0	333	0	0	227	0	1057	463	0	1059
V/C Ratio(X)	0.45	0.00	0.00	0.73	0.00	0.00	0.12	0.00	0.59	0.10	0.00	0.88
Avail Cap(c_a), veh/h	388	0	0	369	0	0	284	0	1057	503	0	1059
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	0.68	0.00	0.68
Uniform Delay (d), s/veh	32.2	0.0	0.0	35.2	0.0	0.0	15.2	0.0	9.6	7.3	0.0	13.3
Incr Delay (d2), s/veh	0.9	0.0	0.0	6.6	0.0	0.0	0.2	0.0	2.4	0.1	0.0	7.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	0.0	0.0	5.8	0.0	0.0	0.3	0.0	6.7	0.2	0.0	14.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.1	0.0	0.0	41.8	0.0	0.0	15.4	0.0	12.0	7.3	0.0	20.8
LnGrp LOS	C	A	A	D	A	A	B	A	B	A	A	C
Approach Vol, veh/h		158			244			647			978	
Approach Delay, s/veh		33.1			41.8			12.2			20.2	
Approach LOS		C			D			B			C	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.3	61.0		21.7	6.5	61.9		21.7
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	5.6	52.4		20.0	5.6	52.4		20.0
Max Q Clear Time (g_c+I1), s	2.8	21.5		10.0	2.5	44.1		17.3
Green Ext Time (p_c), s	0.0	4.5		0.6	0.0	4.3		0.4

Intersection Summary		
HCM 6th Ctrl Delay		21.2
HCM 6th LOS		C

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	128	19	0	231	20	0	0	12	0	0	11
Future Vol, veh/h	0	128	19	0	231	20	0	0	12	0	0	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	133	20	0	241	21	0	0	13	0	0	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	-	-	143	-	-	131
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	6.23	-	-	6.93
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.319	-	-	3.319
Pot Cap-1 Maneuver	0	-	-	0	-	-	0	0	904	0	0	895
Stage 1	0	-	-	0	-	-	0	0	-	0	0	-
Stage 2	0	-	-	0	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	904	-	-	895
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	9	9.1
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	904	-	-	-	-	895
HCM Lane V/C Ratio	0.014	-	-	-	-	0.013
HCM Control Delay (s)	9	-	-	-	-	9.1
HCM Lane LOS	A	-	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-	0

Intersection	
Intersection Delay, s/veh	4.9
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	87	207	111	315
Demand Flow Rate, veh/h	88	207	112	318
Vehicles Circulating, veh/h	256	138	95	185
Vehicles Exiting, veh/h	247	69	249	160
Ped Vol Crossing Leg, #/h	5	0	6	1
Ped Cap Adj	0.999	1.000	0.999	1.000
Approach Delay, s/veh	4.2	4.5	3.6	5.8
Approach LOS	A	A	A	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	88	207	112	318
Cap Entry Lane, veh/h	1063	1199	1252	1143
Entry HV Adj Factor	0.983	1.000	0.994	0.991
Flow Entry, veh/h	87	207	111	315
Cap Entry, veh/h	1044	1199	1243	1132
V/C Ratio	0.083	0.173	0.090	0.278
Control Delay, s/veh	4.2	4.5	3.6	5.8
LOS	A	A	A	A
95th %tile Queue, veh	0	1	0	1

1. N Springbrook Road at E Haworth Avenue

Right Turns on Red
APM Section 13.4.2: RTOR
Equation: vRTOR=sRTOR*(r/C)

AM Peak Hour													
	sRTOR				r				C	vRTOR			
	EBR	WBR	NBR	SBR	EBR	WBR	NBR	SBR		EBR	WBR	NBR	SBR
2025 Background Conditions	245	14	4	18	37.4	37.4	32.2	32.2	60	153	9	2	10
2025 Buildout Conditions	246	14	4	18	37.4	37.4	32.2	32.2	60	153	9	2	10
2030 Future Conditions	264	15	4	18	37.4	37.4	32.2	32.2	60	165	9	2	10
PM Peak Hour													
	sRTOR				r				C	vRTOR			
	EBR	WBR	NBR	SBR	EBR	WBR	NBR	SBR		EBR	WBR	NBR	SBR
2025 Background Conditions	211	25	7	12	36	36	33.6	33.8	60	127	15	4	7
2025 Buildout Conditions	213	25	7	12	36	36	33.6	33.8	60	128	15	4	7
2030 Future Conditions	228	26	6	12	34.6	34.6	35	35	60	131	15	4	7

Intersection v/c
APM Section 13.4.4: Critical Intersection v/c ratio
Method: Determine Critical Movements in HCM 2000 reports & CMA Method
HCM 6th reports, detemine adjusted and sat flow rates
Adjust Flow/Sat Flow
Sum up Crit Movement Flow Rates
Xc of intersection = sum(crit.move. Flow rates*(C/(C-L))

AM Peak Hour																	
	Critcial Movement			Adjust Flow			Saturated Flow			Adj/Sat Flows				C	L	Xc
				EBTR	NBL	SBTR	EBTR	NBL	SBTR	EBTR	NBL	SBTR	Sum			
2025 Background Conditions				95	98	441	1462	1576	1583	0.064979	0.062183	0.278585	0.405747	60	12	0.51
2025 Buildout Conditions	EBTR	NBL	SBTR	96	100	442	1462	1576	1584	0.065663	0.063452	0.27904	0.408156	60	12	0.51
2030 Future Conditions				103	107	476	1467	1576	1583	0.070211	0.067893	0.300695	0.4388	60	12	0.55
PM Peak Hour																
	Critcial Movement			Adjust Flow			Saturated Flow			Adj/Sat Flows				C	L	Xc
				WB	NBL	SBTR	WB	NBL	SBTR	WB	NBL	SBTR	Sum			
2025 Background Conditions				246	142	401	1183	1641	1687	0.207946	0.086533	0.2377	0.532179	60	12	0.67
2025 Buildout Conditions	WB	NBL	SBTR	246	143	405	1180	1641	1687	0.208475	0.087142	0.240071	0.535688	60	12	0.67
2030 Future Conditions				268	153	438	1154	1641	1685	0.232236	0.093236	0.259941	0.585412	60	12	0.73

2. N Springbrook Road at OR-99W

Right Turns on Red
APM Section 13.4.2: RTOR
Equation: vRTOR=sRTOR*(r/C)

AM Peak Hour													
	sRTOR				r				C	vRTOR			
	EBR	WBR	NBR	SBR	EBR	WBR	NBR	SBR		EBR	WBR	NBR	SBR
2023 Existing Conditions	123	123	68	123	50	46	42	56	80	77	71	36	86
2025 Background Conditions	123	123	68	123	50	49	42	55	80	77	75	36	85
2025 Buildout Conditions	123	123	68	123	50	48	42	56	80	77	74	36	86
2030 Future Conditions	123	123	68	123	49	47.2	43.2	55.8	80	75	73	37	86
PM Peak Hour													
	sRTOR				r				C	vRTOR			
	EBR	WBR	NBR	SBR	EBR	WBR	NBR	SBR		EBR	WBR	NBR	SBR
2023 Existing Conditions	158	127	61	158	55	48	49	68	90	97	68	33	119
2025 Background Conditions	158	160	61	158	56	48	48	68	90	98	85	33	119
2025 Buildout Conditions	158	161	61	158	56	48	48	67	90	98	86	33	118
2030 Future Conditions	158	172	61	158	56	48	48	66	90	98	92	33	116

Intersection v/c
APM Section 13.4.4: Critical Intersection v/c ratio
Method: Determine Critical Movements in HCM 2000 reports & CMA Method
HCM 6th reports, detemine adjusted and sat flow rates
Adjust Flow/Sat Flow
Sum up Crit Movement Flow Rates
Xc of intersection = sum(crit.move. Flow rates*(C/(C-L))

AM Peak Hour																		
	Critcial Movement				Adjust Flow				Saturated Flow				Adj/Sat Flows					C	L	Xc
					EBT	WBL	NBT	SBL	EBT	WBL	NBT	SBL	EBT	WBL	NBT	SBL	Sum			
2023 Existing Conditions	EBT	WBL	NBT	SBL	957	253	187	229	3221	3032	1668	3082	0.297113	0.083443	0.11211	0.074302	0.566969	80	16	0.71
2025 Background Conditions					992	263	204	264	3221	3032	1668	3082	0.307979	0.086741	0.122302	0.085659	0.602681	80	16	0.75
2025 Buildout Conditions					993	265	207	265	3221	3032	1668	3082	0.308289	0.087401	0.124101	0.085983	0.605774	80	16	0.76
2030 Future Conditions					1074	286	223	284	3221	3032	1668	3082	0.333437	0.094327	0.133693	0.092148	0.653605	80	16	0.82
PM Peak Hour																				
	Critcial Movement				Adjust Flow				Saturated Flow				Adj/Sat Flows					C	L	Xc
					EBL	WBT	NBT	SBL	EBL	WBT	NBT	SBL	EBL	WBT	NBT	SBL	Sum			
2023 Existing Conditions	EBL	WBT	NBT	SBL	96	1197	197	258	1641	3247	1723	3183	0.058501	0.368648	0.114335	0.081056	0.62254	90	16	0.76
2025 Background Conditions					103	1242	218	293	1641	3247	1723	3183	0.062767	0.382507	0.126524	0.092052	0.663849	90	16	0.81
2025 Buildout Conditions					103	1245	220	296	1641	3247	1723	3183	0.062767	0.383431	0.127684	0.092994	0.666876	90	16	0.81
2030 Future Conditions					111	1346	236	317	1641	3247	1723	3183	0.067642	0.414536	0.13697	0.099592	0.71874	90	16	0.87

3. N Springbrook Road at E Hayes Street

Right Turns on Red
APM Section 13.4.2: RTOR
Equation: vRTOR=sRTOR*(r/C)

AM Peak Hour													
	sRTOR				r				C	vRTOR			
	EBR	WBR	NBR	SBR	EBR	WBR	NBR	SBR		EBR	WBR	NBR	SBR
2023 Existing Conditions	61	278	8	0	67.4	67.4	32.4	32.2	90	46	208	3	0
2025 Background Conditions	61	263	8	0	67.4	67.4	32.4	32.2	90	46	197	3	0
2025 Buildout Conditions	61	263	8	0	67.4	67.4	32.4	32.2	90	46	197	3	0
2030 Future Conditions	61	240	8	0	67.4	67.4	32.4	32.2	90	46	180	3	0
PM Peak Hour													
	sRTOR				r				C	vRTOR			
	EBR	WBR	NBR	SBR	EBR	WBR	NBR	SBR		EBR	WBR	NBR	SBR
2023 Existing Conditions	0	342	4	0	52.5	52.5	32.1	32	75	0	239	2	0
2025 Background Conditions	0	324	4	0	52.5	52.5	32.1	32	75	0	227	2	0
2025 Buildout Conditions	0	324	4	0	52.5	52.5	32.1	32	75	0	227	2	0
2030 Future Conditions	0	300	4	0	52.5	52.5	32.1	32	75	0	210	2	0

Intersection v/c
APM Section 13.4.4: Critical Intersection v/c ratio
Method: Determine Critical Movements in HCM 2000 reports & CMA Method
HCM 6th reports, detemine adjusted and sat flow rates
Adjust Flow/Sat Flow
Sum up Crit Movement Flow Rates
Xc of intersection = sum(crit.move. Flow rates*(C/(C-L))

AM Peak Hour																	
	Critcial Movement				Adjust Flow				Saturated Flow				Adj/Sat Flows					C	L	Xc
	EBTR	WBL	NBTR	SBL	EBTR	WBL	NBTR	SBL	EBTR	WBL	NBTR	SBL	EBTR	WBL	NBTR	SBL	Sum			
2023 Existing Conditions	EBTR	WBL	NBTR	SBL	0	48	840	97	0	1404	1647	1550	0	0.034188	0.510018	0.062581	0.606787	90	12	0.70
2025 Background Conditions					0	49	881	100	0	1404	1647	1550	0	0.0349	0.534912	0.064516	0.634328	90	12	0.73
2025 Buildout Conditions					0	55	883	106	0	1405	1646	1550	0	0.039146	0.536452	0.068387	0.643985	90	12	0.74
2030 Future Conditions					0	60	955	113	0	1406	1646	1550	0	0.042674	0.580194	0.072903	0.695772	90	12	0.80
PM Peak Hour																				
	Critcial Movement				Adjust Flow				Saturated Flow				Adj/Sat Flows					C	L	Xc
	EBTR	WBL	NBTR	SBL	EBTR	WBL	NBTR	SBL	EBTR	WBL	NBTR	SBL	EBTR	WBL	NBTR	SBL	Sum			
2023 Existing Conditions	EBTR	WBL	NBTR	SBL	0	130	623	98	0	1400	1713	1641	0	0.092857	0.363689	0.05972	0.516266	75	12	0.62
2025 Background Conditions					0	134	660	101	0	1400	1712	1641	0	0.095714	0.385514	0.061548	0.542776	75	12	0.65
2025 Buildout Conditions					0	136	663	118	0	1400	1711	1641	0	0.097143	0.387493	0.071907	0.556543	75	12	0.66
2030 Future Conditions					0	142	688	121	0	1402	1712	1641	0	0.101284	0.401869	0.073736	0.576889	75	12	0.69

4. N Springbrook Road at E 2nd Street

Right Turns on Red
APM Section 13.4.2: RTOR
Equation: vRTOR=sRTOR*(r/C)

AM Peak Hour													
	sRTOR				r				C	vRTOR			
	EBR	WBR	NBR	SBR	EBR	WBR	NBR	SBR		EBR	WBR	NBR	SBR
2023 Existing Conditions	20	31	7	5	67	67	32.6	32.6	90	15	23	3	2
2025 Background Conditions	20	30	8	6	67.2	67.2	32.4	32.4	90	15	22	3	2
2025 Buildout Conditions	20	29	8	6	67.2	67.2	32.4	32.4	90	15	22	3	2
2030 Future Conditions	19	29	8	6	67.2	67.2	32.4	32.4	90	14	22	3	2
PM Peak Hour													
	sRTOR				r				C	vRTOR			
	EBR	WBR	NBR	SBR	EBR	WBR	NBR	SBR		EBR	WBR	NBR	SBR
2023 Existing Conditions	38	9	9	6	66	66	33.6	33.6	90	28	7	3	2
2025 Background Conditions	35	9	10	7	66	66	33.6	33.6	90	26	7	4	3
2025 Buildout Conditions	34	9	10	7	66	66	33.6	33.6	90	25	7	4	3
2030 Future Conditions	34	9	10	6	66	66	33.6	33.6	90	25	7	4	2

Intersection v/c
APM Section 13.4.4: Critical Intersection v/c ratio
Method: Determine Critical Movements in HCM 2000 reports & CMA Method
HCM 6th reports, detemine adjusted and sat flow rates
Adjust Flow/Sat Flow
Sum up Crit Movement Flow Rates
Xc of intersection = sum(crit.move. Flow rates*(C/(C-L))

AM Peak Hour															
	Critcial Movement			Adjust Flow			Saturated Flow			Adj/Sat Flows				C	L	Xc
				WB	NBTR	SBL	WB	NBTR	SBL	WB	NBTR	SBL	Sum			
2023 Existing Conditions	WB	NBTR	SBL	159	783	34	1479	1632	1511	0.107505	0.479779	0.022502	0.609786	90	12	0.70
2025 Background Conditions				171	819	36	1479	1632	1511	0.115619	0.501838	0.023825	0.641282	90	12	0.74
2025 Buildout Conditions				173	820	37	1480	1631	1511	0.116892	0.502759	0.024487	0.644138	90	12	0.74
2030 Future Conditions				188	886	40	1482	1632	1511	0.126856	0.542892	0.026473	0.69622	90	12	0.80
PM Peak Hour																
	Critcial Movement			Adjust Flow			Saturated Flow			Adj/Sat Flows				C	L	Xc
				WB	NBL	SBTR	WB	NBL	SBTR	WB	NBL	SBTR	Sum			
2023 Existing Conditions	WB	NBL	SBTR	212	24	824	1473	1615	1649	0.143924	0.014861	0.499697	0.658481	90	12	0.76
2025 Background Conditions				224	25	862	1435	1615	1647	0.156098	0.01548	0.523376	0.694953	90	12	0.80
2025 Buildout Conditions				225	25	864	1427	1615	1647	0.157673	0.01548	0.52459	0.697743	90	12	0.81
2030 Future Conditions				244	27	934	1398	1615	1648	0.174535	0.016718	0.566748	0.758001	90	12	0.88

Intersection: 1: N Springbrook Road & E Haworth Avenue

Movement	EB	EB	WB	NB	NB	SB	SB
Directions Served	LT	R	LTR	L	TR	L	TR
Maximum Queue (ft)	76	97	70	70	141	57	192
Average Queue (ft)	37	51	32	30	65	19	86
95th Queue (ft)	61	82	56	57	112	50	149
Link Distance (ft)	696	696	363		454		722
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)				140		100	
Storage Blk Time (%)					0		5
Queuing Penalty (veh)					0		1

Intersection: 2: N Springbrook Road & OR-99W

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	SB
Directions Served	L	T	T	L	L	T	T	L	L	T	R	L
Maximum Queue (ft)	88	361	331	168	201	211	196	86	107	186	299	127
Average Queue (ft)	35	228	202	56	110	107	84	32	51	88	147	61
95th Queue (ft)	73	325	302	135	179	180	155	68	87	159	256	107
Link Distance (ft)		1106	1106			817	817			994		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	400			500	500			300	300		300	220
Storage Blk Time (%)		0	0								0	
Queuing Penalty (veh)		0	0								1	

Intersection: 2: N Springbrook Road & OR-99W

Movement	SB	SB	SB
Directions Served	L	T	R
Maximum Queue (ft)	150	156	76
Average Queue (ft)	79	71	24
95th Queue (ft)	123	131	52
Link Distance (ft)		454	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	220		125
Storage Blk Time (%)	0	1	0
Queuing Penalty (veh)	0	4	0

Intersection: 3: N Springbrook Road & E Hayes Street

Movement	EB	WB	WB	NB	NB	SB	SB
Directions Served	LTR	L	TR	L	TR	L	TR
Maximum Queue (ft)	70	79	97	19	256	116	162
Average Queue (ft)	12	31	43	1	98	40	34
95th Queue (ft)	46	69	78	10	214	86	104
Link Distance (ft)	464	537	537	1537	1537	994	994
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)							
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 4: N Springbrook Road & E 2nd Street

Movement	EB	WB	NB	NB	SB	SB
Directions Served	LTR	LTR	L	TR	L	TR
Maximum Queue (ft)	107	207	55	304	58	248
Average Queue (ft)	38	93	5	138	19	86
95th Queue (ft)	82	171	35	262	50	193
Link Distance (ft)	1286	1595		1632		1537
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)			175		175	
Storage Blk Time (%)				3		1
Queuing Penalty (veh)				0		0

Intersection: 5: Site Access & E Hayes Street

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 6: N Brutscher Road & E Hayes Street

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	ULTR
Maximum Queue (ft)	36	25	52	25
Average Queue (ft)	5	2	11	1
95th Queue (ft)	23	14	38	13
Link Distance (ft)	835	1042	1047	648
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty: 7

Intersection: 1: N Springbrook Road & E Haworth Avenue

Movement	EB	EB	WB	NB	NB	SB	SB
Directions Served	LT	R	LTR	L	TR	L	TR
Maximum Queue (ft)	84	124	136	117	194	156	304
Average Queue (ft)	46	57	68	41	79	37	124
95th Queue (ft)	74	97	114	88	147	108	250
Link Distance (ft)	696	696	363		454		722
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)				140		100	
Storage Blk Time (%)					2	0	22
Queuing Penalty (veh)					2	0	10

Intersection: 2: N Springbrook Road & OR-99W

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	SB
Directions Served	UL	T	T	L	L	T	T	L	L	T	R	L
Maximum Queue (ft)	134	299	271	277	305	371	372	117	130	207	219	132
Average Queue (ft)	59	197	175	148	190	229	226	57	70	100	96	75
95th Queue (ft)	111	275	256	249	275	342	343	102	110	172	183	122
Link Distance (ft)		1106	1106			817	817			994		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	400			500	500			300	300		300	220
Storage Blk Time (%)			0				0				0	
Queuing Penalty (veh)			0				1				0	

Intersection: 2: N Springbrook Road & OR-99W

Movement	SB	SB	SB
Directions Served	L	T	R
Maximum Queue (ft)	149	179	105
Average Queue (ft)	95	88	41
95th Queue (ft)	139	154	82
Link Distance (ft)		454	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	220		125
Storage Blk Time (%)		3	0
Queuing Penalty (veh)		13	0

Intersection: 3: N Springbrook Road & E Hayes Street

Movement	EB	WB	WB	NB	NB	SB	SB
Directions Served	LTR	L	TR	L	TR	L	TR
Maximum Queue (ft)	15	143	81	7	233	76	241
Average Queue (ft)	1	71	37	0	87	32	69
95th Queue (ft)	9	124	65	4	188	66	184
Link Distance (ft)	464	537	537	1537	1537	994	994
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)							
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 4: N Springbrook Road & E 2nd Street

Movement	EB	WB	NB	NB	SB	SB
Directions Served	LTR	LTR	L	TR	L	TR
Maximum Queue (ft)	184	250	73	272	190	410
Average Queue (ft)	83	125	16	118	27	196
95th Queue (ft)	151	211	54	231	98	350
Link Distance (ft)	1286	1595		1632		1537
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)			175		175	
Storage Blk Time (%)				2		9
Queuing Penalty (veh)				1		3

Intersection: 5: Site Access & E Hayes Street

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 6: N Brutscher Road & E Hayes Street

Movement	EB	WB	NB	SB
Directions Served	ULTR	ULTR	LTR	ULTR
Maximum Queue (ft)	43	55	38	65
Average Queue (ft)	8	9	4	17
95th Queue (ft)	31	37	23	49
Link Distance (ft)	835	1042	1047	648
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty: 29

Intersection: 1: N Springbrook Road & E Haworth Avenue

Movement	EB	EB	WB	NB	NB	SB	SB
Directions Served	L	TR	LTR	L	TR	L	TR
Maximum Queue (ft)	102	154	104	111	169	75	243
Average Queue (ft)	44	71	40	39	65	17	96
95th Queue (ft)	86	123	80	83	147	52	190
Link Distance (ft)		696	363		460		716
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	150			140		100	
Storage Blk Time (%)		0		0	1		6
Queuing Penalty (veh)		0		0	1		2

Intersection: 2: N Springbrook Road & OR-99W

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	T	T	R	L	L	T	T	L	L	T	R
Maximum Queue (ft)	149	427	392	45	165	204	225	191	95	141	353	375
Average Queue (ft)	46	256	233	2	61	110	114	96	33	53	113	177
95th Queue (ft)	133	409	378	45	136	179	189	168	71	105	244	316
Link Distance (ft)		1106	1106				817	817			994	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	400			350	500	500			300	300		300
Storage Blk Time (%)		2	3								0	2
Queuing Penalty (veh)		2	2								0	9

Intersection: 2: N Springbrook Road & OR-99W

Movement	SB	SB	SB	SB
Directions Served	L	L	T	R
Maximum Queue (ft)	156	167	170	91
Average Queue (ft)	79	96	80	27
95th Queue (ft)	135	151	145	62
Link Distance (ft)			460	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	220	220		125
Storage Blk Time (%)		0	2	
Queuing Penalty (veh)		0	7	

Intersection: 3: N Springbrook Road & E Hayes Street

Movement	EB	WB	WB	NB	NB	SB	SB
Directions Served	LTR	L	TR	L	TR	L	TR
Maximum Queue (ft)	78	92	108	23	341	117	171
Average Queue (ft)	15	33	47	1	114	43	39
95th Queue (ft)	55	71	88	10	246	89	113
Link Distance (ft)	464	537	537	1537	1537	994	994
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)							
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 4: N Springbrook Road & E 2nd Street

Movement	EB	WB	NB	NB	SB	SB
Directions Served	LTR	LTR	L	TR	L	TR
Maximum Queue (ft)	93	218	31	385	72	222
Average Queue (ft)	41	90	3	155	23	89
95th Queue (ft)	82	168	19	305	57	186
Link Distance (ft)	1286	1595		1632		1537
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)			175		175	
Storage Blk Time (%)				5		1
Queuing Penalty (veh)				0		0

Intersection: 5: Site Access & E Hayes Street

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 6: N Brutscher Road & E Hayes Street

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	ULTR
Maximum Queue (ft)	43	34	56	39
Average Queue (ft)	7	3	11	3
95th Queue (ft)	31	20	40	20
Link Distance (ft)	835	1042	1047	648
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty: 23

Intersection: 1: N Springbrook Road & E Haworth Avenue

Movement	EB	EB	WB	NB	NB	SB	SB
Directions Served	L	TR	LTR	L	TR	L	TR
Maximum Queue (ft)	90	164	262	133	194	151	282
Average Queue (ft)	42	78	121	53	96	31	133
95th Queue (ft)	81	136	219	99	176	84	230
Link Distance (ft)		696	363		460		716
Upstream Blk Time (%)			0				
Queuing Penalty (veh)			0				
Storage Bay Dist (ft)	150			140		100	
Storage Blk Time (%)		1		0	2	0	14
Queuing Penalty (veh)		1		0	3	0	7

Intersection: 2: N Springbrook Road & OR-99W

Movement	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	UL	T	T	L	L	T	T	R	L	L	T	R
Maximum Queue (ft)	152	317	307	278	314	390	397	90	119	130	231	226
Average Queue (ft)	70	205	188	151	196	246	242	5	57	73	108	102
95th Queue (ft)	129	290	273	264	296	364	366	80	103	115	194	190
Link Distance (ft)		1106	1106			817	817				994	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	400			500	500			350	300	300		300
Storage Blk Time (%)		0	0				1				0	
Queuing Penalty (veh)		0	0				2				1	

Intersection: 2: N Springbrook Road & OR-99W

Movement	SB	SB	SB	SB
Directions Served	L	L	T	R
Maximum Queue (ft)	144	161	201	156
Average Queue (ft)	85	105	99	47
95th Queue (ft)	134	150	168	103
Link Distance (ft)			460	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	220	220		125
Storage Blk Time (%)			5	0
Queuing Penalty (veh)			20	1

Intersection: 3: N Springbrook Road & E Hayes Street

Movement	EB	WB	WB	NB	NB	SB	SB
Directions Served	LTR	L	TR	L	TR	L	TR
Maximum Queue (ft)	12	169	85	13	263	89	261
Average Queue (ft)	1	73	37	1	95	37	72
95th Queue (ft)	8	137	69	6	206	74	187
Link Distance (ft)	464	537	537	1537	1537	994	994
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)							
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 4: N Springbrook Road & E 2nd Street

Movement	EB	WB	NB	NB	SB	SB
Directions Served	LTR	LTR	L	TR	L	TR
Maximum Queue (ft)	214	284	98	331	148	500
Average Queue (ft)	94	140	19	134	25	208
95th Queue (ft)	171	239	64	269	84	415
Link Distance (ft)	1286	1595		1632		1537
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)			175		175	
Storage Blk Time (%)				4		10
Queuing Penalty (veh)				1		4

Intersection: 5: Site Access & E Hayes Street

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 6: N Brutscher Road & E Hayes Street

Movement	EB	WB	NB	SB
Directions Served	ULTR	ULTR	LTR	ULTR
Maximum Queue (ft)	42	48	39	61
Average Queue (ft)	7	10	5	20
95th Queue (ft)	30	36	25	53
Link Distance (ft)	835	1042	1047	648
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty: 39

Intersection: 1: N Springbrook Road & E Haworth Avenue

Movement	EB	EB	WB	NB	NB	SB	SB
Directions Served	L	TR	LTR	L	TR	L	TR
Maximum Queue (ft)	90	155	103	103	191	86	292
Average Queue (ft)	42	69	42	37	62	18	106
95th Queue (ft)	77	120	82	79	141	64	217
Link Distance (ft)		696	363		460		716
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	150			140		100	
Storage Blk Time (%)	0	0			1	0	8
Queuing Penalty (veh)	0	0			1	0	2

Intersection: 2: N Springbrook Road & OR-99W

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	T	T	R	L	L	T	T	L	L	T	R
Maximum Queue (ft)	99	414	386	44	170	210	209	185	91	108	298	344
Average Queue (ft)	38	249	228	2	64	117	111	93	37	54	110	170
95th Queue (ft)	80	365	344	44	143	188	182	160	73	92	229	302
Link Distance (ft)		1106	1106				817	817			994	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	400			350	500	500			300	300		300
Storage Blk Time (%)		0	1								0	2
Queuing Penalty (veh)		0	1								0	6

Intersection: 2: N Springbrook Road & OR-99W

Movement	SB	SB	SB	SB
Directions Served	L	L	T	R
Maximum Queue (ft)	155	169	166	75
Average Queue (ft)	84	100	83	26
95th Queue (ft)	141	155	147	57
Link Distance (ft)			460	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	220	220		125
Storage Blk Time (%)	0	0	3	
Queuing Penalty (veh)	0	0	10	

Intersection: 3: N Springbrook Road & E Hayes Street

Movement	EB	WB	WB	NB	NB	SB	SB
Directions Served	LTR	L	TR	L	TR	L	TR
Maximum Queue (ft)	84	95	126	91	443	132	163
Average Queue (ft)	15	36	51	6	151	46	47
95th Queue (ft)	56	75	94	102	413	96	127
Link Distance (ft)	464	537	537	1537	1537	994	994
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)							
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 4: N Springbrook Road & E 2nd Street

Movement	EB	WB	NB	NB	SB	SB
Directions Served	LTR	LTR	L	TR	L	TR
Maximum Queue (ft)	120	227	60	376	75	265
Average Queue (ft)	45	102	7	151	23	89
95th Queue (ft)	93	186	40	290	61	198
Link Distance (ft)	1286	1595		1632		1537
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)			175		175	
Storage Blk Time (%)				4		1
Queuing Penalty (veh)				0		0

Intersection: 5: Site Access & E Hayes Street

Movement	NB	SB
Directions Served	R	R
Maximum Queue (ft)	41	34
Average Queue (ft)	16	15
95th Queue (ft)	42	40
Link Distance (ft)	291	288
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 6: N Brutscher Road & E Hayes Street

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	ULTR
Maximum Queue (ft)	44	33	55	34
Average Queue (ft)	8	3	12	2
95th Queue (ft)	32	17	42	17
Link Distance (ft)	835	1042	1047	648
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty: 22

Intersection: 1: N Springbrook Road & E Haworth Avenue

Movement	EB	EB	WB	NB	NB	SB	SB
Directions Served	L	TR	LTR	L	TR	L	TR
Maximum Queue (ft)	92	171	254	145	222	112	240
Average Queue (ft)	43	79	122	58	97	28	129
95th Queue (ft)	78	137	215	110	184	74	214
Link Distance (ft)		696	363		460		716
Upstream Blk Time (%)			0				
Queuing Penalty (veh)			0				
Storage Bay Dist (ft)	150			140		100	
Storage Blk Time (%)		1		0	2		13
Queuing Penalty (veh)		0		0	3		7

Intersection: 2: N Springbrook Road & OR-99W

Movement	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	UL	T	T	L	L	T	T	R	L	L	T	R
Maximum Queue (ft)	152	320	310	258	303	397	394	89	136	138	246	238
Average Queue (ft)	65	211	192	147	186	241	232	3	64	75	117	104
95th Queue (ft)	124	301	288	243	271	358	351	64	114	119	207	188
Link Distance (ft)		1106	1106			817	817				994	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	400			500	500			350	300	300		300
Storage Blk Time (%)		0	0			0	1				0	0
Queuing Penalty (veh)		0	0			0	1				2	0

Intersection: 2: N Springbrook Road & OR-99W

Movement	SB	SB	SB	SB
Directions Served	L	L	T	R
Maximum Queue (ft)	162	193	231	165
Average Queue (ft)	91	108	105	52
95th Queue (ft)	149	168	191	118
Link Distance (ft)			460	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	220	220		125
Storage Blk Time (%)	0	0	8	0
Queuing Penalty (veh)	0	0	31	1

Intersection: 3: N Springbrook Road & E Hayes Street

Movement	EB	WB	WB	NB	NB	SB	SB
Directions Served	LTR	L	TR	L	TR	L	TR
Maximum Queue (ft)	9	180	95	8	292	90	287
Average Queue (ft)	1	77	41	0	106	40	85
95th Queue (ft)	7	139	77	4	231	78	211
Link Distance (ft)	464	537	537	1537	1537	994	994
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)							
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 4: N Springbrook Road & E 2nd Street

Movement	EB	WB	NB	NB	SB	SB
Directions Served	LTR	LTR	L	TR	L	TR
Maximum Queue (ft)	195	326	147	370	192	498
Average Queue (ft)	92	143	22	139	31	220
95th Queue (ft)	162	264	80	281	120	417
Link Distance (ft)	1286	1595		1632		1537
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)			175		175	
Storage Blk Time (%)				3		11
Queuing Penalty (veh)				1		4

Intersection: 5: Site Access & E Hayes Street

Movement	NB	SB
Directions Served	R	R
Maximum Queue (ft)	31	36
Average Queue (ft)	11	10
95th Queue (ft)	35	34
Link Distance (ft)	291	288
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 6: N Brutscher Road & E Hayes Street

Movement	EB	WB	NB	SB
Directions Served	ULTR	ULTR	LTR	ULTR
Maximum Queue (ft)	48	50	38	74
Average Queue (ft)	10	11	4	21
95th Queue (ft)	36	38	23	57
Link Distance (ft)	835	1042	1047	648
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty: 51

Intersection: 1: N Springbrook Road & E Haworth Avenue

Movement	EB	EB	WB	NB	NB	SB	SB
Directions Served	L	TR	LTR	L	TR	L	TR
Maximum Queue (ft)	101	190	106	119	186	88	261
Average Queue (ft)	43	83	45	42	68	18	118
95th Queue (ft)	85	151	83	88	153	57	214
Link Distance (ft)		696	363		460		716
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	150			140		100	
Storage Blk Time (%)	0	1		0	1		10
Queuing Penalty (veh)	0	1		0	1		3

Intersection: 2: N Springbrook Road & OR-99W

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	T	T	R	L	L	T	T	L	L	T	R
Maximum Queue (ft)	301	548	514	180	193	234	224	201	112	255	415	383
Average Queue (ft)	62	318	293	20	76	124	122	104	41	68	146	232
95th Queue (ft)	225	535	505	174	170	203	193	178	86	167	358	382
Link Distance (ft)		1106	1106				817	817			994	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	400			350	500	500			300	300		300
Storage Blk Time (%)		8	9								0	7
Queuing Penalty (veh)		6	7								2	27

Intersection: 2: N Springbrook Road & OR-99W

Movement	SB	SB	SB	SB
Directions Served	L	L	T	R
Maximum Queue (ft)	171	192	207	79
Average Queue (ft)	88	108	94	28
95th Queue (ft)	155	175	177	57
Link Distance (ft)			460	
Upstream Blk Time (%)			0	
Queuing Penalty (veh)			1	
Storage Bay Dist (ft)	220	220		125
Storage Blk Time (%)	0	1	3	0
Queuing Penalty (veh)	0	2	11	0

Intersection: 3: N Springbrook Road & E Hayes Street

Movement	EB	WB	WB	NB	NB	SB	SB
Directions Served	LTR	L	TR	L	TR	L	TR
Maximum Queue (ft)	75	112	142	67	618	134	205
Average Queue (ft)	16	42	56	3	189	53	58
95th Queue (ft)	57	86	106	54	455	105	150
Link Distance (ft)	464	537	537	1537	1537	994	994
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)							
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 4: N Springbrook Road & E 2nd Street

Movement	EB	WB	NB	NB	SB	SB
Directions Served	LTR	LTR	L	TR	L	TR
Maximum Queue (ft)	110	249	35	464	80	305
Average Queue (ft)	47	108	6	179	24	107
95th Queue (ft)	91	202	25	364	63	228
Link Distance (ft)	1286	1595		1632		1537
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)			175		175	
Storage Blk Time (%)				6		2
Queuing Penalty (veh)				0		1

Intersection: 5: Site Access & E Hayes Street

Movement	NB	SB
Directions Served	R	R
Maximum Queue (ft)	41	39
Average Queue (ft)	16	17
95th Queue (ft)	43	43
Link Distance (ft)	291	288
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 6: N Brutscher Road & E Hayes Street

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	ULTR
Maximum Queue (ft)	46	43	68	33
Average Queue (ft)	8	4	13	3
95th Queue (ft)	34	22	46	18
Link Distance (ft)	835	1042	1047	648
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty: 63

Intersection: 1: N Springbrook Road & E Haworth Avenue

Movement	EB	EB	WB	NB	NB	SB	SB
Directions Served	L	TR	LTR	L	TR	L	TR
Maximum Queue (ft)	110	192	298	177	253	162	277
Average Queue (ft)	43	84	139	61	112	33	143
95th Queue (ft)	84	147	258	117	204	93	238
Link Distance (ft)		696	363		460		716
Upstream Blk Time (%)			0				
Queuing Penalty (veh)			0				
Storage Bay Dist (ft)	150			140		100	
Storage Blk Time (%)		1		0	3	0	17
Queuing Penalty (veh)		1		0	5	0	9

Intersection: 2: N Springbrook Road & OR-99W

Movement	EB	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB	NB
Directions Served	UL	T	T	R	L	L	T	T	R	L	L	T
Maximum Queue (ft)	218	415	392	44	366	480	565	558	360	134	154	239
Average Queue (ft)	76	246	227	2	212	257	322	322	42	66	79	126
95th Queue (ft)	165	356	338	45	363	418	507	508	256	117	128	213
Link Distance (ft)		1106	1106				817	817				994
Upstream Blk Time (%)							0					
Queuing Penalty (veh)							0					
Storage Bay Dist (ft)	400			350	500	500			350	300	300	
Storage Blk Time (%)		1	1		0	0	1	8				0
Queuing Penalty (veh)		1	1		0	2	7	14				0

Intersection: 2: N Springbrook Road & OR-99W

Movement	NB	SB	SB	SB	SB
Directions Served	R	L	L	T	R
Maximum Queue (ft)	257	177	202	221	150
Average Queue (ft)	124	98	116	104	51
95th Queue (ft)	216	160	178	182	107
Link Distance (ft)				460	
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	300	220	220		125
Storage Blk Time (%)	0	0	0	7	0
Queuing Penalty (veh)	0	0	1	29	2

Intersection: 3: N Springbrook Road & E Hayes Street

Movement	EB	WB	WB	NB	NB	SB	SB
Directions Served	LTR	L	TR	L	TR	L	TR
Maximum Queue (ft)	12	181	115	7	368	110	288
Average Queue (ft)	1	83	44	0	131	47	98
95th Queue (ft)	7	146	85	4	281	88	230
Link Distance (ft)	464	537	537	1537	1537	994	994
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)							
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 4: N Springbrook Road & E 2nd Street

Movement	EB	WB	NB	NB	SB	SB
Directions Served	LTR	LTR	L	TR	L	TR
Maximum Queue (ft)	215	368	76	334	190	515
Average Queue (ft)	96	176	19	150	33	246
95th Queue (ft)	176	311	57	274	118	441
Link Distance (ft)	1286	1595		1632		1537
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)			175		175	
Storage Blk Time (%)				4		14
Queuing Penalty (veh)				1		6

Intersection: 5: Site Access & E Hayes Street

Movement	NB	SB
Directions Served	R	R
Maximum Queue (ft)	34	34
Average Queue (ft)	9	9
95th Queue (ft)	33	33
Link Distance (ft)	291	288
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 6: N Brutscher Road & E Hayes Street

Movement	EB	WB	NB	SB
Directions Served	ULTR	ULTR	LTR	ULTR
Maximum Queue (ft)	52	55	42	64
Average Queue (ft)	11	12	5	24
95th Queue (ft)	37	40	26	58
Link Distance (ft)	835	1042	1047	648
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty: 80

Exhibit D: Wastewater Capacity Analysis

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107 W Jewett, Ste 100
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www.aks-eng.com

Date: 5/27/2024
To: City of Newberg Engineering Department
414 E First Street
Newberg, OR 97132
From: Chuck Gregory, PE – Principal | AKS Engineering & Forestry, LLC
Project Name: West Branch Apartments
AKS Job No.: **9028**
Project Site: 3411 E Hayes Street (Tax Lots 2017 & 2025 Yamhill County Assessor's Tax Map 3S 2W 16)
Newberg, OR 97132

Subject: **Wastewater Capacity Analysis – Fernwood Lift Station**

City Engineering Staff,

The purpose of this letter is to analyze and document the existing and future wastewater flows from the proposed West Branch Apartments and its downstream impact on the existing sanitary sewer conveyance system and Fernwood Lift Station as required by the City of Newberg (City). This analysis shows that the existing public sanitary sewer system has the capacity to support this development in accordance with the City of Newberg Wastewater Management Plan 2018 (WWMP).

The subject properties, each within C-2 zoning, total ±4.6 acres and are undeveloped. The proposed development consists of frontage improvements and apartment buildings with parking, stormwater facilities, trash enclosures, and associated utilities. Downstream analysis was conducted by AKS to determine the impact the proposed development would have on the Fernwood lift station. See attached *Sanitary Sewer Analysis Report* for figures, basin maps, and calculations supportive of the following.

Existing Sanitary Sewer:

The project site is currently undeveloped. In preparation for the future development of these lots, the City's previous right-of-way improvements provided 8" sanitary laterals for each lot, stubbed from the existing manhole within Hayes Street per City of Newberg Hayes Street Improvements as-built drawings dated October 11, 2005. These existing sanitary stubs mark the extents of sanitary conveyance for the respective basin and there are no upstream contributing flows (see Exhibit 3). The respective drainage basin (Basin 3) for this portion of sanitary system begins at the proposed site and runs southeast, collecting the nearby residential areas and eventually joining with the adjacent basin (Basin 4) prior to entering the Fernwood force-main. The destination for all contributing basins is the Fernwood lift station located southeast of the proposed improvements. The previously developed Crestview Crossing PUD (northeast) is a significant existing contributing basin separate from the study area to be included in the final lift station capacity analysis.

Proposed Sanitary Sewer:

Wastewater from the proposed improvements is planned to be conveyed by on-site private sanitary lines and routed into the public system via the existing laterals mentioned above. Wastewater will flow into the existing 8" main on Hayes Street that connects to the Fernwood force-main (south) prior to entering the Fernwood lift station.

Downstream

Wastewater flowrates for peak base flow (gpad) were approximated for each contributing basin using City zoning unit flowrates with a peaking factor of 4 to calculate total peak flow (gpd). Peak flow calculations for this analysis were conducted using Table K-1 of the City of Newberg *Wastewater Master Plan 2007*.

Existing sanitary routing per City GIS records in combination with as-built drawings were used to determine flow conveyance and drainage basins. Applying this data, cumulative downstream flows converging at the force main on Fernwood can be determined. Existing pipe sections downstream of the proposed improvements were identified for low conveyance characteristics and deemed "worst case scenario" within this report. These pipe sections control the conveyance capabilities of the sanitary sewer system. Detailed analysis was conducted for these specified pipe sections using Hydraflow Express software to model the hydraulic performance and total conveyance capacity for the estimated peak flow conditions based on Manning's equation. Several segments of sanitary pipe downstream of the proposed improvements were analyzed, including the Fernwood force-main (see Channel Reports). In summary, the additional flow generated by the developed site, in combination with existing contributing flows, created no capacity issues within the existing downstream wastewater conveyance system.

Fernwood Lift Station

In May 2018 the City of Newberg contracted with Keller and Associates to update their Wastewater Master plan which evaluates and plans for future growth of the wastewater system throughout the city. The City of Newberg's Wastewater Master Plan includes an evaluation of the current wastewater system and recommends future short and long-term improvements. Section 4.2 of the WWMP does not recommend any short or long-term improvements for the sanitary sewer downstream of the proposed development, nor for the Fernwood lift station. Three pumps are identified within the Fernwood lift station, each with a 900 gpm design capacity. Table 3-3 notes the tested flowrates for one (670 gpm) and two (1,210 gpm) running pumps.

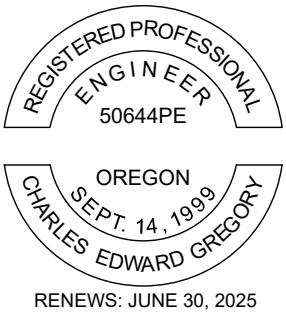
In May 2019 AKS provided civil engineering services for the Crestview Crossing PUD northeast of the proposed improvements. This development bypasses any drainage basin within our area of study, however, contributes to the Fernwood lift station from the north. The developers contracted 3J Consulting to perform a sanitary sewer analysis for this project. Findings from their analysis concluded the Crestview Crossing development increased the total flow at the Fernwood lift station by 65 gpm.

The analysis conducted for the proposed development indicates an increase of 23 gpm, for a total peak flow from the Fernwood force main of approximately 795 gpm (1.77 cfs). With the summation of non-study area contributing flows (65 gpm), the overall total wastewater flow entering the Fernwood lift station is approximately 860 gpm, well below the 1,210 gpm measured flowrate for two running pumps.

Conclusion

The City of Newberg *Wastewater Master Plan 2018* does not anticipate upgrades will be needed for the sanitary sewer system downstream of the proposed project for the estimated 20-year buildout of the Fernwood Basin. Furthermore, the plan states the Fernwood Lift Station as in good condition with no observed deficiencies. With the inclusion of all other contributing developments, the West Branch Apartments project has been conservatively accounted for during this downstream analysis. All studies indicate that the Fernwood pump station, along with the existing conveyance system, has sufficient capacity to accommodate this project.

If you have any questions or need additional information, please let us know.
Sincerely,



AKS ENGINEERING & FORESTRY, LLC
Chuck Gregory, PE – Principal
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Tualatin, OR 97062
503.563.6151 | chuckg@aks-eng.com

Attachments

- Sanitary Sewer Analysis Report (AKS)
- Table 3-3 (Keller)

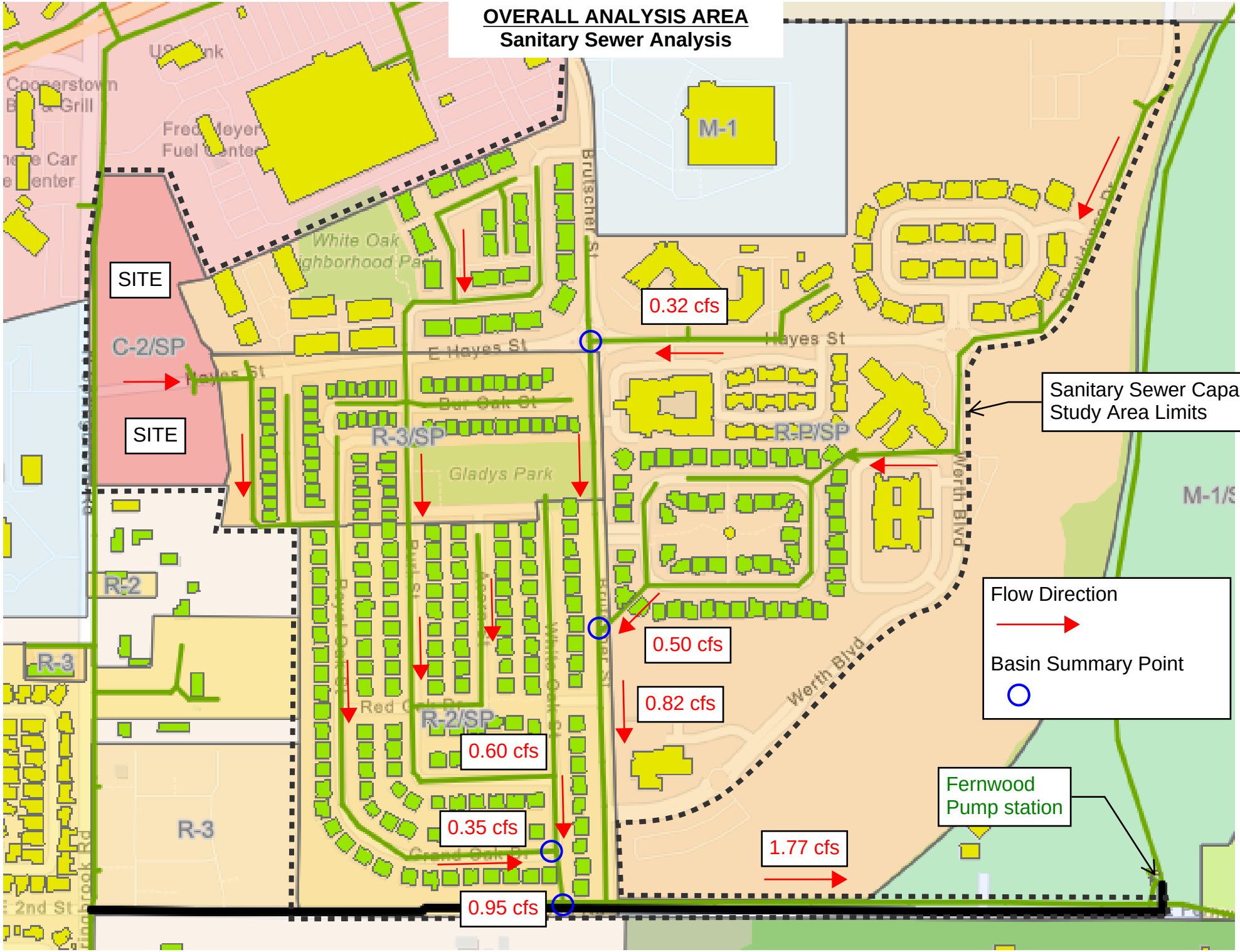
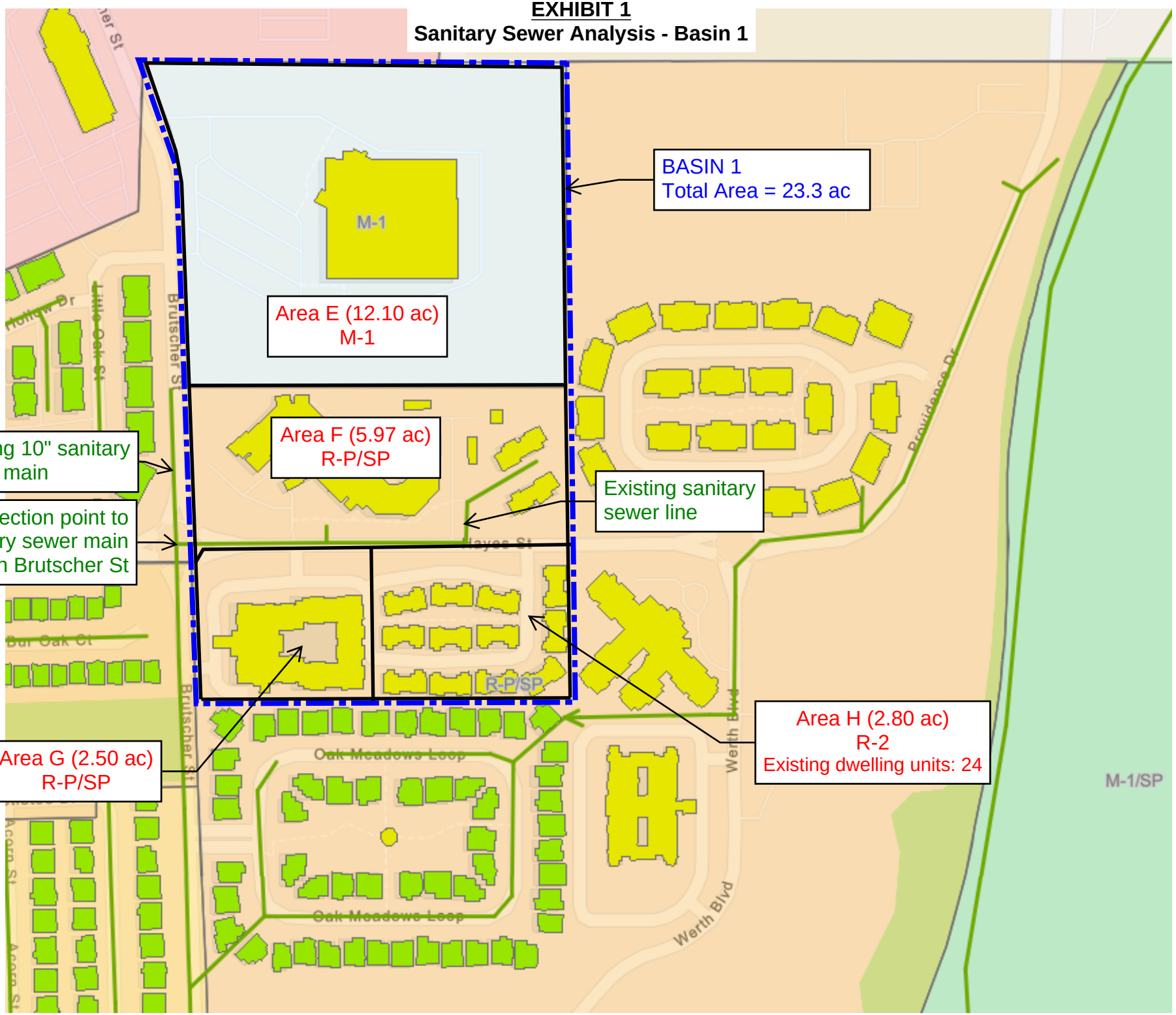

OVERALL ANALYSIS AREA
Sanitary Sewer Analysis
SITE
SITE
C-2/SP
M-1
R-3/SP
R-P/SP
R-2
R-3
R-2/SP
R-3
Gladys Park
White Oak Neighborhood Park
E Hayes St
Hayes St
Bur Oak St
Brutscher St
Worth Blvd
0.32 cfs
0.50 cfs
0.82 cfs
0.60 cfs
0.35 cfs
0.95 cfs
1.77 cfs
Sanitary Sewer Capacity Study Area Limits
Flow Direction
Basin Summary Point
Fernwood Pump station

EXHIBIT 1
Sanitary Sewer Analysis - Basin 1



BASIN 1

Table K-1, Flow Calculations for New Development (2007)

Peak base flow calculations

City Zone	Description	Master Plan Zone	Master Plan Description	Dwellings per Acre		People per Dwelling		Unit Flow Rate, gpad[2]	Unit Flow Rate, gpcd[1]		Peak Base Flow, gpad		Acres		Total Peak Base Flow, gpd[3]
C-1	Neighborhood Commercial	C-1	Neighborhood Commercial	1	x	N/A	x	1,200	N/A	=	1,200	x		=	-
C-1/SP	Neighborhood Commercial - Specific Plan														
C-2	Community Commercial	C-2	Community Commercial									x		=	-
C-2 PD	Community Commercial - Planned Unit Development														
C-2/SP	Community Commercial - Specific Plan														
C-3	Central Business District	C-3	Central Business District									x		=	-
C-3/LU	Central Business District														
I	Institutional	I	Institutional									x		=	-
M-1	Limited Industrial District	M-1	Limited Industrial District				x	2,700		=	2,700	x		=	-
M-1/SP	Limited Industrial District - Specific Plan														
M-2	Light Industrial	M-2	Light Industrial									x	12.10*	=	32,670 -
M-3	Heavy Industrial	M-3	Heavy Industrial									x		=	-
R-P	Residential Professional	R-P	Residential Professional				x	1,200		=	1,200	x	8.43**	=	10,116 -
R-P/SP	Residential Professional - Specific Plan														
R-P/LU	Residential Professional - Limited Use Overlay														
R-1	Low Density Residential	R-1	Low Density Residential	4.4	x	2.75	x	N/A	80.9	=	979	x		=	-
R-1/PD	Low Density Residential - Planned Unit Development														
R-1/0.1	Low Density Residential 0.1 DU/acre														
R-1/0.4	Low Density Residential 0.4 DU/acre														
R-1/6.6	Low Density Residential 6.6 DU/acre														
R-1/SP	Low Density Residential - Specific Plan														
R-2	Medium Density Residential	R-2	Medium Density Residential	9	x				91.2	=	2,257	x	2.80***	=	6,320 -
R-2 PD	Medium Density Residential - Planned Unit Development														
R-2/SP	Medium Density Residential - Specific Plan														
R-3	High Density Residential	R-3	High Density Residential	16.5	x				67.9	=	3,081	x		=	-
R-3 PD	High Density Residential - Planned Unit Development														
R-3/SP	High Density Residential - Specific Plan														
											Total Peak Base Flow =				49,106 -

GWI and RDII calculations

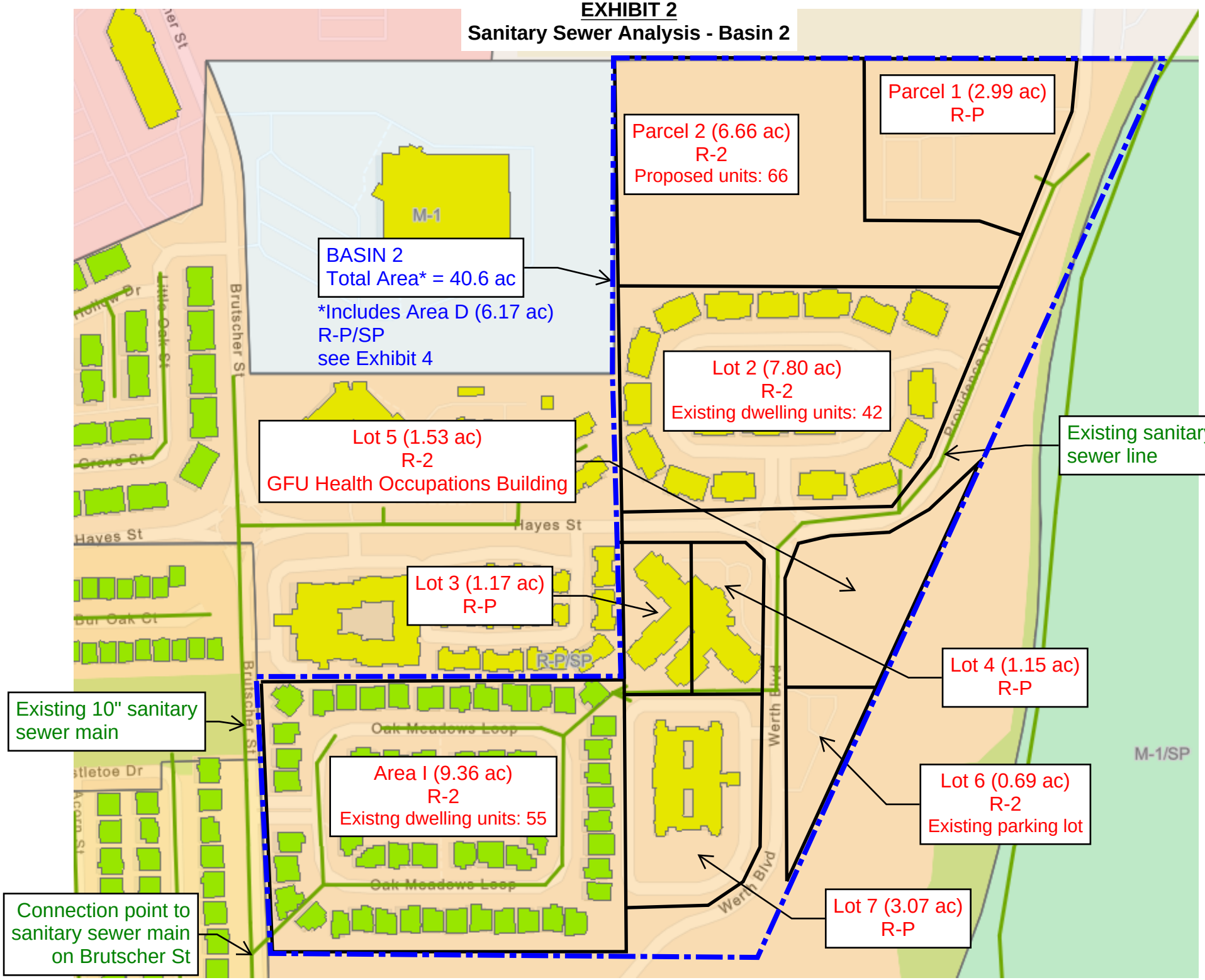
Trunkline System	GWI, gpad		Acres		Total Peak Base Flow, gpd (from above)		Flow (gpd)		Peaking Factor		Total Peak Flow, gpd	Total Peak Flow, gpm
Dayton	153	x		+	49,106 -	=	51,646 -	x	4	=	206,584 -	143.5 -
Wynooski	111											
Hess Creek	378											
Springbrook	109		23.3****									
										Total Peak Flow =		-

+/- 144 gpm
= 0.32 cfs

[1] gpcd = gallons per capita per day
[2] gpad = gallons per day per acre
[3] gpd = gallons per day
[4] gpm = gallons per minute = gpd/1440

See Exhibit 1.
* M-1 Area includes: Area E
** R-P Area includes: Area F + Area G
*** R-2 Area includes: Area H
**** Gross total area

EXHIBIT 2
Sanitary Sewer Analysis - Basin 2



BASIN 2

Table K-1, Flow Calculations for New Development (2007)

Peak base flow calculations

City Zone	Description	Master Plan Zone	Master Plan Description	Dwellings per Acre		People per Dwelling		Unit Flow Rate, gpad[2]	Unit Flow Rate, gpcd[1]		Peak Base Flow, gpad		Acres		Total Peak Base Flow, gpd[3]
C-1	Neighborhood Commercial	C-1	Neighborhood Commercial	1	x	N/A	x	1,200	N/A	=	1,200	x		=	-
C-1/SP	Neighborhood Commercial - Specific Plan														
C-2	Community Commercial	C-2	Community Commercial												
C-2 PD	Community Commercial - Planned Unit Development														
C-2/SP	Community Commercial - Specific Plan														
C-3	Central Business District	C-3	Central Business District												
C-3/LU	Central Business District														
I	Institutional	I	Institutional				x	2,700		=	2,700				
M-1	Limited Industrial District	M-1	Limited Industrial District												
M-1/SP	Limited Industrial District - Specific Plan														
M-2	Light Industrial	M-2	Light Industrial												
M-3	Heavy Industrial	M-3	Heavy Industrial												
R-P	Residential Professional	R-P	Residential Professional				x	1,200		=	1,200	x	14.6*	=	17,520 -
R-P/SP	Residential Professional - Specific Plan														
R-P/LU	Residential Professional - Limited Use Overlay														
R-1	Low Density Residential	R-1	Low Density Residential	4.4	x	2.75	x	N/A	80.9	=	979	x		=	-
R-1/PD	Low Density Residential - Planned Unit Development														
R-1/0.1	Low Density Residential 0.1 DU/acre														
R-1/0.4	Low Density Residential 0.4 DU/acre														
R-1/6.6	Low Density Residential 6.6 DU/acre														
R-1/SP	Low Density Residential - Specific Plan														
R-2	Medium Density Residential	R-2	Medium Density Residential	9	x				91.2	=	2,257	x	26.0**	=	58,682 -
R-2 PD	Medium Density Residential - Planned Unit Development														
R-2/SP	Medium Density Residential - Specific Plan														
R-3	High Density Residential	R-3	High Density Residential	16.5	x				67.9	=	3,081	x		=	-
R-3 PD	High Density Residential - Planned Unit Development														
R-3/SP	High Density Residential - Specific Plan														
											Total Peak Base Flow =				76,202 -

GWI and RDII calculations

Trunkline System	GWI, gpad		Acres		Total Peak Base Flow, gpd (from above)		Flow (gpd)		Peaking Factor		Total Peak Flow, gpd	Total Peak Flow, gpm
Dayton	153	x		+	76,202 -	=	80,627 -	x	4	=	322,510 -	224.0 -
Wynooski	111											
Hess Creek	378											
Springbrook	109		40.6***									
										Total Peak Flow =		-

[1] gpcd = gallons per capita per day
[2] gpad = gallons per day per acre
[3] gpd = gallons per day
[4] gpm = gallons per minute = gpd/1440

+/- 224 gpm
= 0.50 cfs

See Exhibit 2.
* R-P Area includes: parcel 1 + lot 3 + lot 4 + lot 7 + Area D
** R-2 Area includes: parcel 2 + lot 2 + lot 5 + lot 6 + Area I
*** Gross total area

ADD 0.32 CFS
FROM UPSTREAM FLOW
TOTAL FLOW = 0.82 CFS

EXHIBIT 3
Sanitary Sewer Analysis - Basin 3

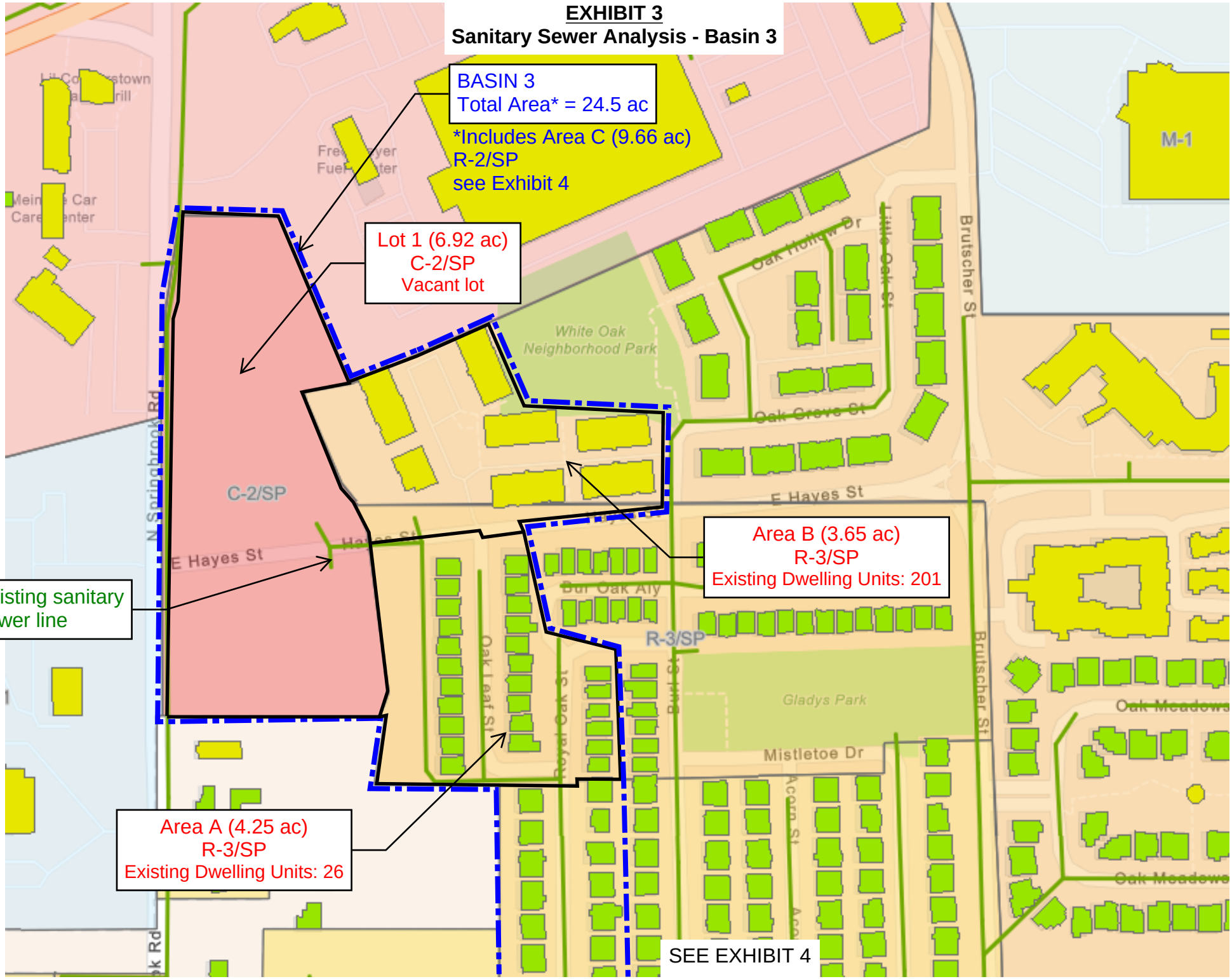
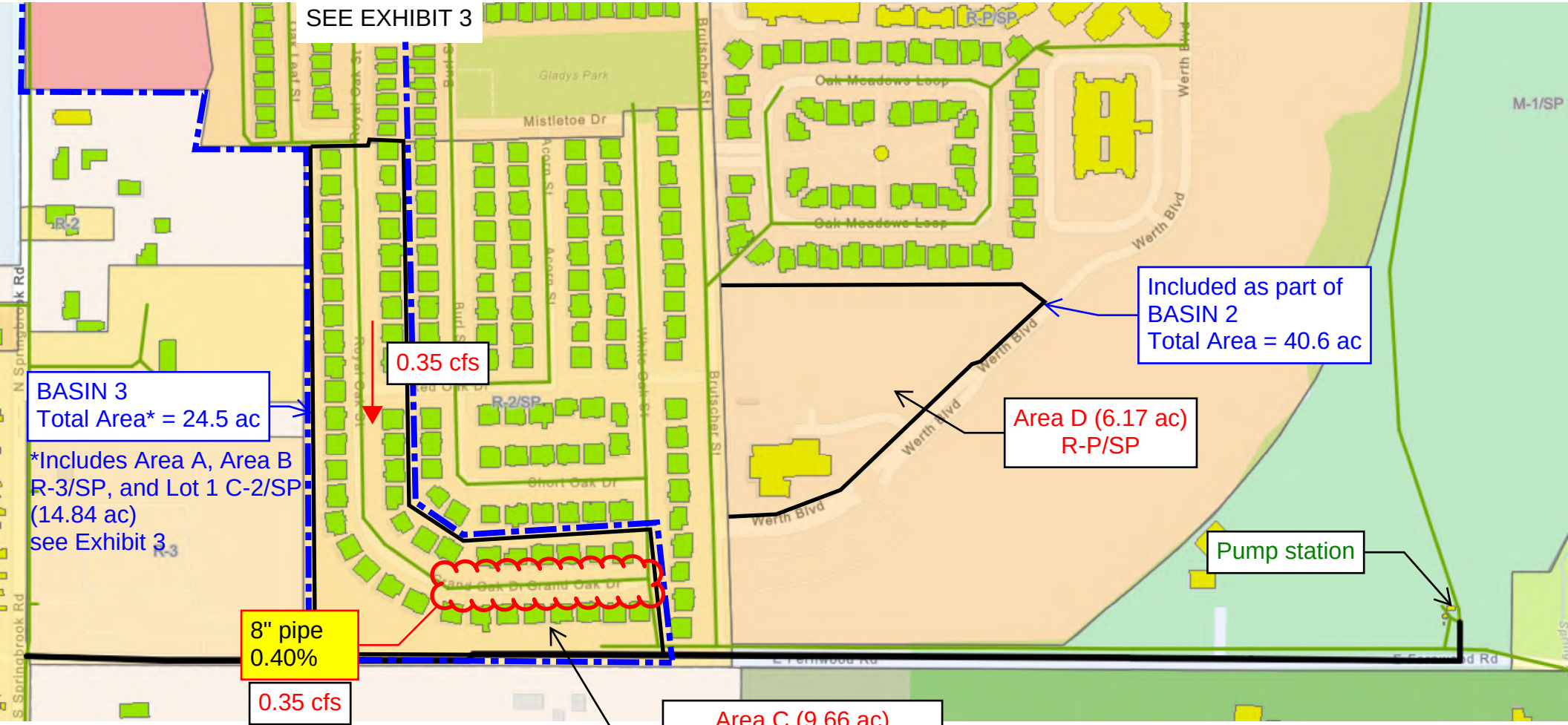


EXHIBIT 4
Sanitary Sewer Analysis - Basin 3



BASIN 3

Table K-1, Flow Calculations for New Development (2007)

Peak base flow calculations

City Zone	Description	Master Plan Zone	Master Plan Description	Dwellings per Acre		People per Dwelling		Unit Flow Rate, gpad[2]	Unit Flow Rate, gpcd[1]		Peak Base Flow, gpad		Acres		Total Peak Base Flow, gpd[3]
C-1	Neighborhood Commercial	C-1	Neighborhood Commercial	1	x	N/A	x	1,200	N/A	=	1,200	x		=	-
C-1/SP	Neighborhood Commercial - Specific Plan														
C-2	Community Commercial	C-2	Community Commercial									x	6.92*	=	8,304 -
C-2 PD	Community Commercial - Planned Unit Development														
C-2/SP	Community Commercial - Specific Plan														
C-3	Central Business District	C-3	Central Business District									x		=	-
C-3/LU	Central Business District														
I	Institutional	I	Institutional				x	2,700		=	2,700	x		=	-
M-1	Limited Industrial District	M-1	Limited Industrial District									x		=	-
M-1/SP	Limited Industrial District - Specific Plan														
M-2	Light Industrial	M-2	Light Industrial									x		=	-
M-3	Heavy Industrial	M-3	Heavy Industrial									x		=	-
R-P	Residential Professional	R-P	Residential Professional				x	1,200		=	1,200	x		=	-
R-P/SP	Residential Professional - Specific Plan														
R-P/LU	Residential Professional - Limited Use Overlay														
R-1	Low Density Residential	R-1	Low Density Residential	4.4	x	2.75	x	N/A	80.9	=	979	x		=	-
R-1/PD	Low Density Residential - Planned Unit Development														
R-1/0.1	Low Density Residential 0.1 DU/acre														
R-1/0.4	Low Density Residential 0.4 DU/acre														
R-1/6.6	Low Density Residential 6.6 DU/acre														
R-1/SP	Low Density Residential - Specific Plan														
R-2	Medium Density Residential	R-2	Medium Density Residential	9	x				91.2	=	2,257	x	9.66**	=	21,803 -
R-2 PD	Medium Density Residential - Planned Unit Development														
R-2/SP	Medium Density Residential - Specific Plan														
R-3	High Density Residential	R-3	High Density Residential	16.5	x				67.9	=	3,081	x	7.90***	=	24,340 -
R-3 PD	High Density Residential - Planned Unit Development														
R-3/SP	High Density Residential - Specific Plan														
											Total Peak Base Flow =				54,447 -

GWI and RDII calculations

Trunkline System	GWI, gpad		Acres		Total Peak Base Flow, gpd (from above)		Flow (gpd)		Peaking Factor		Total Peak Flow, gpd	Total Peak Flow, gpm
Dayton	153	x		+	54,447 -	=	57,118 -	x	4	=	228,470 -	158.7 -
Wynooski	111											
Hess Creek	378											
Springbrook	109		24.5****									
										Total Peak Flow =		-

+/- 159 gpm
= 0.35 cfs

[1] gpcd = gallons per capita per day
[2] gpad = gallons per day per acre
[3] gpd = gallons per day
[4] gpm = gallons per minute = gpd/1440

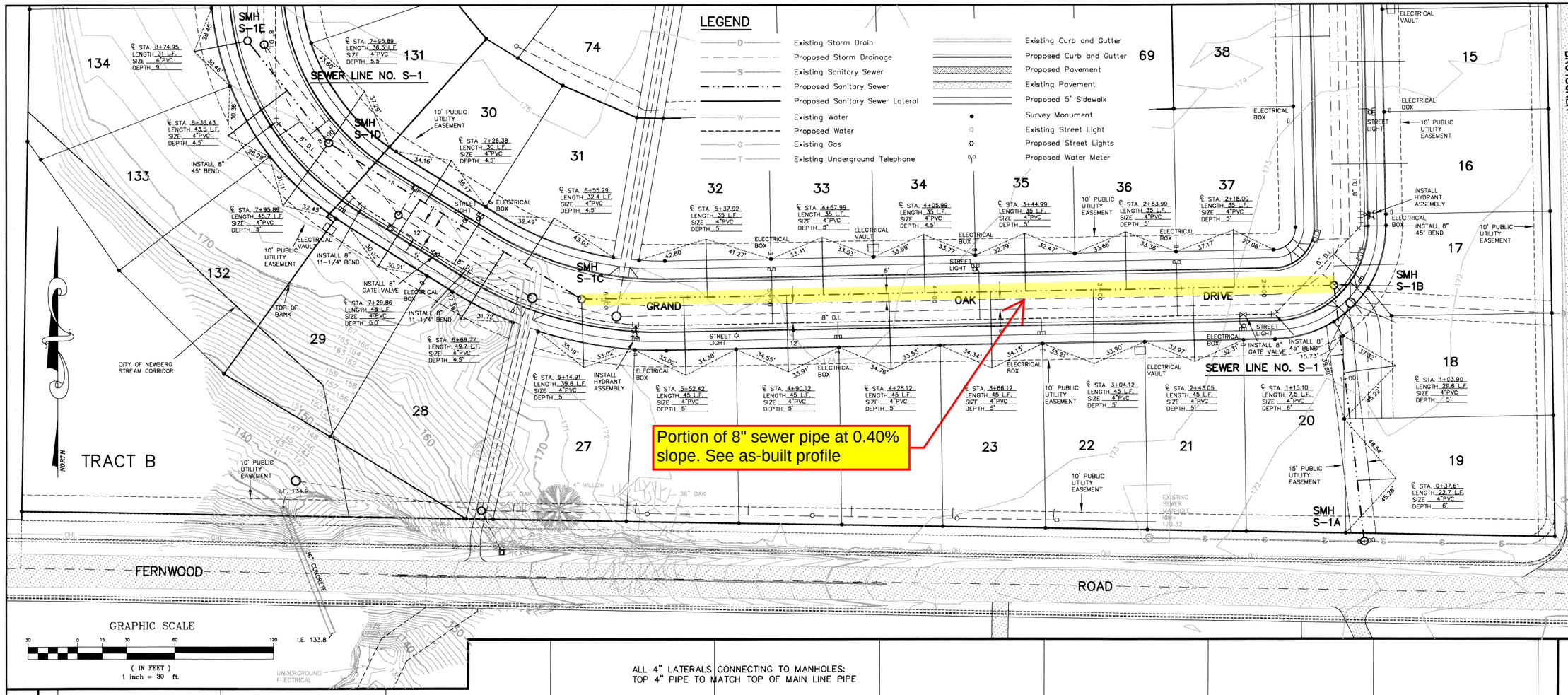
See Exhibits 3 & 4.

* C-2 Area includes: lot 1

** R-2 Area includes: Area C

*** R-3 area includes: Area A + Area B

**** Gross total area



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FAX (503) 538-9167
lrydell@teleport.com
Consulting Civil Engineer — Land Surveyor — M.E.

REGISTERED PROFESSIONAL ENGINEER — OREGON — JULY 22, 1977 — LEONARD A. RYDELL

RENEWAL DATE 12/31/2004

SANITARY SEWER LINE S-1 AND WATER IMPROVEMENTS
OAKS AT SPRINGBROOK

Located in the Sebastian Brutscher D.L.C. No. 51
Southwest Quarter of Section 16 and the Northwest Quarter of Section 21
Township 3 South, Range 2 West of the Willamette Meridian
City of Newberg, Yamhill County, Oregon

Prepared for:
Werth Family L.L.C.
5241 Windsor Terrace
West Linn, Oregon 97068
Phone: (503) 810-5576

W.O. No.	0207
Design	
Drawn	
Date	15 November 2002
Dwg	0207-AB3.DWG

Sheet
3 of 25

REVISIONS

No.	Description/Date	By
1	PER CITY 1/24/03	JRY
2	AS-BLT 4/28/03	JRY

Channel Report

Hydraflow Express Extension for Autodesk® Civil 3D® by Autodesk, Inc. Monday, Apr 24 2023

8" Sewer Pipe - Grand Oak Dr

Circular

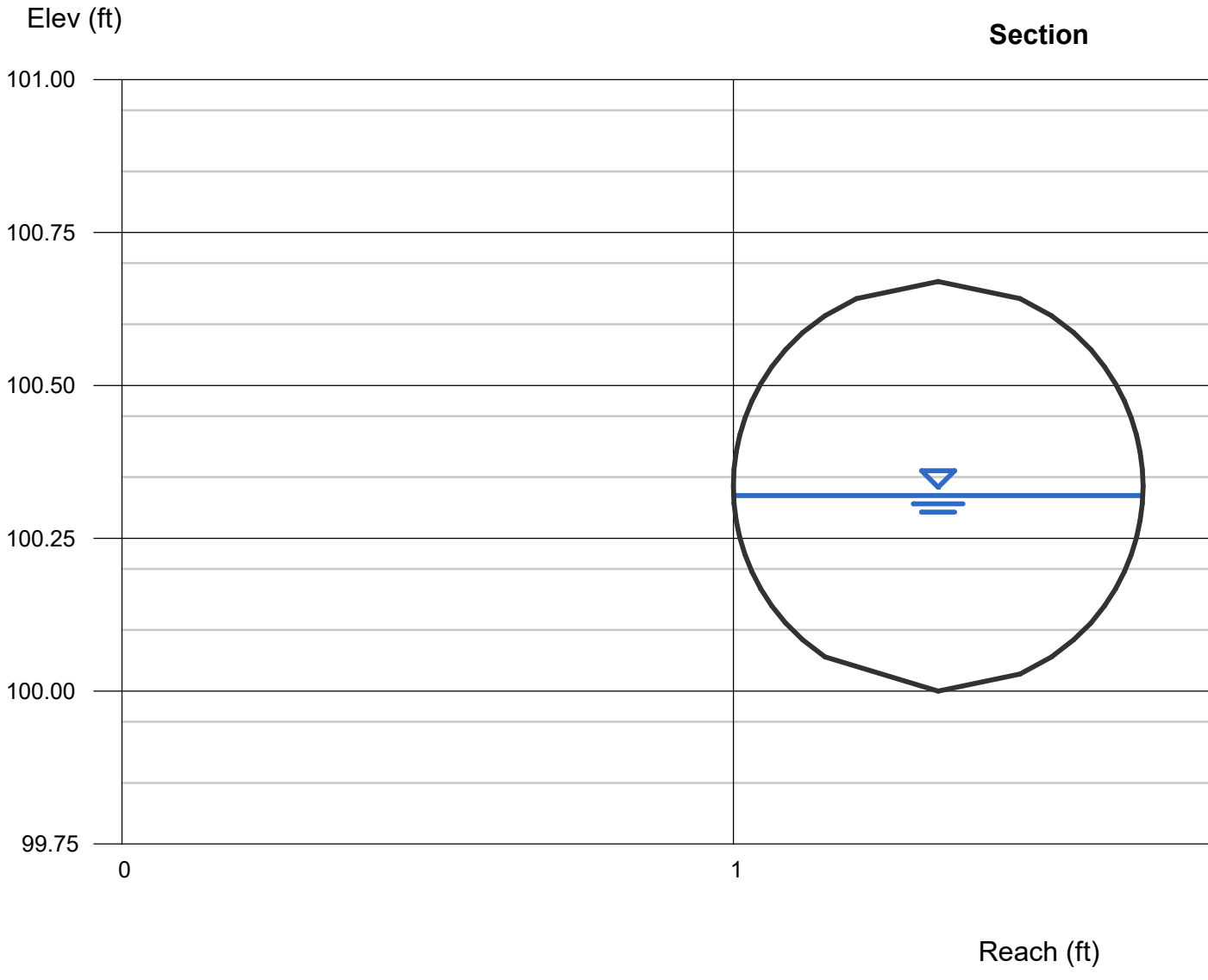
Diameter (ft)	= 0.67
Invert Elev (ft)	= 100.00
Slope (%)	= 0.40
N-Value	= 0.013

Calculations

Compute by:	Known Q
Known Q (cfs)	= 0.35

Highlighted

Depth (ft)	= 0.32
Q (cfs)	= 0.350
Area (sqft)	= 0.17
Velocity (ft/s)	= 2.09
Wetted Perim (ft)	= 1.03
Crit Depth, Yc (ft)	= 0.28
Top Width (ft)	= 0.67
EGL (ft)	= 0.39



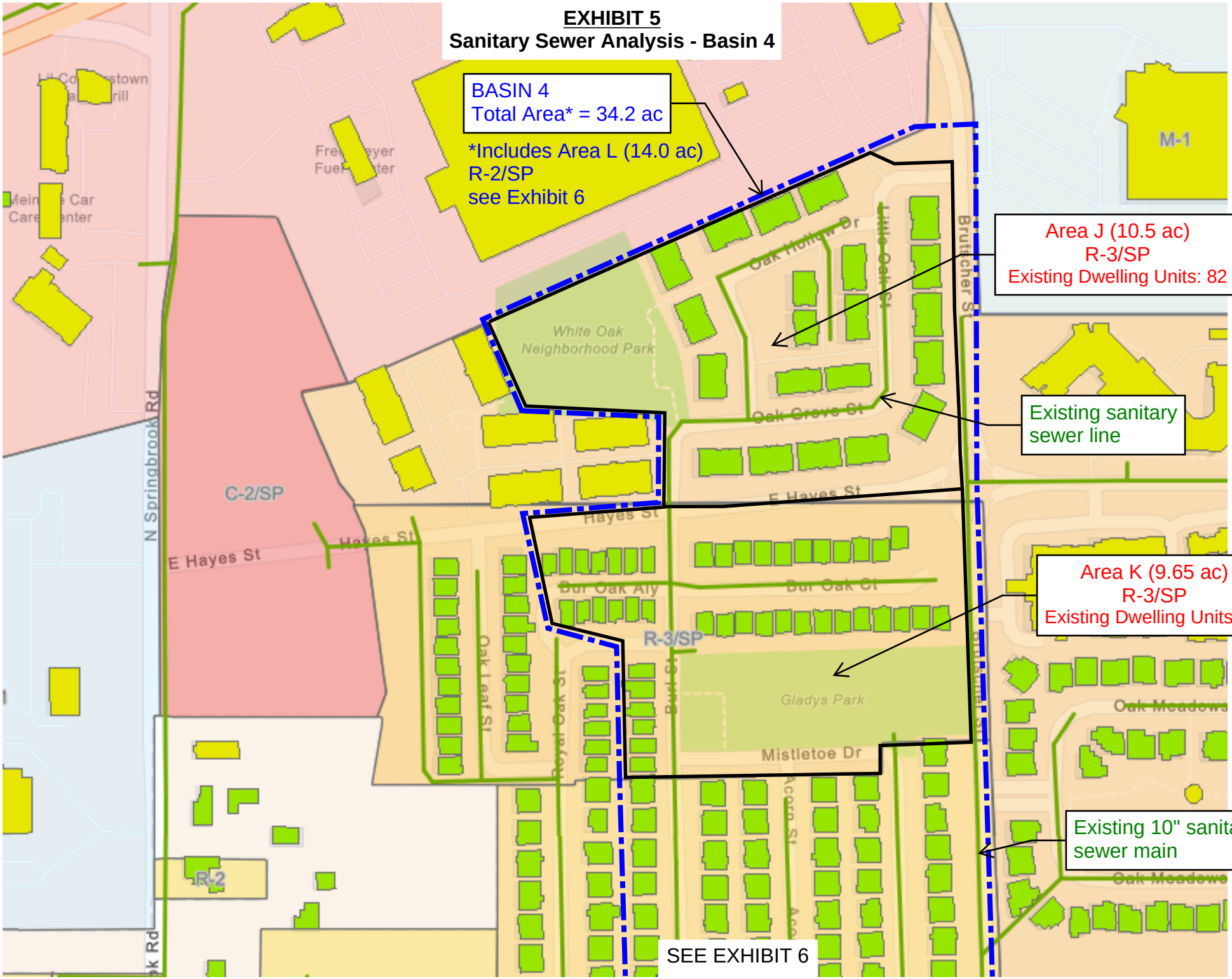
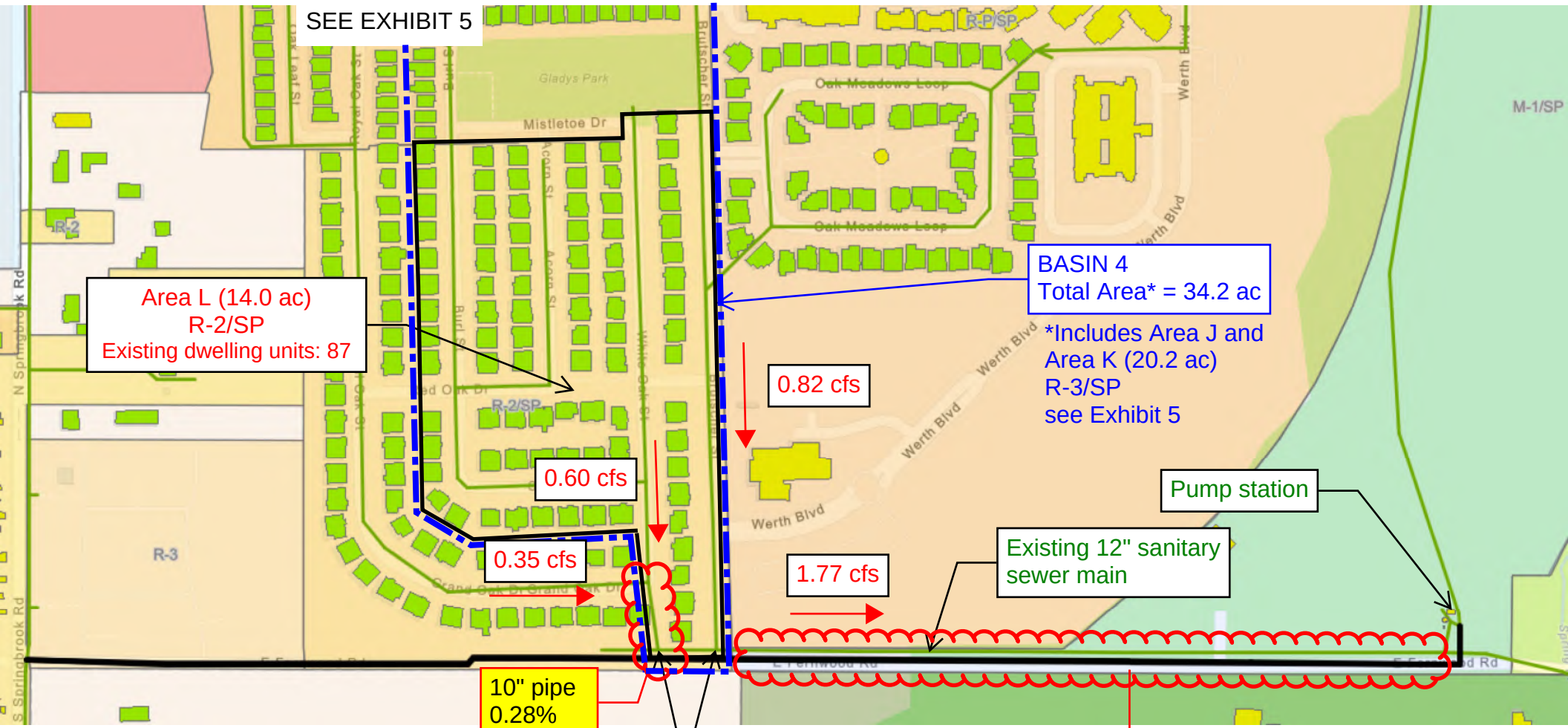


EXHIBIT 5
Sanitary Sewer Analysis - Basin 4
BASIN 4
Total Area* = 34.2 ac
*Includes Area L (14.0 ac)
R-2/SP
see Exhibit 6
Area J (10.5 ac)
R-3/SP
Existing Dwelling Units: 82
Existing sanitary sewer line
Area K (9.65 ac)
R-3/SP
Existing Dwelling Units: 44
Existing 10" sanitary sewer main
SEE EXHIBIT 6
M-1
C-2/SP
R-2
R-3/SP
White Oak Neighborhood Park
Gladys Park
N Springbrook Rd
E Hayes St
Oak Grove St
Oak Hollow Dr
Little Oak Ct
Brutcher St
Bur Oak Ct
Bur Oak Aly
Oak Leaf St
Royal Oak St
Mistletoe Dr
Oak Meadows

EXHIBIT 6
Sanitary Sewer Analysis - Basin 4



BASIN 4

Table K-1, Flow Calculations for New Development (2007)

Peak base flow calculations

City Zone	Description	Master Plan Zone	Master Plan Description	Dwellings per Acre		People per Dwelling		Unit Flow Rate, gpad[2]	Unit Flow Rate, gpcd[1]		Peak Base Flow, gpad		Acres		Total Peak Base Flow, gpd[3]
C-1	Neighborhood Commercial	C-1	Neighborhood Commercial	1	x	N/A	x	1,200	N/A	=	1,200	x		=	-
C-1/SP	Neighborhood Commercial - Specific Plan														
C-2	Community Commercial	C-2	Community Commercial												
C-2 PD	Community Commercial - Planned Unit Development														
C-2/SP	Community Commercial - Specific Plan														
C-3	Central Business District	C-3	Central Business District												
C-3/LU	Central Business District														
I	Institutional	I	Institutional				x	2,700		=	2,700				
M-1	Limited Industrial District	M-1	Limited Industrial District												
M-1/SP	Limited Industrial District - Specific Plan														
M-2	Light Industrial	M-2	Light Industrial												
M-3	Heavy Industrial	M-3	Heavy Industrial												
R-P	Residential Professional	R-P	Residential Professional				x	1,200		=	1,200	x		=	-
R-P/SP	Residential Professional - Specific Plan														
R-P/LU	Residential Professional - Limited Use Overlay														
R-1	Low Density Residential	R-1	Low Density Residential	4.4	x	2.75	x	N/A	80.9	=	979	x		=	-
R-1/PD	Low Density Residential - Planned Unit Development														
R-1/0.1	Low Density Residential 0.1 DU/acre														
R-1/0.4	Low Density Residential 0.4 DU/acre														
R-1/6.6	Low Density Residential 6.6 DU/acre														
R-1/SP	Low Density Residential - Specific Plan														
R-2	Medium Density Residential	R-2	Medium Density Residential	9	x				91.2	=	2,257	x	14.0*	=	31,598
R-2 PD	Medium Density Residential - Planned Unit Development														-
→ R-2/SP	Medium Density Residential - Specific Plan														
R-3	High Density Residential	R-3	High Density Residential	16.5	x				67.9	=	3,081	x	20.2**	=	62,236
R-3 PD	High Density Residential - Planned Unit Development														-
→ R-3/SP	High Density Residential - Specific Plan														
											Total Peak Base Flow =				93,834 -

GWI and RDII calculations

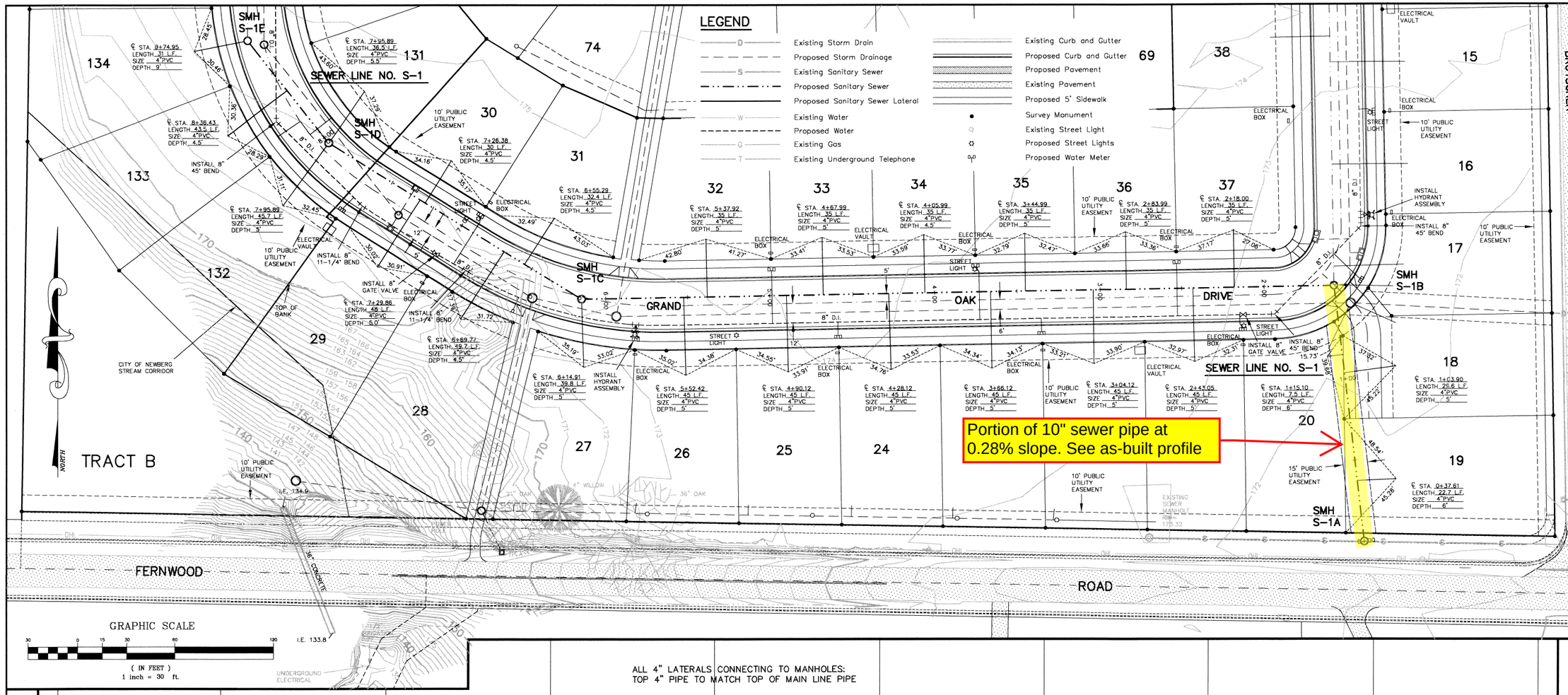
Trunkline System	GWI, gpad		Acres		Total Peak Base Flow, gpd (from above)		Flow (gpd)		Peaking Factor		Total Peak Flow, gpd	Total Peak Flow, gpm
Dayton	153	x		+	93,834 -	=	97,562-	x	4	=	390,247 -	271.0 -
Wynooski	111											
Hess Creek	378											
→ Springbrook	109		34.2***									
										Total Peak Flow =		-

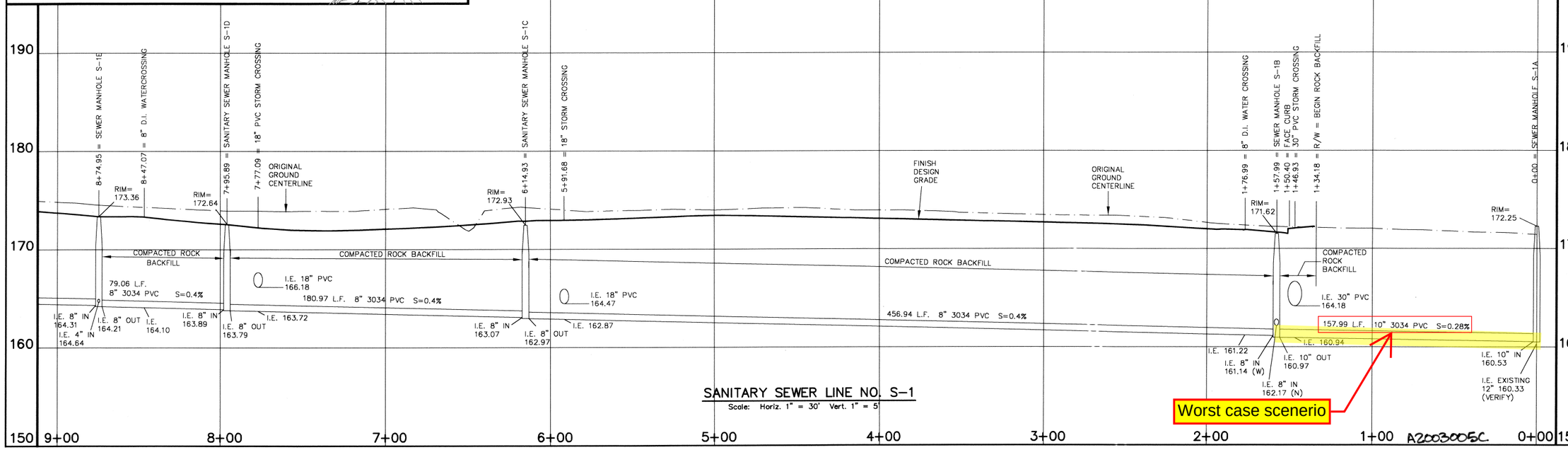
+/- 271 gpm
= 0.60 cfs

[1] gpcd = gallons per capita per day
[2] gpad = gallons per day per acre
[3] gpd = gallons per day
[4] gpm = gallons per minute = gpd/1440

See Exhibits 5 & 6.
* R-2 Area includes: Area L
** R-3 area includes: Area J + Area K
*** Gross total area

ADD 0.35 CFS
FROM UPSTREAM FLOW
TOTAL FLOW = 0.95 CFS





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REGISTERED PROFESSIONAL ENGINEER OREGON JULY 22, 1977 LEONARD A. RYDELL

RENEWAL DATE 12/31/2004

SANITARY SEWER LINE S-1 AND WATER IMPROVEMENTS
OAKS AT SPRINGBROOK
Located in the Sebastian Brutscher D.L.C. No. 51
Southwest Quarter of Section 16 and the Northwest Quarter of Section 21
Township 3 South, Range 2 West of the Willamette Meridian
City of Newberg, Yamhill County, Oregon

Prepared for:
Werth Family L.L.C.
5241 Windsor Terrace
West Linn, Oregon 97068
Phone: (503) 810-5576

W.O. No.	0207
Design	
Drawn	
Date	15 November 2002
Dwg	0207-AB3.DWG

Sheet
3 of 25

REVISIONS		
No.	Description/Date	By
1	PER CITY 1/24/03	JRY
2	AS-BLT 4/28/03	JRY

A2003005C

Channel Report

Hydraflow Express Extension for Autodesk® Civil 3D® by Autodesk, Inc. Friday, Apr 21 2023

10" Sewer Pipe - Grand Oak Dr to Fernwood Rd

Circular

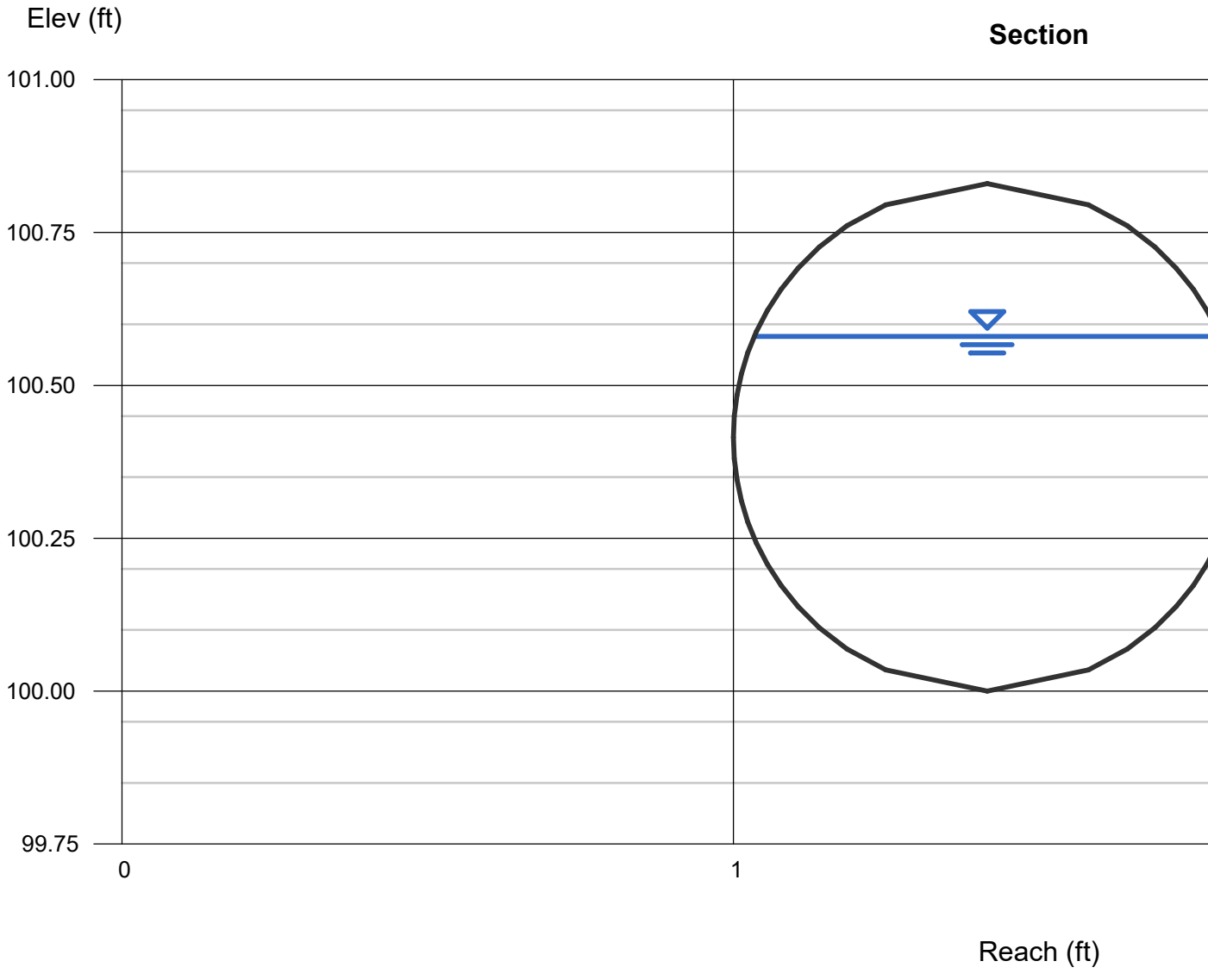
Diameter (ft)	= 0.83
Invert Elev (ft)	= 100.00
Slope (%)	= 0.28
N-Value	= 0.013

Calculations

Compute by:	Known Q
Known Q (cfs)	= 0.95

Highlighted

Depth (ft)	= 0.58
Q (cfs)	= 0.950
Area (sqft)	= 0.40
Velocity (ft/s)	= 2.35
Wetted Perim (ft)	= 1.64
Crit Depth, Yc (ft)	= 0.44
Top Width (ft)	= 0.76
EGL (ft)	= 0.67



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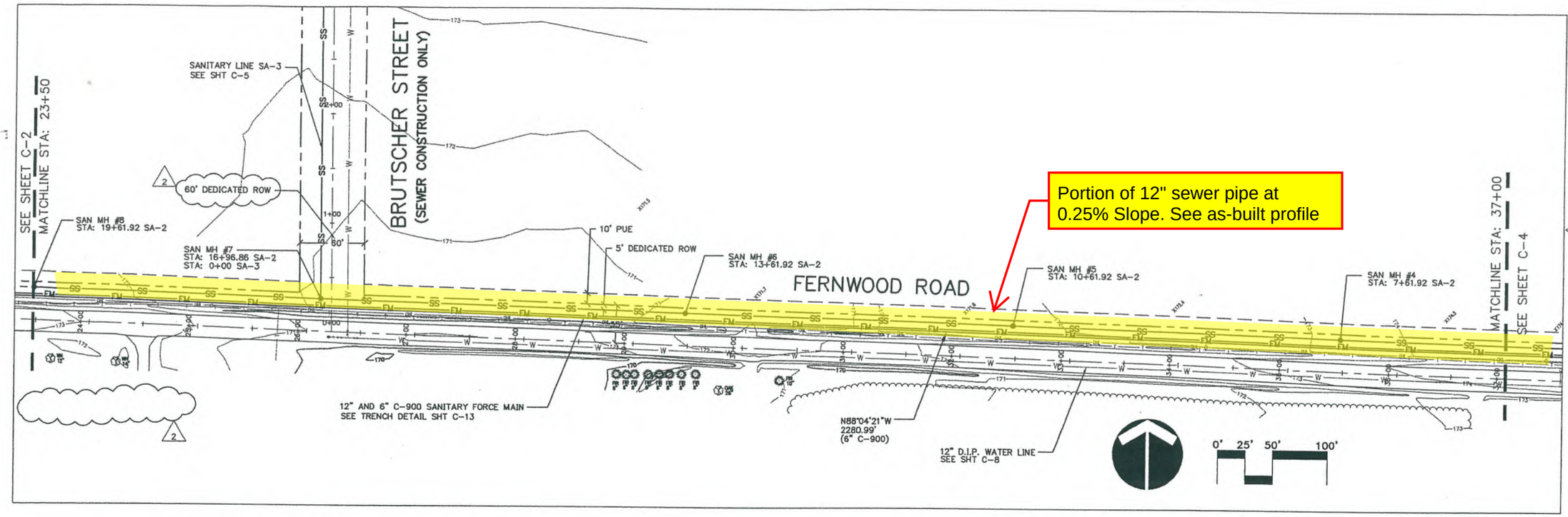
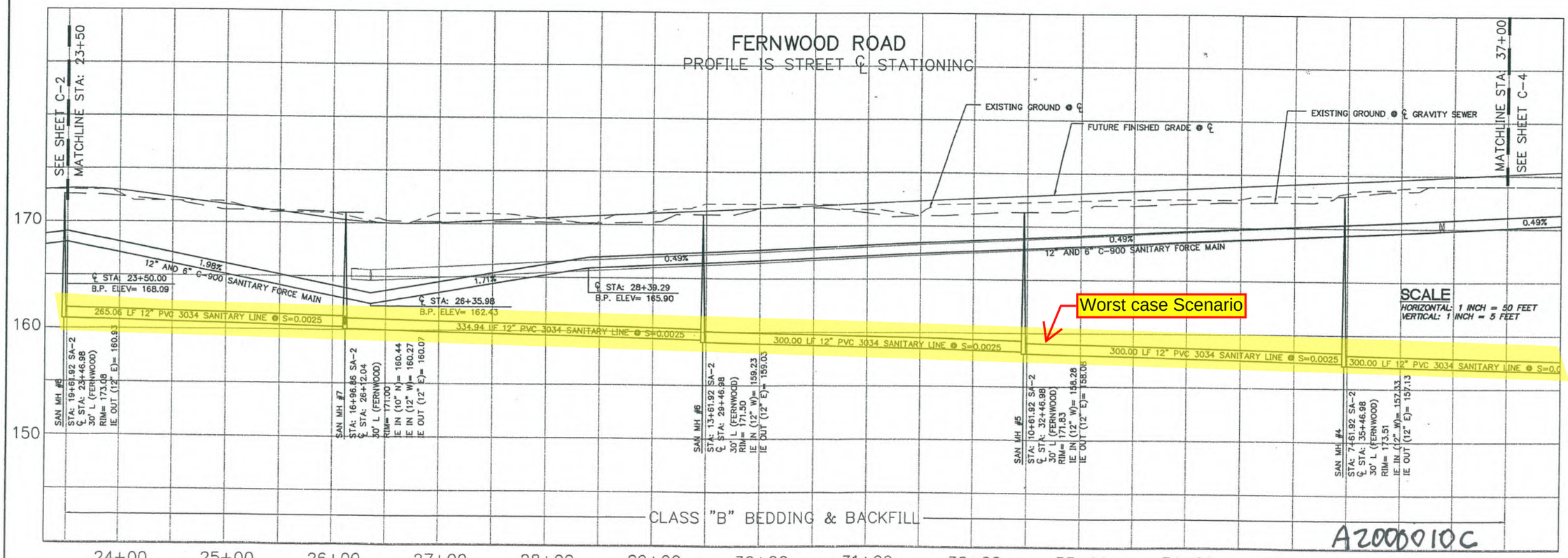
Ltscale: 1
Resolved
BVOREGON
C564X001
C564X500
C564X511
S564B190





A20000010C

NO.	DATE	BY	APPD.	REVISIONS
2	08/01/00	ECL	RNV	DELETE WATER MAIN WEST OF BRUTSCHER REDUCE WATER ON BRUTSCHER TO 12"

05/24/00 Date
DCB Designed
WLK Drawn
RNV 05/24/00 Checked By Date

REGISTERED PROFESSIONAL ENGINEER 59653PE OREGON SEPT. 22, 1995 ROBERT N. VAUGHT
8-01-00
EXPIRATION DATE:06/30/2002

City of Newberg
414 EAST FIRST STREET
NEWBERG, OR 97132
(503) 538-9421

Fernwood Road Utilities

SANITARY PLAN & PROFILE
FERNWOOD ROAD

otak Incorporated
17355 SW Boones Ferry Rd.
Lake Oswego, Oregon 97035
Phone: (503) 635-3618
FAX: (503) 635-5395

L9564
Project No.
D564S022
File No.
C-3
Sheet No.

7/25/2000 7:29am --> H:\PROJECT\9500\9564\DWG\C564S022.DWG

Channel Report

Hydraflow Express Extension for Autodesk® Civil 3D® by Autodesk, Inc. Friday, Apr 21 2023

12" Sewer Pipe - Fernwood Rd

Circular

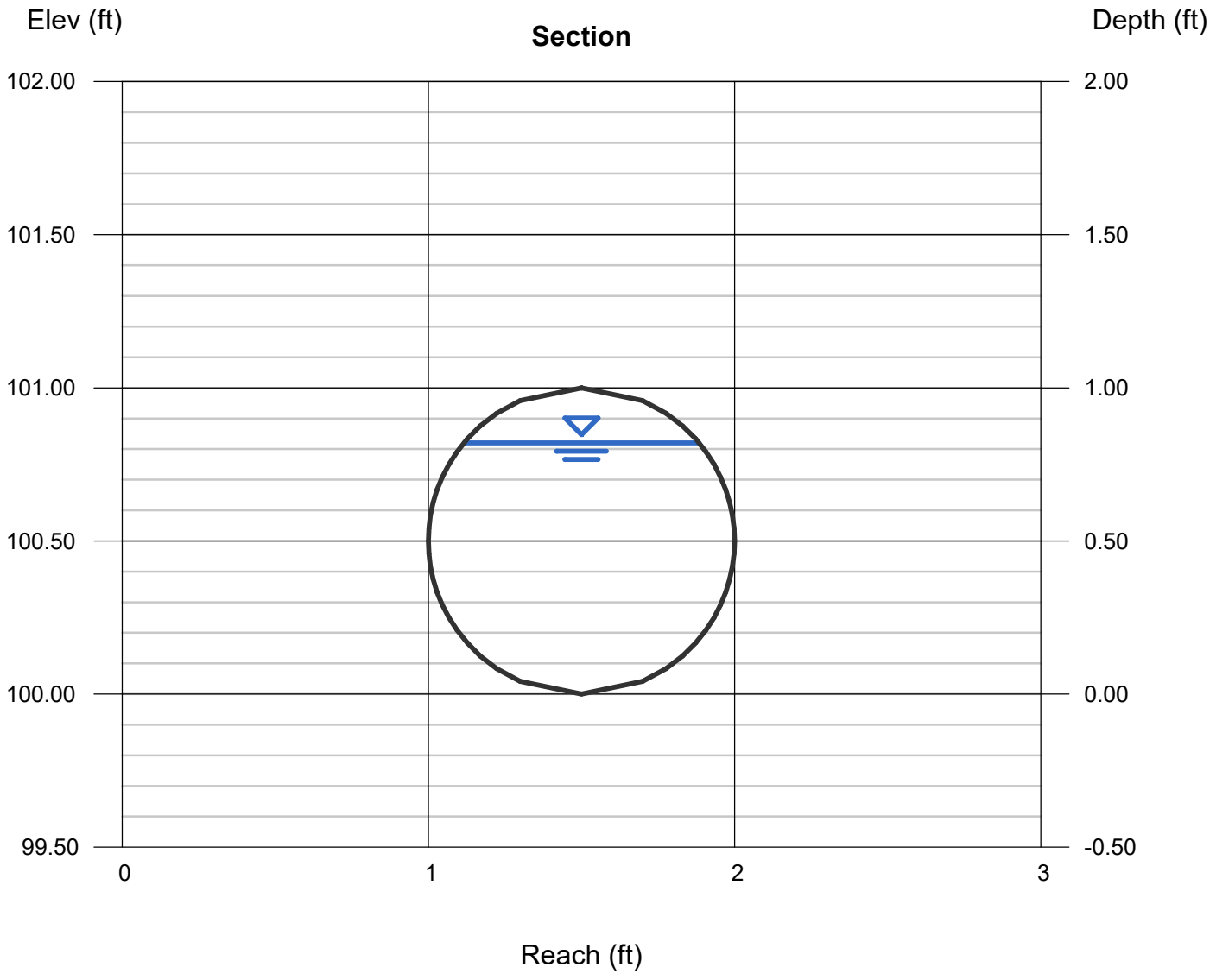
Diameter (ft)	= 1.00
Invert Elev (ft)	= 100.00
Slope (%)	= 0.25
N-Value	= 0.013

Calculations

Compute by:	Known Q
Known Q (cfs)	= 1.77

Highlighted

Depth (ft)	= 0.82
Q (cfs)	= 1.770
Area (sqft)	= 0.69
Velocity (ft/s)	= 2.56
Wetted Perim (ft)	= 2.27
Crit Depth, Yc (ft)	= 0.57
Top Width (ft)	= 0.77
EGL (ft)	= 0.92



to the SCADA, but will turn the pumps on (high) or off (low) if the water level reaches the floats. It is recommended that the floats be connected to the SCADA to send out unique alarms for the high/low water levels.

Drawdown Tests

During the site visit, drawdown pump tests were completed to review wet well conditions and determine approximate pump flow rates. Each pump and pumping combination were tested at all lift stations. Dayton and Fernwood have depth readouts on their PLCs that were used to record depth over time. The Highway 240 Lift Station has a flow meter on its discharge pipe, allowing for measured flow rates to be recorded over time. Andrew, Charles, Chehalem (pressure transducer was not operational at time of tests), Creekside, and Sheridan do not have continuous depth measurement readouts; for these lift stations, depth to the water surface was measured manually during testing. Estimates for average pump flow rates were calculated using the pump test data. These estimated flow rates, along with the rated pump capacities, are shown in Table 3-3. For the majority of the lift stations, the calculated flow rate was relatively close to the reported pump capacity. Dayton has had historical problems with pump capacity and overflows, which are discussed in more detail in the Dayton Lift Station section. Fernwood field test results are lower than expected.

Table 3-3: Measured Pump Flow Rates

	Avg Field Test Flow Rate (gpm)	Reported Pump Capacity (gpm)
Andrew	140	155
Charles	150	150
Chehalem	660	630
Creekside	190	153
Dayton[1]	1,300	2,100
Fernwood	670	900
2 Pumps	1,210	-
Highway 240	910	1,010
2 Pumps	1,230	-
Sheridan	180	115

[1]As reported by RH2, April 2016 (Appendix C)

Housekeeping/Maintenance

Interiors of the lift station buildings are being kept in very good condition. Floors and walls are clean, painted, and maintained. The wash-down hose (which should be stored off of the ground) was found on the floor at a few of lift stations. The source of wash-down water is a hose bib on the lift station side of a backflow preventer fed by a water source. Backflow preventers should be installed at least 12-inches aboveground to facilitate proper operation, maintenance, and inspection. The backflow preventer is located in an insulated fiberglass cover. Some covers have electric heaters – while others have heat tape – to prevent freezing at the backflow preventer. Heat tape is not

Exhibit E: Preliminary Stormwater Report

West Branch Apartments
Newberg, Oregon

Preliminary Stormwater Report

Date:	July 2024
Client:	DMKS, LLC 901 N Brutcher Street, Suite 206 Newberg, OR, 97132
Engineering Contact:	Chuck Gregory, PE (503) 563-6151 | chuckg@aks-eng.com
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AKS Job Number:	9028

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OREGON
SEPTEMBER 14, 1999
CHARLES EDWARD GREGORY
PRELIMINARY NOT FOR CONSTRUCTION
RENEWS: JUNE 30, 2025

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FIGURE 3 Post-developed Basin Map

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APPENDIX B HydroCAD Reports for Post-Developed Condition Storm Events
APPENDIX C Stormwater Quality Calculations
APPENDIX D USDA-NRCS Soil Resource Report
APPENDIX E TR55 Runoff Curve Number

Preliminary Stormwater Report

WEST BRANCH APARTMENTS
NEWBERG, OREGON

1.0 Purpose of Report

This report analyzes the effects of the proposed development with respect to the existing site drainage and proposed stormwater management system. Evaluation of the stormwater system includes documentation of regulatory criteria, methodology, and informational sources used to design/evaluate the stormwater system. The results of the hydraulic analysis are also presented.

2.0 Project Location/Description

The subject site is located at 3411 E Hayes Street, Newberg, Oregon 97132 (Tax Lots 2017 and 2025, Tax Map 3S 2W 16) and totals ±4.6 acres. The site is located east of the intersection of Hayes Street and N Springbrook Road.

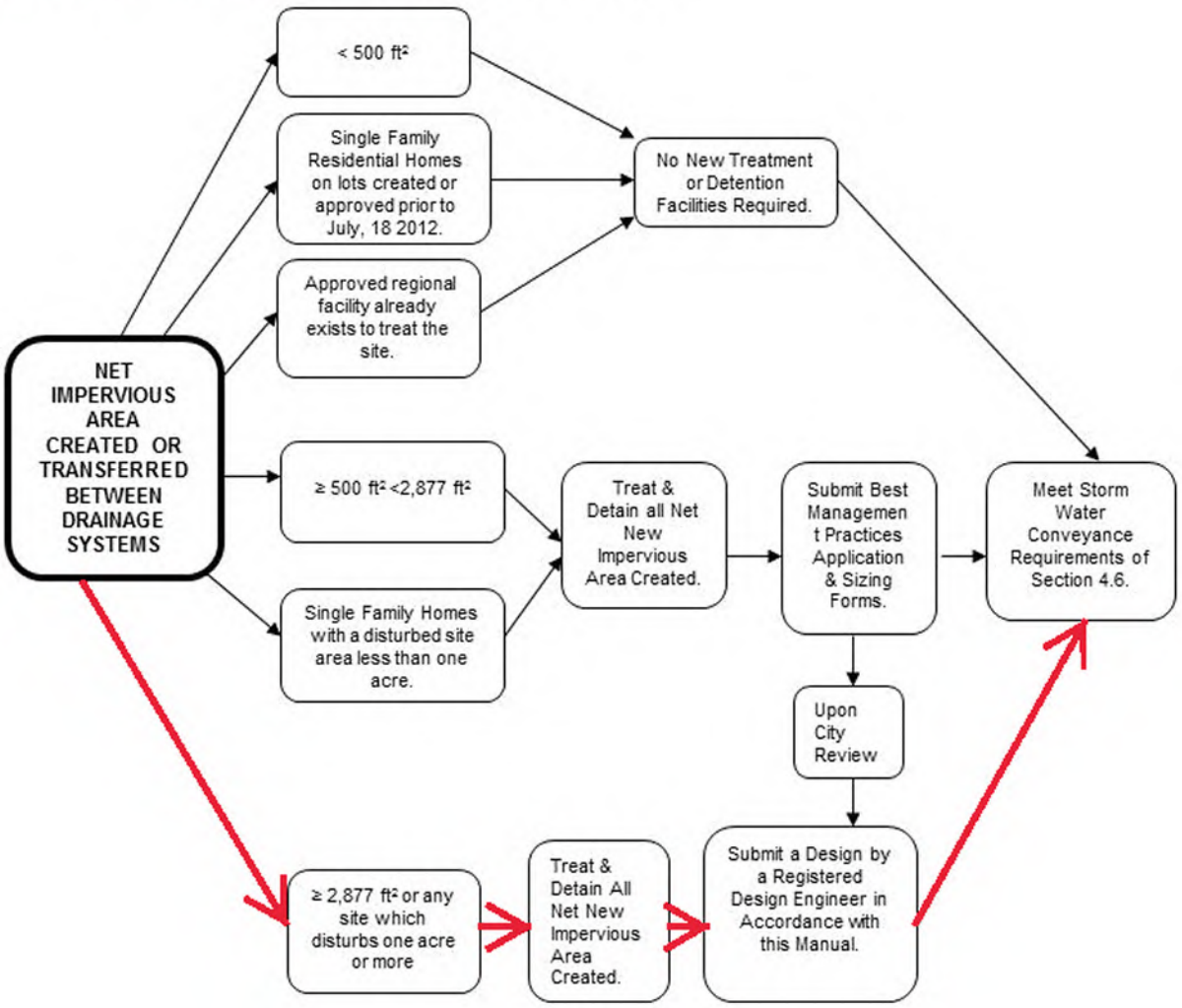
The proposed project includes the construction of apartment buildings, new parking areas and driving lanes, landscaping, frontage improvements, stormwater management facilities, and associated utilities.

3.0 Regulatory Design Criteria

The following represents the stormwater approach designed in compliance with the regulations set forth by Section 4 of the City of Newberg (City) *Public Works Design and Construction Standards 2015*. Figure 4.4 of the standards provides design regulations based upon proposed impervious areas. This project will create more than 2,877 square feet of impervious area and therefore is required to provide treatment and detention for all net new impervious area created. The proposed design meets the requirements of section 4.6 and is designed by a registered Civil Engineer.

4.6 Water Quantity and Quality Facilities

Figure 4.4 Storm water Quality & Quantity Design Flow Chart



3.1 STORMWATER QUANTITY MANAGEMENT CRITERIA

Section 4.7.I.III of the City of Newberg *Public Works Design and Construction Standards (August 2015)* requires that the post-development runoff rates from the site do not exceed the predevelopment runoff rates. Water quantity design methodology is outlined in section 6.3 of this report.

4.7.1.III Water Quantity Facility Design & Control Standards

Stormwater quantity on-site detention facilities shall be designed to capture runoff so the post-development runoff rates from the site do not exceed the predevelopment runoff rates from the site, based on 24-hour storm events ranging from the ½ of the 2-year return storm to the 25-year return storm. Specifically, the ½ of the 2, 2, 10, and 25-year post-development runoff rates will not exceed their respective ½ of the 2, 2, 10, and 25-year pre-development runoff rates…

3.2 STORMWATER QUALITY MANAGEMENT CRITERIA

The proposed development is required to construct permanent water quality facilities per Chapter 13.25, Article IV, of the Municipal Code to reduce contaminants entering the storm water system. The storm event used to design the water quality facility is based on the water quality storm as identified in section 4.8.5 of the design and construction standards. Water quality design methodology is outlined in section 6.2 of this report.

> *4.8.5 Water Quality Storm*
>
> *The storm defines both the volume and rate of runoff. The stormwater quality only facilities shall be designed for a dry weather storm event totaling 1.0 inches of precipitation falling in 24 hours…*

4.0 Design Methodology

The Santa Barbara Urban Hydrograph (SBUH) Method was used to analyze stormwater runoff from the site. This method utilizes the SCS Type 1A 24-hour design storm. HydroCAD 10.00-22 computer software aided in the analysis. Representative CN numbers were obtained from the USDA-NCRS Technical Release 55 and are included in Appendix E.

4.1 FACILITY SELECTION

Stormwater management facilities were selected based upon the Facility Selection Hierarchy (Table 4-1) *City of Newberg Public Works Design and Construction Standards* section 4.6.8. Due to site constraints, (wetland/stream corridor and significant existing grade change) stormwater requirements cannot be reasonably met through LIDA facilities alone and the next highest technically feasible facility in the list was chosen instead. LIDA facilities have been selected as the primary water quality facility to treat the proposed improvements to the greatest extent practicable. To fully treat the proposed developments, the LIDA facilities are supplemented by proprietary water quality catch basins. Underground detention facilities have been selected to provide stormwater quantity management for the project sites.

Table 4-1 Facility Selection Hierarchy Table

Detention Facilities	**Water Quality Facilities**
LIDA Facilities/Regional Facility	**LIDA Facilities/Regional Facility**
Surface Pond	Swale
Underground Tank/Pipes	**Proprietary Treatment Systems**
Fee in lieu of construction payment	Fee in lieu of construction payment

5.0 Design Parameters

5.1 DESIGN STORMS

Per City of Newberg requirements, the stormwater analysis utilizes the 24-hour storm for the evaluation and design of the existing and proposed stormwater facilities. The following 24-hour rainfall intensities were utilized as the design storm for each recurrence interval. Per City requirements, Table 5-1 summarizes the rainfall intensities and durations used when analyzing the proposed stormwater facilities:

Table 5-1: Rainfall Intensities

Recurrence Interval (Years)	Storm Period (hours)	Total Precipitation Depth (Inches)
WQ	24	1.00
½ of 2	24	1.25
2	24	2.50
10	24	3.50
25	24	4.00

5.2 EXISTING SITE CONDITIONS

5.2.1 Site Topography

Existing on-site grades vary from ±3% to ±35%, with a high point of ±195 feet located along the western property line (Lot 2017) and a low point of ±168 feet near the southeast property corner (Lot 2025). The site generally slopes from west to east.

5.2.2 Storm System

No stormwater system exists for the undeveloped site. Currently, stormwater that falls within the subject area either sheet flows east across grassland or to the adjacent right-of-way (Hayes Street) prior to entering the stream corridor. Two catch basins exist within Hayes Street to collect and convey runoff within the right-of-way into the nearby creek.

5.3 SOIL TYPE

Per Section 4.5.4, *Santa Barbara Urban Hydrograph (SBUH)*, of the City of Newberg *Public Works Design and Construction Standards* (August 2015):

> *II. Curve numbers shall be derived from the National Resources Conservation Service's (NRCS) runoff curve numbers contained in Technical Release 55 (TR-55)-Urban Hydrology for Small Watersheds.*
>
> *III. Soil types shall be derived from the NRCS Soil Survey for Yamhill County.*

The soils beneath the project site and associated drainage basins are classified according to the USDA Soil Survey for Yamhill County. Table 5-3 summarizes the Hydrologic Soil Group Rating for each soil type:

Table 5-3: Hydrologic Soil Group Ratings

NRCS Map Unit Identification	NRCS Soil Classification	Hydrologic Soil Group Rating
2300A	Aloha Silt Loam	C/D
2310D	Woodburn Silt Loam	C
2310F	Woodburn Silt Loam	C

5.4 POST-DEVELOPED SITE CONDITIONS

5.4.1 Site Topography

The on-site slopes will be modified with cuts and fills to accommodate the construction of apartment buildings, parking areas, and stormwater facilities. The proposed site grading will not significantly change the existing topography and the site will continue to drain west to east.

5.4.2 Storm System

Stormwater management for the proposed development will be provided through low impact development approach (LIDA) facilities, proprietary treatment devices, and underground detention. All facilities were designed assuming no on-site infiltration. Stormwater quality standards are met through LIDA facilities in combination with proprietary treatment devices designed to treat the water quality storm. Stormwater quantity standards are met through underground detention facilities designed to release the post-developed peak flows at or below the pre-development rates. After stormwater treatment and quantity control, runoff from the proposed development is conveyed to two outfalls which discharge within the adjacent stream corridor along the eastern edge of the project site.

Due to site constraints, runoff from portions of proposed impervious areas along the eastern half of the site and near/within the Right-of-Way of Hayes Street is unable to be managed as a part of this development. These areas either remain uncollected to sheet flow off-site, slope to the street to be collected by the existing catch basins, or are collected but bypass the stormwater management facilities to the outfall locations. The detention facility has been designed to over-detain collectable runoff to account for these unmanaged areas. Stormwater treatment is not feasible for these areas. All uncollected impervious area runoff flowing off-site within the project area will sheet flow across a minimum of approximately 20 feet of undisturbed grassland prior to entering the heavily vegetated stream corridor. The uncollected runoff for the Hayes Street frontage improvements is not able to be treated.

5.4.3 Post-Developed Input Parameters

Appendices A and B provide the HydroCAD reports and input parameters that were used for the analyzed storm events with respect to the drainage basins contributing to the developed areas. These reports include all the parameters (e.g., impervious/pervious areas, time of concentration, etc.) used to model site hydrology per City standard. This report includes a summary of parameters (e.g. cartridge flow rate, water quality flow, etc.) used to determine the number of cartridges required for the proposed facilities for the water quality event.

6.0 Stormwater Analysis

6.1 PROPOSED STORMWATER CONDUIT SIZING

Proposed catch basins, conduit, and outfalls have been evaluated and designed per Section 4.5.7 & 4.6 to convey stormwater runoff to City standards. The storm system pipes are sized to meet City sizing requirements using the Manning's equation to convey the peak flows from the post-developed 25-year storm event without surcharge.

6.2 PROPOSED STORMWATER QUALITY MANAGEMENT

LIDA flow through planters have been selected to treat the vast majority of proposed roof areas. Flow through facilities have been designed as directed by Section 4.9 of the Standards per City of Newberg standard drawing 452. Each flow through planter was initially sized to 6% of the associated roof sub-basin following the LIDA sizing form (standard drawing 451) and then analyzed with HydroCAD software to evaluate overflow conditions. These LIDA planters have been modeled within this stormwater design as

treatment facilities with no flow control devices. Results from HydroCAD hydraulic analysis (Appendix B) and overall planter facility sizing are summarized within Table 6-2.

Table 6-2 LIDA Flow Through Planter Sizing Summary					
Treatment Facility	**Associated Building Roof Area (SF) (Total)**	**Total Impervious Area Treated (SF)**	**Planter Size – Bottom Area (SF) (Total)**	**Facility Sizing Ratio**	**Available WQ Freeboard (ft)**
1P (2 Planters)	2,359, 2,332 (4,691)	4,664	141, 141 (282)	6.1%	0.44
2P (2 Planters)	2,359, 2,332 (4,691)	4,664	141, 141 (282)	6.1%	0.44
3P (3 Planters)	2,359, 4,680, 2,332 (9,371)	9,344	141, 141, 356 (638)	6.8%	0.46
4P (3 Planters)	2,359, 4,680, 2,332 (9,371)	9,344	141, 141, 356 (638)	6.8%	0.46
5P (3 Planters)	2,359, 4,680, 2,332 (9,371)	9,344	141, 141, 356 (638)	6.8%	0.46

Hydraulic analysis concludes all LIDA facilities are adequately sized for the water quality event to fully pass through the soil media without overflowing into the planter standpipe.

Existing site constraints limit the available locations for surface treatment facilities and full treatment of the post-developed site is not possible through LIDA facilities alone. Stormwater treatment will be supplemented with proprietary Contech stormfilter catch basins to fully treat the remaining collectable impervious areas prior to entering the detention facility. Some roof areas are unable to be routed through the LIDA facilities and will be conveyed through these treatment devices instead. Appendix C provides calculations for cartridge requirements for each proprietary treatment device based on the required water quality flowrates.

6.3 PROPOSED STORMWATER QUANTITY CONTROL FACILITY DESIGN

The stormwater quantity control facility selected within section 4.1 of this report has been designed based upon the *City of Newberg Public Works Design and Construction Standards* Section 4.7. Underground detention was selected as the highest technically feasible method to provide stormwater quantity management for the proposed development. Two separate StormTech MC-3500 subsurface detention facilities (one per lot) were designed to release the post-developed runoff at or below pre-developed runoff rates for their respective tax lot. Each facility will overdetain collected areas to meet pre-developed flow rates in lieu of all undetained improvements. The MC-3500 chamber model was selected considering variables such as depth, capacity, and overall facility footprint to most efficiently manage the post-developed peak flowrates. The detention systems receive runoff initially collected and treated by the proposed water quality facilities. Subsequent to detention, stormwater will be conveyed eastward to an engineered rip-rap outfall prior to entering the adjacent creek. Based upon previous Newberg projects in the vicinity, infiltration rates are expected to be very low on-site. These chamber detention systems are neither designed nor modeled anticipating infiltration, and the full impervious area runoff volumes will be detained with controlled discharge.

Tables 6-3a and 6-3b outline the results for individual detention facility performance. Table 6-3c identifies peak flows resulting from uncollected runoff within Hayes Street to be compensated for on-site. Table 6-3d summarizes the overall project site post-development peak flows, which are limited to equal to or less than the existing peak flows for each storm event (see reasoning to follow), with respect to City stormwater detention requirements. Hydraulic analysis of the detention system was modeled utilizing the previously mentioned HydroCAD software.

Table 6-3a: Existing and Post Developed Flows - Tax Lot 2017			
Recurrence Interval (Years)	**Peak Existing Flows (cfs)**	**Detained Peak Post-Development Flows (cfs)**	**Peak Flow Increase or (Decrease) – (cfs)**
½ 2	0.02	0.13	0.11*
2	0.30	0.30	(0.0)
10	0.66	0.49	(0.17)
25	0.86	0.78	(0.08)

Table 6-3b: Existing and Post Developed Flows - Tax Lot 2025			
Recurrence Interval (Years)	**Peak Existing Flows (cfs)**	**Detained Peak Post-Development Flows (cfs)**	**Peak Flow Increase or (Decrease) – (cfs)**
½ 2	0.02	0.14	0.12*
2	0.28	0.25	(0.03)
10	0.64	0.37	(0.27)
25	0.84	0.77	(0.07)

Table 6-3c: Existing and Post Developed Flows - Hayes Street			
Recurrence Interval (Years)	**Peak Existing Flows (cfs)**	**Undetained Peak Post-Development Flows (cfs)**	**Peak Flow Increase or (Decrease) – (cfs)**
½ 2	0.11	0.12	0.01
2	0.25	0.26	0.01
10	0.36	0.38	0.02
25	0.42	0.44	0.02

Table 6-3d: Existing and Post Developed Flows - Overall Site			
Recurrence Interval (Years)	**Peak Existing Flows (cfs)**	**Peak Post-Development Flows (cfs)**	**Peak Flow Increase or (Decrease) – (cfs)**
½ 2	0.11	0.37	0.26*
2	0.82	0.81	(0.01)
10	1.65	1.23	(0.42)
25	2.11	1.73	(0.38)

*Orifice size set to ½" minimum

As shown within the table above, the 2, 10, and 25 year post-development flows produced by the overall site improvements are equal to or less than the pre-development peak flows. Water quantity requirements are not met for the ½ of the 2-year storm per city of Newberg standards. The City standards do not specify a minimum orifice size for detention facilities. Design of the ½ of the 2-year storm has been optimized to the greatest extent practicable in accordance with the industry standards set forth by Clean Water Services (CWS) and Water Environmental Services (WES).

CWS *Design and Construction Standards Manual for Sanitary Sewer and Surface Water Management 2019 §4.08.6 Peak-Flow Matching Hydraulic Design Criteria* allows post-development runoff rates to exceed the pre-developed rates in cases where the minimum resulting orifice diameter is less than that set within *§4.09 Stormwater management Approach and Facility Standards.* Section 4.09 has set a minimum orifice size of ½" for detention ponds, extended dry basins, and constructed water quality wetlands. There is no CWS minimum orifice specified for underground detention.

WES *Stormwater Standards 2023 §6.5.9 Structural Detention* allows for a minimum 1" orifice only when the detention facility is preceded by a water quality filtration device. Structural detention encompasses underground detention within WES code.

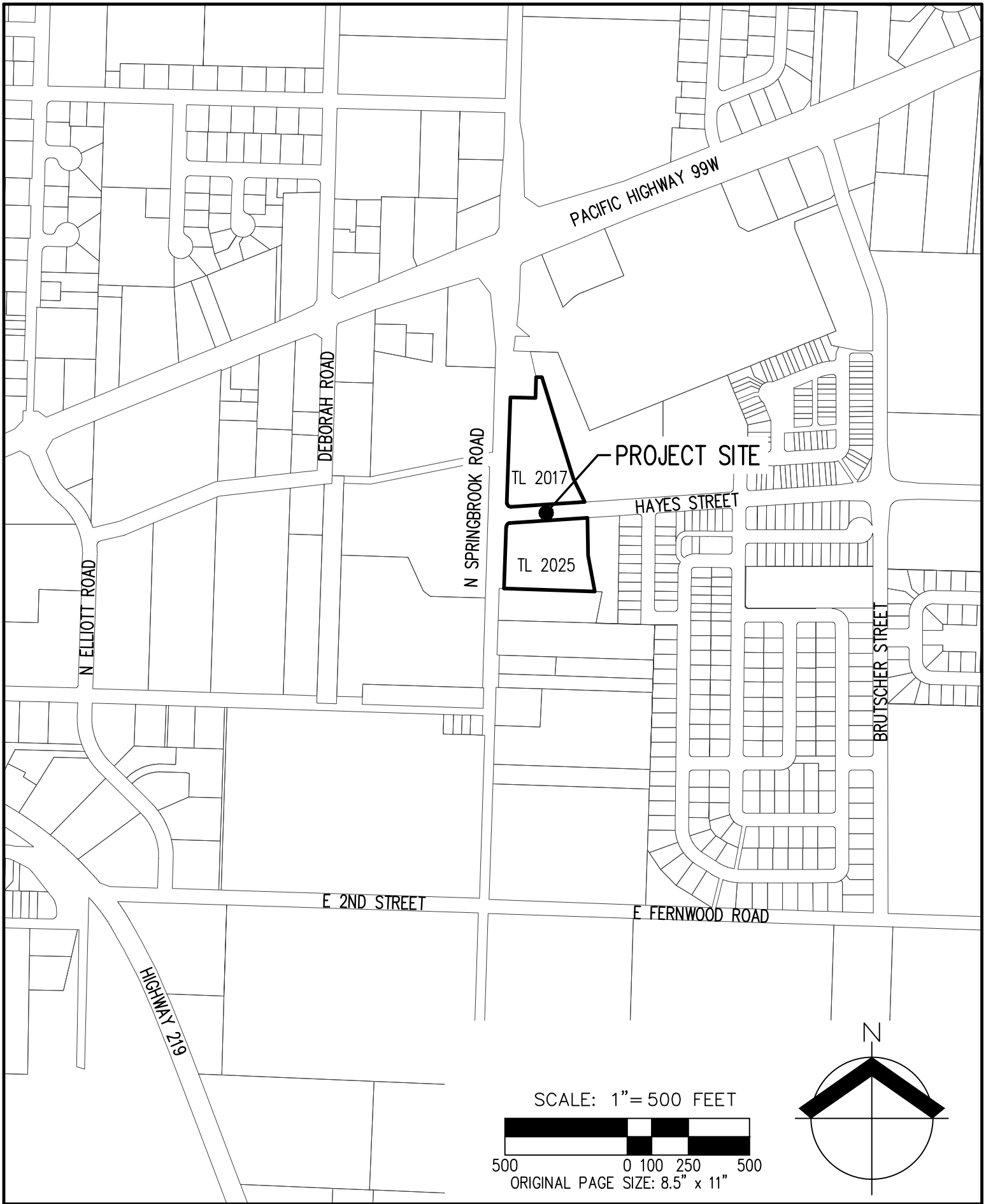
Utilizing the guidelines of industry standard regulations and considering potential clogging, the minimum orifice size for the West Branch Apartments project was set to ½" minimum. This orifice size will detain ½ of the 2-year storm event to the greatest reasonable extent while aligning with similar design criteria.

6.4 Downstream Analysis

The project site receiving water body, Springbrook West Tributary, was analyzed by the City of Newberg within the *City of Newberg Stormwater Master Plan 2021* (SWMP) just south of Hayes Street. Minor issues of groundwater seepage were observed within this riparian area. However, it is noted in section 4.2.2 as in relatively good condition with heavy vegetation. In addition, the stream corridor ordinary high-water mark was examined by AKS and observed at less than one-third the cross-section of the existing 72" culvert (Hayes Culvert) connecting the stream corridor beneath Hayes Street. Furthermore, hydraulic analysis of the Hayes Culvert within Appendix B of the SWMP determined the existing inflow depth does not pose any capacity limitations as examined for the 25-year event. The detention system proposed performs pre-development 25-year event peak-flow matching (0.35 cfs reduction). No downstream deficiencies are evident, and the proposed improvements are not anticipated to decrease the capacity of the existing system.

6.5 Conclusion

The stormwater management system for the proposed West Branch Apartments development has been designed to align with industry standard, meet the *City of Newberg Municipal Code* Section 13.25, and comply with the requirements set forth by the *City of Newberg Public Works Design and Construction Standards* to the greatest extent practicable.



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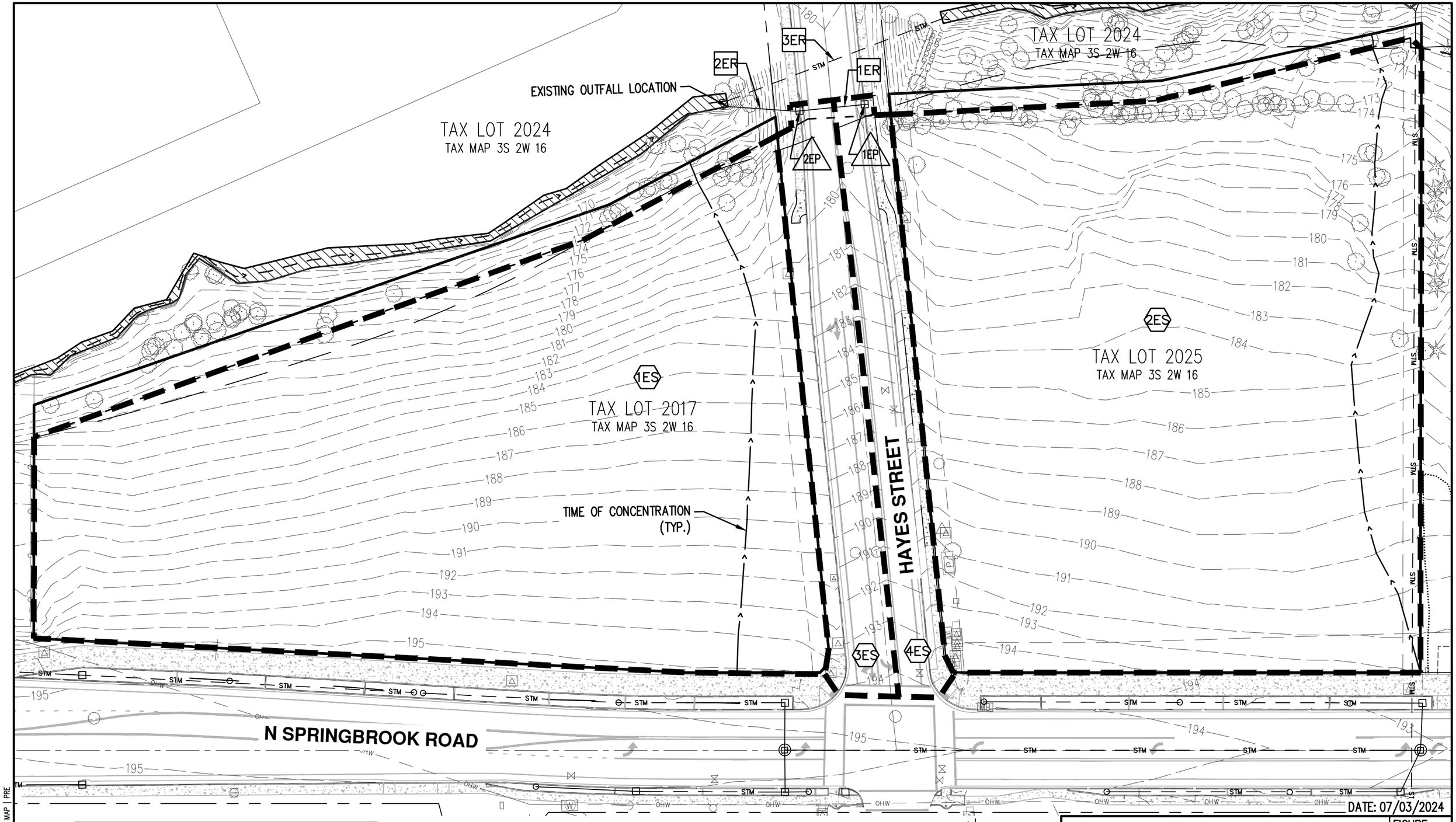
VICINITY MAP

DATE: 06/17/2024	
DRWN: AMJ	CHKD: TMI
AKS JOB: 9028	FIGURE 1

DWG: 9028 VICINITY MAP | LAYOUT1



DATE: 07/03/2024

LEGEND

EXISTING GROUND CONTOUR (1 FT) — — 184 — —
EXISTING GROUND CONTOUR (5 FT) — — 185 — —

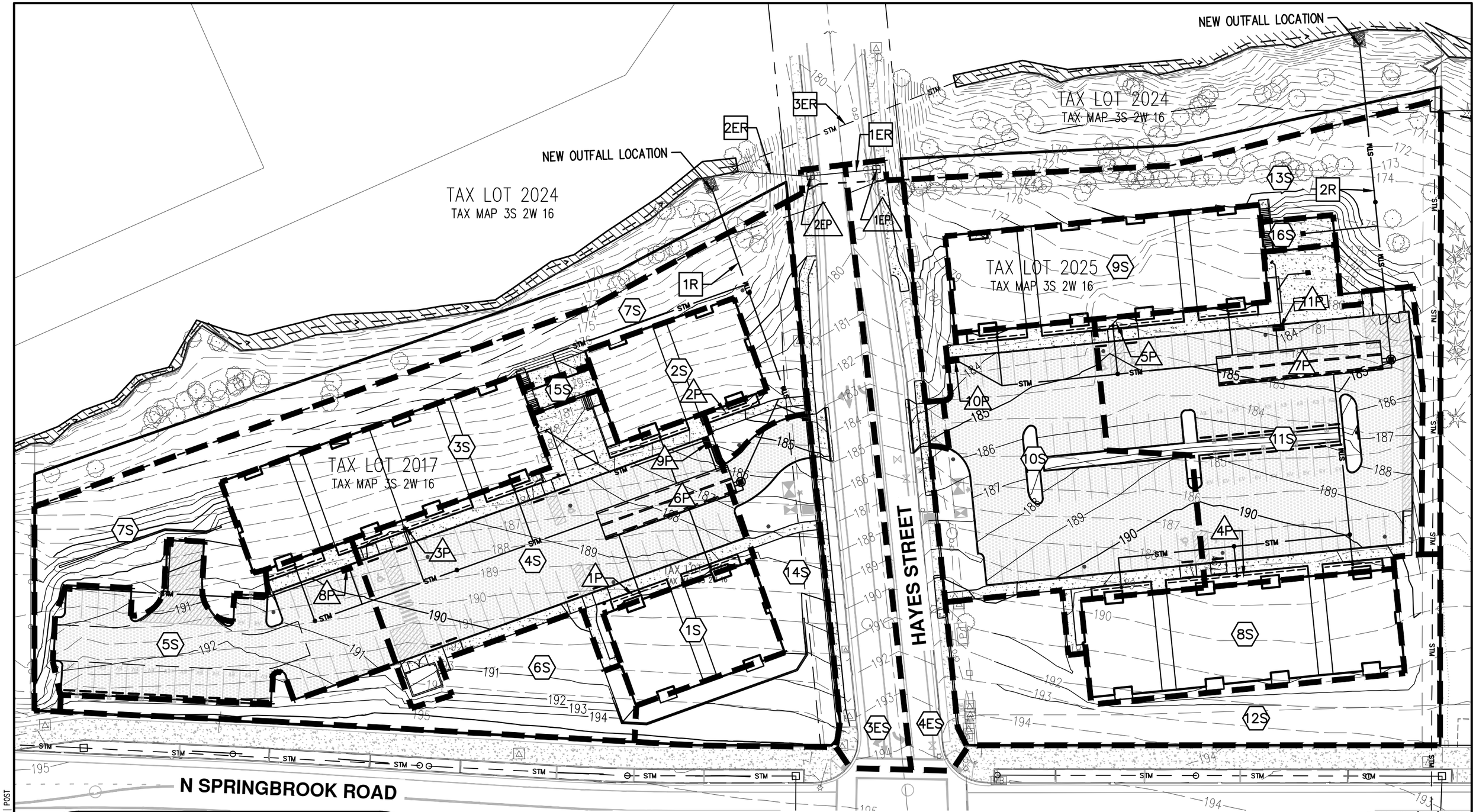
SCALE: 1"= 50 FEET

50 0 10 25 50

ORIGINAL PAGE SIZE: 11" x 17"

PRE-DEVELOPED BASIN MAP	FIGURE 2
WEST BRANCH APARTMENTS	
AKS ENGINEERING & FORESTRY, LLC 12965 SW HERMAN RD, STE 100 TUALATIN, OR 97062 503.563.6151 WWW.AKS-ENG.COM	DRWN: AMJ CHKD: TMI AKS JOB: 9028

DWG: 9028 PRE-DEVELOPED BASIN MAP | PRE



LEGEND

FINISHED GRADE CONTOUR (1 FT)	184
FINISHED GRADE CONTOUR (5 FT)	185
EXISTING GROUND CONTOUR (1 FT)	184
EXISTING GROUND CONTOUR (5 FT)	185

SCALE: 1"= 50 FEET

50 0 10 25 50

ORIGINAL PAGE SIZE: 11" x 17"

DATE: 07/03/2024

POST-DEVELOPED BASIN MAP

FIGURE 3

WEST BRANCH APARTMENTS

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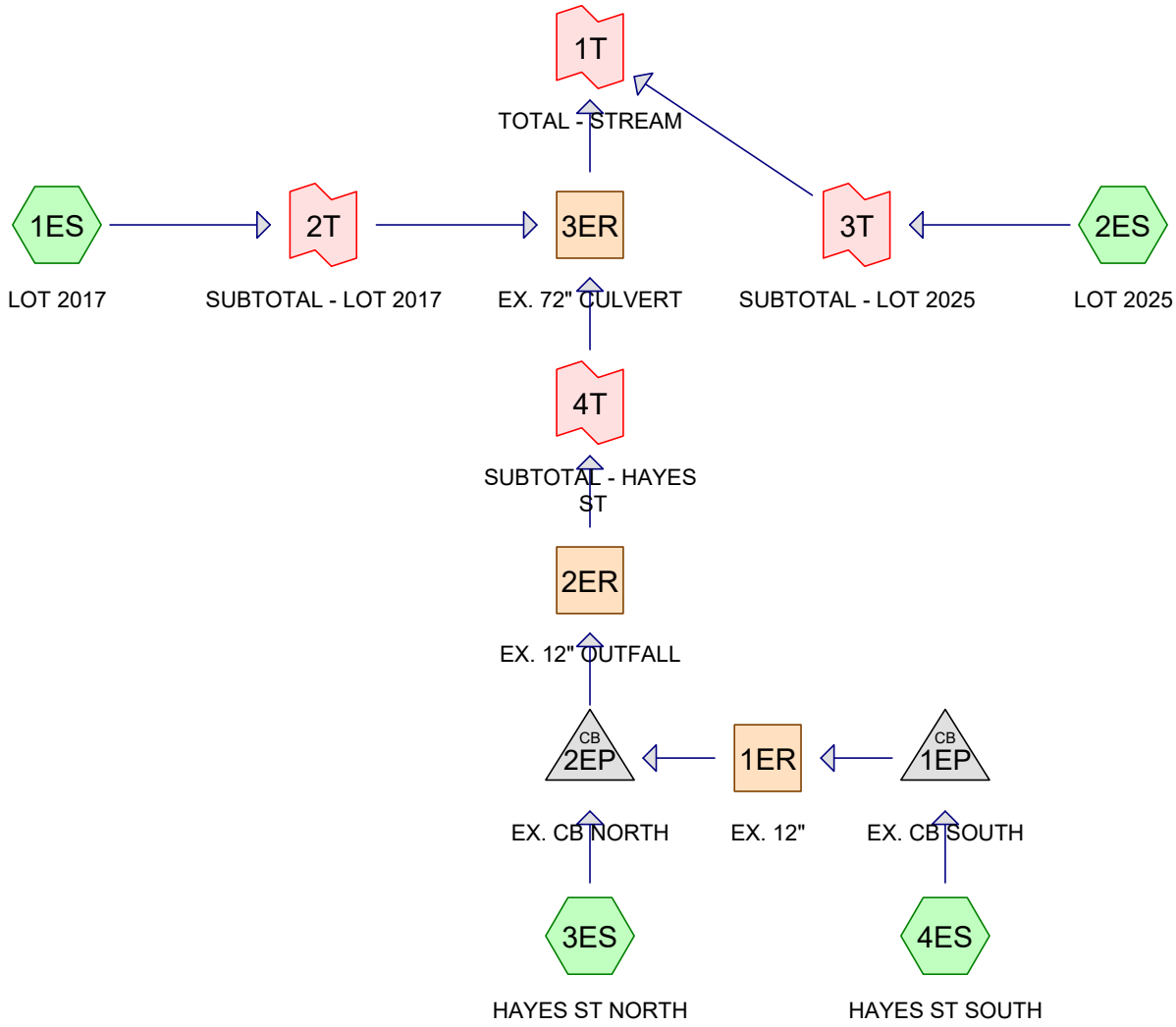
DRWN: AMJ
CHKD: TMI
AKS JOB: 9028

DWG: 9028 POST-DEVELOPED BASIN MAP | POST

Appendix A: HydroCAD Reports for Existing Condition Storm Events (1/2 2-Year Storm Event Summary) (2-Year Storm Event Summary) (10-Year Storm Event Summary) (25-Year Storm Event Analysis)



Subcat Reach Pond Link

Routing Diagram for 9028 PREDEV HydroCAD
Prepared by {enter your company name here}, Printed 7/3/2024
HydroCAD® 10.00-22 s/n 01338 © 2018 HydroCAD Software Solutions LLC

Time span=0.00-48.00 hrs, dt=0.01 hrs, 4801 points
Runoff by SBUH method, Split Pervious/Imperv.
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Link 1T: TOTAL - STREAM Inflow=0.11 cfs 0.090 af
Primary=0.11 cfs 0.090 af

Link 2T: SUBTOTAL - LOT 2017 Inflow=0.02 cfs 0.026 af
Primary=0.02 cfs 0.026 af

Link 3T: SUBTOTAL - LOT 2025 Inflow=0.02 cfs 0.027 af
Primary=0.02 cfs 0.027 af

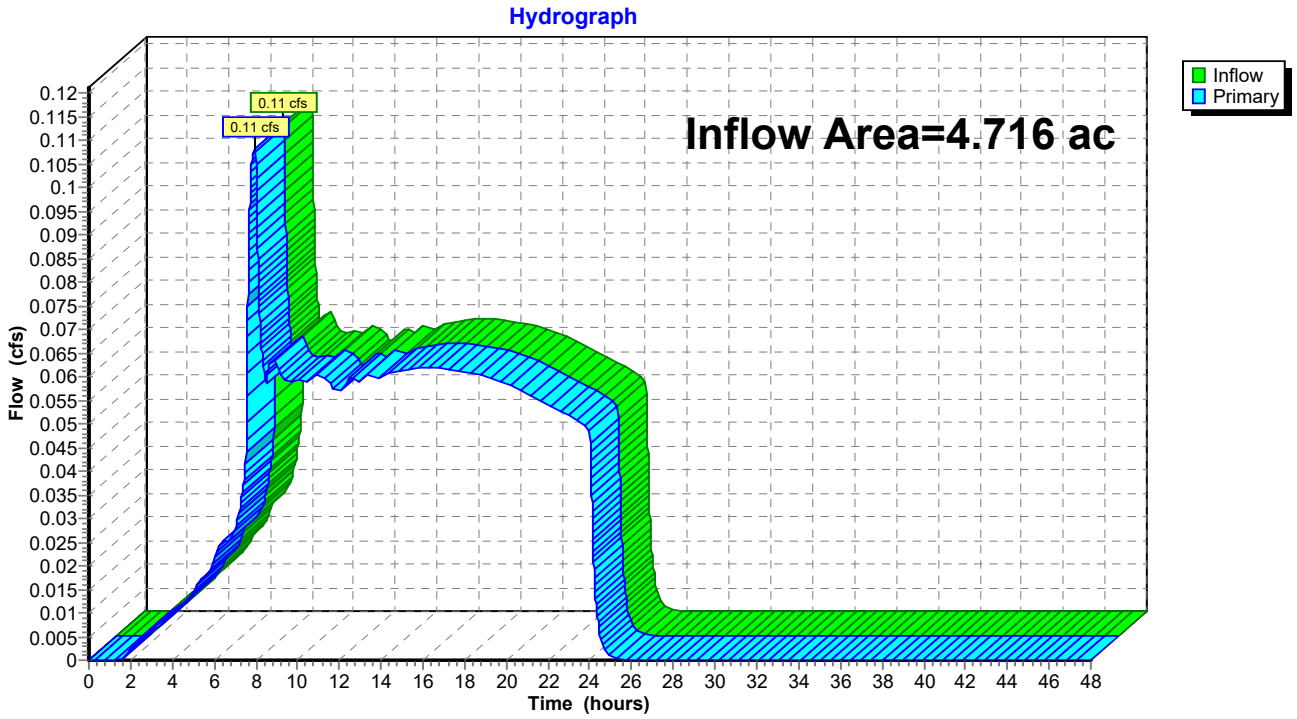
Link 4T: SUBTOTAL - HAYES ST Inflow=0.11 cfs 0.036 af
Primary=0.11 cfs 0.036 af

Summary for Link 1T: TOTAL - STREAM

Inflow Area = 4.716 ac, 8.59% Impervious, Inflow Depth = 0.23" for 1/2 2 YEAR event
Inflow = 0.11 cfs @ 7.91 hrs, Volume= 0.090 af
Primary = 0.11 cfs @ 7.91 hrs, Volume= 0.090 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Link 1T: TOTAL - STREAM

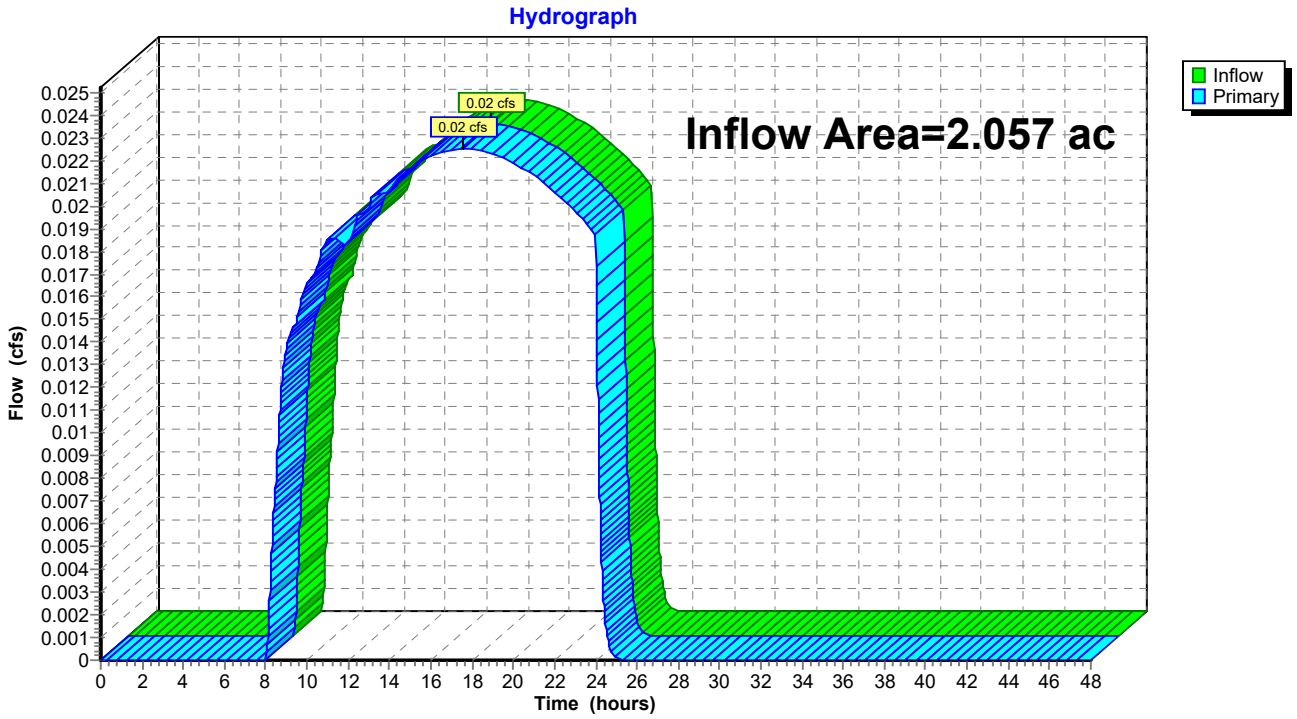


Summary for Link 2T: SUBTOTAL - LOT 2017

Inflow Area = 2.057 ac, 0.00% Impervious, Inflow Depth = 0.15" for 1/2 2 YEAR event
Inflow = 0.02 cfs @ 17.59 hrs, Volume= 0.026 af
Primary = 0.02 cfs @ 17.59 hrs, Volume= 0.026 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Link 2T: SUBTOTAL - LOT 2017

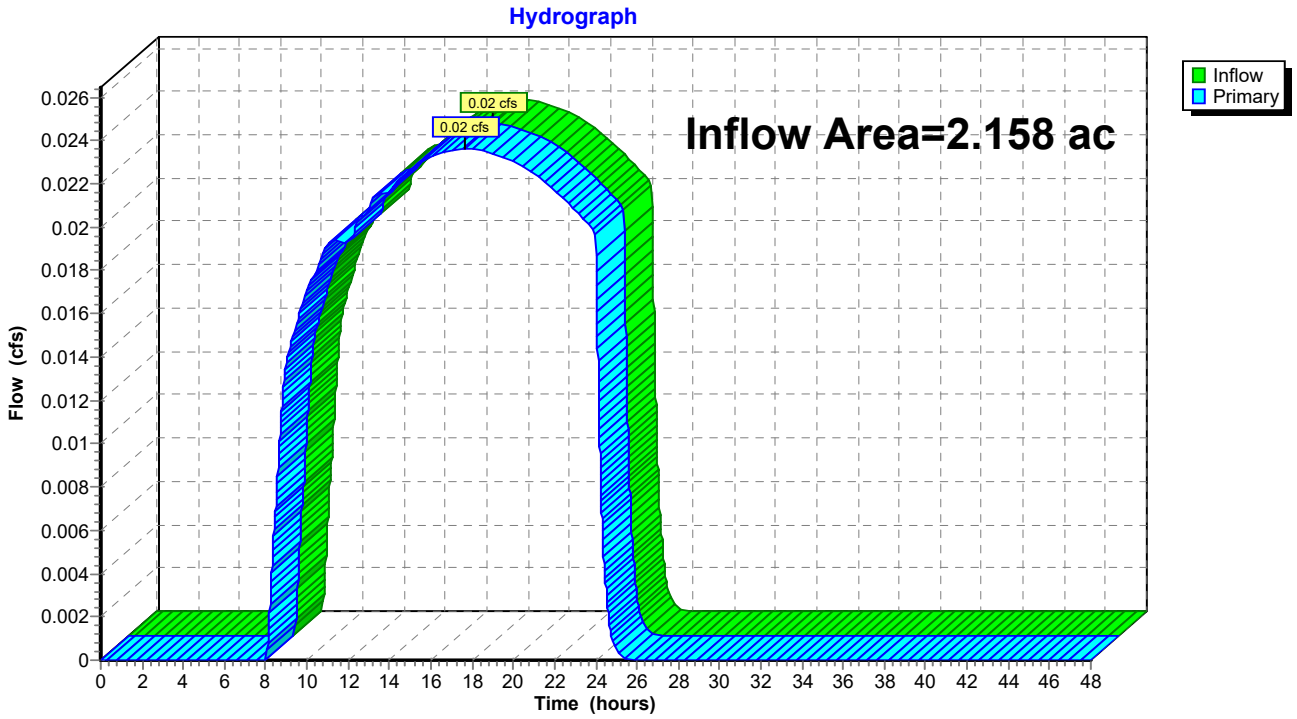


Summary for Link 3T: SUBTOTAL - LOT 2025

Inflow Area = 2.158 ac, 0.00% Impervious, Inflow Depth = 0.15" for 1/2 2 YEAR event
Inflow = 0.02 cfs @ 17.66 hrs, Volume= 0.027 af
Primary = 0.02 cfs @ 17.66 hrs, Volume= 0.027 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Link 3T: SUBTOTAL - LOT 2025

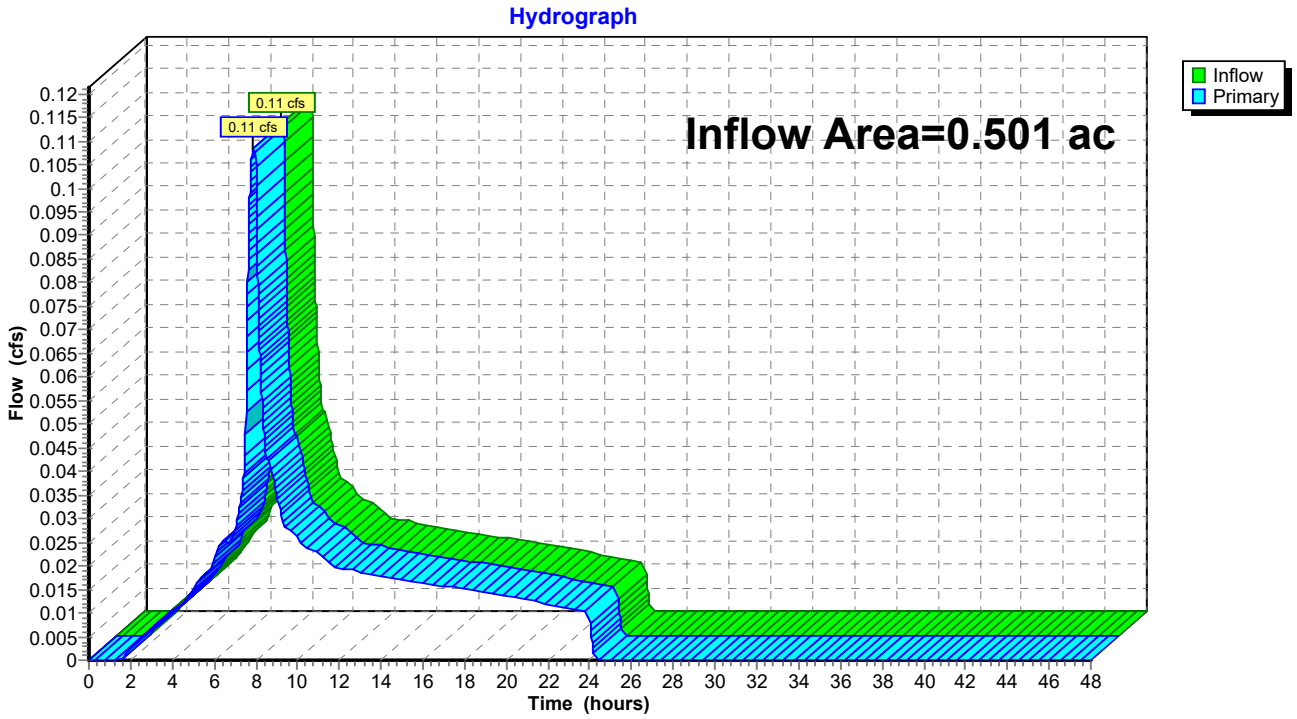


Summary for Link 4T: SUBTOTAL - HAYES ST

Inflow Area = 0.501 ac, 80.78% Impervious, Inflow Depth = 0.87" for 1/2 2 YEAR event
Inflow = 0.11 cfs @ 7.90 hrs, Volume= 0.036 af
Primary = 0.11 cfs @ 7.90 hrs, Volume= 0.036 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Link 4T: SUBTOTAL - HAYES ST



Time span=0.00-48.00 hrs, dt=0.01 hrs, 4801 points
Runoff by SBUH method, Split Pervious/Imperv.
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Link 1T: TOTAL - STREAM Inflow=0.82 cfs 0.377 af
Primary=0.82 cfs 0.377 af

Link 2T: SUBTOTAL - LOT 2017 Inflow=0.30 cfs 0.144 af
Primary=0.30 cfs 0.144 af

Link 3T: SUBTOTAL - LOT 2025 Inflow=0.28 cfs 0.151 af
Primary=0.28 cfs 0.151 af

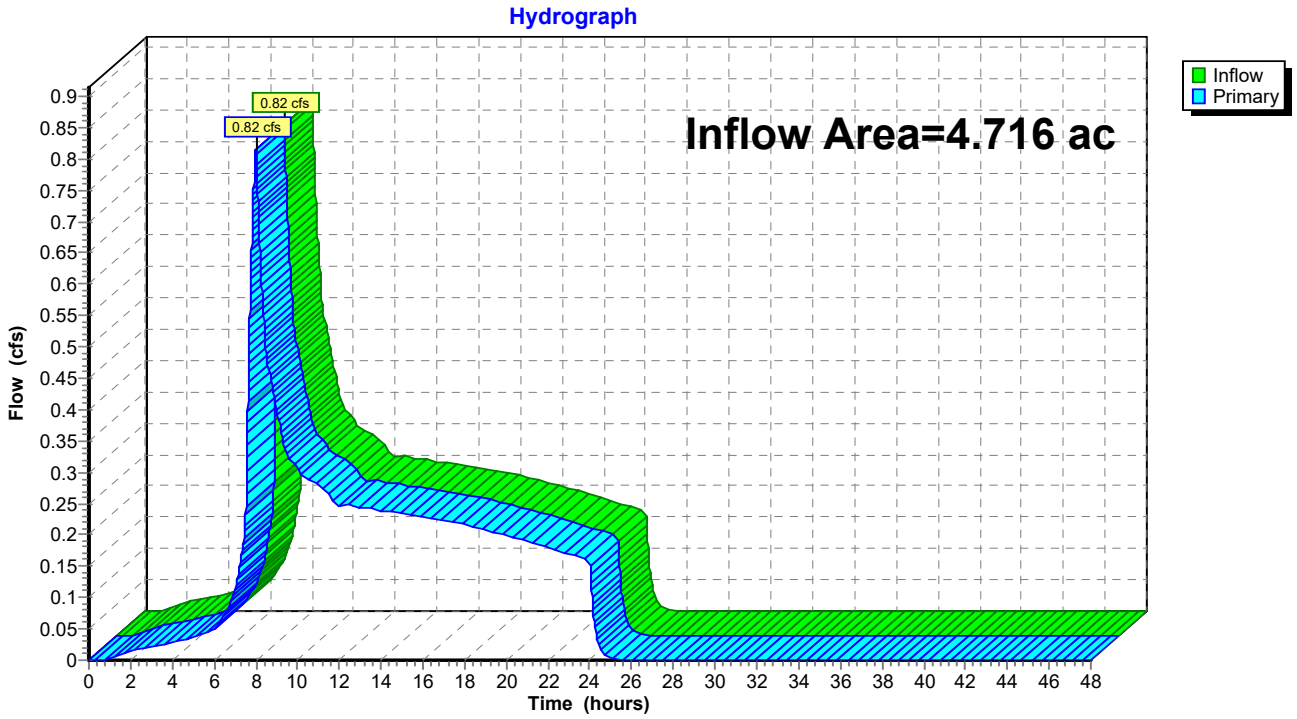
Link 4T: SUBTOTAL - HAYES ST Inflow=0.25 cfs 0.083 af
Primary=0.25 cfs 0.083 af

Summary for Link 1T: TOTAL - STREAM

Inflow Area = 4.716 ac, 8.59% Impervious, Inflow Depth = 0.96" for 2 YEAR event
Inflow = 0.82 cfs @ 8.01 hrs, Volume= 0.377 af
Primary = 0.82 cfs @ 8.01 hrs, Volume= 0.377 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Link 1T: TOTAL - STREAM

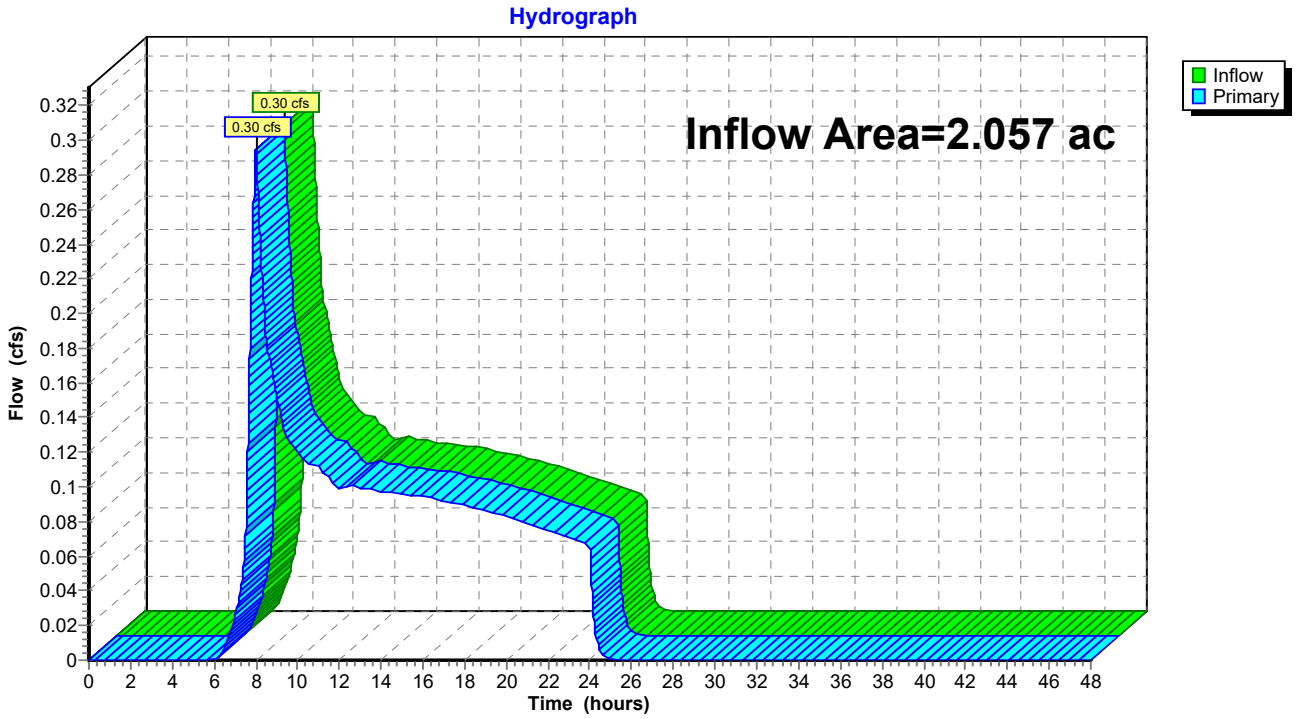


Summary for Link 2T: SUBTOTAL - LOT 2017

Inflow Area = 2.057 ac, 0.00% Impervious, Inflow Depth = 0.84" for 2 YEAR event
Inflow = 0.30 cfs @ 8.00 hrs, Volume= 0.144 af
Primary = 0.30 cfs @ 8.00 hrs, Volume= 0.144 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Link 2T: SUBTOTAL - LOT 2017

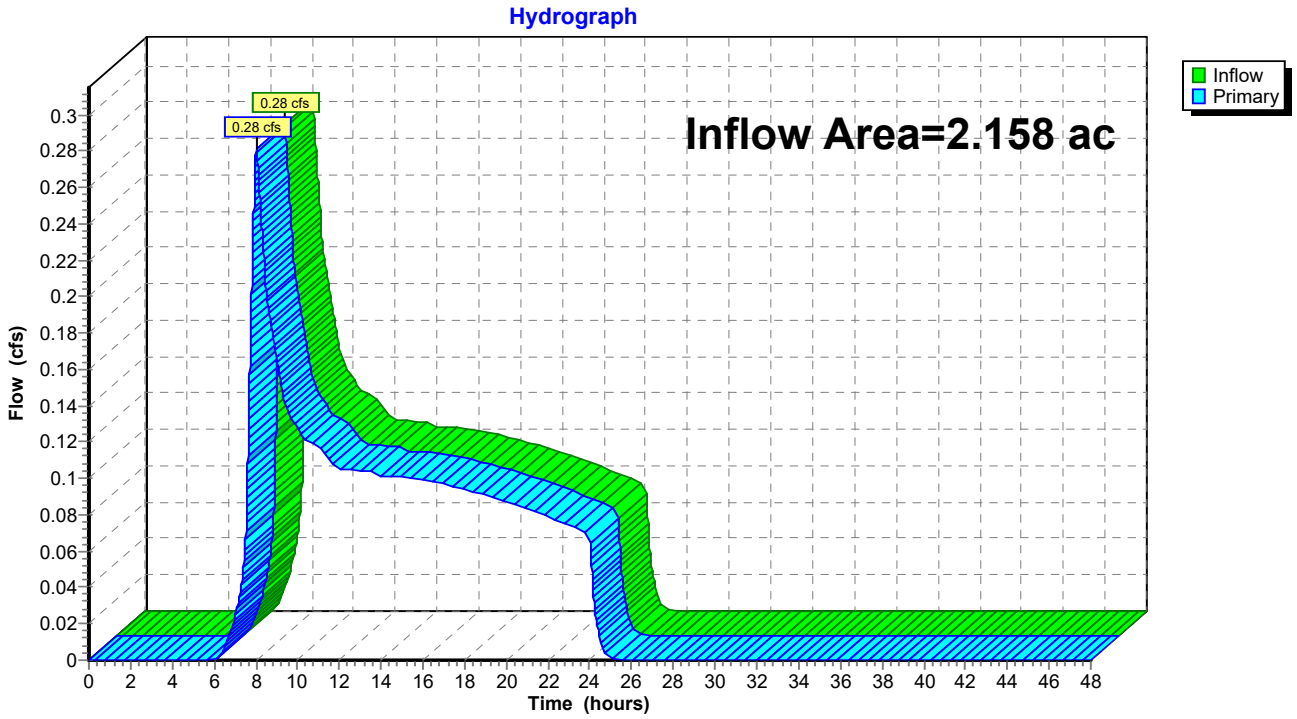


Summary for Link 3T: SUBTOTAL - LOT 2025

Inflow Area = 2.158 ac, 0.00% Impervious, Inflow Depth = 0.84" for 2 YEAR event
Inflow = 0.28 cfs @ 8.01 hrs, Volume= 0.151 af
Primary = 0.28 cfs @ 8.01 hrs, Volume= 0.151 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Link 3T: SUBTOTAL - LOT 2025

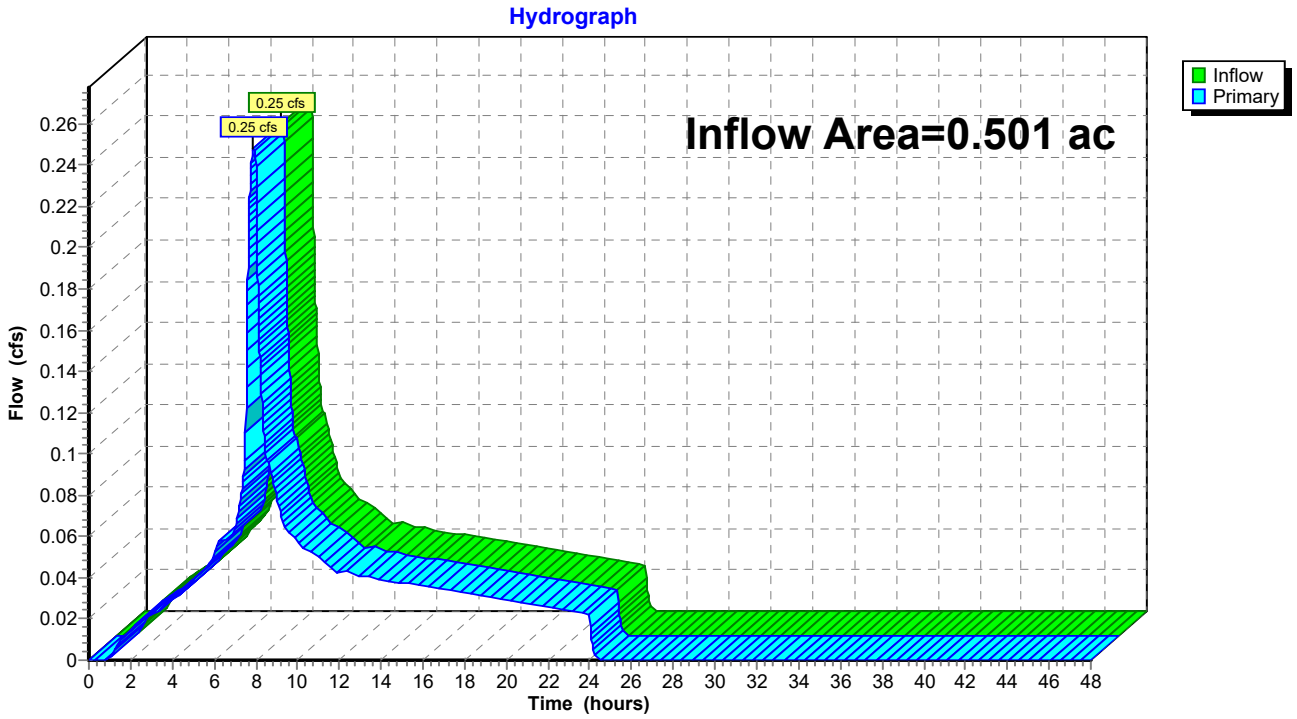


Summary for Link 4T: SUBTOTAL - HAYES ST

Inflow Area = 0.501 ac, 80.78% Impervious, Inflow Depth = 2.00" for 2 YEAR event
Inflow = 0.25 cfs @ 7.89 hrs, Volume= 0.083 af
Primary = 0.25 cfs @ 7.89 hrs, Volume= 0.083 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Link 4T: SUBTOTAL - HAYES ST



Time span=0.00-48.00 hrs, dt=0.01 hrs, 4801 points
Runoff by SBUH method, Split Pervious/Imperv.
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Link 1T: TOTAL - STREAM Inflow=1.65 cfs 0.673 af
Primary=1.65 cfs 0.673 af

Link 2T: SUBTOTAL - LOT 2017 Inflow=0.66 cfs 0.268 af
Primary=0.66 cfs 0.268 af

Link 3T: SUBTOTAL - LOT 2025 Inflow=0.64 cfs 0.282 af
Primary=0.64 cfs 0.282 af

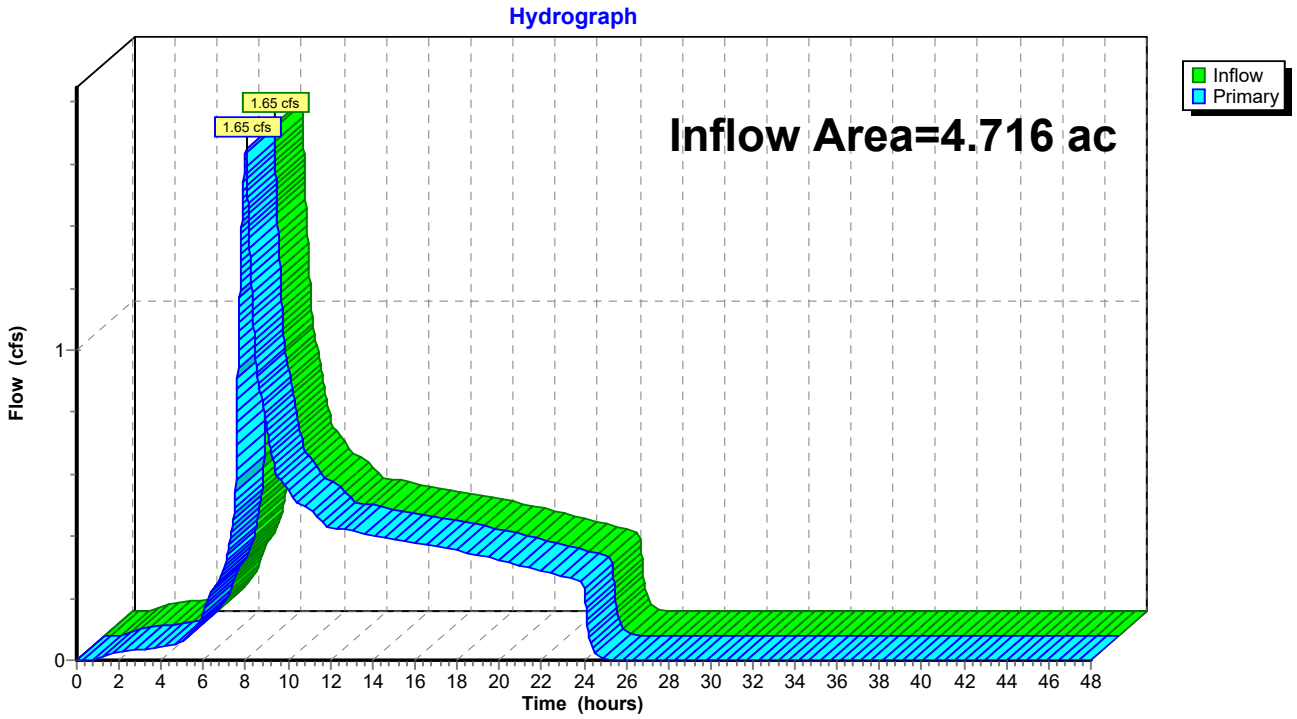
Link 4T: SUBTOTAL - HAYES ST Inflow=0.36 cfs 0.123 af
Primary=0.36 cfs 0.123 af

Summary for Link 1T: TOTAL - STREAM

Inflow Area = 4.716 ac, 8.59% Impervious, Inflow Depth = 1.71" for 10 YEAR event
Inflow = 1.65 cfs @ 8.00 hrs, Volume= 0.673 af
Primary = 1.65 cfs @ 8.00 hrs, Volume= 0.673 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Link 1T: TOTAL - STREAM

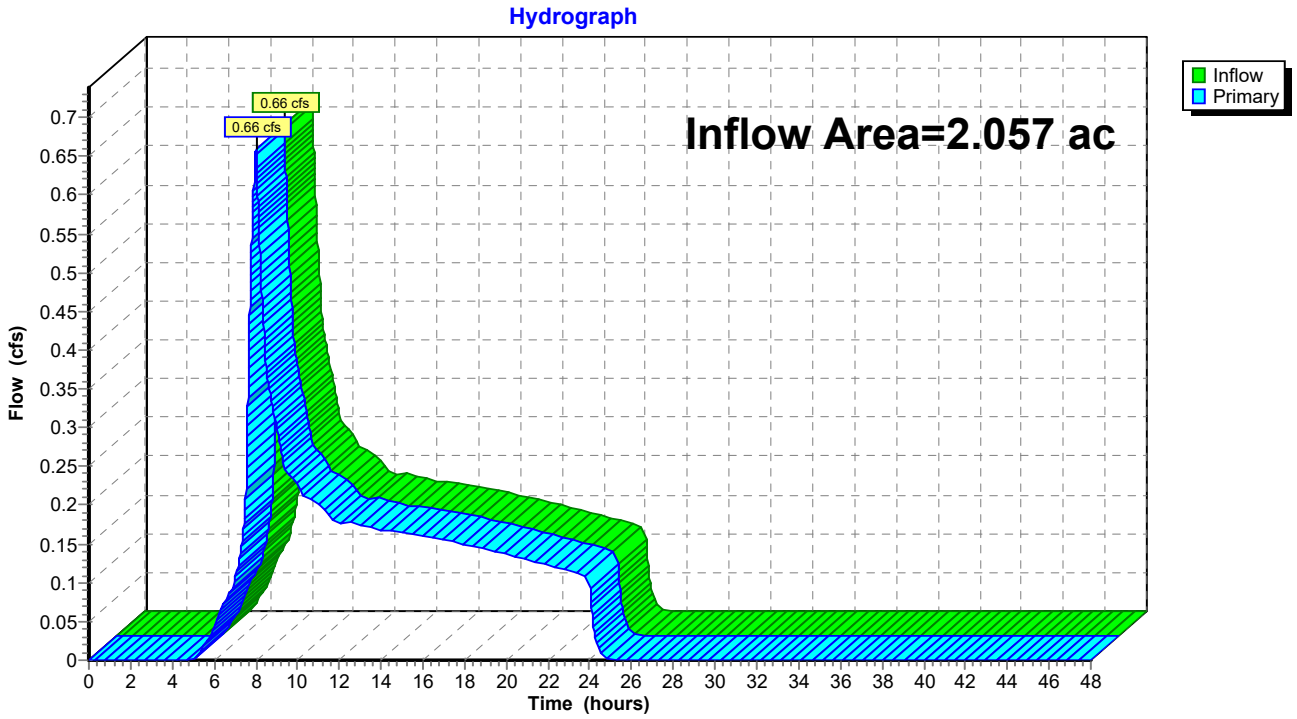


Summary for Link 2T: SUBTOTAL - LOT 2017

Inflow Area = 2.057 ac, 0.00% Impervious, Inflow Depth = 1.57" for 10 YEAR event
Inflow = 0.66 cfs @ 8.00 hrs, Volume= 0.268 af
Primary = 0.66 cfs @ 8.00 hrs, Volume= 0.268 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Link 2T: SUBTOTAL - LOT 2017

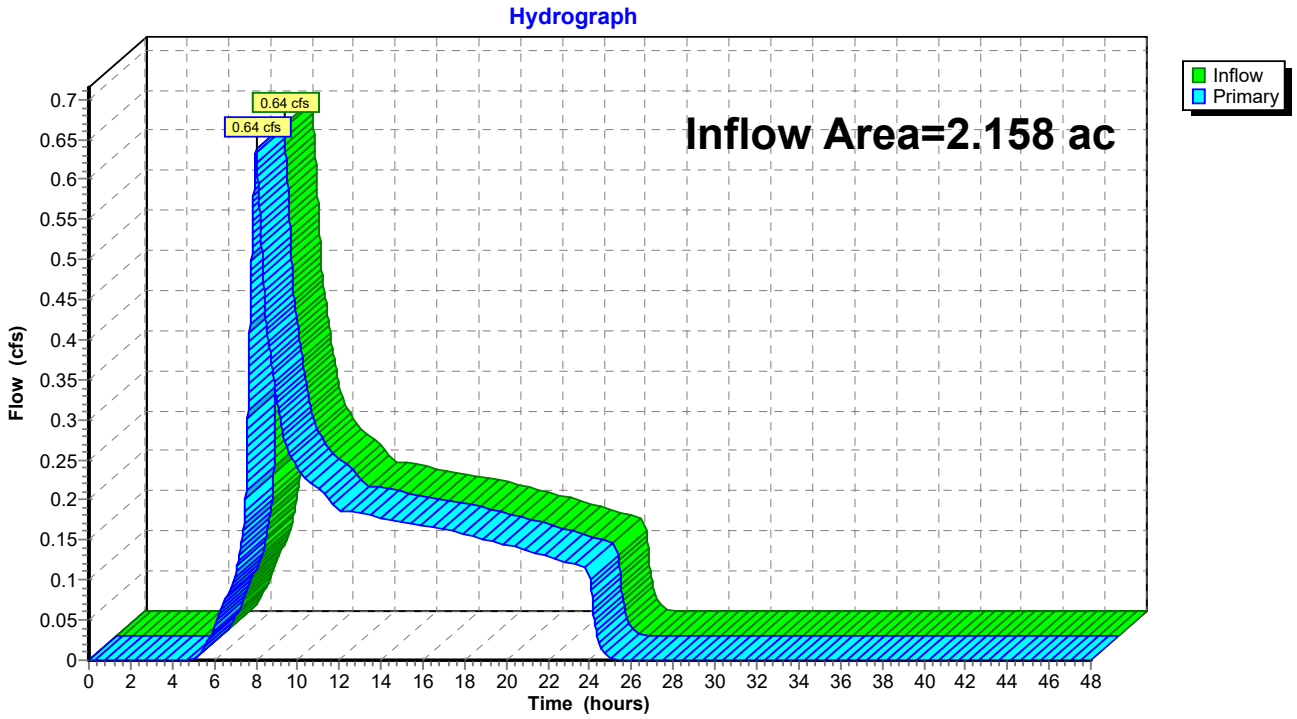


Summary for Link 3T: SUBTOTAL - LOT 2025

Inflow Area = 2.158 ac, 0.00% Impervious, Inflow Depth = 1.57" for 10 YEAR event
Inflow = 0.64 cfs @ 8.01 hrs, Volume= 0.282 af
Primary = 0.64 cfs @ 8.01 hrs, Volume= 0.282 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Link 3T: SUBTOTAL - LOT 2025

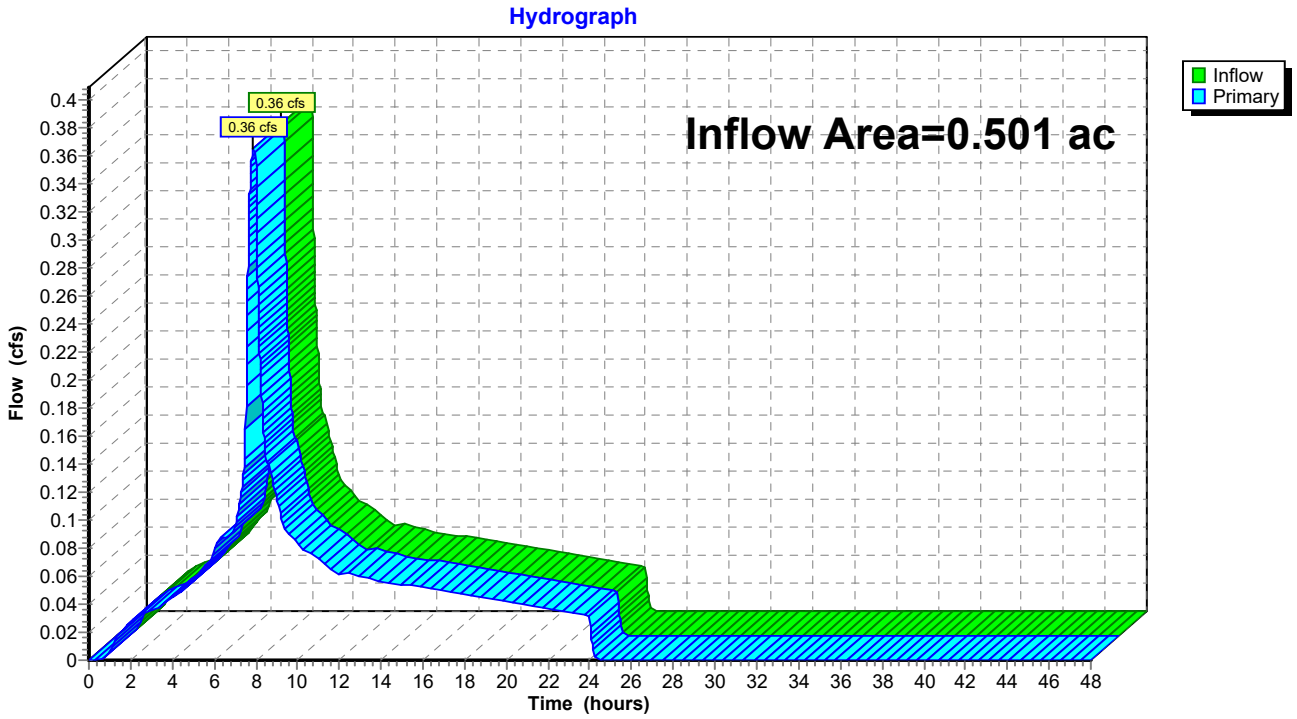


Summary for Link 4T: SUBTOTAL - HAYES ST

Inflow Area = 0.501 ac, 80.78% Impervious, Inflow Depth = 2.94" for 10 YEAR event
Inflow = 0.36 cfs @ 7.89 hrs, Volume= 0.123 af
Primary = 0.36 cfs @ 7.89 hrs, Volume= 0.123 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Link 4T: SUBTOTAL - HAYES ST



Time span=0.00-48.00 hrs, dt=0.01 hrs, 4801 points
Runoff by SBUH method, Split Pervious/Imperv.
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1ES: LOT 2017 Runoff Area=89,585 sf 0.00% Impervious Runoff Depth=1.96"
Flow Length=297' Tc=11.6 min CN=79/0 Runoff=0.86 cfs 0.337 af

Subcatchment2ES: LOT 2025 Runoff Area=93,989 sf 0.00% Impervious Runoff Depth=1.96"
Flow Length=372' Tc=16.1 min CN=79/0 Runoff=0.84 cfs 0.353 af

Subcatchment3ES: HAYES ST NORTH Runoff Area=11,749 sf 77.59% Impervious Runoff Depth=3.36"
Tc=5.0 min CN=79/98 Runoff=0.22 cfs 0.076 af

Subcatchment4ES: HAYES ST SOUTH Runoff Area=10,086 sf 84.49% Impervious Runoff Depth=3.49"
Tc=5.0 min CN=79/98 Runoff=0.20 cfs 0.067 af

Reach 1ER: EX. 12" Avg. Flow Depth=0.13' Max Vel=3.28 fps Inflow=0.20 cfs 0.067 af
12.0" Round Pipe n=0.013 L=40.1' S=0.0229 '/' Capacity=5.40 cfs Outflow=0.20 cfs 0.067 af

Reach 2ER: EX. 12" OUTFALL Avg. Flow Depth=0.10' Max Vel=9.97 fps Inflow=0.42 cfs 0.143 af
12.0" Round Pipe n=0.013 L=37.4' S=0.2896 '/' Capacity=19.17 cfs Outflow=0.42 cfs 0.143 af

Reach 3ER: EX. 72" CULVERT Avg. Flow Depth=0.27' Max Vel=2.79 fps Inflow=1.27 cfs 0.479 af
72.0" Round Pipe n=0.024 L=130.0' S=0.0200 '/' Capacity=324.42 cfs Outflow=1.27 cfs 0.479 af

Pond 1EP: EX. CB SOUTH Peak Elev=176.60' Inflow=0.20 cfs 0.067 af
12.0" Round Culvert n=0.013 L=1.0' S=0.0200 '/' Outflow=0.20 cfs 0.067 af

Pond 2EP: EX. CB NORTH Peak Elev=174.66' Inflow=0.42 cfs 0.143 af
12.0" Round Culvert n=0.013 L=38.4' S=0.2896 '/' Outflow=0.42 cfs 0.143 af

Link 1T: TOTAL - STREAM Inflow=2.11 cfs 0.832 af
Primary=2.11 cfs 0.832 af

Link 2T: SUBTOTAL - LOT 2017 Inflow=0.86 cfs 0.337 af
Primary=0.86 cfs 0.337 af

Link 3T: SUBTOTAL - LOT 2025 Inflow=0.84 cfs 0.353 af
Primary=0.84 cfs 0.353 af

Link 4T: SUBTOTAL - HAYES ST Inflow=0.42 cfs 0.143 af
Primary=0.42 cfs 0.143 af

Total Runoff Area = 4.716 ac Runoff Volume = 0.832 af Average Runoff Depth = 2.12"
91.41% Pervious = 4.311 ac 8.59% Impervious = 0.405 ac

Summary for Subcatchment 1ES: LOT 2017

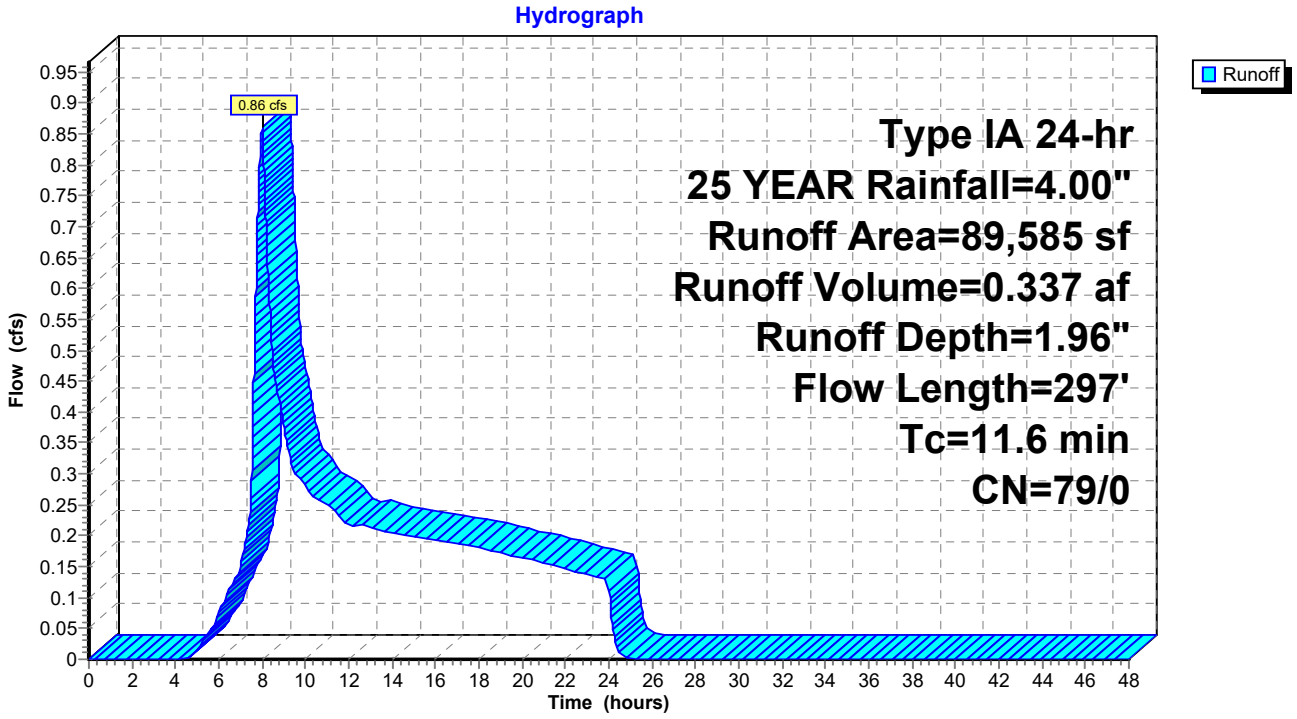
Runoff = 0.86 cfs @ 8.00 hrs, Volume= 0.337 af, Depth= 1.96"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type IA 24-hr 25 YEAR Rainfall=4.00"

Area (sf)	CN	Description
89,585	79	Pasture/grassland/range, Fair, HSG C
89,585	79	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.0	200	0.0610	0.30		**Sheet Flow,** Range n= 0.130 P2= 2.50"
0.6	97	0.1320	2.54		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
11.6	297	Total			

Subcatchment 1ES: LOT 2017



Summary for Subcatchment 2ES: LOT 2025

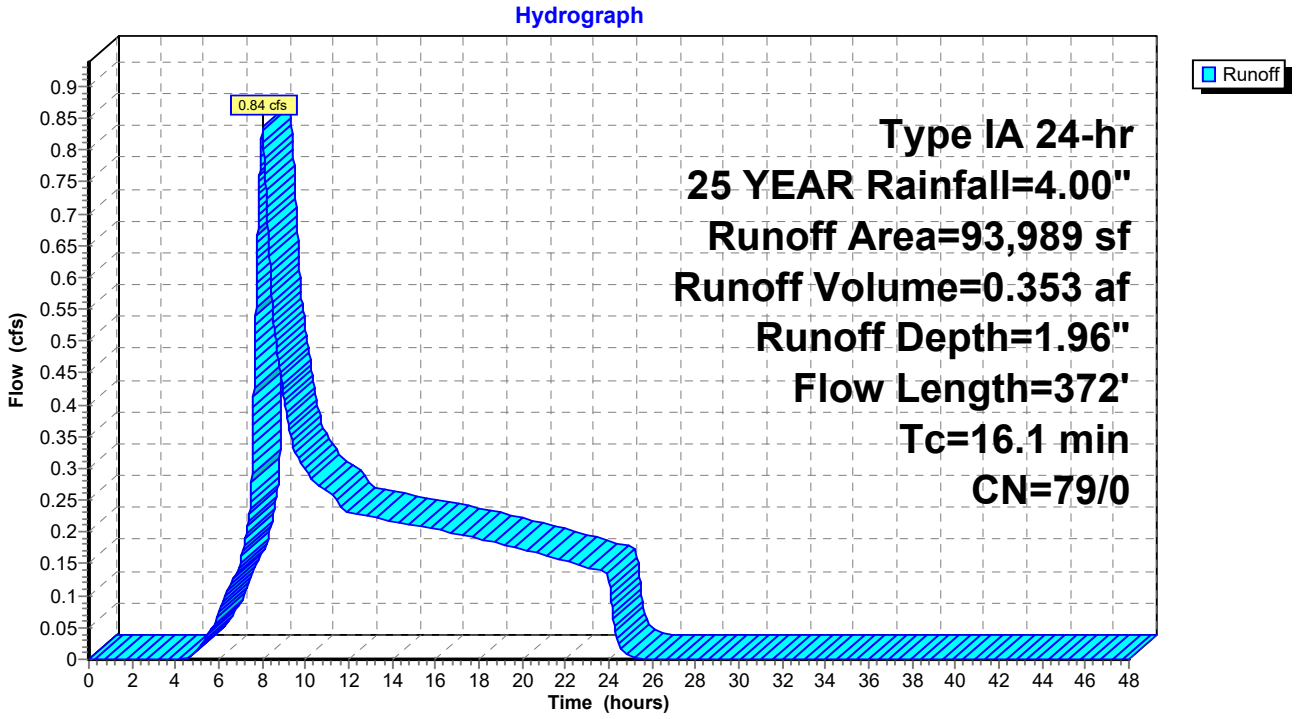
Runoff = 0.84 cfs @ 8.00 hrs, Volume= 0.353 af, Depth= 1.96"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type IA 24-hr 25 YEAR Rainfall=4.00"

Area (sf)	CN	Description
93,989	79	Pasture/grassland/range, Fair, HSG C
93,989	79	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.6	300	0.0577	0.32		**Sheet Flow,** Range n= 0.130 P2= 2.50"
0.5	72	0.1210	2.43		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
16.1	372	Total			

Subcatchment 2ES: LOT 2025



Summary for Subcatchment 3ES: HAYES ST NORTH

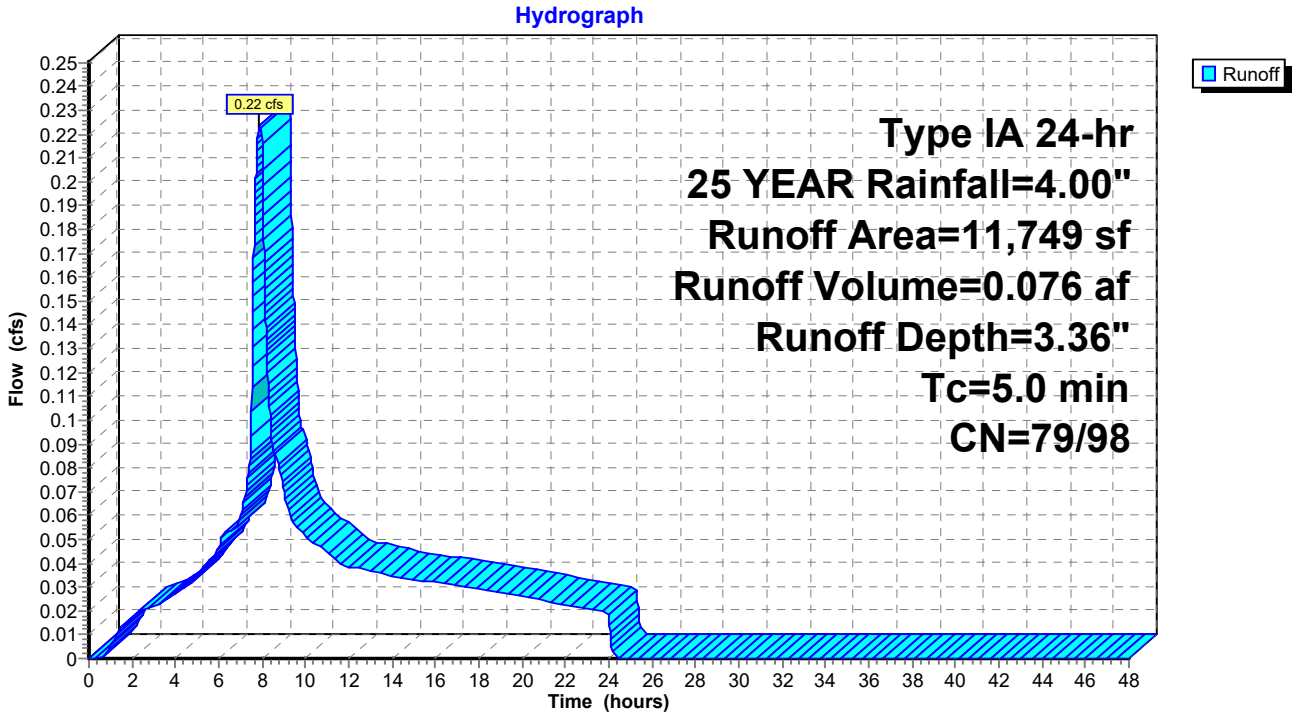
Runoff = 0.22 cfs @ 7.89 hrs, Volume= 0.076 af, Depth= 3.36"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type IA 24-hr 25 YEAR Rainfall=4.00"

Area (sf)	CN	Description
9,116	98	Paved roads w/curbs & sewers, HSG C
2,633	79	Pasture/grassland/range, Fair, HSG C
11,749	94	Weighted Average
2,633	79	22.41% Pervious Area
9,116	98	77.59% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 3ES: HAYES ST NORTH



Summary for Subcatchment 4ES: HAYES ST SOUTH

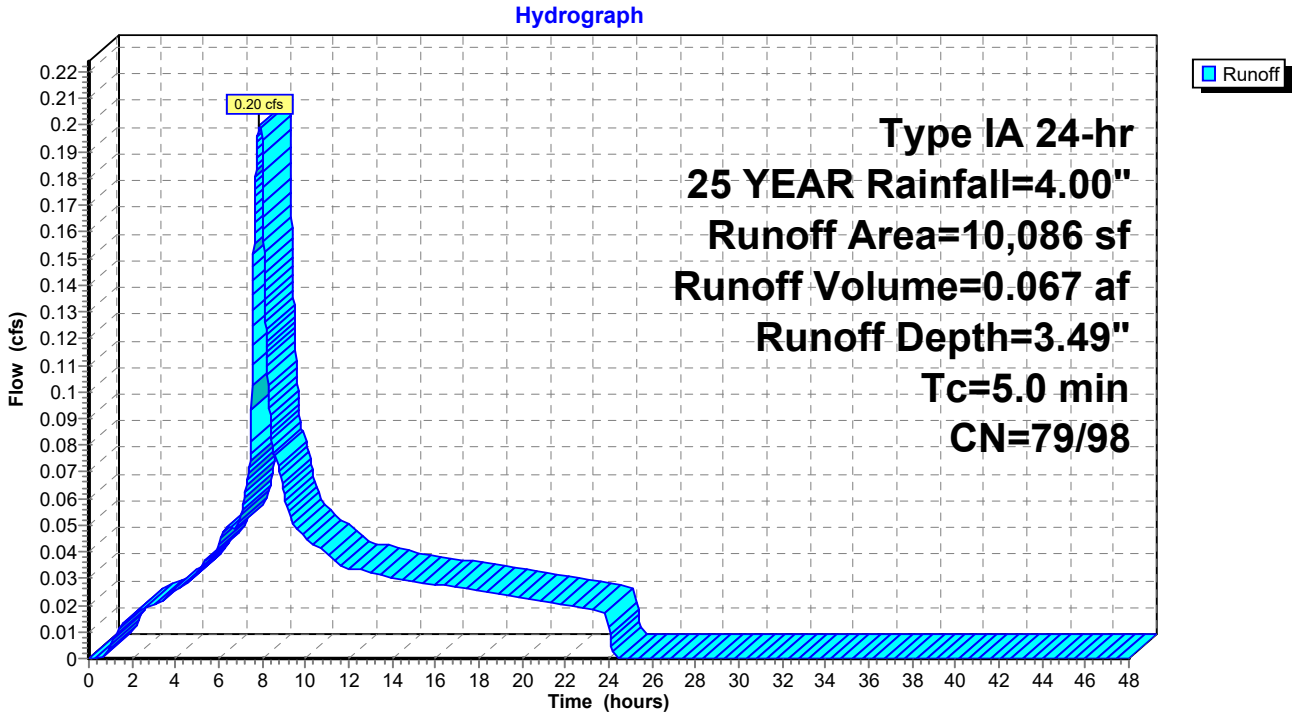
Runoff = 0.20 cfs @ 7.88 hrs, Volume= 0.067 af, Depth= 3.49"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type IA 24-hr 25 YEAR Rainfall=4.00"

Area (sf)	CN	Description
8,522	98	Paved roads w/curbs & sewers, HSG C
1,564	79	Pasture/grassland/range, Fair, HSG C
10,086	95	Weighted Average
1,564	79	15.51% Pervious Area
8,522	98	84.49% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 4ES: HAYES ST SOUTH



Summary for Reach 1ER: EX. 12"

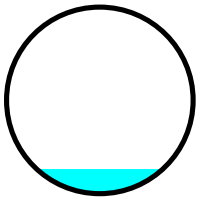
[52] Hint: Inlet/Outlet conditions not evaluated

Inflow Area = 0.232 ac, 84.49% Impervious, Inflow Depth = 3.49" for 25 YEAR event
Inflow = 0.20 cfs @ 7.88 hrs, Volume= 0.067 af
Outflow = 0.20 cfs @ 7.89 hrs, Volume= 0.067 af, Atten= 0%, Lag= 0.1 min

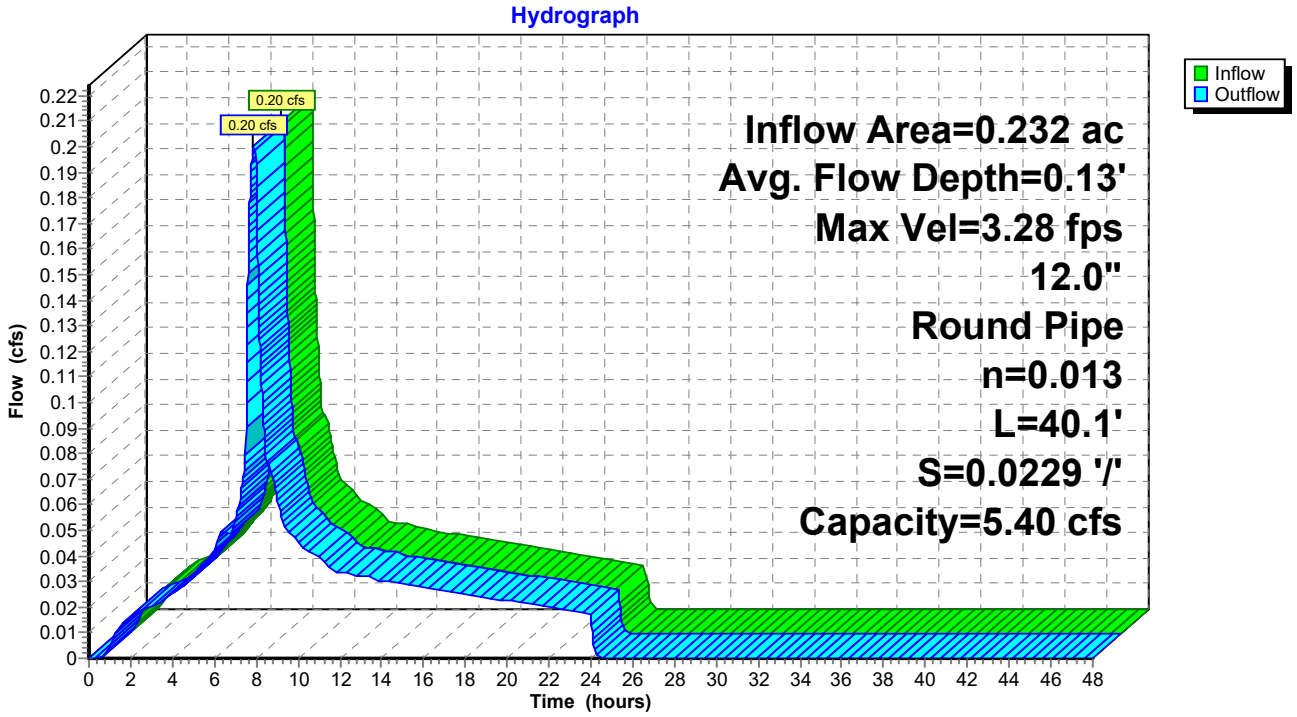
Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Max. Velocity= 3.28 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 1.83 fps, Avg. Travel Time= 0.4 min

Peak Storage= 2 cf @ 7.89 hrs
Average Depth at Peak Storage= 0.13'
Defined Flood Depth= 176.32' Flow Area= 24.1 sf, Capacity= -3,964.66 cfs
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 5.40 cfs

12.0" Round Pipe
n= 0.013
Length= 40.1' Slope= 0.0229 '/'
Inlet Invert= 176.32', Outlet Invert= 175.40'



Reach 1ER: EX. 12"



Summary for Reach 2ER: EX. 12" OUTFALL

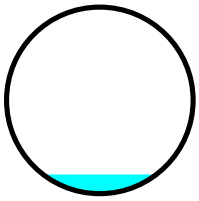
[52] Hint: Inlet/Outlet conditions not evaluated

Inflow Area = 0.501 ac, 80.78% Impervious, Inflow Depth = 3.42" for 25 YEAR event
Inflow = 0.42 cfs @ 7.89 hrs, Volume= 0.143 af
Outflow = 0.42 cfs @ 7.89 hrs, Volume= 0.143 af, Atten= 0%, Lag= 0.0 min

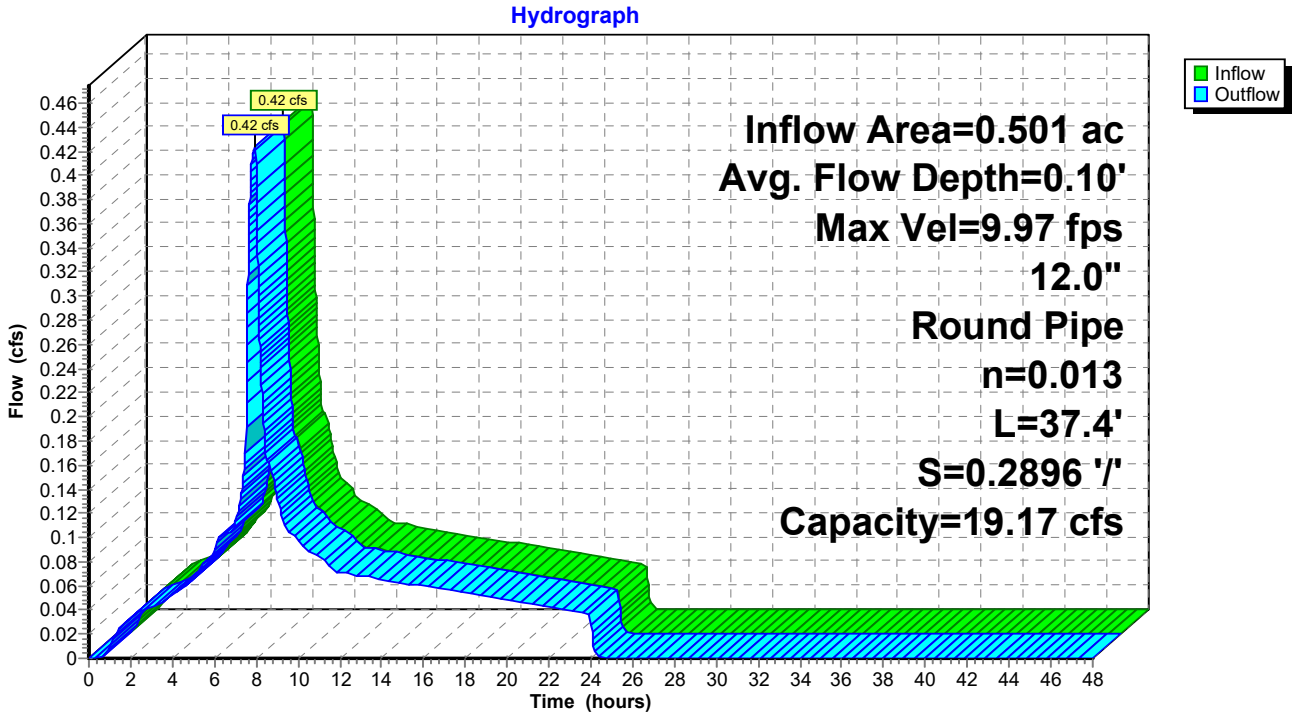
Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Max. Velocity= 9.97 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 5.59 fps, Avg. Travel Time= 0.1 min

Peak Storage= 2 cf @ 7.89 hrs
Average Depth at Peak Storage= 0.10'
Defined Flood Depth= 174.05' Flow Area= 23.8 sf, Capacity= -13,902.58 cfs
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 19.17 cfs

12.0" Round Pipe
n= 0.013
Length= 37.4' Slope= 0.2896 '/'
Inlet Invert= 174.05', Outlet Invert= 163.22'



Reach 2ER: EX. 12" OUTFALL



Summary for Pond 1EP: EX. CB SOUTH

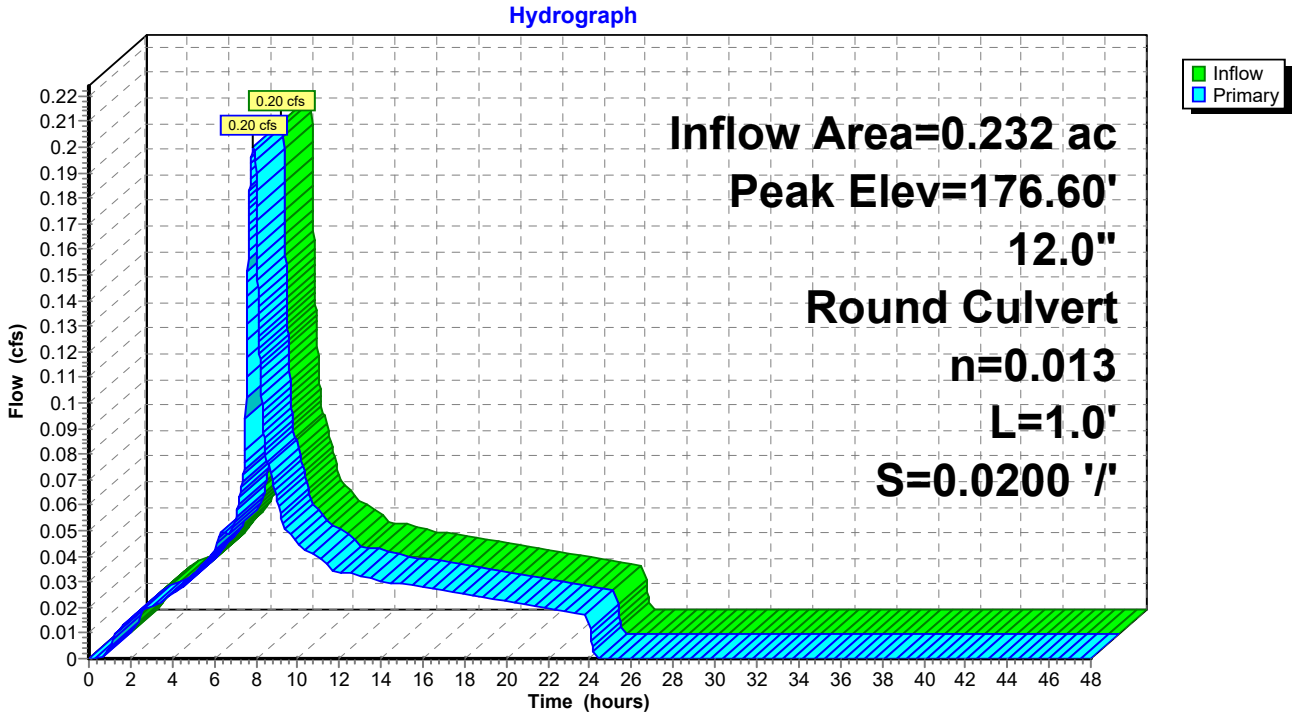
Inflow Area = 0.232 ac, 84.49% Impervious, Inflow Depth = 3.49" for 25 YEAR event
Inflow = 0.20 cfs @ 7.88 hrs, Volume= 0.067 af
Outflow = 0.20 cfs @ 7.88 hrs, Volume= 0.067 af, Atten= 0%, Lag= 0.0 min
Primary = 0.20 cfs @ 7.88 hrs, Volume= 0.067 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 176.60' @ 7.88 hrs
Flood Elev= 179.46'

Device	Routing	Invert	Outlet Devices
#1	Primary	176.34'	**12.0" Round Culvert** L= 1.0' Ke= 0.500 Inlet / Outlet Invert= 176.34' / 176.32' S= 0.0200 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.20 cfs @ 7.88 hrs HW=176.60' TW=176.45' (Dynamic Tailwater)
↑**1=Culvert** (Barrel Controls 0.20 cfs @ 1.86 fps)

Pond 1EP: EX. CB SOUTH



Summary for Pond 2EP: EX. CB NORTH

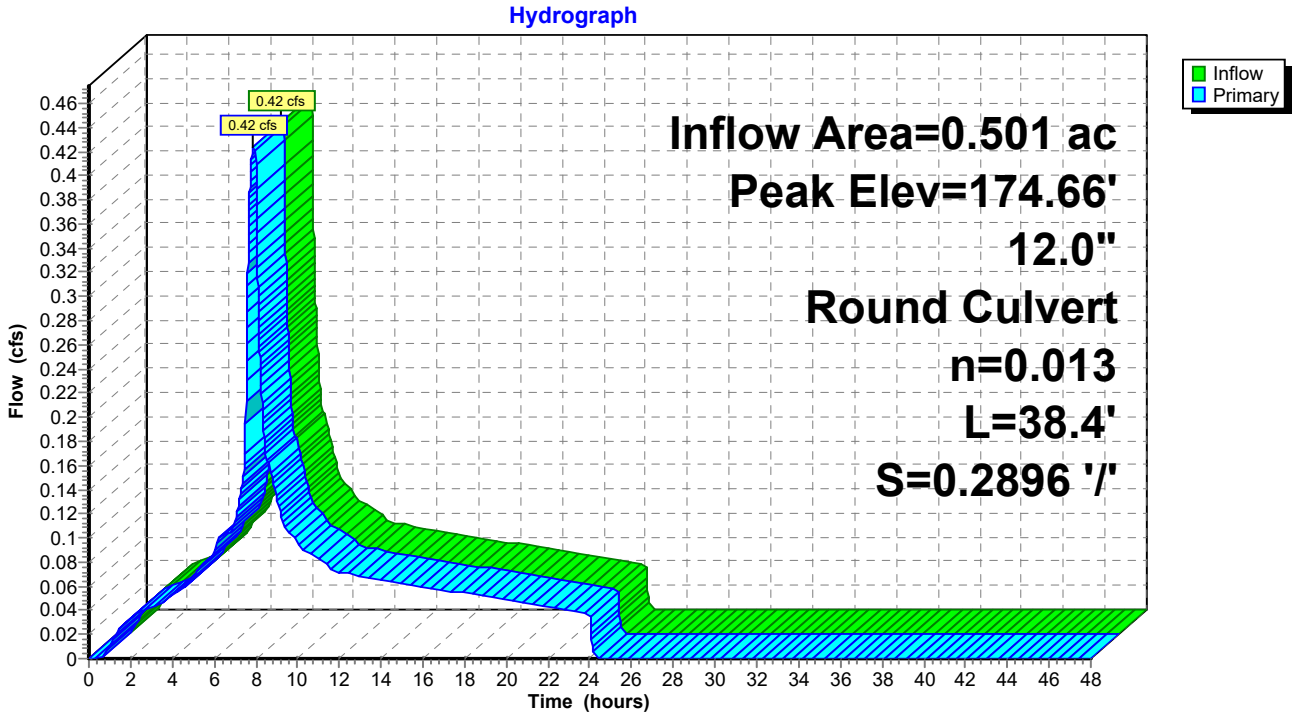
Inflow Area = 0.501 ac, 80.78% Impervious, Inflow Depth = 3.42" for 25 YEAR event
Inflow = 0.42 cfs @ 7.89 hrs, Volume= 0.143 af
Outflow = 0.42 cfs @ 7.89 hrs, Volume= 0.143 af, Atten= 0%, Lag= 0.0 min
Primary = 0.42 cfs @ 7.89 hrs, Volume= 0.143 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 174.66' @ 7.89 hrs
Flood Elev= 179.46'

Device	Routing	Invert	Outlet Devices
#1	Primary	174.34'	**12.0" Round Culvert** L= 38.4' Ke= 0.500 Inlet / Outlet Invert= 174.34' / 163.22' S= 0.2896 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.42 cfs @ 7.89 hrs HW=174.66' TW=174.15' (Dynamic Tailwater)
↑**1=Culvert** (Outlet Controls 0.42 cfs @ 2.86 fps)

Pond 2EP: EX. CB NORTH

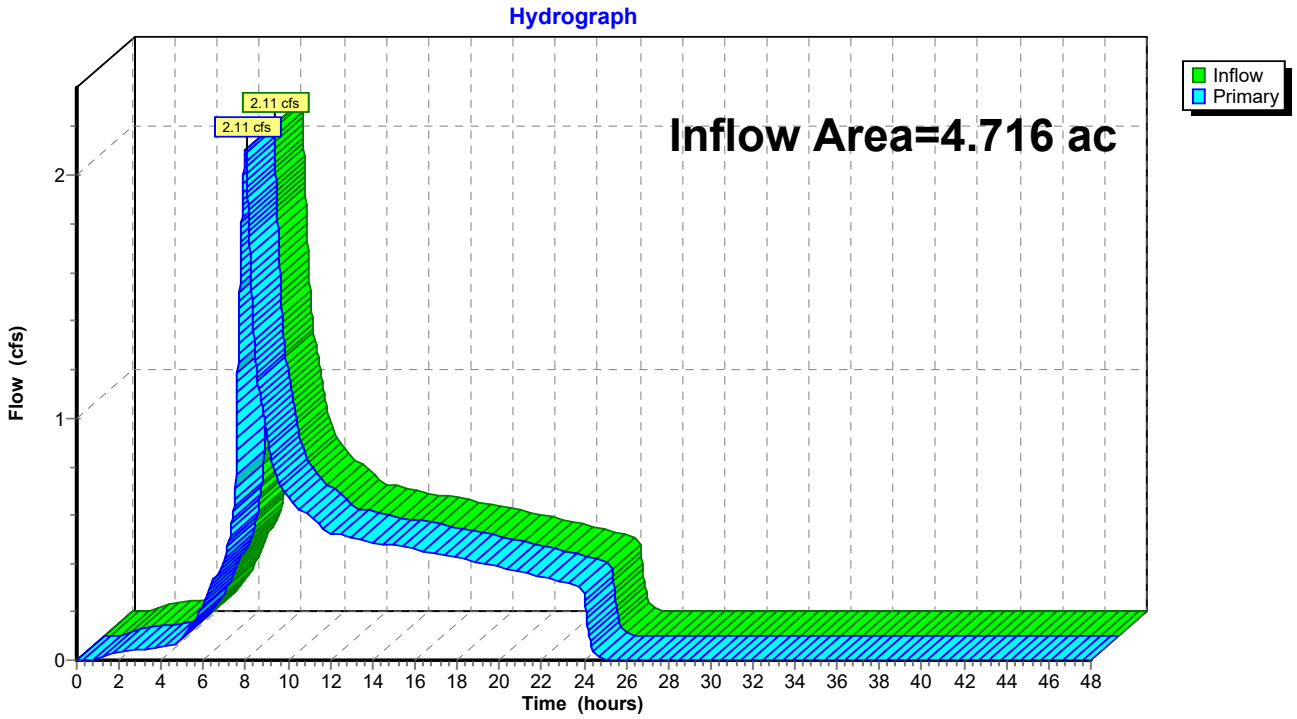


Summary for Link 1T: TOTAL - STREAM

Inflow Area = 4.716 ac, 8.59% Impervious, Inflow Depth = 2.12" for 25 YEAR event
Inflow = 2.11 cfs @ 8.00 hrs, Volume= 0.832 af
Primary = 2.11 cfs @ 8.00 hrs, Volume= 0.832 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Link 1T: TOTAL - STREAM

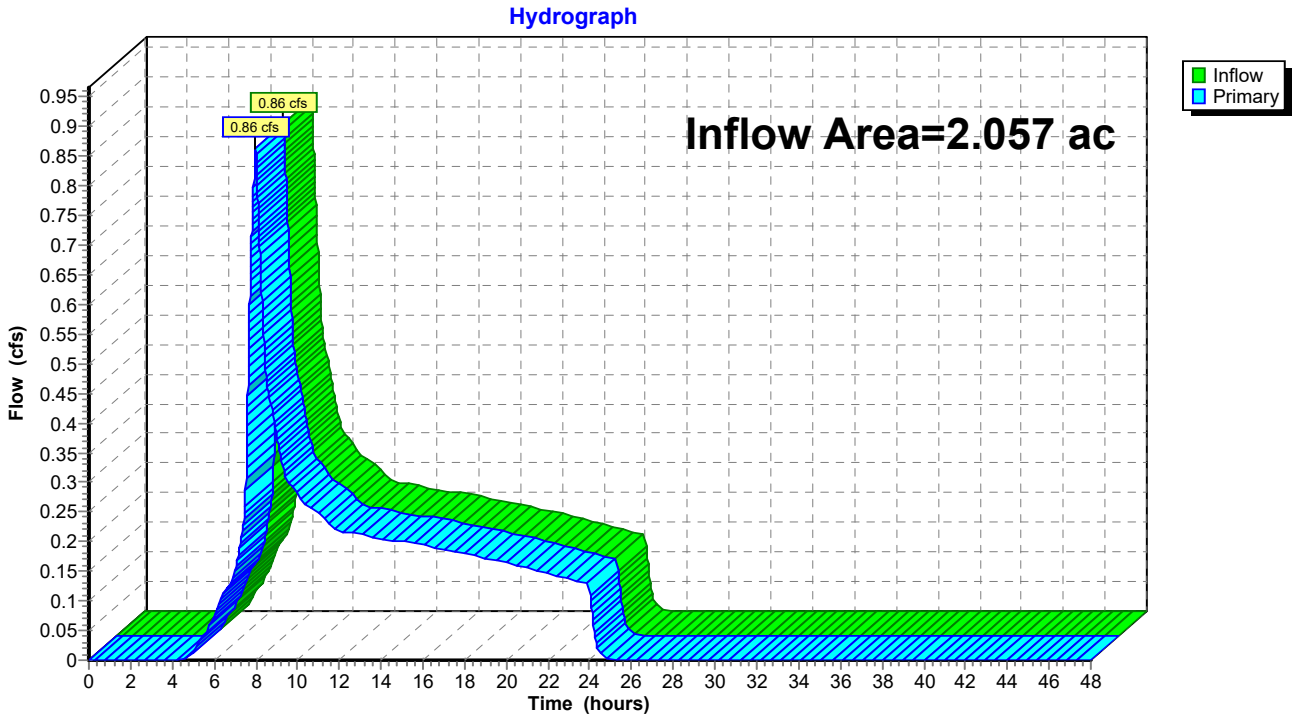


Summary for Link 2T: SUBTOTAL - LOT 2017

Inflow Area = 2.057 ac, 0.00% Impervious, Inflow Depth = 1.96" for 25 YEAR event
Inflow = 0.86 cfs @ 8.00 hrs, Volume= 0.337 af
Primary = 0.86 cfs @ 8.00 hrs, Volume= 0.337 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Link 2T: SUBTOTAL - LOT 2017

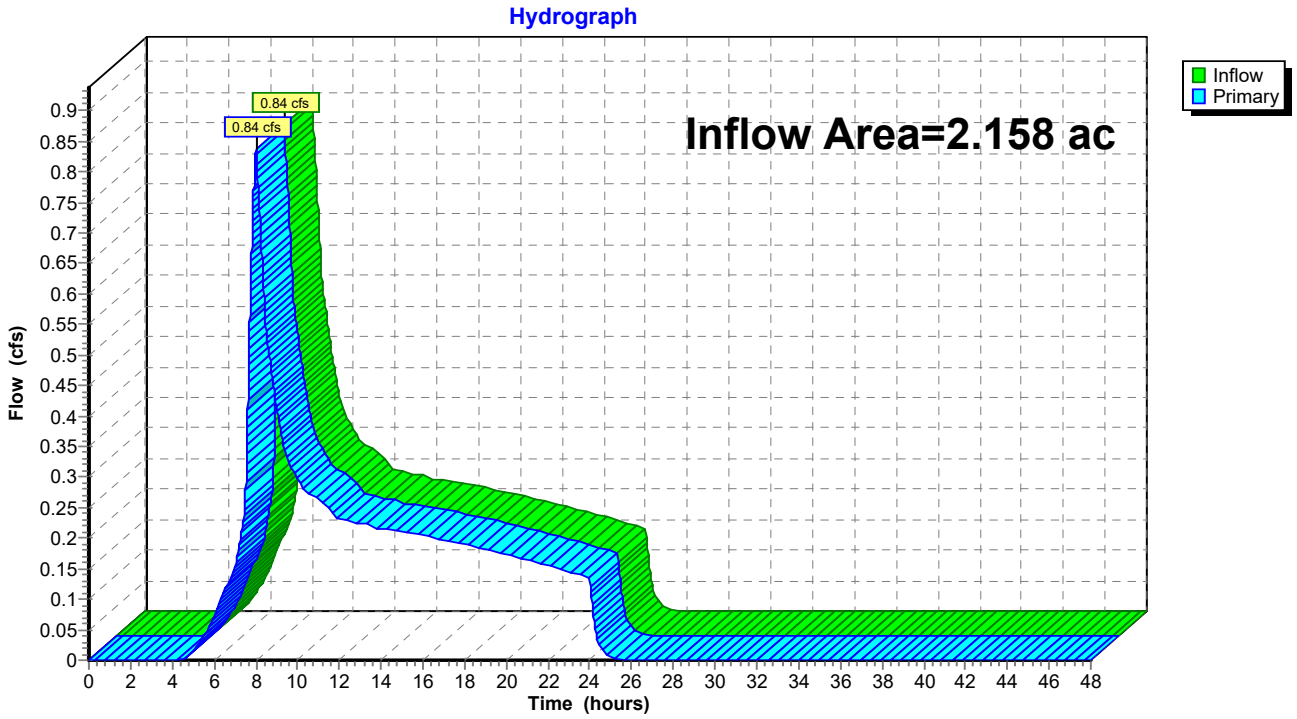


Summary for Link 3T: SUBTOTAL - LOT 2025

Inflow Area = 2.158 ac, 0.00% Impervious, Inflow Depth = 1.96" for 25 YEAR event
Inflow = 0.84 cfs @ 8.00 hrs, Volume= 0.353 af
Primary = 0.84 cfs @ 8.00 hrs, Volume= 0.353 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Link 3T: SUBTOTAL - LOT 2025

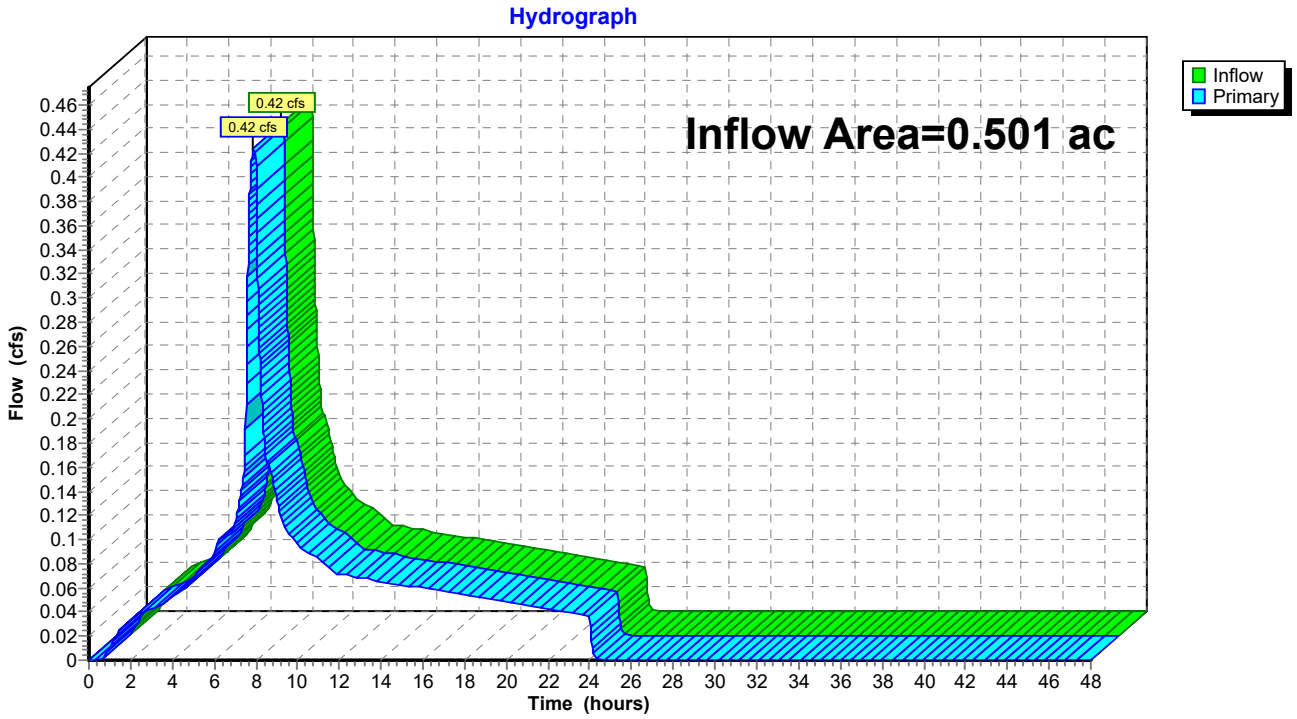


Summary for Link 4T: SUBTOTAL - HAYES ST

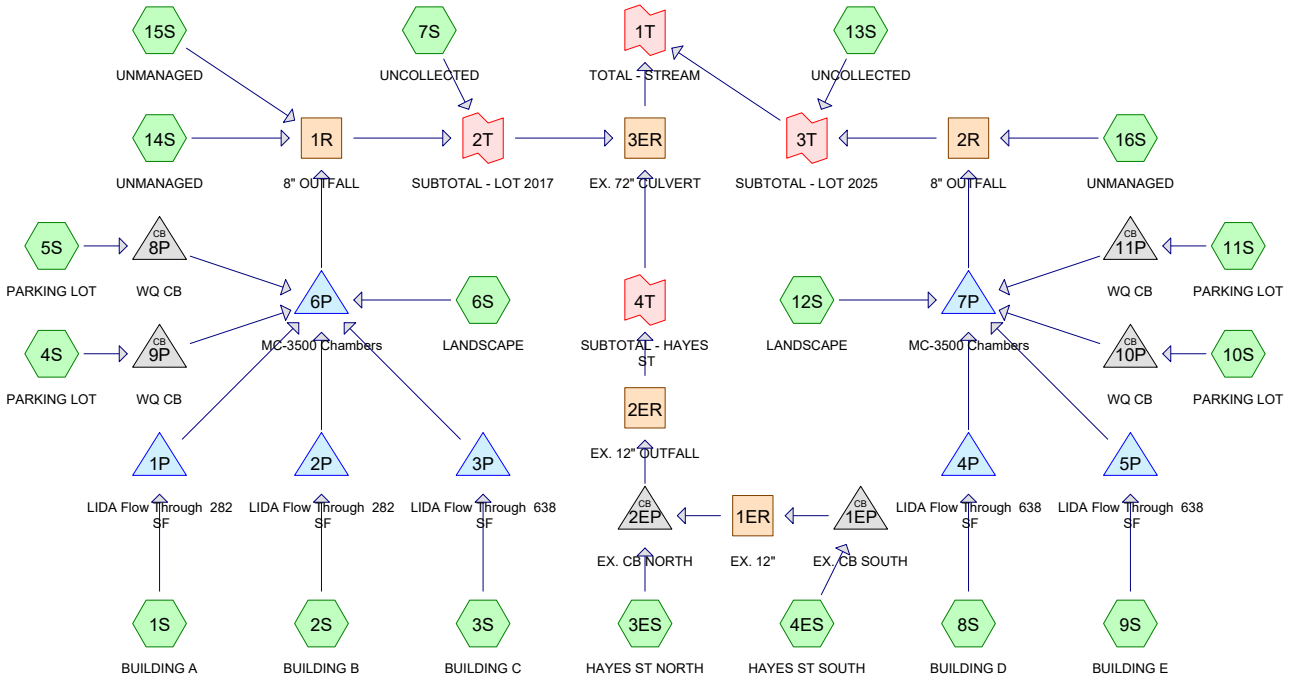
Inflow Area = 0.501 ac, 80.78% Impervious, Inflow Depth = 3.42" for 25 YEAR event
Inflow = 0.42 cfs @ 7.89 hrs, Volume= 0.143 af
Primary = 0.42 cfs @ 7.89 hrs, Volume= 0.143 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Link 4T: SUBTOTAL - HAYES ST



Appendix B: HydroCAD Reports for Post-Developed Condition Storm Events
(1/2 2-Year Storm Event Summary)
(2-Year Storm Event Summary)
(10-Year Storm Event Summary)
(25-Year Storm Event Analysis)
(WQ Storm Event Summary)



Subcat Reach Pond Link

Routing Diagram for 9028 POSTDEV HydroCAD

Prepared by {enter your company name here}, Printed 7/9/2024

HydroCAD® 10.00-22 s/n 01338 © 2018 HydroCAD Software Solutions LLC

Time span=0.00-48.00 hrs, dt=0.01 hrs, 4801 points
Runoff by SBUH method, Split Pervious/Imperv.
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Pond 6P: MC-3500 Chambers Peak Elev=180.54' Storage=0.019 af Inflow=0.23 cfs 0.096 af
Outflow=0.12 cfs 0.096 af

Pond 7P: MC-3500 Chambers Peak Elev=178.89' Storage=0.012 af Inflow=0.28 cfs 0.115 af
Outflow=0.13 cfs 0.115 af

Link 1T: TOTAL - STREAM Inflow=0.37 cfs 0.269 af
Primary=0.37 cfs 0.269 af

Link 2T: SUBTOTAL - LOT 2017 Inflow=0.13 cfs 0.109 af
Primary=0.13 cfs 0.109 af

Link 3T: SUBTOTAL - LOT 2025 Inflow=0.14 cfs 0.122 af
Primary=0.14 cfs 0.122 af

Link 4T: SUBTOTAL - HAYES ST Inflow=0.12 cfs 0.039 af
Primary=0.12 cfs 0.039 af

Summary for Pond 6P: MC-3500 Chambers

[44] Hint: Outlet device #2 is below defined storage

Inflow Area = 1.368 ac, 78.39% Impervious, Inflow Depth = 0.84" for 1/2 2 YEAR event
Inflow = 0.23 cfs @ 7.89 hrs, Volume= 0.096 af
Outflow = 0.12 cfs @ 8.86 hrs, Volume= 0.096 af, Atten= 49%, Lag= 58.1 min
Primary = 0.12 cfs @ 8.86 hrs, Volume= 0.096 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 180.54' @ 8.86 hrs Surf.Area= 0.028 ac Storage= 0.019 af
Flood Elev= 186.23' Surf.Area= 0.028 ac Storage= 0.085 af

Plug-Flow detention time= 187.1 min calculated for 0.096 af (100% of inflow)
Center-of-Mass det. time= 187.3 min (902.2 - 714.9)

Volume	Invert	Avail.Storage	Storage Description
#1A	179.25'	0.033 af	**15.58'W x 77.40'L x 5.50'H Field A** 0.152 af Overall - 0.052 af Embedded = 0.100 af x 33.0% Voids
#2A	180.00'	0.052 af	**ADS_StormTech MC-3500 d +Cap**x 20 Inside #1 Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap 2 Rows of 10 Chambers Cap Storage= +14.9 cf x 2 x 2 rows = 59.6 cf
		0.085 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	179.05'	**8.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 179.05' / 179.00' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.35 sf
#2	Device 1	177.55'	**0.5" Horiz. 1/2 of 2-YR Orifice** C= 0.600 Limited to weir flow at low heads
#3	Device 1	180.00'	**2.5" Vert. 2-YR Orifice** C= 0.600
#4	Device 1	183.00'	**6.0" Horiz. 25-YR Orifice** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.12 cfs @ 8.86 hrs HW=180.54' TW=178.56' (Dynamic Tailwater)
1=Culvert (Passes 0.12 cfs of 1.43 cfs potential flow)
- **2=1/2 of 2-YR Orifice** (Orifice Controls 0.01 cfs @ 5.88 fps)
- **3=2-YR Orifice** (Orifice Controls 0.11 cfs @ 3.18 fps)
- **4=25-YR Orifice** (Controls 0.00 cfs)

Pond 6P: MC-3500 Chambers - Chamber Wizard Field A

Chamber Model = ADS_StormTechMC-3500 d +Cap (ADS StormTech®MC-3500 d rev 03/14 with Cap volume)
Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf
Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap
Cap Storage= +14.9 cf x 2 x 2 rows = 59.6 cf

77.0" Wide + 9.0" Spacing = 86.0" C-C Row Spacing

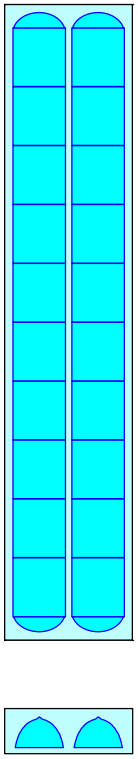
10 Chambers/Row x 7.17' Long +1.85' Cap Length x 2 = 75.40' Row Length +12.0" End Stone x 2 = 77.40' Base Length
2 Rows x 77.0" Wide + 9.0" Spacing x 1 + 12.0" Side Stone x 2 = 15.58' Base Width
9.0" Base + 45.0" Chamber Height + 12.0" Cover = 5.50' Field Height

20 Chambers x 110.0 cf + 14.9 cf Cap Volume x 2 x 2 Rows = 2,258.6 cf Chamber Storage

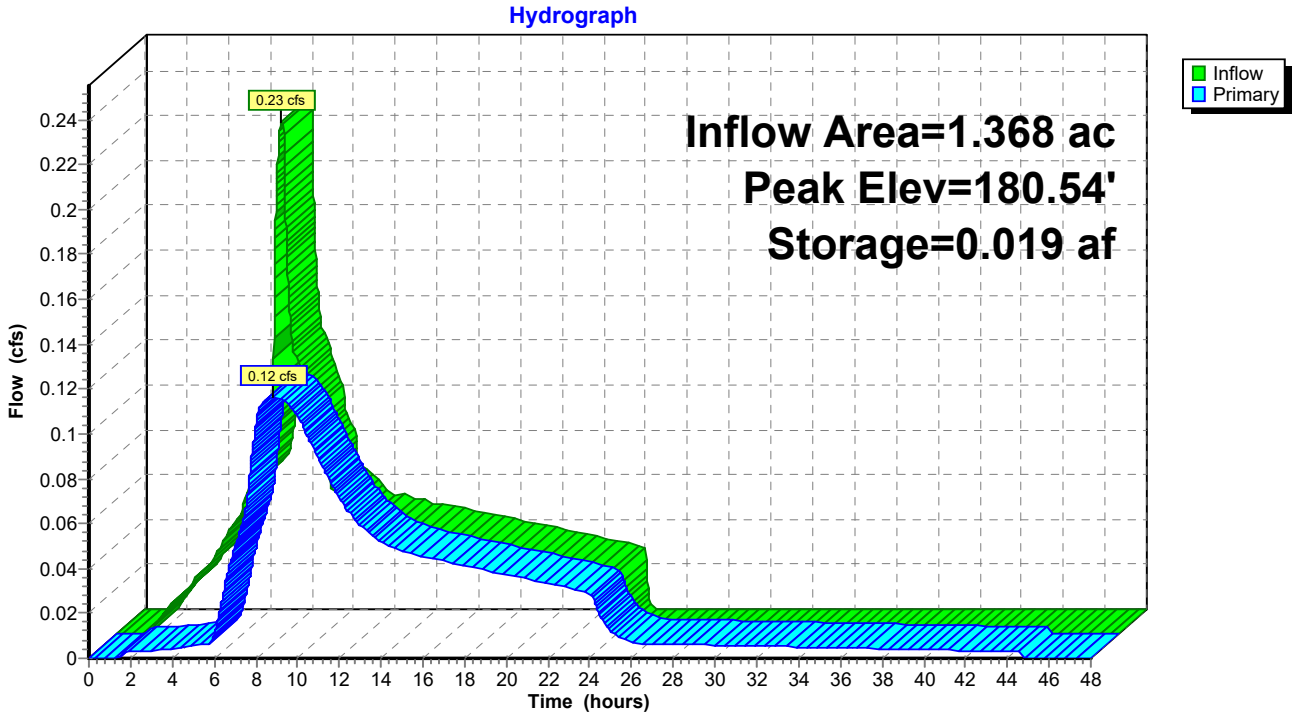
6,633.8 cf Field - 2,258.6 cf Chambers = 4,375.2 cf Stone x 33.0% Voids = 1,443.8 cf Stone Storage

Chamber Storage + Stone Storage = 3,702.5 cf = 0.085 af
Overall Storage Efficiency = 55.8%
Overall System Size = 77.40' x 15.58' x 5.50'

20 Chambers
245.7 cy Field
162.0 cy Stone



Pond 6P: MC-3500 Chambers



Summary for Pond 7P: MC-3500 Chambers

[44] Hint: Outlet device #2 is below defined storage
[44] Hint: Outlet device #3 is below defined storage

Inflow Area = 1.749 ac, 72.48% Impervious, Inflow Depth = 0.79" for 1/2 2 YEAR event
Inflow = 0.28 cfs @ 7.89 hrs, Volume= 0.115 af
Outflow = 0.13 cfs @ 8.99 hrs, Volume= 0.115 af, Atten= 53%, Lag= 65.6 min
Primary = 0.13 cfs @ 8.99 hrs, Volume= 0.115 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 178.89' @ 8.99 hrs Surf.Area= 0.033 ac Storage= 0.012 af
Flood Elev= 185.37' Surf.Area= 0.033 ac Storage= 0.101 af

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 24.8 min (742.6 - 717.8)

Volume	Invert	Avail.Storage	Storage Description
#1A	178.00'	0.039 af	**15.58'W x 91.74'L x 5.50'H Field A** 0.181 af Overall - 0.062 af Embedded = 0.119 af x 33.0% Voids
#2A	178.75'	0.062 af	**ADS_StormTech MC-3500 d +Cap**x 24 Inside #1 Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap 2 Rows of 12 Chambers Cap Storage= +14.9 cf x 2 x 2 rows = 59.6 cf
		0.101 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	177.80'	**8.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 177.80' / 177.45' S= 0.0700 '/' Cc= 0.900 n= 0.013, Flow Area= 0.35 sf
#2	Device 1	176.30'	**0.5" Horiz. 1/2 of 2-YR Orifice** C= 0.600 Limited to weir flow at low heads
#3	Device 1	177.80'	**2.2" Vert. 2-YR Orifice** C= 0.600
#4	Device 1	182.00'	**6.0" Horiz. 25-YR Orifice** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.13 cfs @ 8.99 hrs HW=178.89' TW=171.69' (Dynamic Tailwater)
└─**1=Culvert** (Passes 0.13 cfs of 1.15 cfs potential flow)
  ├─**2=1/2 of 2-YR Orifice** (Orifice Controls 0.01 cfs @ 5.02 fps)
  ├─**3=2-YR Orifice** (Orifice Controls 0.13 cfs @ 4.81 fps)
  └─**4=25-YR Orifice** (Controls 0.00 cfs)

Pond 7P: MC-3500 Chambers - Chamber Wizard Field A

Chamber Model = ADS_StormTechMC-3500 d +Cap (ADS StormTech®MC-3500 d rev 03/14 with Cap volume)
Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf
Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap
Cap Storage= +14.9 cf x 2 x 2 rows = 59.6 cf

77.0" Wide + 9.0" Spacing = 86.0" C-C Row Spacing

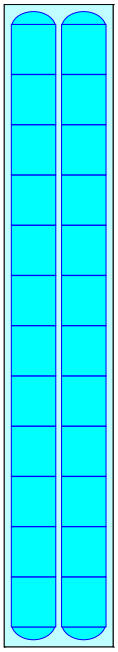
12 Chambers/Row x 7.17' Long +1.85' Cap Length x 2 = 89.74' Row Length +12.0" End Stone x 2 = 91.74' Base Length
2 Rows x 77.0" Wide + 9.0" Spacing x 1 + 12.0" Side Stone x 2 = 15.58' Base Width
9.0" Base + 45.0" Chamber Height + 12.0" Cover = 5.50' Field Height

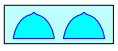
24 Chambers x 110.0 cf + 14.9 cf Cap Volume x 2 x 2 Rows = 2,698.4 cf Chamber Storage

7,862.9 cf Field - 2,698.4 cf Chambers = 5,164.4 cf Stone x 33.0% Voids = 1,704.3 cf Stone Storage

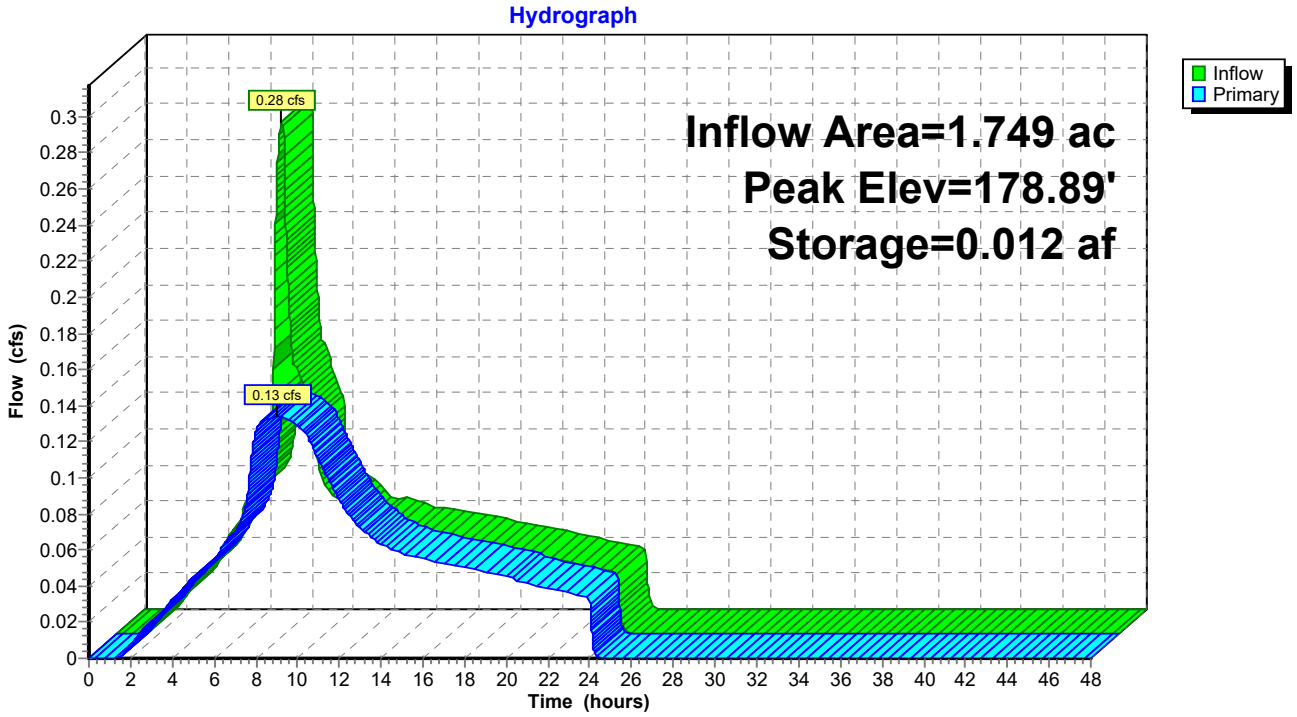
Chamber Storage + Stone Storage = 4,402.7 cf = 0.101 af
Overall Storage Efficiency = 56.0%
Overall System Size = 91.74' x 15.58' x 5.50'

24 Chambers
291.2 cy Field
191.3 cy Stone





Pond 7P: MC-3500 Chambers

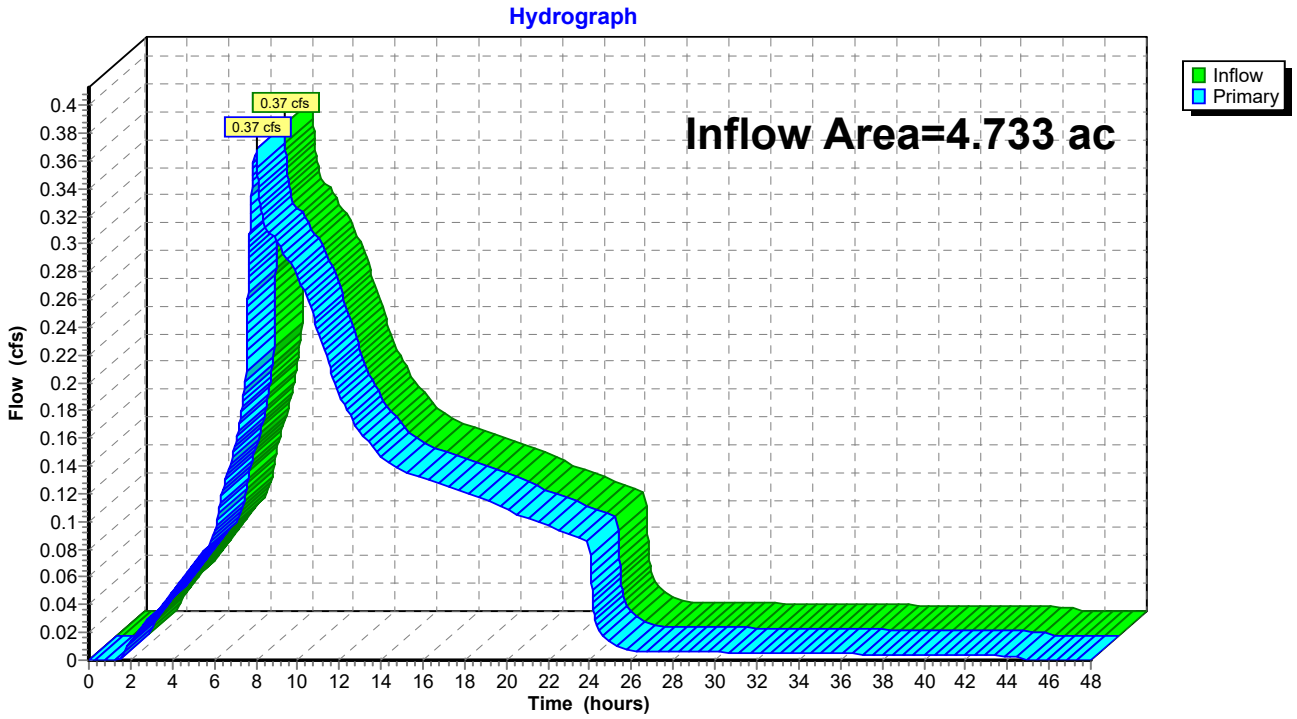


Summary for Link 1T: TOTAL - STREAM

Inflow Area = 4.733 ac, 60.67% Impervious, Inflow Depth = 0.68" for 1/2 2 YEAR event
Inflow = 0.37 cfs @ 8.00 hrs, Volume= 0.269 af
Primary = 0.37 cfs @ 8.00 hrs, Volume= 0.269 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Link 1T: TOTAL - STREAM

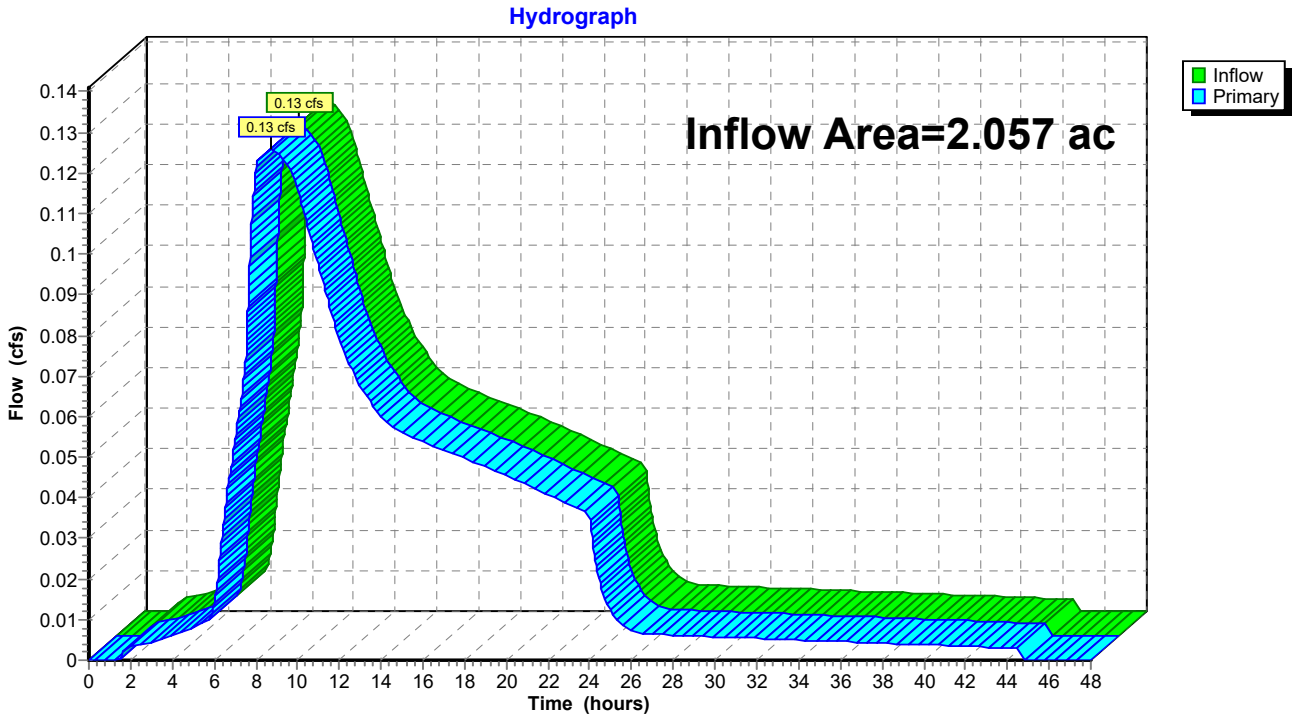


Summary for Link 2T: SUBTOTAL - LOT 2017

Inflow Area = 2.057 ac, 55.46% Impervious, Inflow Depth = 0.63" for 1/2 2 YEAR event
Inflow = 0.13 cfs @ 8.75 hrs, Volume= 0.109 af
Primary = 0.13 cfs @ 8.75 hrs, Volume= 0.109 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Link 2T: SUBTOTAL - LOT 2017

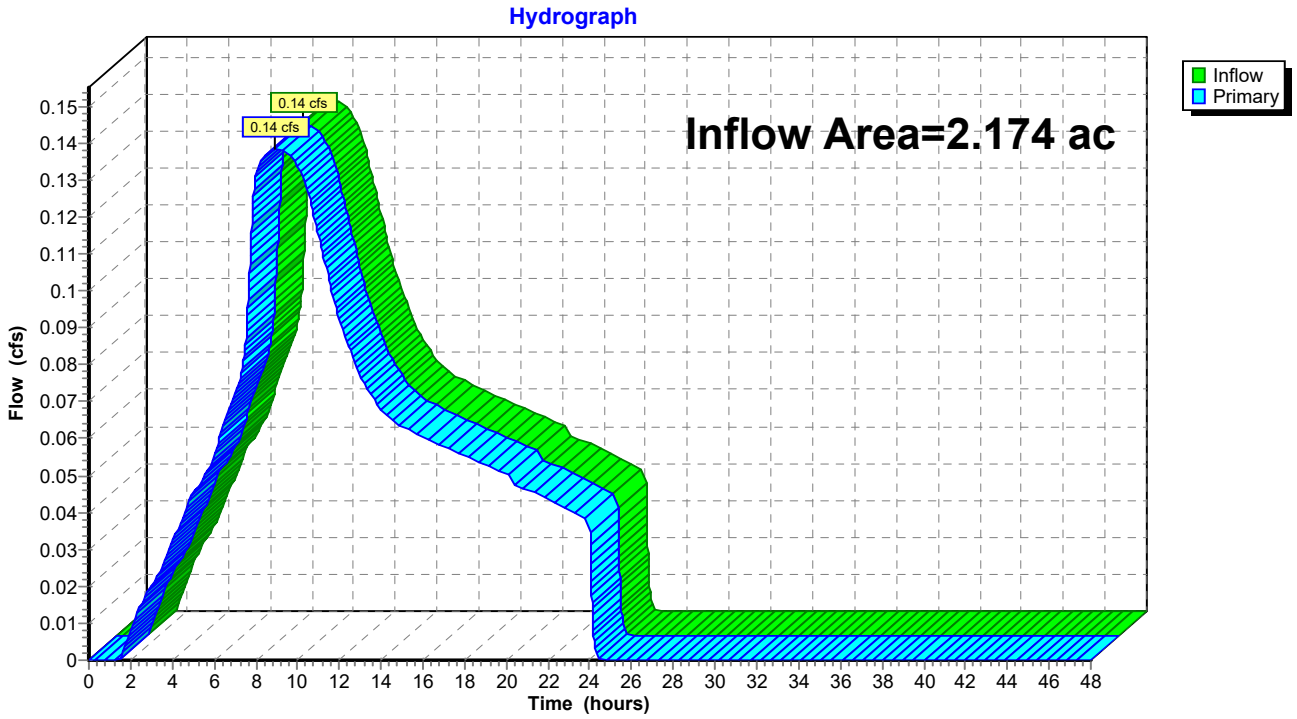


Summary for Link 3T: SUBTOTAL - LOT 2025

Inflow Area = 2.174 ac, 59.26% Impervious, Inflow Depth = 0.67" for 1/2 2 YEAR event
Inflow = 0.14 cfs @ 8.94 hrs, Volume= 0.122 af
Primary = 0.14 cfs @ 8.94 hrs, Volume= 0.122 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Link 3T: SUBTOTAL - LOT 2025

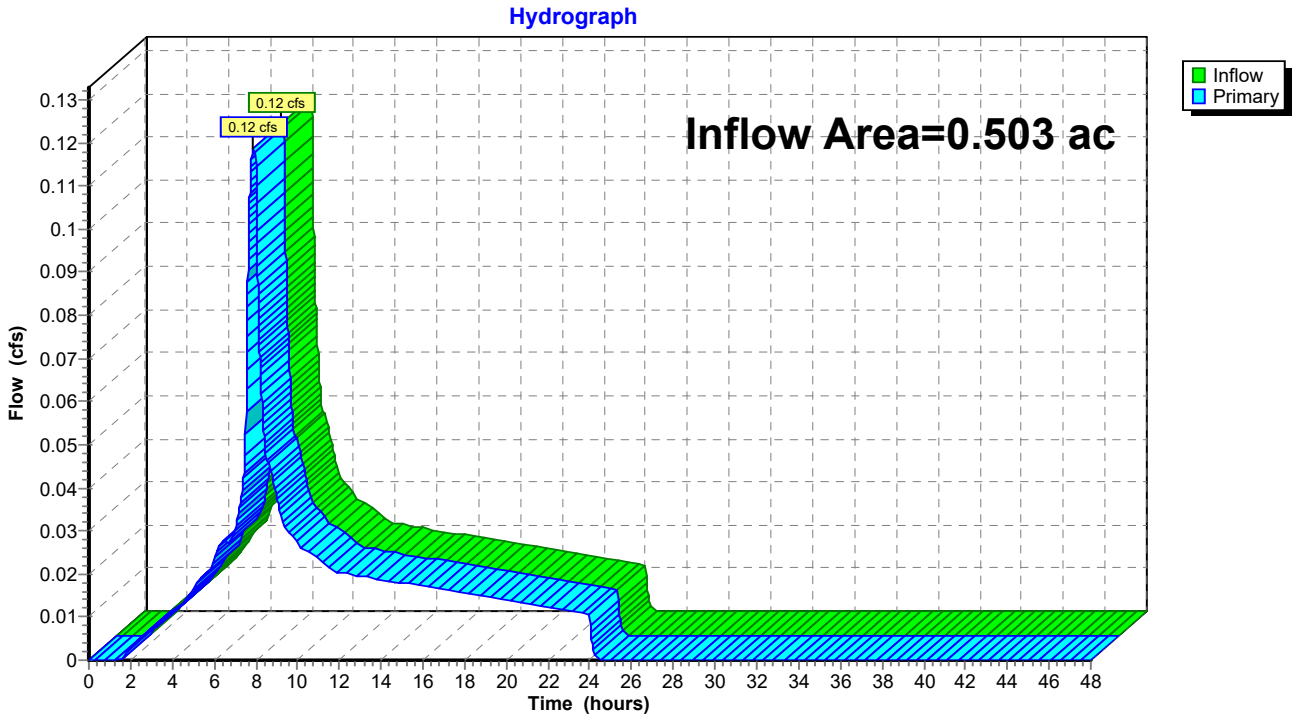


Summary for Link 4T: SUBTOTAL - HAYES ST

Inflow Area = 0.503 ac, 88.12% Impervious, Inflow Depth = 0.92" for 1/2 2 YEAR event
Inflow = 0.12 cfs @ 7.90 hrs, Volume= 0.039 af
Primary = 0.12 cfs @ 7.90 hrs, Volume= 0.039 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Link 4T: SUBTOTAL - HAYES ST



Time span=0.00-48.00 hrs, dt=0.01 hrs, 4801 points
Runoff by SBUH method, Split Pervious/Imperv.
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Pond 6P: MC-3500 Chambers Peak Elev=181.40' Storage=0.037 af Inflow=0.47 cfs 0.222 af
Outflow=0.20 cfs 0.222 af

Pond 7P: MC-3500 Chambers Peak Elev=180.08' Storage=0.042 af Inflow=0.61 cfs 0.272 af
Outflow=0.20 cfs 0.272 af

Link 1T: TOTAL - STREAM Inflow=0.81 cfs 0.666 af
Primary=0.81 cfs 0.666 af

Link 2T: SUBTOTAL - LOT 2017 Inflow=0.30 cfs 0.276 af
Primary=0.30 cfs 0.276 af

Link 3T: SUBTOTAL - LOT 2025 Inflow=0.25 cfs 0.304 af
Primary=0.25 cfs 0.304 af

Link 4T: SUBTOTAL - HAYES ST Inflow=0.26 cfs 0.087 af
Primary=0.26 cfs 0.087 af

Summary for Pond 6P: MC-3500 Chambers

[44] Hint: Outlet device #2 is below defined storage

Inflow Area = 1.368 ac, 78.39% Impervious, Inflow Depth = 1.95" for 2 YEAR event
Inflow = 0.47 cfs @ 7.90 hrs, Volume= 0.222 af
Outflow = 0.20 cfs @ 9.06 hrs, Volume= 0.222 af, Atten= 58%, Lag= 69.7 min
Primary = 0.20 cfs @ 9.06 hrs, Volume= 0.222 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 181.40' @ 9.06 hrs Surf.Area= 0.028 ac Storage= 0.037 af
Flood Elev= 186.23' Surf.Area= 0.028 ac Storage= 0.085 af

Plug-Flow detention time= 142.5 min calculated for 0.222 af (100% of inflow)
Center-of-Mass det. time= 142.7 min (858.2 - 715.5)

Volume	Invert	Avail.Storage	Storage Description
#1A	179.25'	0.033 af	**15.58'W x 77.40'L x 5.50'H Field A** 0.152 af Overall - 0.052 af Embedded = 0.100 af x 33.0% Voids
#2A	180.00'	0.052 af	**ADS_StormTech MC-3500 d +Cap**x 20 Inside #1 Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap 2 Rows of 10 Chambers Cap Storage= +14.9 cf x 2 x 2 rows = 59.6 cf
		0.085 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	179.05'	**8.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 179.05' / 179.00' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.35 sf
#2	Device 1	177.55'	**0.5" Horiz. 1/2 of 2-YR Orifice** C= 0.600 Limited to weir flow at low heads
#3	Device 1	180.00'	**2.5" Vert. 2-YR Orifice** C= 0.600
#4	Device 1	183.00'	**6.0" Horiz. 25-YR Orifice** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.20 cfs @ 9.06 hrs HW=181.40' TW=178.58' (Dynamic Tailwater)
↑**1=Culvert** (Passes 0.20 cfs of 1.89 cfs potential flow)
↑**2=1/2 of 2-YR Orifice** (Orifice Controls 0.01 cfs @ 7.38 fps)
3=2-YR Orifice (Orifice Controls 0.19 cfs @ 5.49 fps)
4=25-YR Orifice (Controls 0.00 cfs)

Pond 6P: MC-3500 Chambers - Chamber Wizard Field A

Chamber Model = ADS_StormTechMC-3500 d +Cap (ADS StormTech®MC-3500 d rev 03/14 with Cap volume)
Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf
Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap
Cap Storage= +14.9 cf x 2 x 2 rows = 59.6 cf

77.0" Wide + 9.0" Spacing = 86.0" C-C Row Spacing

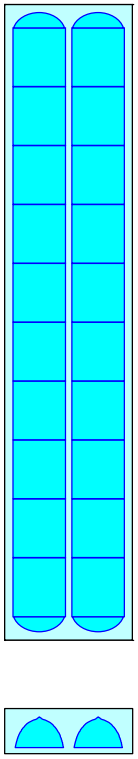
10 Chambers/Row x 7.17' Long +1.85' Cap Length x 2 = 75.40' Row Length +12.0" End Stone x 2 = 77.40' Base Length
2 Rows x 77.0" Wide + 9.0" Spacing x 1 + 12.0" Side Stone x 2 = 15.58' Base Width
9.0" Base + 45.0" Chamber Height + 12.0" Cover = 5.50' Field Height

20 Chambers x 110.0 cf + 14.9 cf Cap Volume x 2 x 2 Rows = 2,258.6 cf Chamber Storage

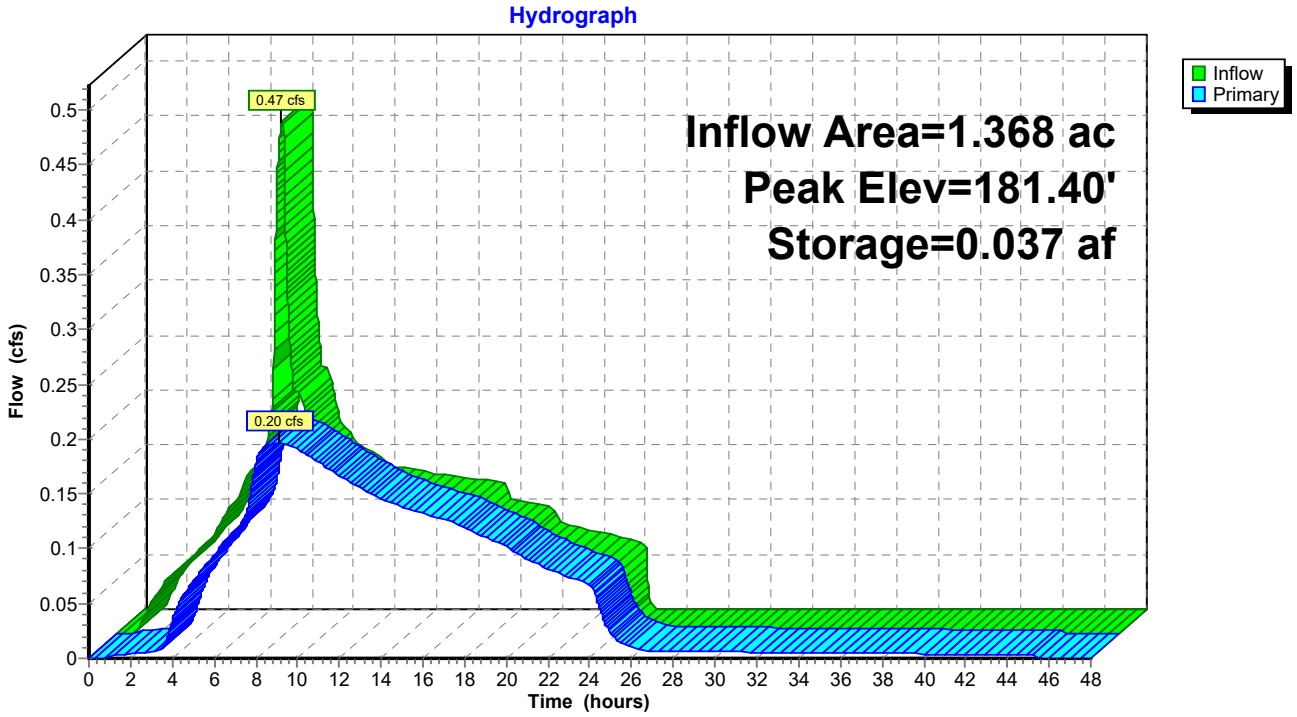
6,633.8 cf Field - 2,258.6 cf Chambers = 4,375.2 cf Stone x 33.0% Voids = 1,443.8 cf Stone Storage

Chamber Storage + Stone Storage = 3,702.5 cf = 0.085 af
Overall Storage Efficiency = 55.8%
Overall System Size = 77.40' x 15.58' x 5.50'

20 Chambers
245.7 cy Field
162.0 cy Stone



Pond 6P: MC-3500 Chambers



Summary for Pond 7P: MC-3500 Chambers

[44] Hint: Outlet device #2 is below defined storage
[44] Hint: Outlet device #3 is below defined storage

Inflow Area = 1.749 ac, 72.48% Impervious, Inflow Depth = 1.87" for 2 YEAR event
Inflow = 0.61 cfs @ 7.91 hrs, Volume= 0.272 af
Outflow = 0.20 cfs @ 9.85 hrs, Volume= 0.272 af, Atten= 67%, Lag= 116.6 min
Primary = 0.20 cfs @ 9.85 hrs, Volume= 0.272 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 180.08' @ 9.85 hrs Surf.Area= 0.033 ac Storage= 0.042 af
Flood Elev= 185.37' Surf.Area= 0.033 ac Storage= 0.101 af

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 103.0 min (816.7 - 713.6)

Volume	Invert	Avail.Storage	Storage Description
#1A	178.00'	0.039 af	**15.58'W x 91.74'L x 5.50'H Field A** 0.181 af Overall - 0.062 af Embedded = 0.119 af x 33.0% Voids
#2A	178.75'	0.062 af	**ADS_StormTech MC-3500 d +Cap**x 24 Inside #1 Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap 2 Rows of 12 Chambers Cap Storage= +14.9 cf x 2 x 2 rows = 59.6 cf
		0.101 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	177.80'	**8.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 177.80' / 177.45' S= 0.0700 '/' Cc= 0.900 n= 0.013, Flow Area= 0.35 sf
#2	Device 1	176.30'	**0.5" Horiz. 1/2 of 2-YR Orifice** C= 0.600 Limited to weir flow at low heads
#3	Device 1	177.80'	**2.2" Vert. 2-YR Orifice** C= 0.600
#4	Device 1	182.00'	**6.0" Horiz. 25-YR Orifice** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.20 cfs @ 9.85 hrs HW=180.08' TW=171.70' (Dynamic Tailwater)
└─**1=Culvert** (Passes 0.20 cfs of 1.85 cfs potential flow)
  ├─**2=1/2 of 2-YR Orifice** (Orifice Controls 0.01 cfs @ 7.27 fps)
  ├─**3=2-YR Orifice** (Orifice Controls 0.19 cfs @ 7.12 fps)
  └─**4=25-YR Orifice** (Controls 0.00 cfs)

Pond 7P: MC-3500 Chambers - Chamber Wizard Field A

Chamber Model = ADS_StormTechMC-3500 d +Cap (ADS StormTech®MC-3500 d rev 03/14 with Cap volume)
Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf
Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap
Cap Storage= +14.9 cf x 2 x 2 rows = 59.6 cf

77.0" Wide + 9.0" Spacing = 86.0" C-C Row Spacing

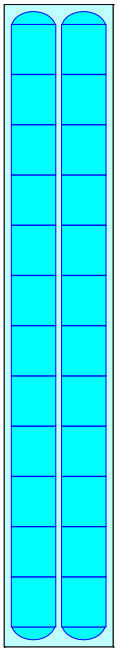
12 Chambers/Row x 7.17' Long +1.85' Cap Length x 2 = 89.74' Row Length +12.0" End Stone x 2 = 91.74' Base Length
2 Rows x 77.0" Wide + 9.0" Spacing x 1 + 12.0" Side Stone x 2 = 15.58' Base Width
9.0" Base + 45.0" Chamber Height + 12.0" Cover = 5.50' Field Height

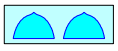
24 Chambers x 110.0 cf + 14.9 cf Cap Volume x 2 x 2 Rows = 2,698.4 cf Chamber Storage

7,862.9 cf Field - 2,698.4 cf Chambers = 5,164.4 cf Stone x 33.0% Voids = 1,704.3 cf Stone Storage

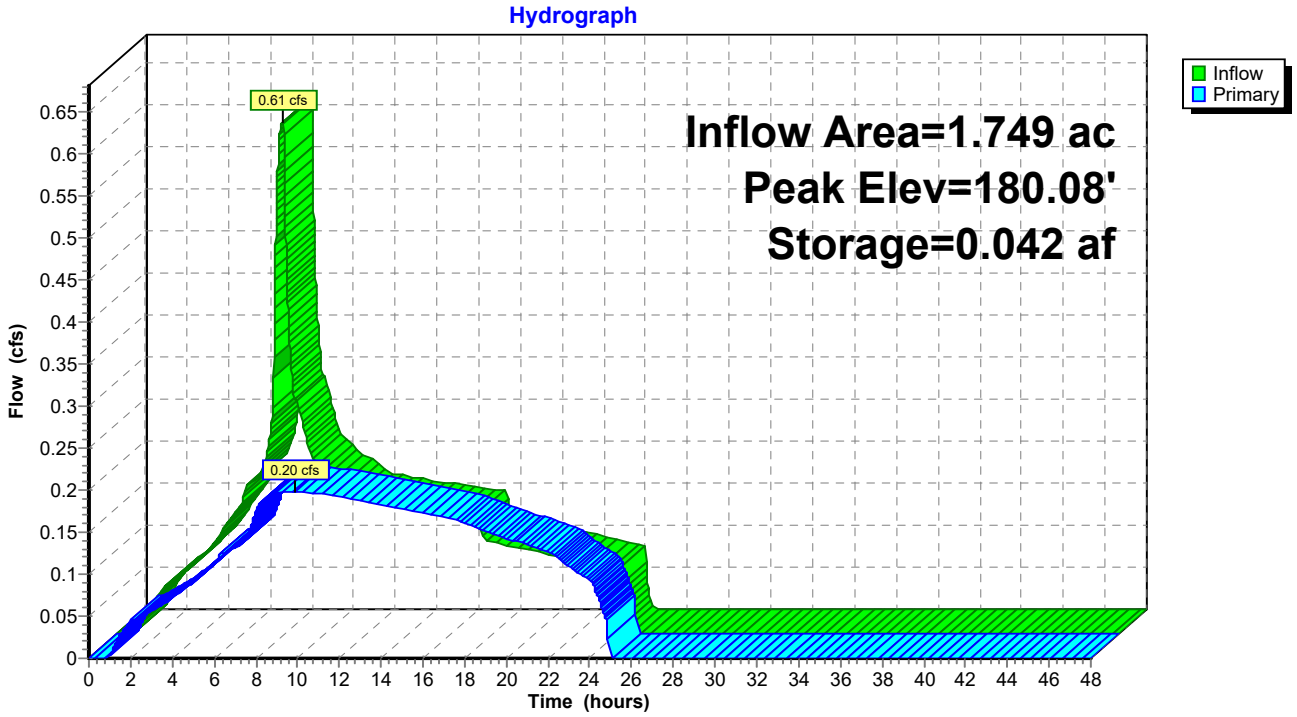
Chamber Storage + Stone Storage = 4,402.7 cf = 0.101 af
Overall Storage Efficiency = 56.0%
Overall System Size = 91.74' x 15.58' x 5.50'

24 Chambers
291.2 cy Field
191.3 cy Stone





Pond 7P: MC-3500 Chambers

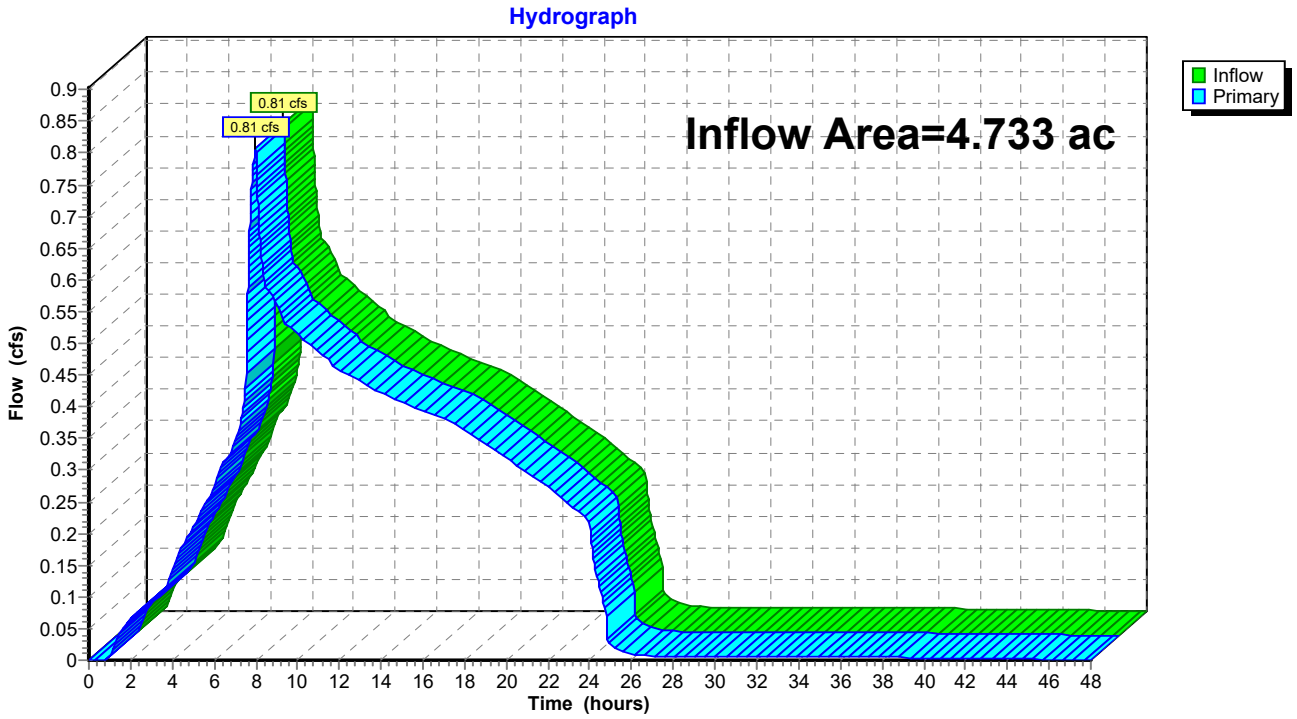


Summary for Link 1T: TOTAL - STREAM

Inflow Area = 4.733 ac, 60.67% Impervious, Inflow Depth = 1.69" for 2 YEAR event
Inflow = 0.81 cfs @ 8.00 hrs, Volume= 0.666 af
Primary = 0.81 cfs @ 8.00 hrs, Volume= 0.666 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Link 1T: TOTAL - STREAM

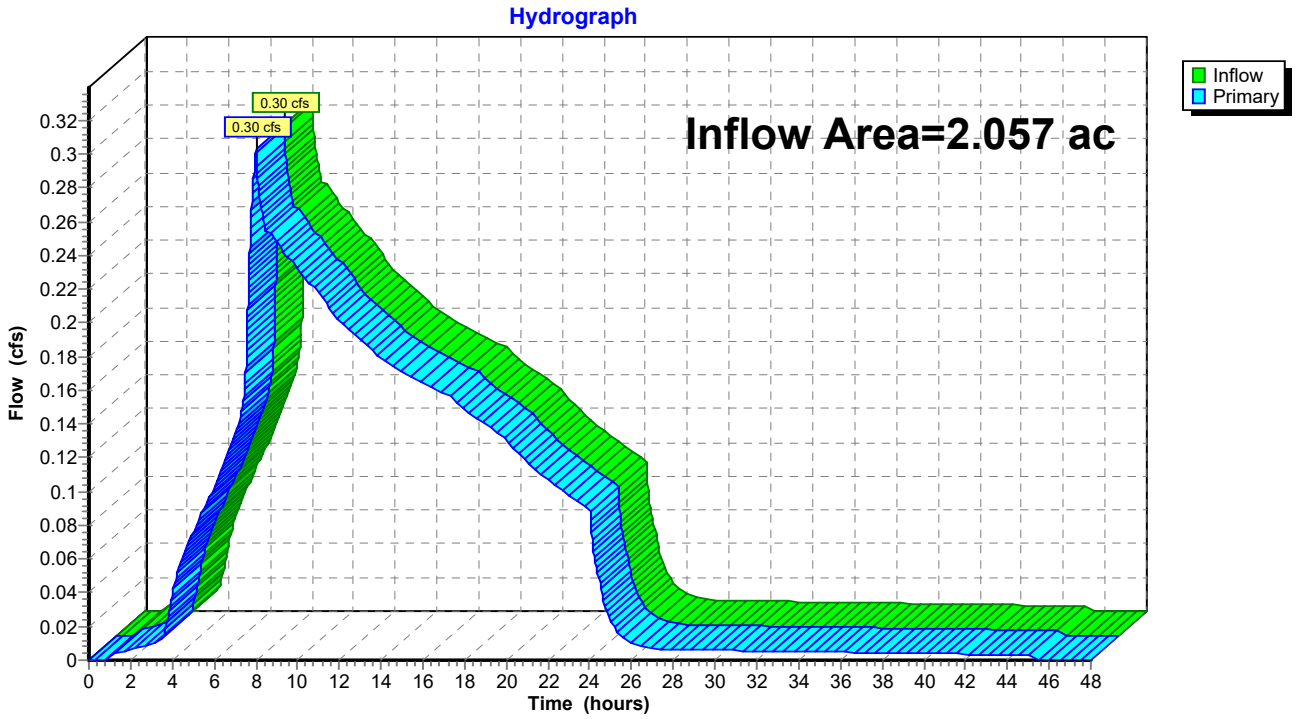


Summary for Link 2T: SUBTOTAL - LOT 2017

Inflow Area = 2.057 ac, 55.46% Impervious, Inflow Depth = 1.61" for 2 YEAR event
Inflow = 0.30 cfs @ 8.00 hrs, Volume= 0.276 af
Primary = 0.30 cfs @ 8.00 hrs, Volume= 0.276 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Link 2T: SUBTOTAL - LOT 2017

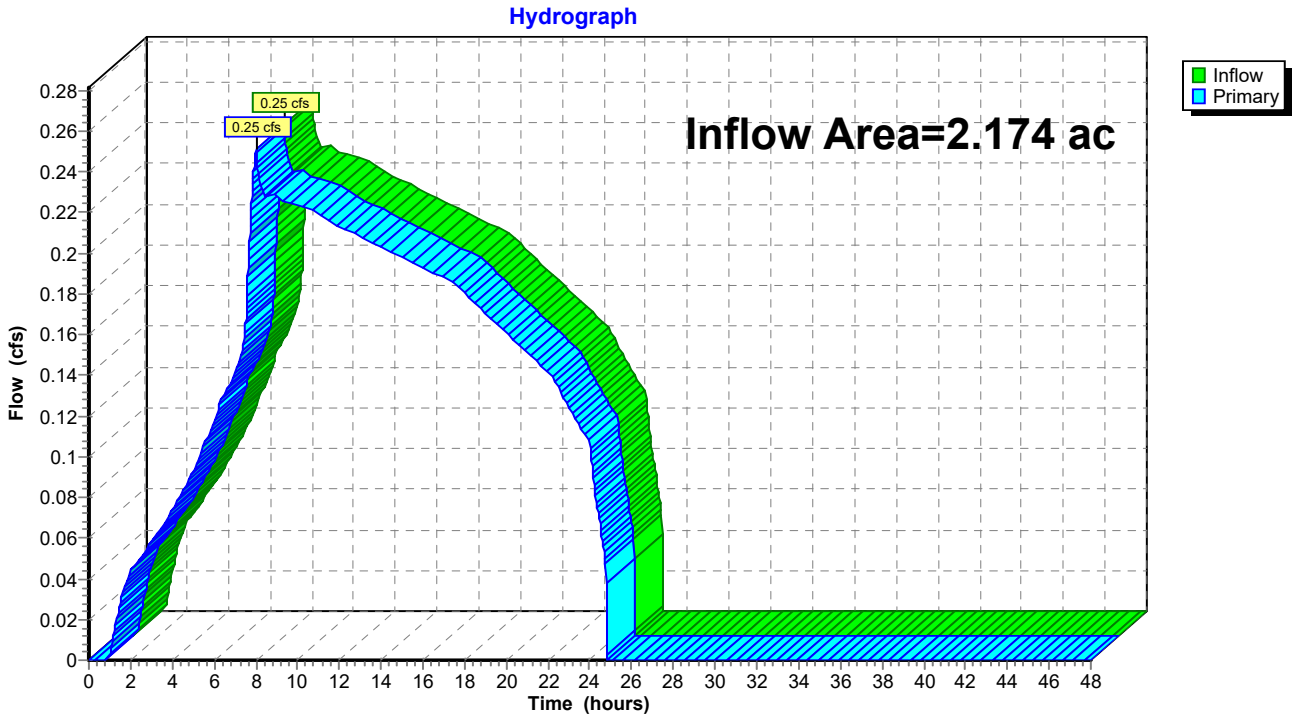


Summary for Link 3T: SUBTOTAL - LOT 2025

Inflow Area = 2.174 ac, 59.26% Impervious, Inflow Depth = 1.68" for 2 YEAR event
Inflow = 0.25 cfs @ 8.00 hrs, Volume= 0.304 af
Primary = 0.25 cfs @ 8.00 hrs, Volume= 0.304 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Link 3T: SUBTOTAL - LOT 2025

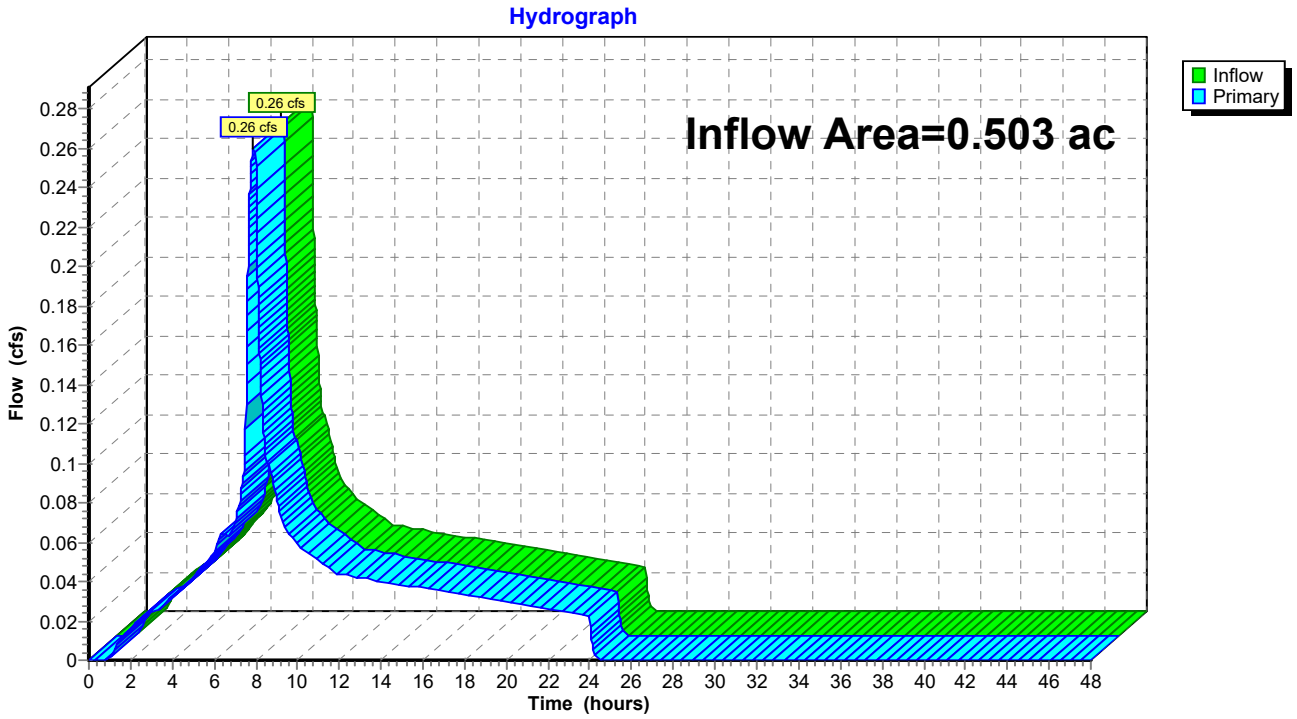


Summary for Link 4T: SUBTOTAL - HAYES ST

Inflow Area = 0.503 ac, 88.12% Impervious, Inflow Depth = 2.07" for 2 YEAR event
Inflow = 0.26 cfs @ 7.89 hrs, Volume= 0.087 af
Primary = 0.26 cfs @ 7.89 hrs, Volume= 0.087 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Link 4T: SUBTOTAL - HAYES ST



Time span=0.00-48.00 hrs, dt=0.01 hrs, 4801 points
Runoff by SBUH method, Split Pervious/Imperv.
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Pond 6P: MC-3500 Chambers Peak Elev=182.82' Storage=0.064 af Inflow=0.85 cfs 0.329 af
Outflow=0.28 cfs 0.329 af

Pond 7P: MC-3500 Chambers Peak Elev=182.02' Storage=0.084 af Inflow=0.98 cfs 0.406 af
Outflow=0.28 cfs 0.406 af

Link 1T: TOTAL - STREAM Inflow=1.23 cfs 1.015 af
Primary=1.23 cfs 1.015 af

Link 2T: SUBTOTAL - LOT 2017 Inflow=0.49 cfs 0.424 af
Primary=0.49 cfs 0.424 af

Link 3T: SUBTOTAL - LOT 2025 Inflow=0.37 cfs 0.464 af
Primary=0.37 cfs 0.464 af

Link 4T: SUBTOTAL - HAYES ST Inflow=0.38 cfs 0.127 af
Primary=0.38 cfs 0.127 af

Summary for Pond 6P: MC-3500 Chambers

[44] Hint: Outlet device #2 is below defined storage

Inflow Area = 1.368 ac, 78.39% Impervious, Inflow Depth = 2.88" for 10 YEAR event
Inflow = 0.85 cfs @ 8.00 hrs, Volume= 0.329 af
Outflow = 0.28 cfs @ 9.18 hrs, Volume= 0.329 af, Atten= 67%, Lag= 70.7 min
Primary = 0.28 cfs @ 9.18 hrs, Volume= 0.329 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 182.82' @ 9.18 hrs Surf.Area= 0.028 ac Storage= 0.064 af
Flood Elev= 186.23' Surf.Area= 0.028 ac Storage= 0.085 af

Plug-Flow detention time= 148.7 min calculated for 0.329 af (100% of inflow)
Center-of-Mass det. time= 149.0 min (863.4 - 714.4)

Volume	Invert	Avail.Storage	Storage Description
#1A	179.25'	0.033 af	**15.58'W x 77.40'L x 5.50'H Field A** 0.152 af Overall - 0.052 af Embedded = 0.100 af x 33.0% Voids
#2A	180.00'	0.052 af	**ADS_StormTech MC-3500 d +Cap**x 20 Inside #1 Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap 2 Rows of 10 Chambers Cap Storage= +14.9 cf x 2 x 2 rows = 59.6 cf
		0.085 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	179.05'	**8.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 179.05' / 179.00' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.35 sf
#2	Device 1	177.55'	**0.5" Horiz. 1/2 of 2-YR Orifice** C= 0.600 Limited to weir flow at low heads
#3	Device 1	180.00'	**2.5" Vert. 2-YR Orifice** C= 0.600
#4	Device 1	183.00'	**6.0" Horiz. 25-YR Orifice** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.28 cfs @ 9.18 hrs HW=182.82' TW=178.61' (Dynamic Tailwater)
└**1=Culvert** (Passes 0.28 cfs of 2.46 cfs potential flow)
  ├**2=1/2 of 2-YR Orifice** (Orifice Controls 0.01 cfs @ 9.35 fps)
  ├**3=2-YR Orifice** (Orifice Controls 0.27 cfs @ 7.94 fps)
  └**4=25-YR Orifice** (Controls 0.00 cfs)

Pond 6P: MC-3500 Chambers - Chamber Wizard Field A

Chamber Model = ADS_StormTechMC-3500 d +Cap (ADS StormTech®MC-3500 d rev 03/14 with Cap volume)
Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf
Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap
Cap Storage= +14.9 cf x 2 x 2 rows = 59.6 cf

77.0" Wide + 9.0" Spacing = 86.0" C-C Row Spacing

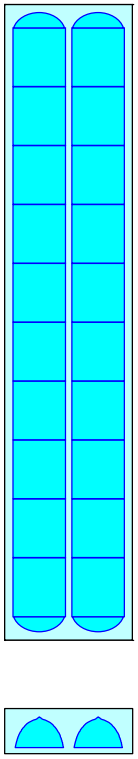
10 Chambers/Row x 7.17' Long +1.85' Cap Length x 2 = 75.40' Row Length +12.0" End Stone x 2 = 77.40' Base Length
2 Rows x 77.0" Wide + 9.0" Spacing x 1 + 12.0" Side Stone x 2 = 15.58' Base Width
9.0" Base + 45.0" Chamber Height + 12.0" Cover = 5.50' Field Height

20 Chambers x 110.0 cf + 14.9 cf Cap Volume x 2 x 2 Rows = 2,258.6 cf Chamber Storage

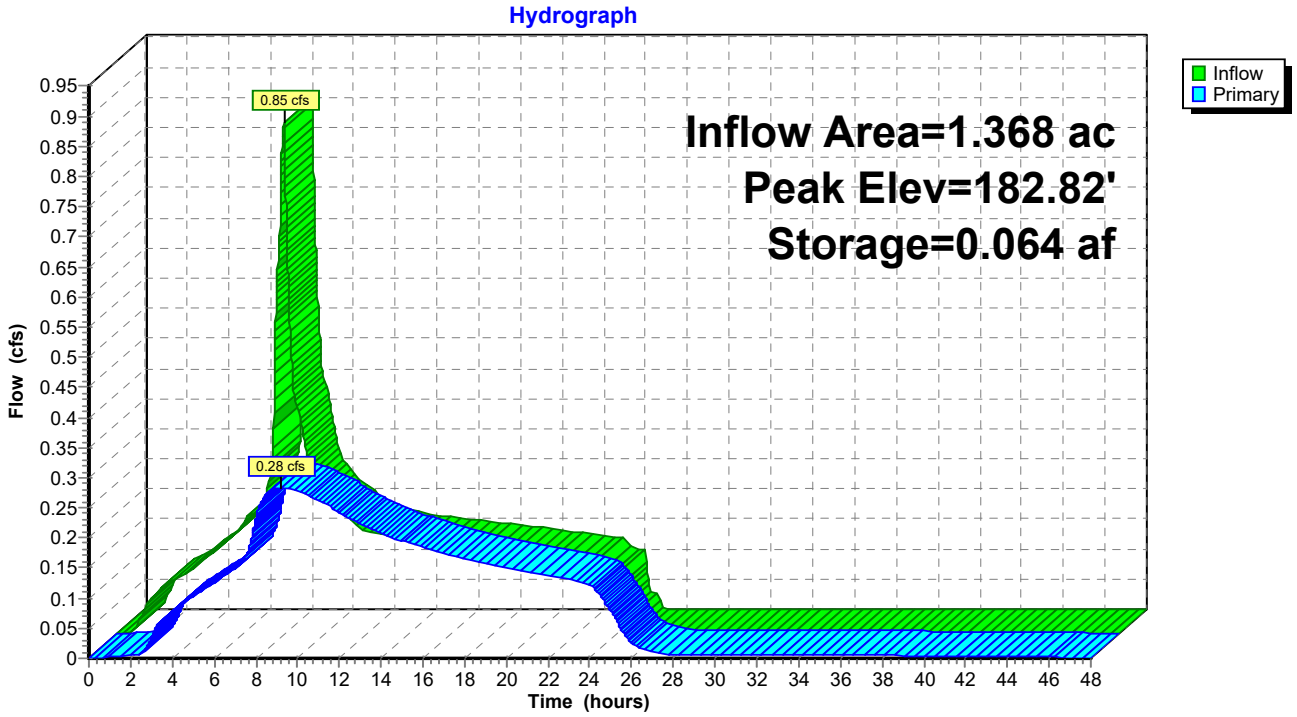
6,633.8 cf Field - 2,258.6 cf Chambers = 4,375.2 cf Stone x 33.0% Voids = 1,443.8 cf Stone Storage

Chamber Storage + Stone Storage = 3,702.5 cf = 0.085 af
Overall Storage Efficiency = 55.8%
Overall System Size = 77.40' x 15.58' x 5.50'

20 Chambers
245.7 cy Field
162.0 cy Stone



Pond 6P: MC-3500 Chambers



Summary for Pond 7P: MC-3500 Chambers

[44] Hint: Outlet device #2 is below defined storage
[44] Hint: Outlet device #3 is below defined storage

Inflow Area = 1.749 ac, 72.48% Impervious, Inflow Depth = 2.78" for 10 YEAR event
Inflow = 0.98 cfs @ 8.00 hrs, Volume= 0.406 af
Outflow = 0.28 cfs @ 9.99 hrs, Volume= 0.406 af, Atten= 71%, Lag= 119.4 min
Primary = 0.28 cfs @ 9.99 hrs, Volume= 0.406 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 182.02' @ 9.99 hrs Surf.Area= 0.033 ac Storage= 0.084 af
Flood Elev= 185.37' Surf.Area= 0.033 ac Storage= 0.101 af

Plug-Flow detention time= 164.1 min calculated for 0.406 af (100% of inflow)
Center-of-Mass det. time= 164.1 min (877.2 - 713.0)

Volume	Invert	Avail.Storage	Storage Description
#1A	178.00'	0.039 af	**15.58'W x 91.74'L x 5.50'H Field A** 0.181 af Overall - 0.062 af Embedded = 0.119 af x 33.0% Voids
#2A	178.75'	0.062 af	**ADS_StormTech MC-3500 d +Cap**x 24 Inside #1 Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap 2 Rows of 12 Chambers Cap Storage= +14.9 cf x 2 x 2 rows = 59.6 cf
		0.101 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	177.80'	**8.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 177.80' / 177.45' S= 0.0700 '/' Cc= 0.900 n= 0.013, Flow Area= 0.35 sf
#2	Device 1	176.30'	**0.5" Horiz. 1/2 of 2-YR Orifice** C= 0.600 Limited to weir flow at low heads
#3	Device 1	177.80'	**2.2" Vert. 2-YR Orifice** C= 0.600
#4	Device 1	182.00'	**6.0" Horiz. 25-YR Orifice** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.28 cfs @ 9.99 hrs HW=182.02' TW=171.72' (Dynamic Tailwater)
└─**1=Culvert** (Passes 0.28 cfs of 2.62 cfs potential flow)
  ├─**2=1/2 of 2-YR Orifice** (Orifice Controls 0.01 cfs @ 9.89 fps)
  ├─**3=2-YR Orifice** (Orifice Controls 0.26 cfs @ 9.78 fps)
  └─**4=25-YR Orifice** (Weir Controls 0.01 cfs @ 0.44 fps)

Pond 7P: MC-3500 Chambers - Chamber Wizard Field A

Chamber Model = ADS_StormTechMC-3500 d +Cap (ADS StormTech®MC-3500 d rev 03/14 with Cap volume)
Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf
Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap
Cap Storage= +14.9 cf x 2 x 2 rows = 59.6 cf

77.0" Wide + 9.0" Spacing = 86.0" C-C Row Spacing

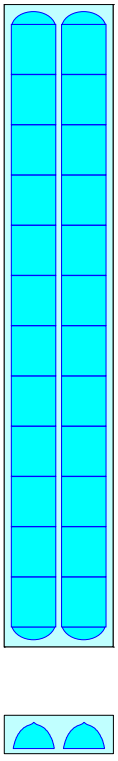
12 Chambers/Row x 7.17' Long +1.85' Cap Length x 2 = 89.74' Row Length +12.0" End Stone x 2 = 91.74' Base Length
2 Rows x 77.0" Wide + 9.0" Spacing x 1 + 12.0" Side Stone x 2 = 15.58' Base Width
9.0" Base + 45.0" Chamber Height + 12.0" Cover = 5.50' Field Height

24 Chambers x 110.0 cf + 14.9 cf Cap Volume x 2 x 2 Rows = 2,698.4 cf Chamber Storage

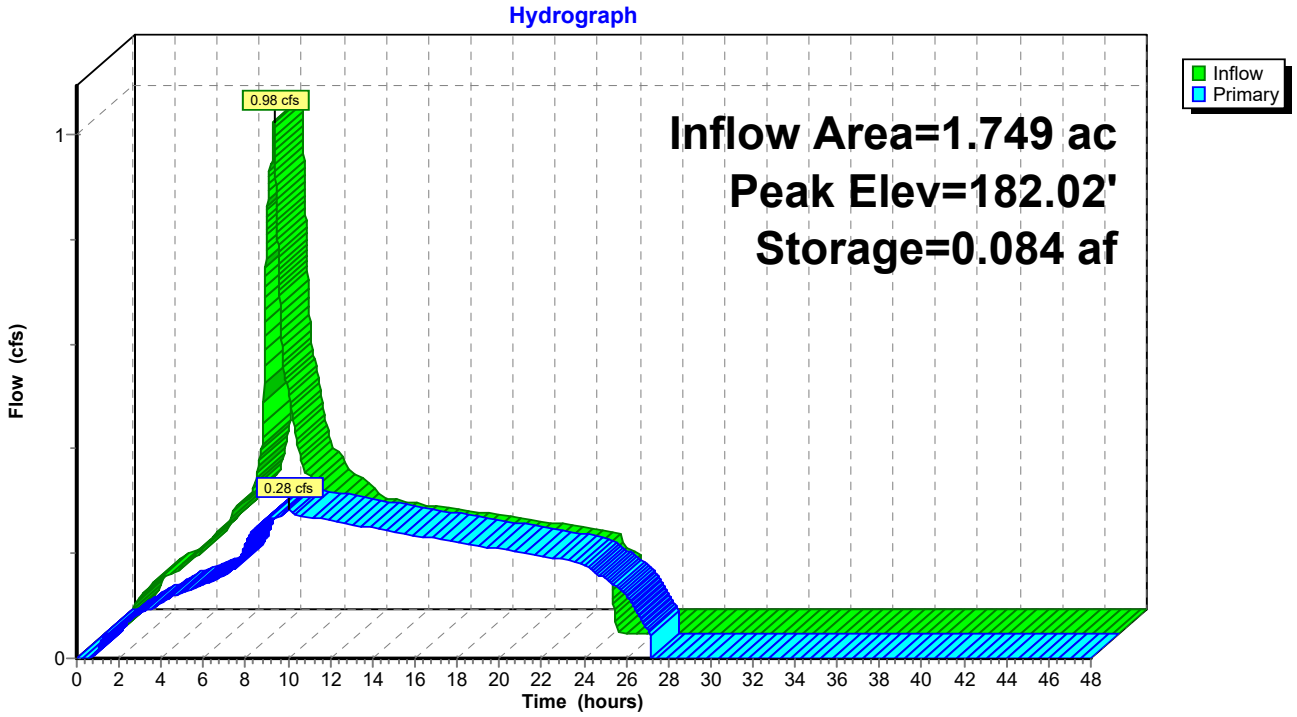
7,862.9 cf Field - 2,698.4 cf Chambers = 5,164.4 cf Stone x 33.0% Voids = 1,704.3 cf Stone Storage

Chamber Storage + Stone Storage = 4,402.7 cf = 0.101 af
Overall Storage Efficiency = 56.0%
Overall System Size = 91.74' x 15.58' x 5.50'

24 Chambers
291.2 cy Field
191.3 cy Stone



Pond 7P: MC-3500 Chambers

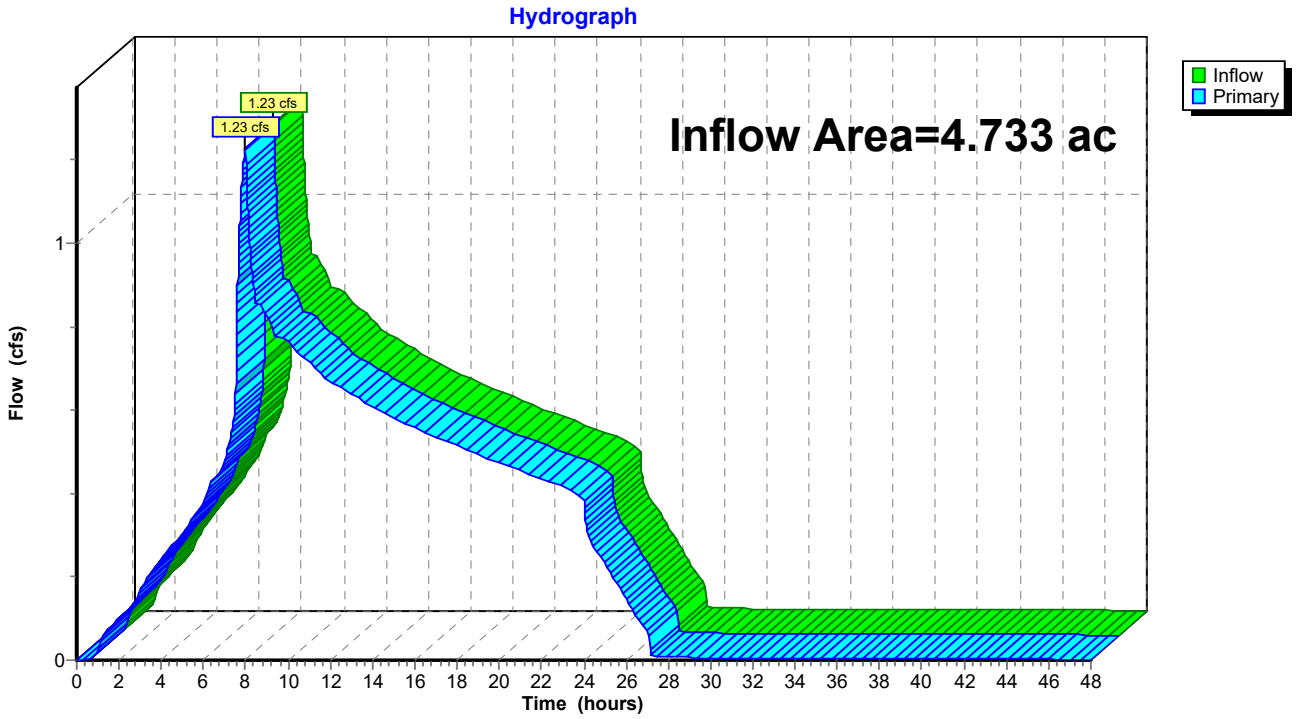


Summary for Link 1T: TOTAL - STREAM

Inflow Area = 4.733 ac, 60.67% Impervious, Inflow Depth = 2.57" for 10 YEAR event
Inflow = 1.23 cfs @ 8.00 hrs, Volume= 1.015 af
Primary = 1.23 cfs @ 8.00 hrs, Volume= 1.015 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Link 1T: TOTAL - STREAM

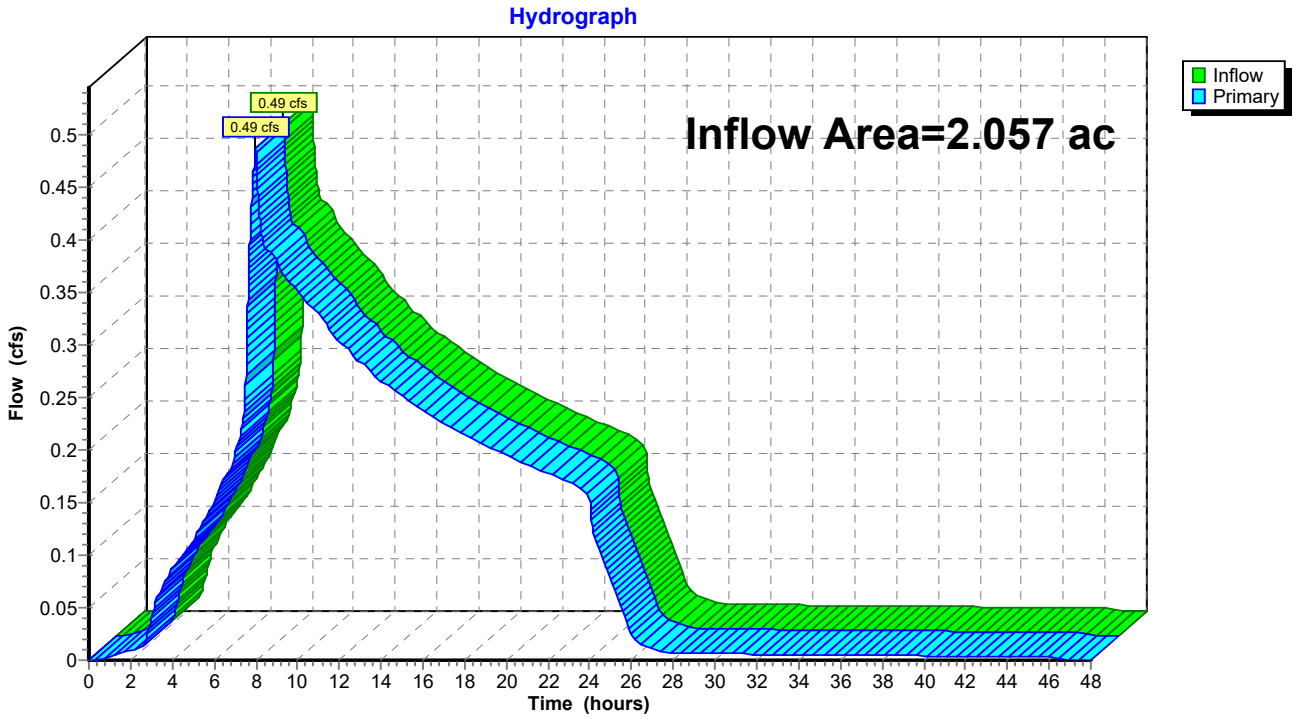


Summary for Link 2T: SUBTOTAL - LOT 2017

Inflow Area = 2.057 ac, 55.46% Impervious, Inflow Depth = 2.47" for 10 YEAR event
Inflow = 0.49 cfs @ 8.00 hrs, Volume= 0.424 af
Primary = 0.49 cfs @ 8.00 hrs, Volume= 0.424 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Link 2T: SUBTOTAL - LOT 2017

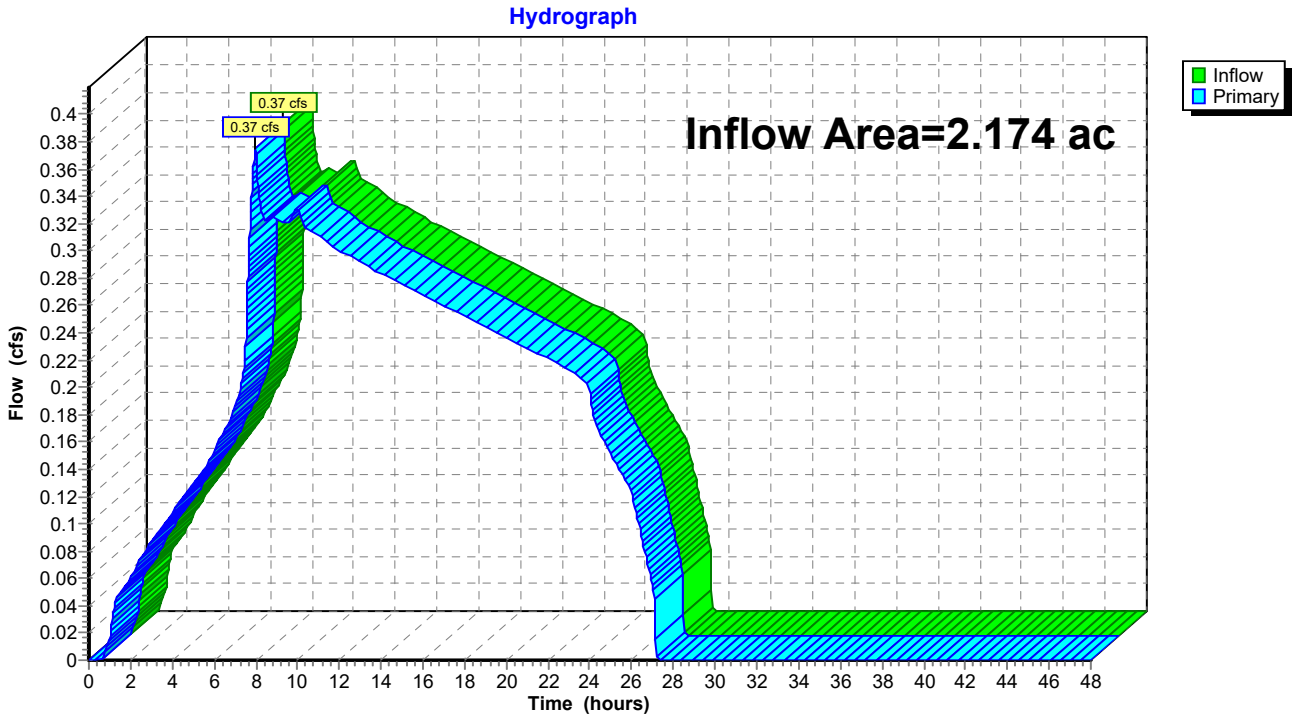


Summary for Link 3T: SUBTOTAL - LOT 2025

Inflow Area = 2.174 ac, 59.26% Impervious, Inflow Depth = 2.56" for 10 YEAR event
Inflow = 0.37 cfs @ 8.00 hrs, Volume= 0.464 af
Primary = 0.37 cfs @ 8.00 hrs, Volume= 0.464 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Link 3T: SUBTOTAL - LOT 2025

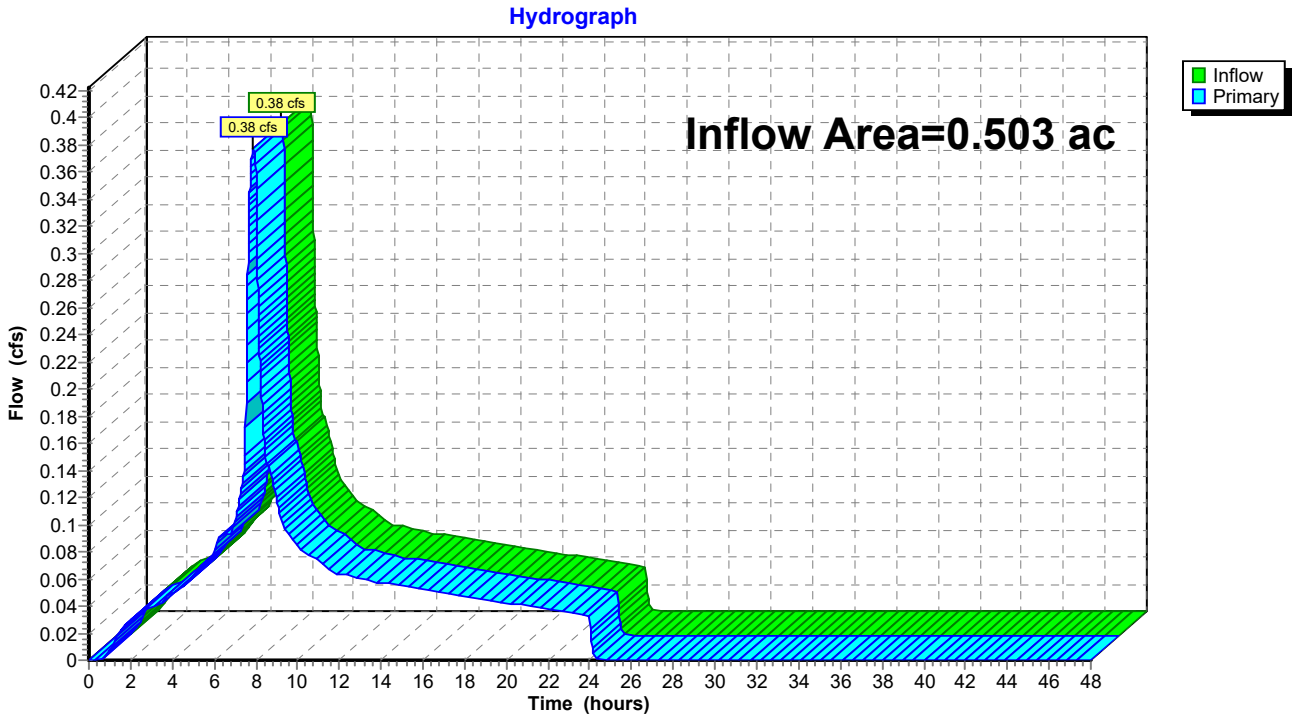


Summary for Link 4T: SUBTOTAL - HAYES ST

Inflow Area = 0.503 ac, 88.12% Impervious, Inflow Depth = 3.03" for 10 YEAR event
Inflow = 0.38 cfs @ 7.89 hrs, Volume= 0.127 af
Primary = 0.38 cfs @ 7.89 hrs, Volume= 0.127 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Link 4T: SUBTOTAL - HAYES ST



Time span=0.00-48.00 hrs, dt=0.01 hrs, 4801 points
Runoff by SBUH method, Split Pervious/Imperv.
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1S: BUILDING A Runoff Area=4,691 sf 100.00% Impervious Runoff Depth=3.77"
Tc=5.0 min CN=0/98 Runoff=0.10 cfs 0.034 af

Subcatchment2S: BUILDING B Runoff Area=4,644 sf 100.00% Impervious Runoff Depth=3.77"
Tc=5.0 min CN=0/98 Runoff=0.10 cfs 0.033 af

Subcatchment3ES: HAYES ST NORTH Runoff Area=11,749 sf 90.00% Impervious Runoff Depth=3.55"
Tc=5.0 min CN=74/98 Runoff=0.24 cfs 0.080 af

Subcatchment3S: BUILDING C Runoff Area=9,344 sf 100.00% Impervious Runoff Depth=3.77"
Tc=5.0 min CN=0/98 Runoff=0.20 cfs 0.067 af

Subcatchment4ES: HAYES ST SOUTH Runoff Area=10,159 sf 85.94% Impervious Runoff Depth=3.46"
Tc=5.0 min CN=74/98 Runoff=0.20 cfs 0.067 af

Subcatchment4S: PARKING LOT Runoff Area=16,971 sf 100.00% Impervious Runoff Depth=3.77"
Tc=5.0 min CN=0/98 Runoff=0.37 cfs 0.122 af

Subcatchment5S: PARKING LOT Runoff Area=11,070 sf 100.00% Impervious Runoff Depth=3.77"
Tc=5.0 min CN=0/98 Runoff=0.24 cfs 0.080 af

Subcatchment6S: LANDSCAPE Runoff Area=12,876 sf 0.00% Impervious Runoff Depth=1.89"
Tc=5.0 min CN=78/0 Runoff=0.13 cfs 0.046 af

Subcatchment7S: UNCOLLECTED Runoff Area=21,115 sf 4.36% Impervious Runoff Depth=2.04"
Tc=5.0 min CN=79/98 Runoff=0.23 cfs 0.082 af

Subcatchment8S: BUILDING D Runoff Area=9,371 sf 100.00% Impervious Runoff Depth=3.77"
Tc=5.0 min CN=0/98 Runoff=0.20 cfs 0.067 af

Subcatchment9S: BUILDING E Runoff Area=9,344 sf 100.00% Impervious Runoff Depth=3.77"
Tc=5.0 min CN=0/98 Runoff=0.20 cfs 0.067 af

Subcatchment10S: PARKING LOT Runoff Area=17,091 sf 85.83% Impervious Runoff Depth=3.46"
Tc=5.0 min CN=74/98 Runoff=0.33 cfs 0.113 af

Subcatchment11S: PARKING LOT Runoff Area=22,963 sf 95.09% Impervious Runoff Depth=3.66"
Tc=5.0 min CN=74/98 Runoff=0.48 cfs 0.161 af

Subcatchment12S: LANDSCAPE Runoff Area=17,415 sf 0.00% Impervious Runoff Depth=1.96"
Tc=5.0 min CN=79/0 Runoff=0.18 cfs 0.065 af

Subcatchment13S: UNCOLLECTED Runoff Area=17,747 sf 0.73% Impervious Runoff Depth=1.98"
Tc=5.0 min CN=79/98 Runoff=0.19 cfs 0.067 af

Subcatchment14S: UNMANAGED Runoff Area=8,376 sf 18.43% Impervious Runoff Depth=2.00"
Tc=5.0 min CN=74/98 Runoff=0.09 cfs 0.032 af

Subcatchment15S: UNMANAGED Runoff Area=500 sf 100.00% Impervious Runoff Depth=3.77"
Tc=5.0 min CN=0/98 Runoff=0.01 cfs 0.004 af

Subcatchment16S: UNMANAGED Runoff Area=760 sf 100.00% Impervious Runoff Depth=3.77"
Tc=5.0 min CN=0/98 Runoff=0.02 cfs 0.005 af

Reach 1ER: EX. 12" Avg. Flow Depth=0.13' Max Vel=3.27 fps Inflow=0.20 cfs 0.067 af
12.0" Round Pipe n=0.013 L=40.1' S=0.0229 '/' Capacity=5.40 cfs Outflow=0.20 cfs 0.067 af

Reach 1R: 8" OUTFALL Avg. Flow Depth=0.18' Max Vel=8.40 fps Inflow=0.65 cfs 0.419 af
8.0" Round Pipe n=0.013 L=117.5' S=0.1086 '/' Capacity=3.98 cfs Outflow=0.65 cfs 0.419 af

Reach 2ER: EX. 12" OUTFALL Avg. Flow Depth=0.10' Max Vel=10.06 fps Inflow=0.44 cfs 0.147 af
12.0" Round Pipe n=0.013 L=37.4' S=0.2896 '/' Capacity=19.17 cfs Outflow=0.44 cfs 0.147 af

Reach 2R: 8" OUTFALL Avg. Flow Depth=0.17' Max Vel=9.47 fps Inflow=0.67 cfs 0.479 af
8.0" Round Pipe n=0.013 L=88.2' S=0.1475 '/' Capacity=4.64 cfs Outflow=0.67 cfs 0.479 af

Pond 6P: MC-3500 Chambers Peak Elev=183.15' Storage=0.069 af Inflow=1.10 cfs 0.383 af
Outflow=0.60 cfs 0.383 af

Pond 7P: MC-3500 Chambers Peak Elev=182.18' Storage=0.086 af Inflow=1.34 cfs 0.474 af
Outflow=0.67 cfs 0.474 af

Link 1T: TOTAL - STREAM Inflow=1.73 cfs 1.195 af
Primary=1.73 cfs 1.195 af

Link 2T: SUBTOTAL - LOT 2017 Inflow=0.78 cfs 0.501 af
Primary=0.78 cfs 0.501 af

Link 3T: SUBTOTAL - LOT 2025 Inflow=0.77 cfs 0.547 af
Primary=0.77 cfs 0.547 af

Link 4T: SUBTOTAL - HAYES ST Inflow=0.44 cfs 0.147 af
Primary=0.44 cfs 0.147 af

Total Runoff Area = 4.733 ac Runoff Volume = 1.195 af Average Runoff Depth = 3.03"
39.33% Pervious = 1.862 ac 60.67% Impervious = 2.872 ac

Summary for Subcatchment 1S: BUILDING A

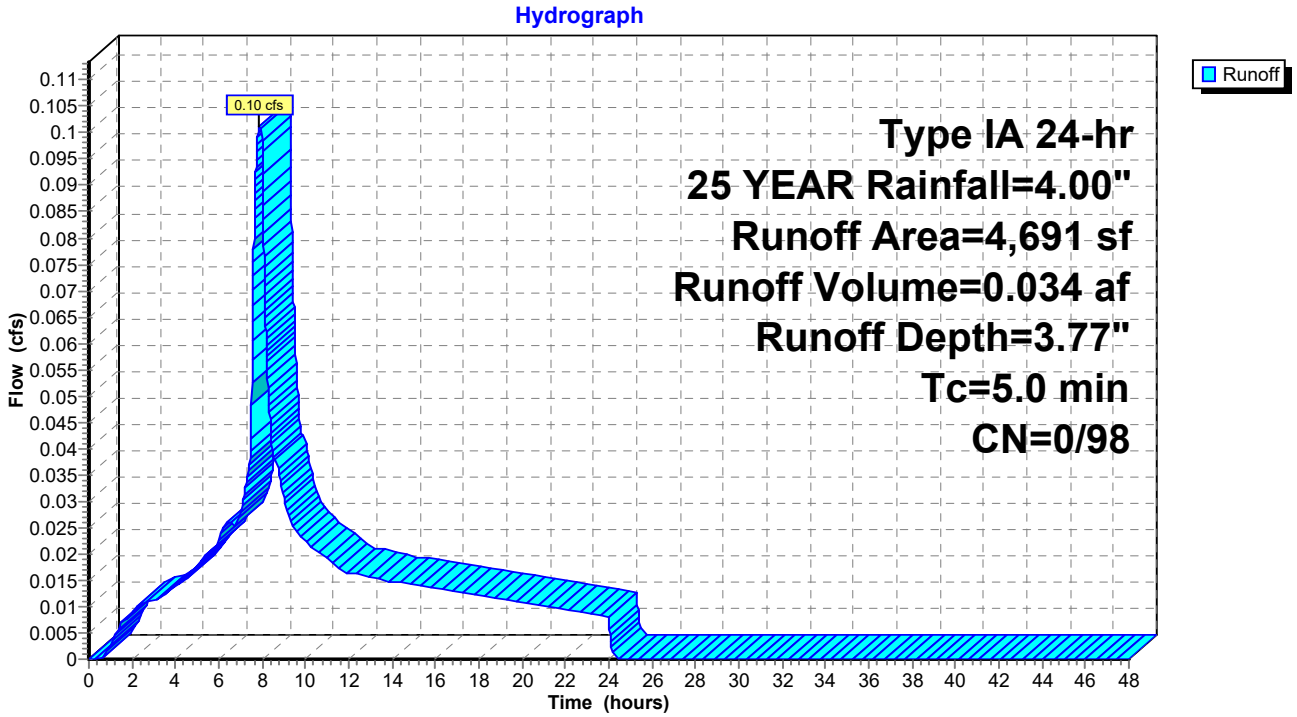
Runoff = 0.10 cfs @ 7.88 hrs, Volume= 0.034 af, Depth= 3.77"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type IA 24-hr 25 YEAR Rainfall=4.00"

Area (sf)	CN	Description
4,691	98	Roofs, HSG C
4,691	98	100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 1S: BUILDING A



Summary for Subcatchment 2S: BUILDING B

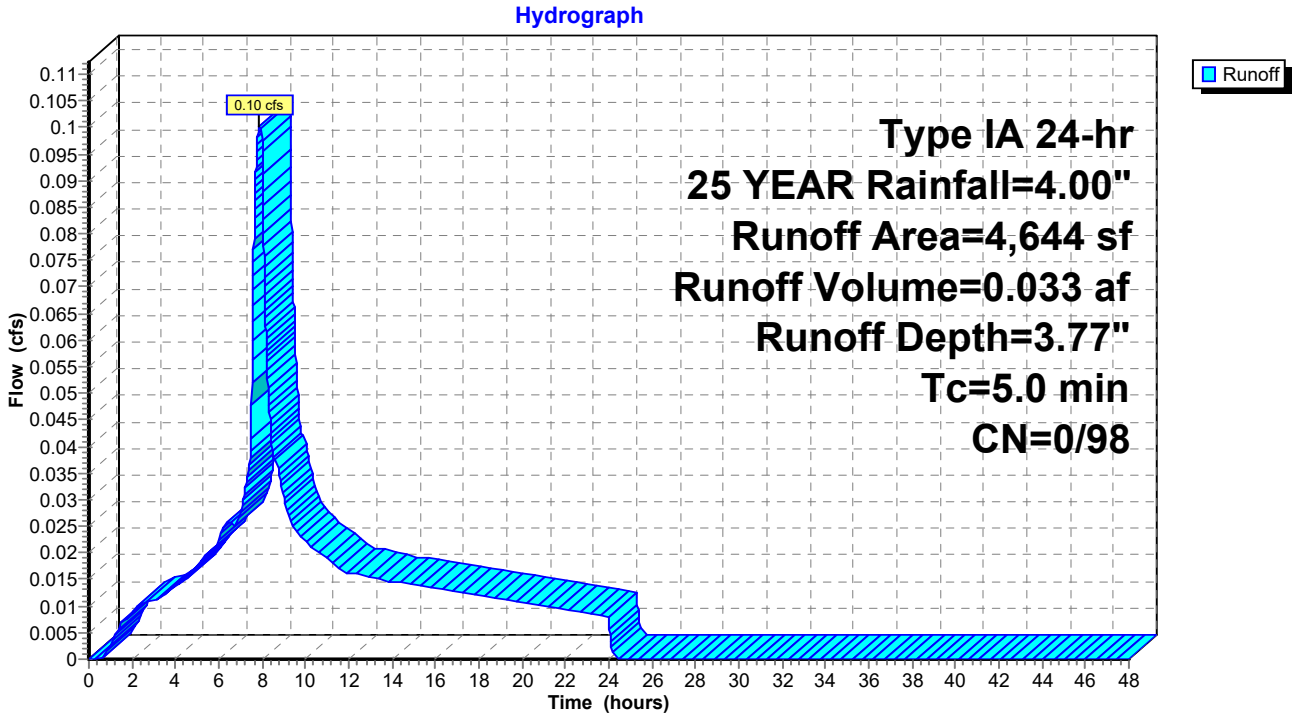
Runoff = 0.10 cfs @ 7.88 hrs, Volume= 0.033 af, Depth= 3.77"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type IA 24-hr 25 YEAR Rainfall=4.00"

Area (sf)	CN	Description
4,644	98	Roofs, HSG C
4,644	98	100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 2S: BUILDING B



Summary for Subcatchment 3ES: HAYES ST NORTH

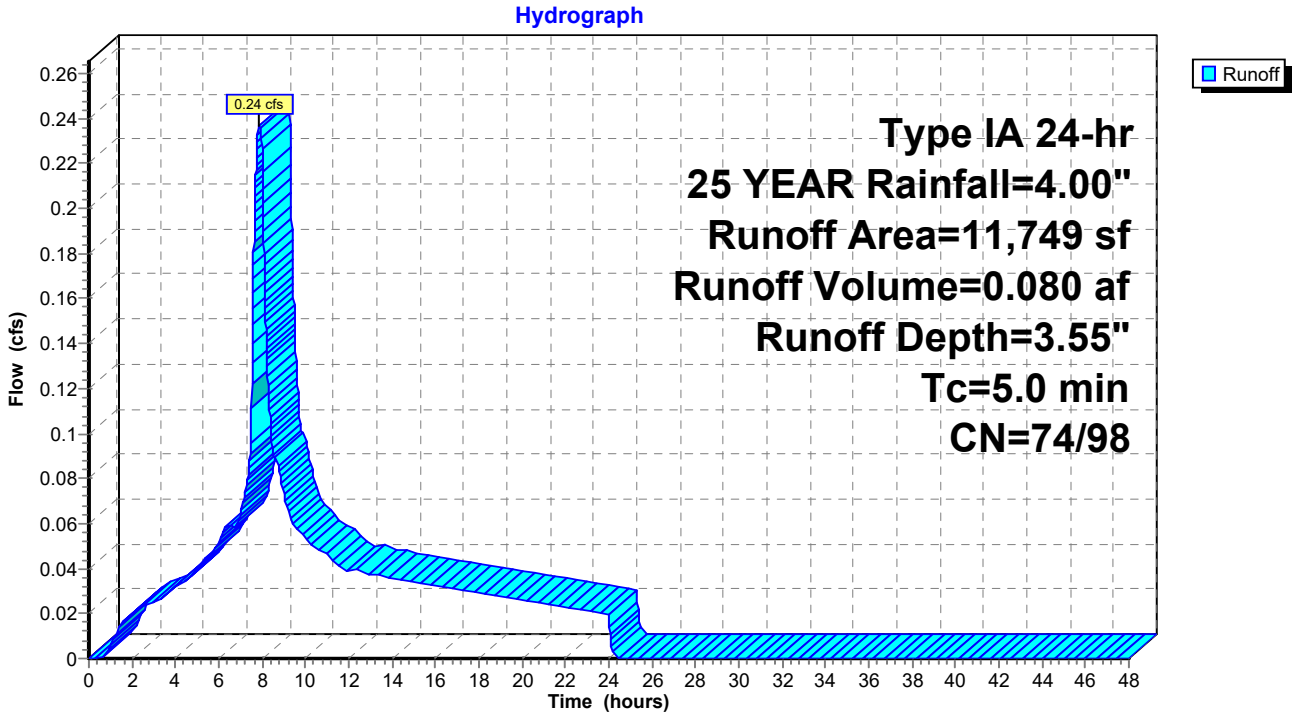
Runoff = 0.24 cfs @ 7.88 hrs, Volume= 0.080 af, Depth= 3.55"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type IA 24-hr 25 YEAR Rainfall=4.00"

Area (sf)	CN	Description
10,574	98	Paved roads w/curbs & sewers, HSG C
1,175	74	>75% Grass cover, Good, HSG C
11,749	96	Weighted Average
1,175	74	10.00% Pervious Area
10,574	98	90.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 3ES: HAYES ST NORTH



Summary for Subcatchment 3S: BUILDING C

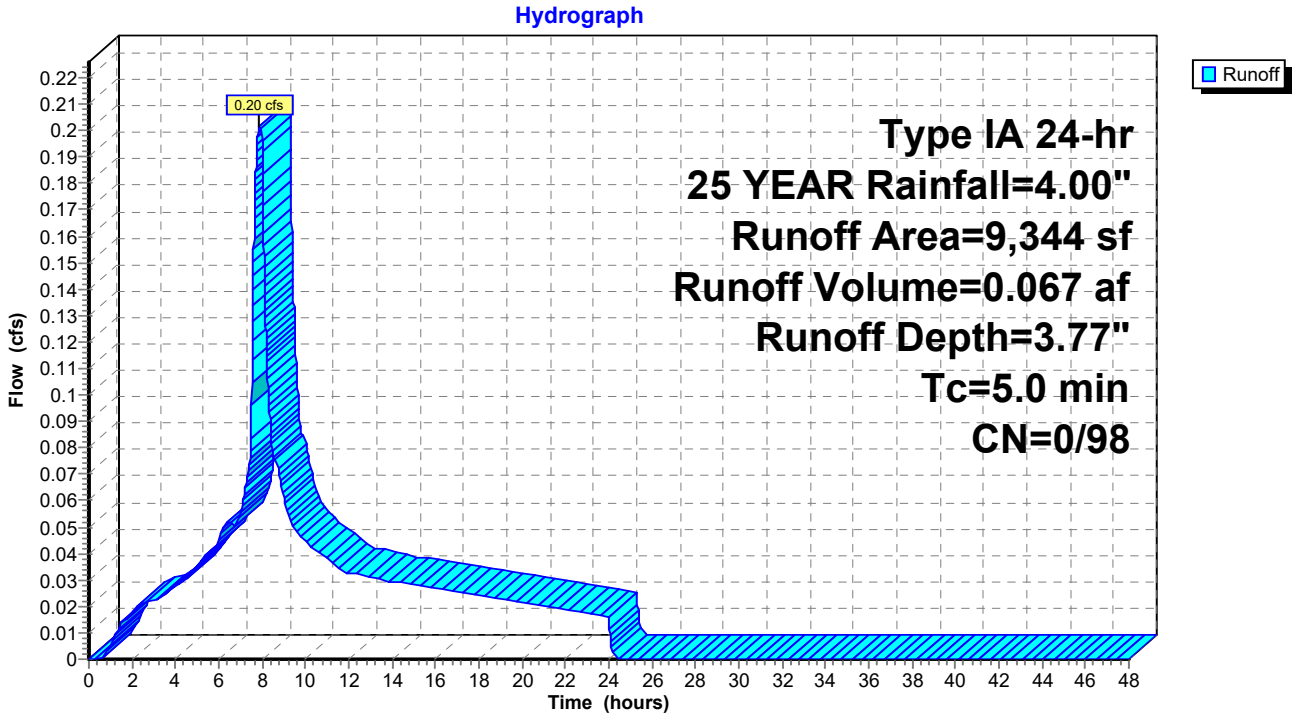
Runoff = 0.20 cfs @ 7.88 hrs, Volume= 0.067 af, Depth= 3.77"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type IA 24-hr 25 YEAR Rainfall=4.00"

Area (sf)	CN	Description
9,344	98	Roofs, HSG C
9,344	98	100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 3S: BUILDING C



Summary for Subcatchment 4ES: HAYES ST SOUTH

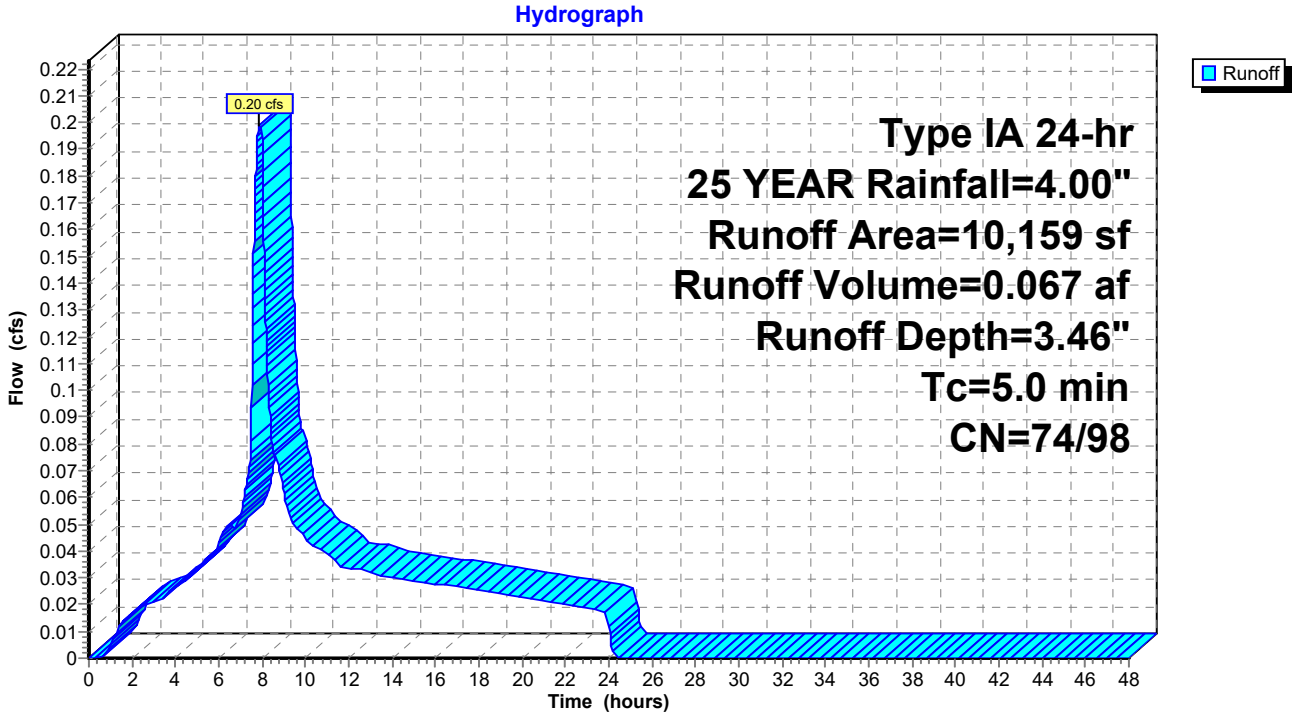
Runoff = 0.20 cfs @ 7.88 hrs, Volume= 0.067 af, Depth= 3.46"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type IA 24-hr 25 YEAR Rainfall=4.00"

	Area (sf)	CN	Description
	8,658	98	Paved roads w/curbs & sewers, HSG C
	1,428	74	>75% Grass cover, Good, HSG C
*	73	98	Driveway
	10,159	95	Weighted Average
	1,428	74	14.06% Pervious Area
	8,731	98	85.94% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 4ES: HAYES ST SOUTH



Summary for Subcatchment 4S: PARKING LOT

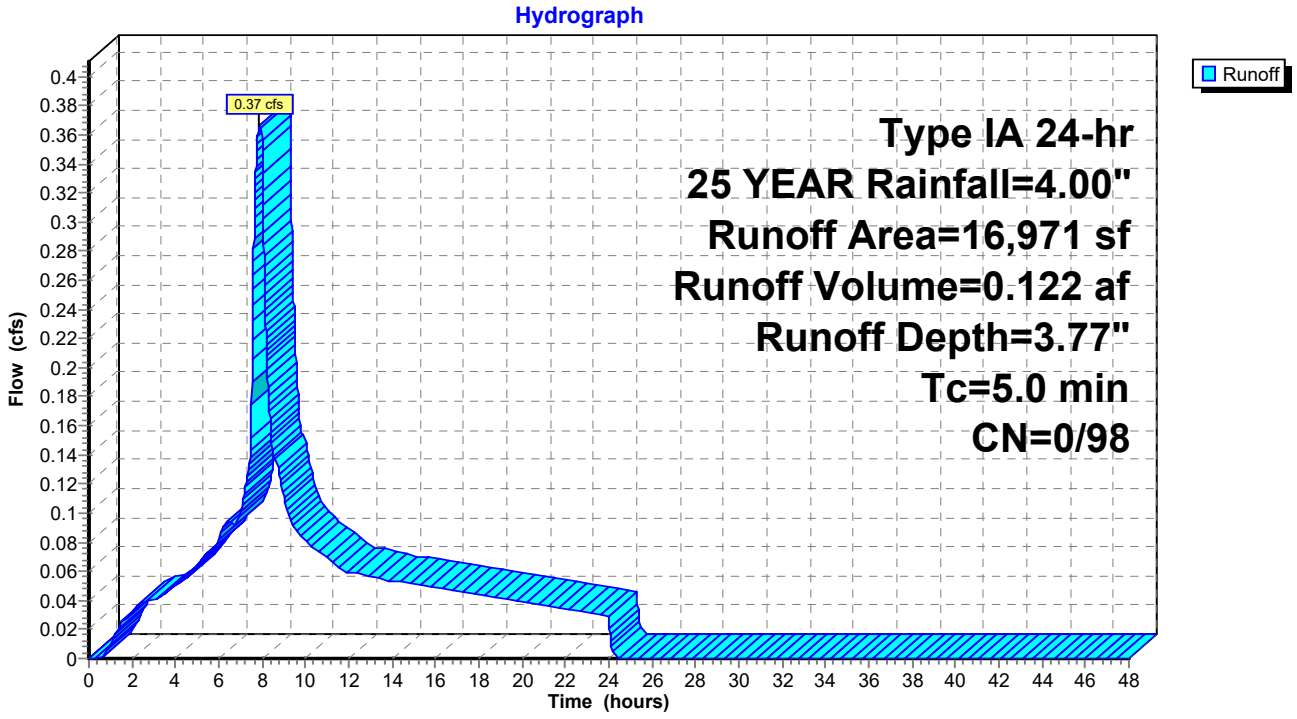
Runoff = 0.37 cfs @ 7.88 hrs, Volume= 0.122 af, Depth= 3.77"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type IA 24-hr 25 YEAR Rainfall=4.00"

	Area (sf)	CN	Description
*	12,377	98	Asphalt
*	4,513	98	Sidewalk
*	81	98	Roof Bldg B & C
	16,971	98	Weighted Average
	16,971	98	100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 4S: PARKING LOT



Summary for Subcatchment 5S: PARKING LOT

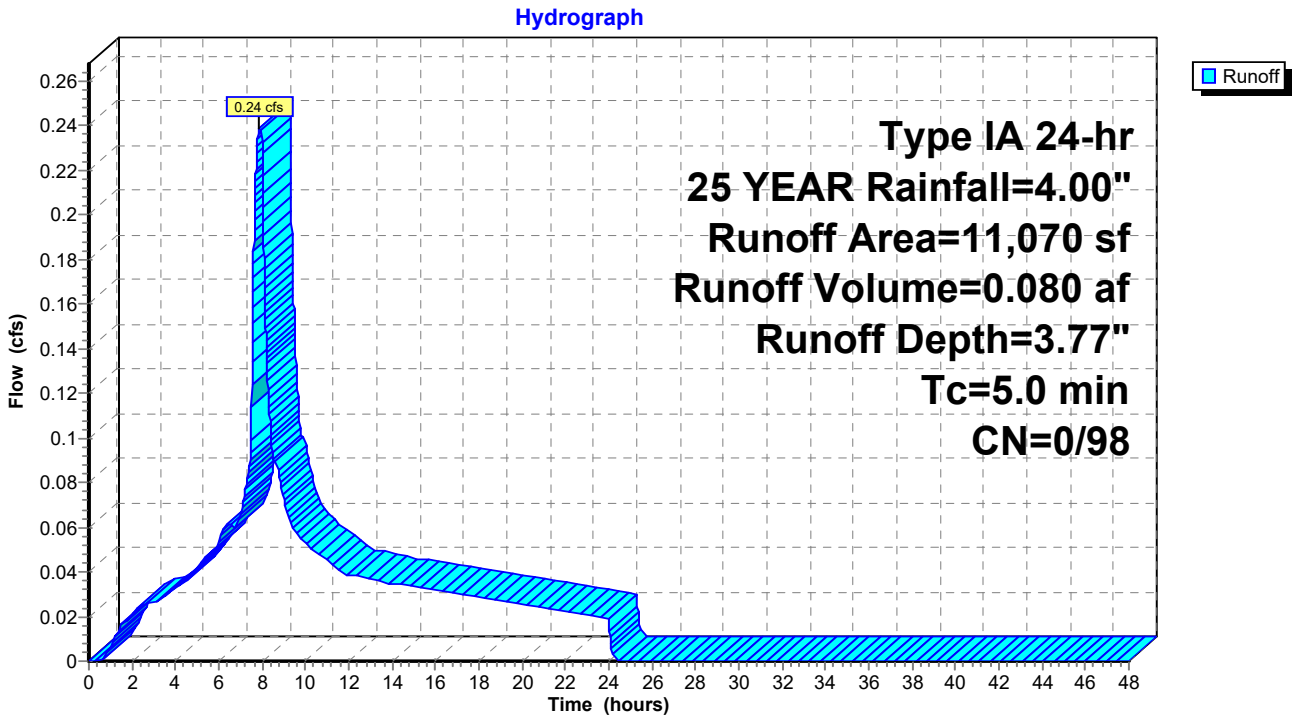
Runoff = 0.24 cfs @ 7.88 hrs, Volume= 0.080 af, Depth= 3.77"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type IA 24-hr 25 YEAR Rainfall=4.00"

	Area (sf)	CN	Description
*	10,639	98	Asphalt
*	431	98	Sidewalk
	11,070	98	Weighted Average
	11,070	98	100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 5S: PARKING LOT



Summary for Subcatchment 6S: LANDSCAPE

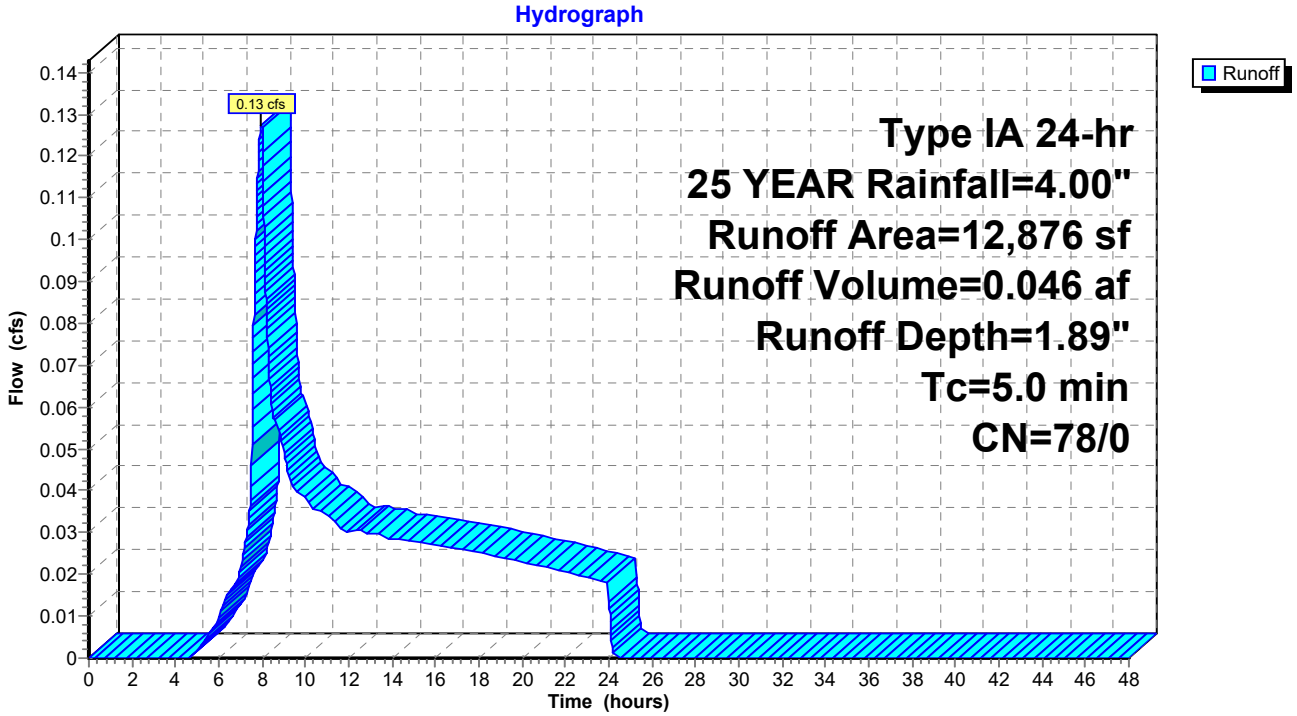
Runoff = 0.13 cfs @ 7.98 hrs, Volume= 0.046 af, Depth= 1.89"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type IA 24-hr 25 YEAR Rainfall=4.00"

	Area (sf)	CN	Description
	9,391	79	50-75% Grass cover, Fair, HSG C
*	3,485	74	Landscaping
	12,876	78	Weighted Average
	12,876	78	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 6S: LANDSCAPE



Summary for Subcatchment 7S: UNCOLLECTED

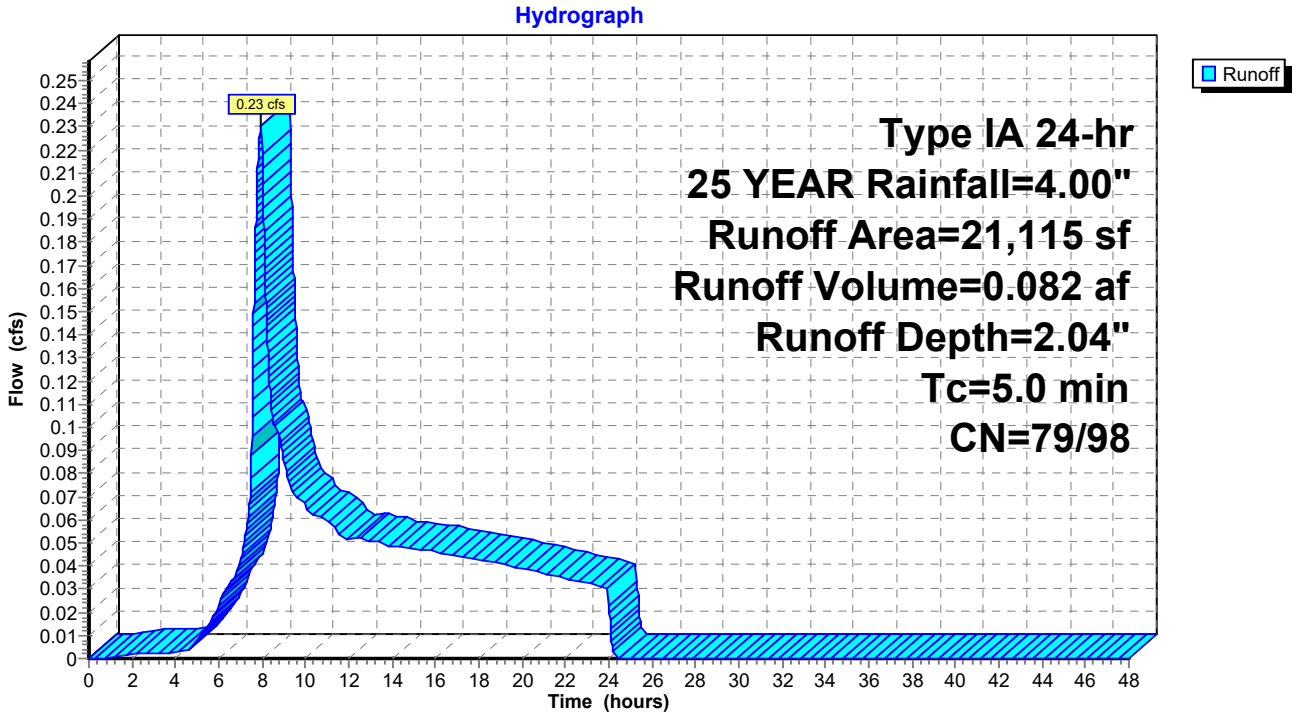
Runoff = 0.23 cfs @ 7.97 hrs, Volume= 0.082 af, Depth= 2.04"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type IA 24-hr 25 YEAR Rainfall=4.00"

	Area (sf)	CN	Description
*	20,195	79	>75% Grass cover, Good, HSG C
*	920	98	Sidewalk
	21,115	80	Weighted Average
	20,195	79	95.64% Pervious Area
	920	98	4.36% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 7S: UNCOLLECTED



Summary for Subcatchment 8S: BUILDING D

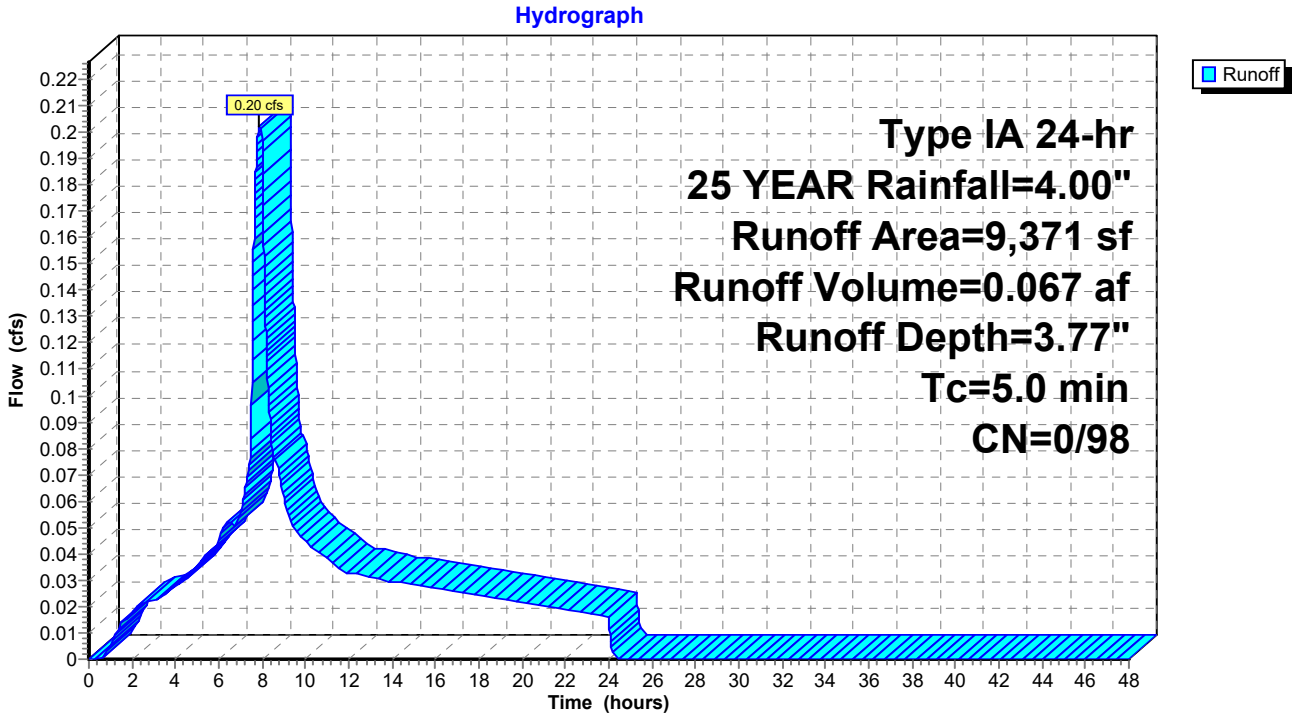
Runoff = 0.20 cfs @ 7.88 hrs, Volume= 0.067 af, Depth= 3.77"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type IA 24-hr 25 YEAR Rainfall=4.00"

Area (sf)	CN	Description
9,371	98	Roofs, HSG C
9,371	98	100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 8S: BUILDING D



Summary for Subcatchment 9S: BUILDING E

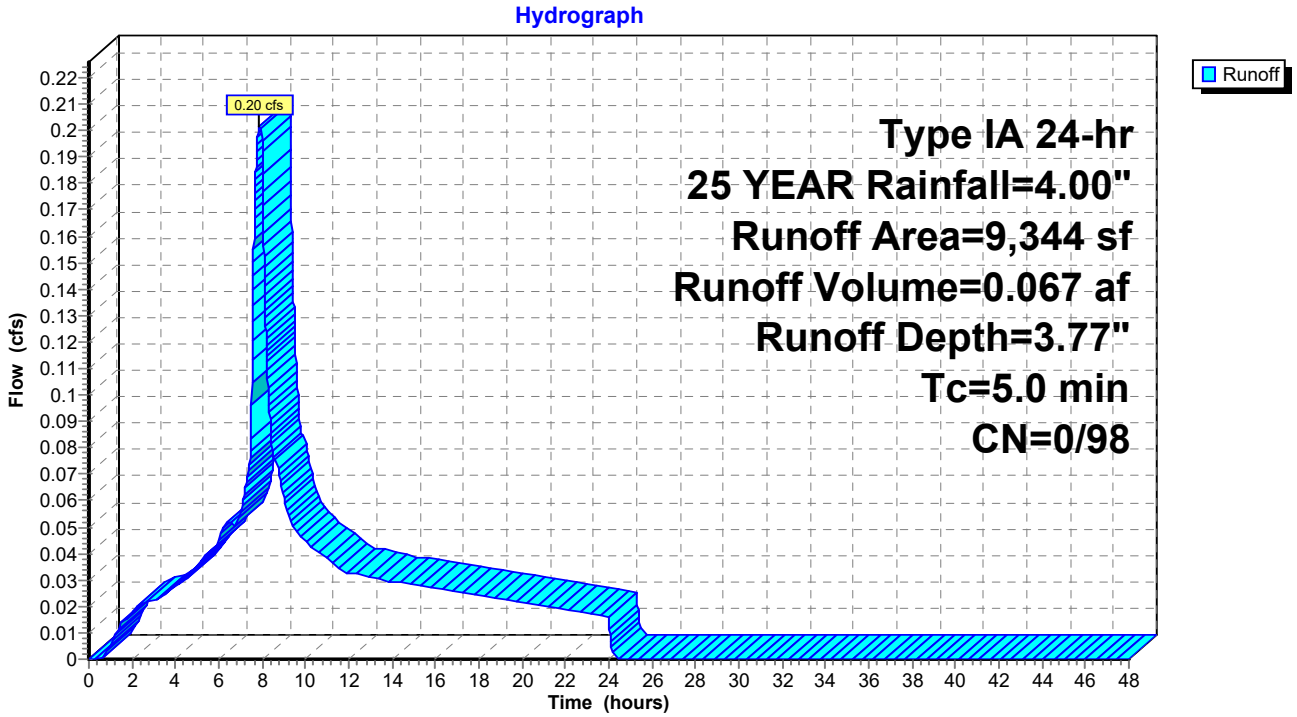
Runoff = 0.20 cfs @ 7.88 hrs, Volume= 0.067 af, Depth= 3.77"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type IA 24-hr 25 YEAR Rainfall=4.00"

Area (sf)	CN	Description
9,344	98	Roofs, HSG C
9,344	98	100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 9S: BUILDING E



Summary for Subcatchment 10S: PARKING LOT

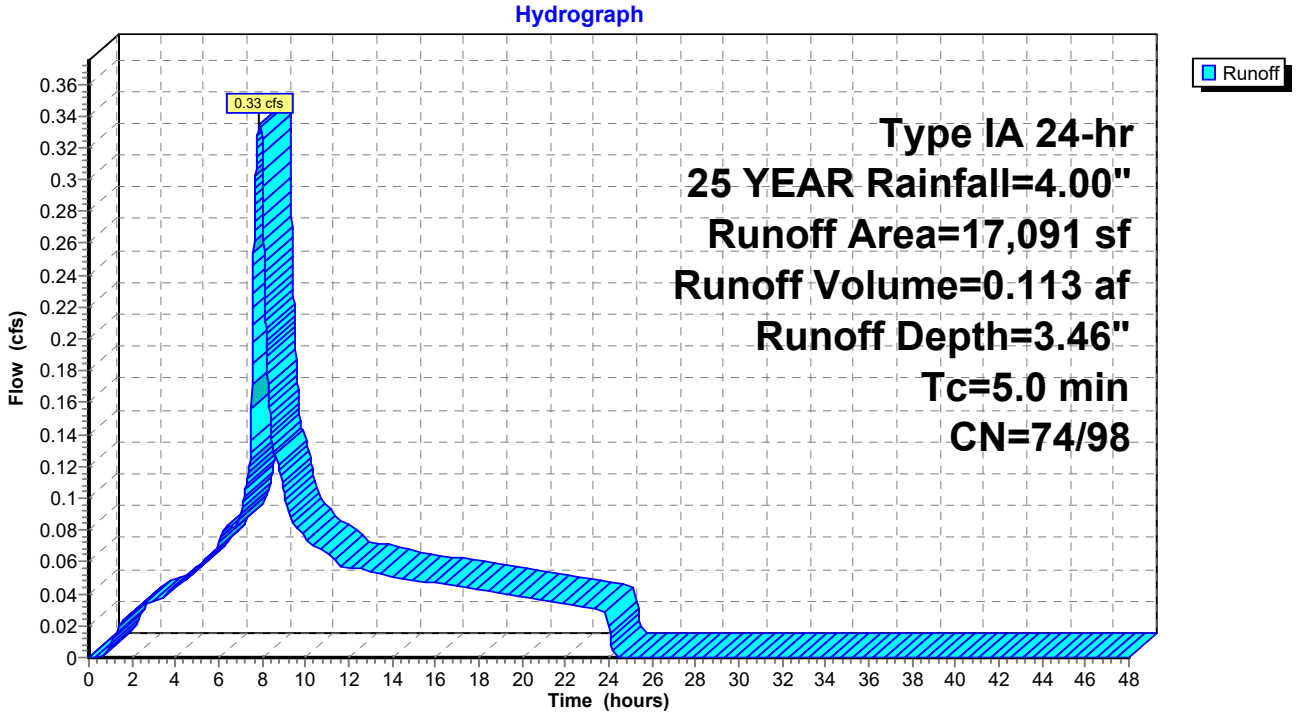
Runoff = 0.33 cfs @ 7.88 hrs, Volume= 0.113 af, Depth= 3.46"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type IA 24-hr 25 YEAR Rainfall=4.00"

	Area (sf)	CN	Description
*	12,793	98	Asphalt
*	1,850	98	Sidewalk
*	2,421	74	Landscaping
*	27	98	Roof Bldg D
	17,091	95	Weighted Average
	2,421	74	14.17% Pervious Area
	14,670	98	85.83% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 10S: PARKING LOT



Summary for Subcatchment 11S: PARKING LOT

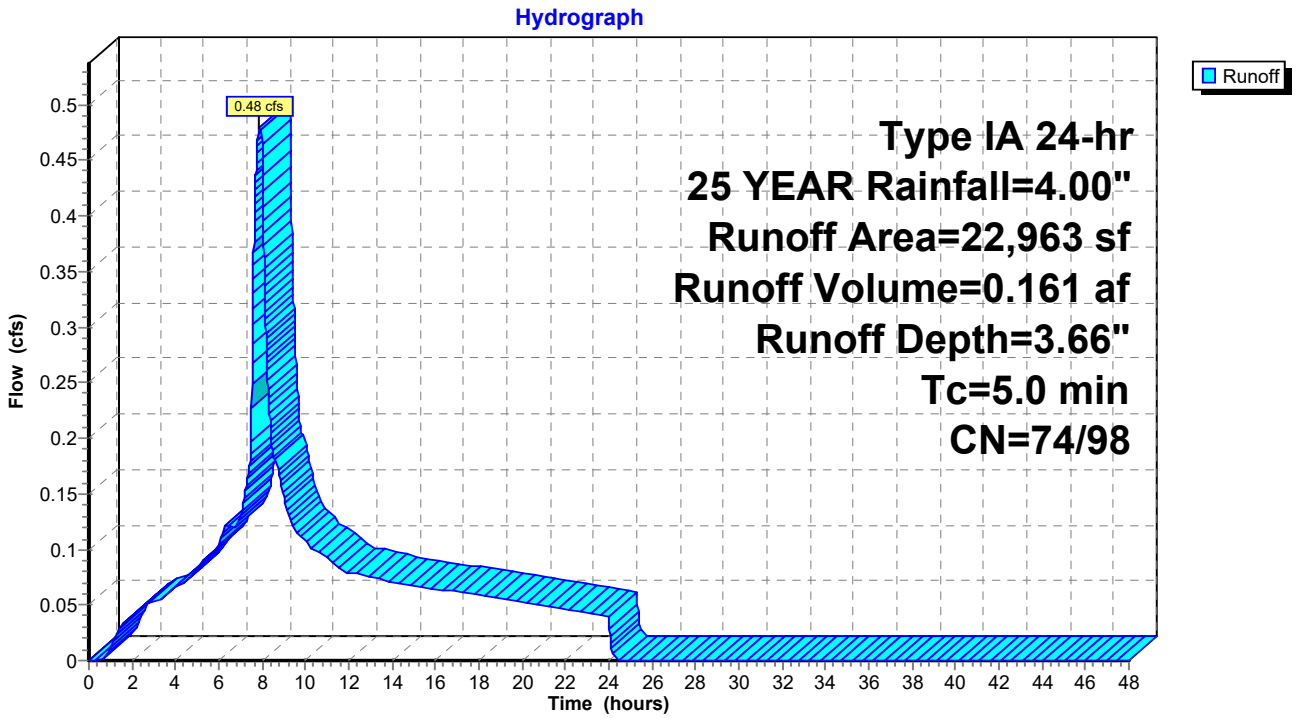
Runoff = 0.48 cfs @ 7.88 hrs, Volume= 0.161 af, Depth= 3.66"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type IA 24-hr 25 YEAR Rainfall=4.00"

	Area (sf)	CN	Description
*	18,633	98	Asphalt
*	3,175	98	Sidewalk
*	1,128	74	Landscaping
*	27	98	Roof Bldg E
	22,963	97	Weighted Average
	1,128	74	4.91% Pervious Area
	21,835	98	95.09% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 11S: PARKING LOT



Summary for Subcatchment 12S: LANDSCAPE

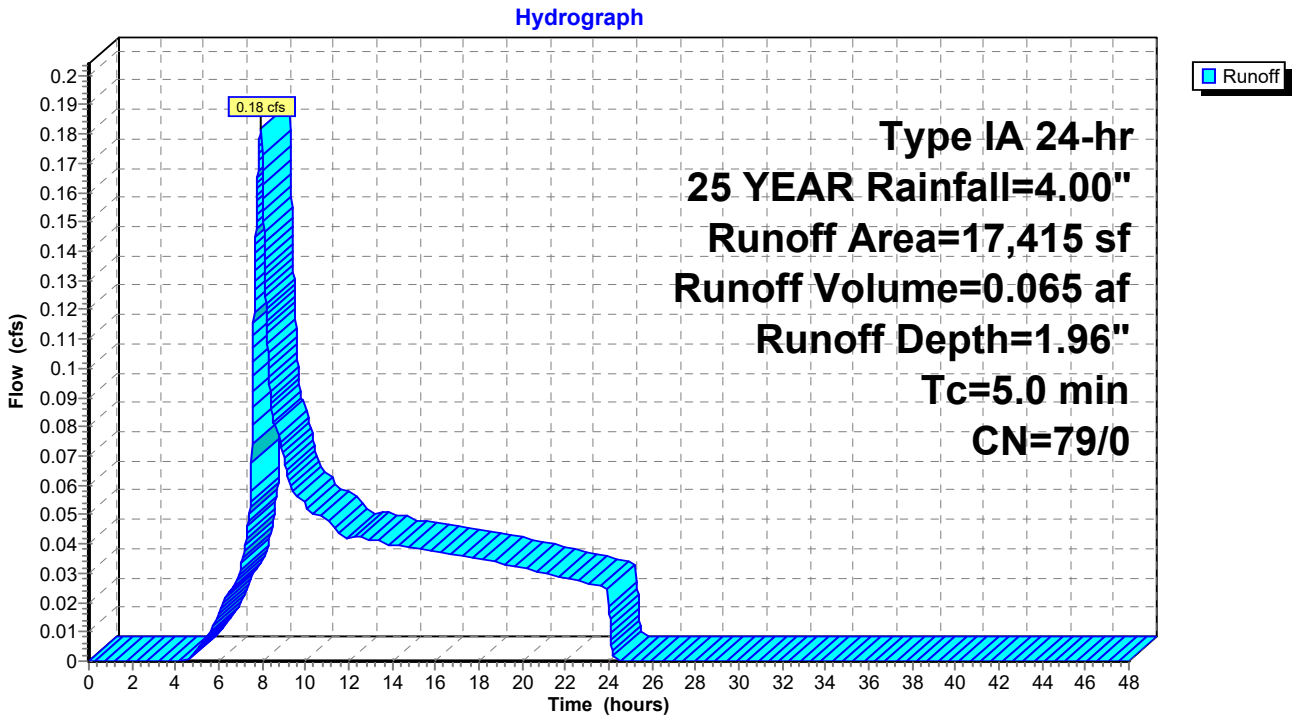
Runoff = 0.18 cfs @ 7.97 hrs, Volume= 0.065 af, Depth= 1.96"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type IA 24-hr 25 YEAR Rainfall=4.00"

	Area (sf)	CN	Description
	15,891	79	50-75% Grass cover, Fair, HSG C
*	1,524	74	Landscaping
	17,415	79	Weighted Average
	17,415	79	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 12S: LANDSCAPE



Summary for Subcatchment 13S: UNCOLLECTED

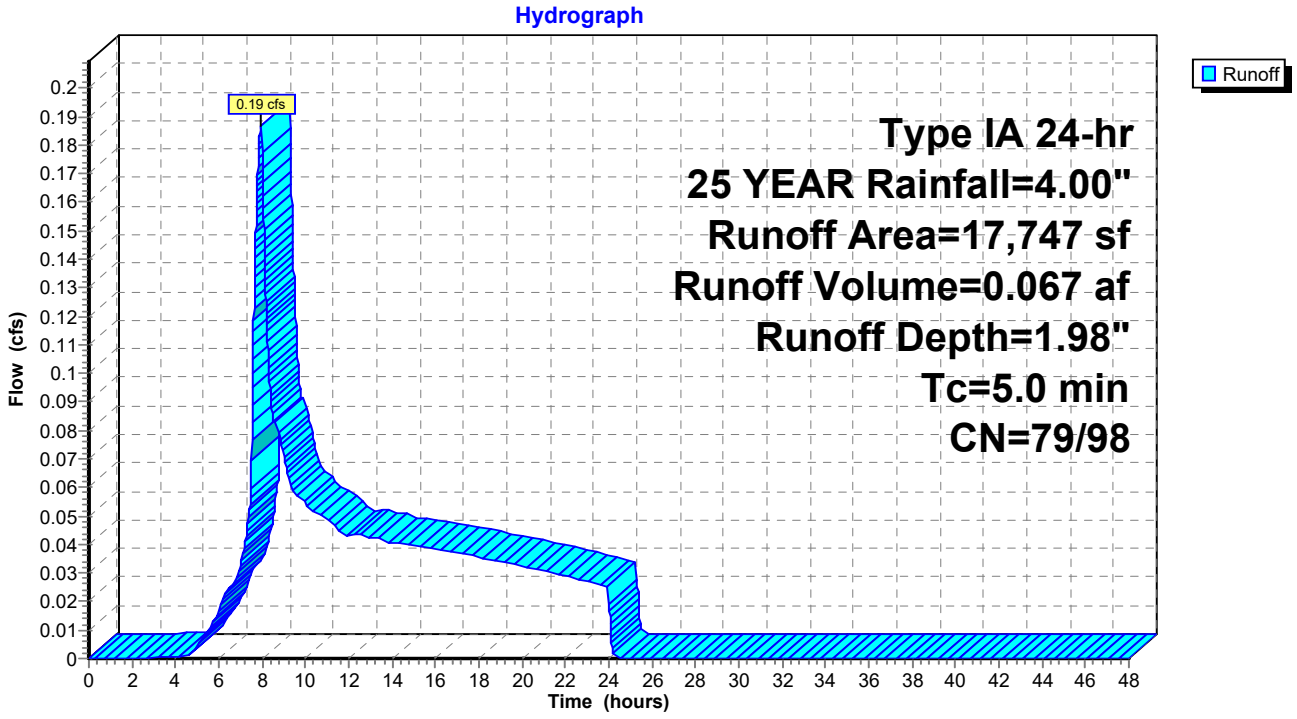
Runoff = 0.19 cfs @ 7.97 hrs, Volume= 0.067 af, Depth= 1.98"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type IA 24-hr 25 YEAR Rainfall=4.00"

	Area (sf)	CN	Description
*	17,617	79	>75% Grass cover, Good, HSG C
*	130	98	Sidewalk
	17,747	79	Weighted Average
	17,617	79	99.27% Pervious Area
	130	98	0.73% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 13S: UNCOLLECTED



Summary for Subcatchment 14S: UNMANAGED

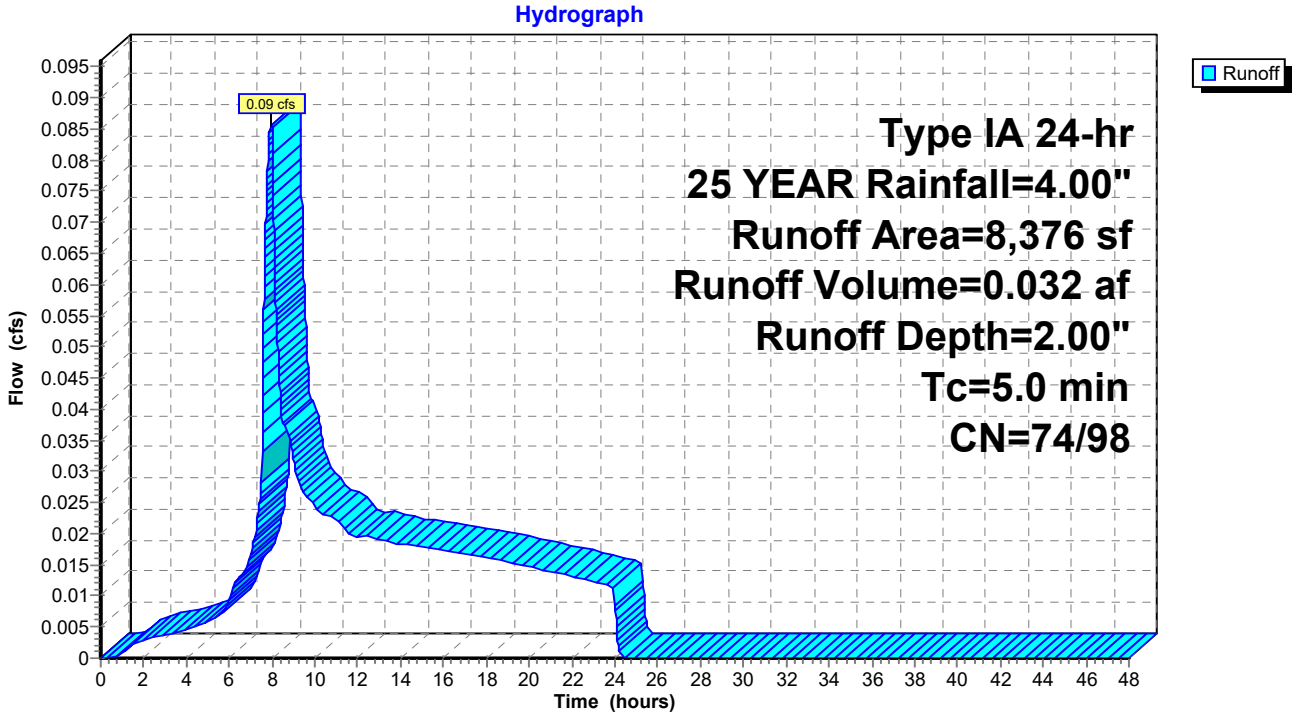
Runoff = 0.09 cfs @ 7.96 hrs, Volume= 0.032 af, Depth= 2.00"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type IA 24-hr 25 YEAR Rainfall=4.00"

	Area (sf)	CN	Description
*	1,329	98	Asphalt
	6,832	74	>75% Grass cover, Good, HSG C
*	215	98	Sidewalk
	8,376	78	Weighted Average
	6,832	74	81.57% Pervious Area
	1,544	98	18.43% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 14S: UNMANAGED



Summary for Subcatchment 15S: UNMANAGED

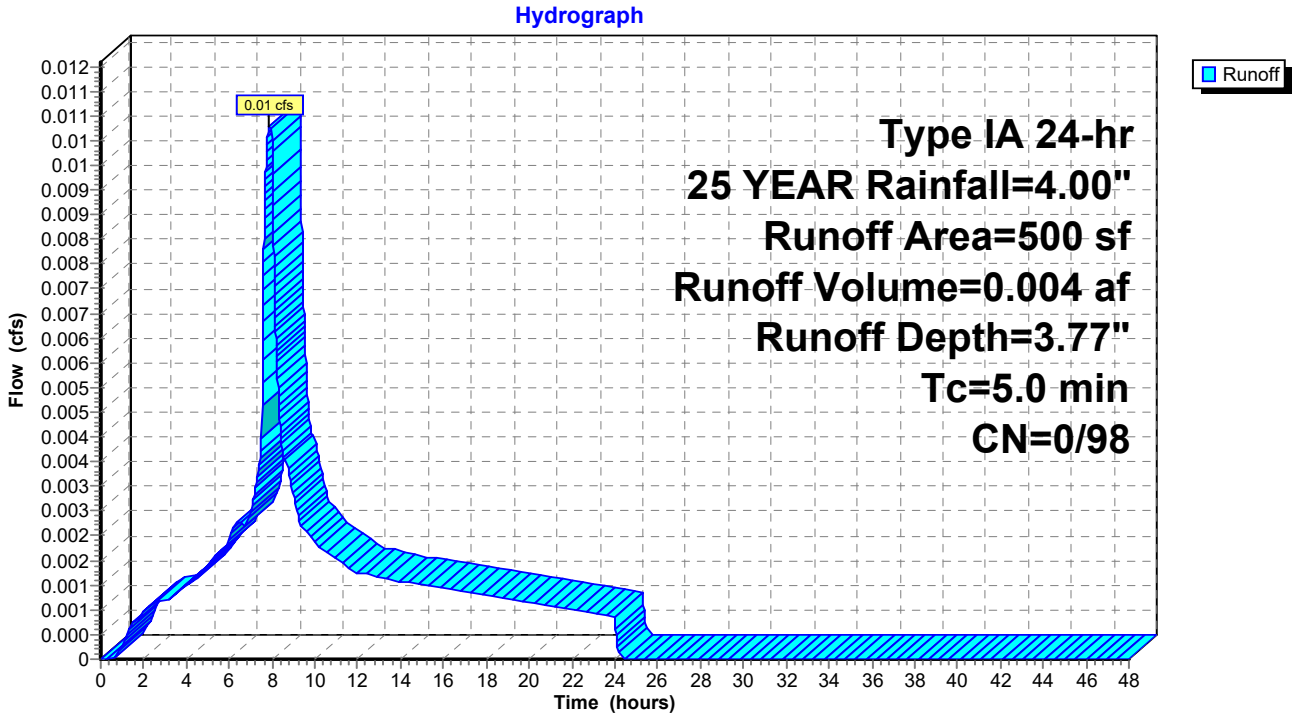
Runoff = 0.01 cfs @ 7.88 hrs, Volume= 0.004 af, Depth= 3.77"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type IA 24-hr 25 YEAR Rainfall=4.00"

	Area (sf)	CN	Description
*	500	98	Sidewalk
	500	98	100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 15S: UNMANAGED



Summary for Subcatchment 16S: UNMANAGED

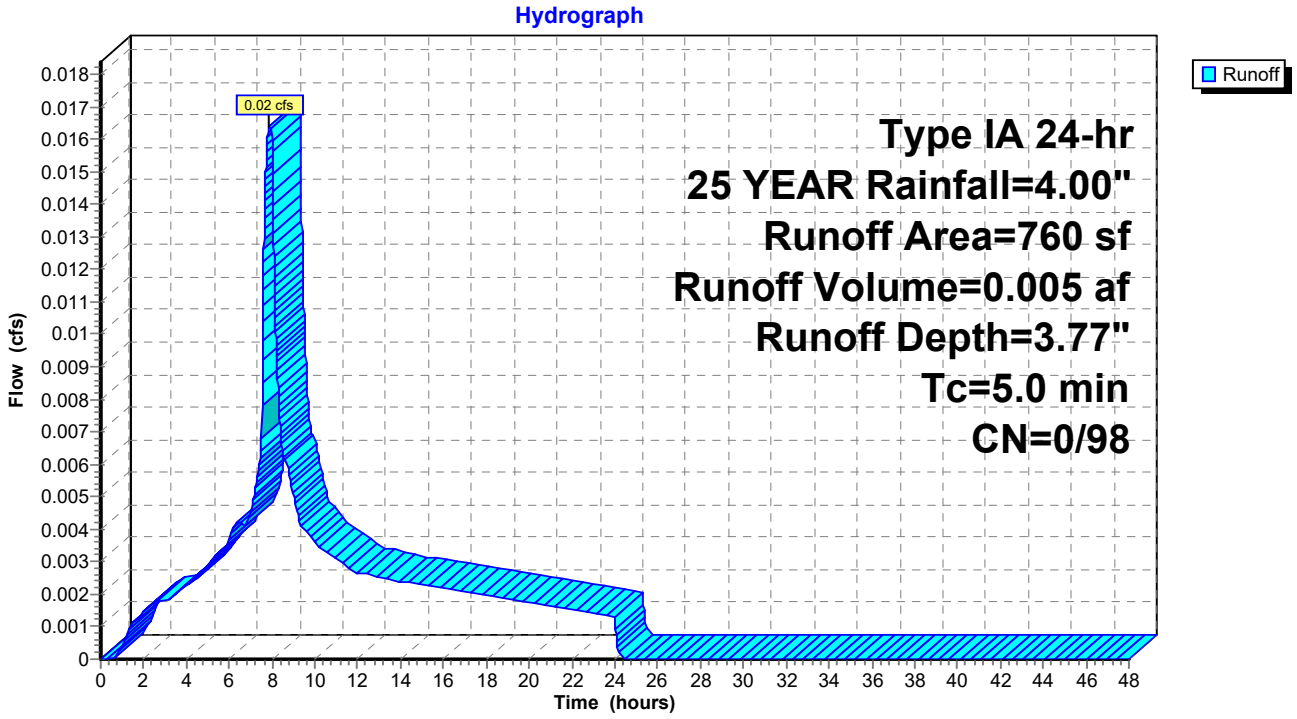
Runoff = 0.02 cfs @ 7.88 hrs, Volume= 0.005 af, Depth= 3.77"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type IA 24-hr 25 YEAR Rainfall=4.00"

	Area (sf)	CN	Description
*	760	98	Sidewalk
	760	98	100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 16S: UNMANAGED



Summary for Reach 1ER: EX. 12"

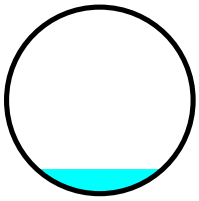
[52] Hint: Inlet/Outlet conditions not evaluated

Inflow Area = 0.233 ac, 85.94% Impervious, Inflow Depth = 3.46" for 25 YEAR event
Inflow = 0.20 cfs @ 7.88 hrs, Volume= 0.067 af
Outflow = 0.20 cfs @ 7.89 hrs, Volume= 0.067 af, Atten= 0%, Lag= 0.1 min

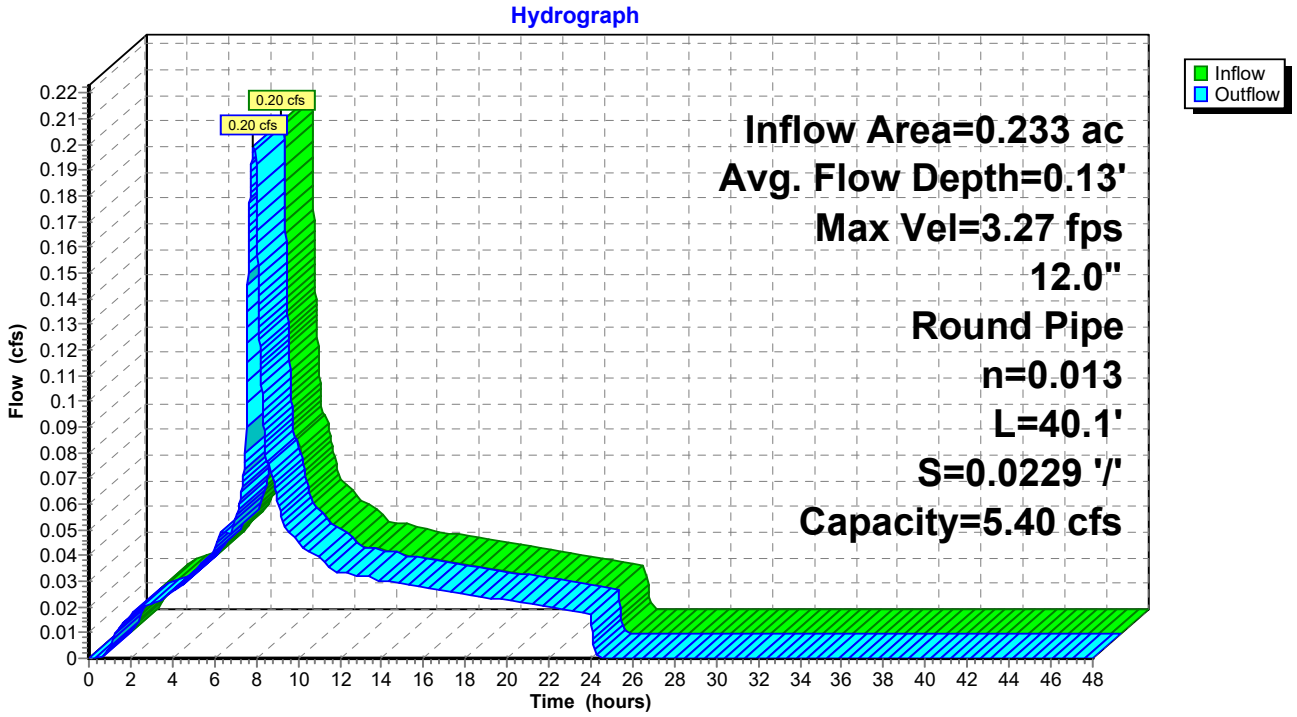
Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Max. Velocity= 3.27 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 1.83 fps, Avg. Travel Time= 0.4 min

Peak Storage= 2 cf @ 7.89 hrs
Average Depth at Peak Storage= 0.13'
Defined Flood Depth= 176.32' Flow Area= 24.1 sf, Capacity= -3,964.66 cfs
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 5.40 cfs

12.0" Round Pipe
n= 0.013
Length= 40.1' Slope= 0.0229 '/'
Inlet Invert= 176.32', Outlet Invert= 175.40'



Reach 1ER: EX. 12"



Summary for Reach 1R: 8" OUTFALL

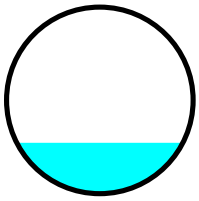
[52] Hint: Inlet/Outlet conditions not evaluated

Inflow Area = 1.572 ac, 71.22% Impervious, Inflow Depth = 3.20" for 25 YEAR event
Inflow = 0.65 cfs @ 8.29 hrs, Volume= 0.419 af
Outflow = 0.65 cfs @ 8.29 hrs, Volume= 0.419 af, Atten= 0%, Lag= 0.2 min

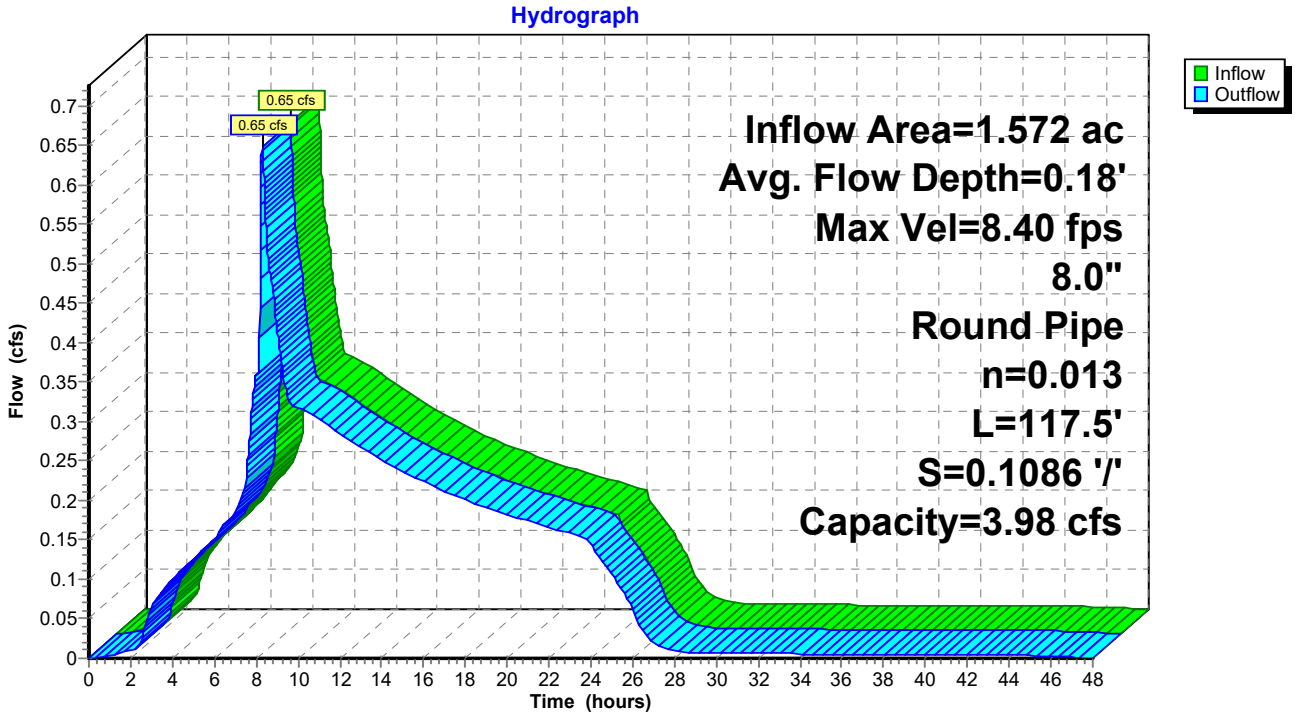
Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Max. Velocity= 8.40 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 3.99 fps, Avg. Travel Time= 0.5 min

Peak Storage= 9 cf @ 8.29 hrs
Average Depth at Peak Storage= 0.18'
Defined Flood Depth= 183.75' Flow Area= 16.6 sf, Capacity= -4,584.97 cfs
Bank-Full Depth= 0.67' Flow Area= 0.3 sf, Capacity= 3.98 cfs

8.0" Round Pipe
n= 0.013
Length= 117.5' Slope= 0.1086 '/'
Inlet Invert= 178.48', Outlet Invert= 165.72'



Reach 1R: 8" OUTFALL



Summary for Reach 2ER: EX. 12" OUTFALL

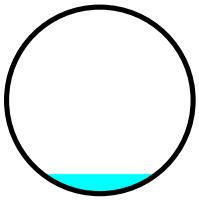
[52] Hint: Inlet/Outlet conditions not evaluated

Inflow Area = 0.503 ac, 88.12% Impervious, Inflow Depth = 3.51" for 25 YEAR event
Inflow = 0.44 cfs @ 7.88 hrs, Volume= 0.147 af
Outflow = 0.44 cfs @ 7.89 hrs, Volume= 0.147 af, Atten= 0%, Lag= 0.0 min

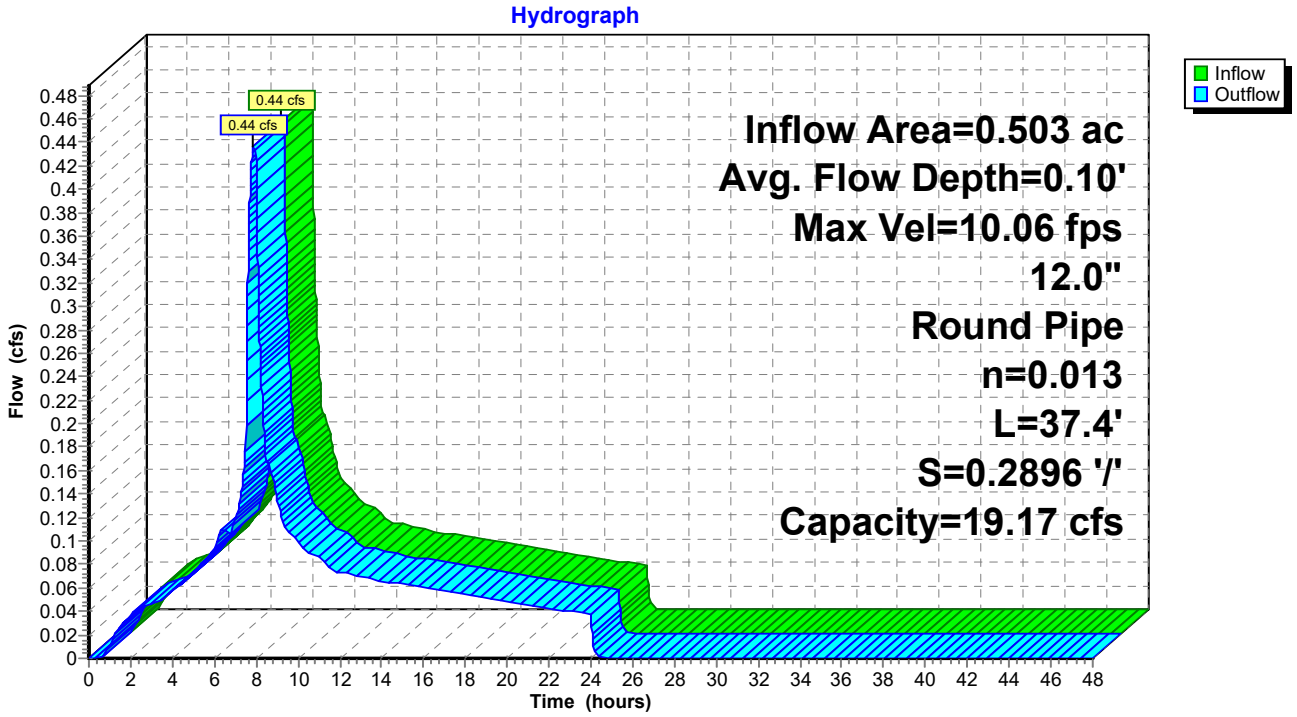
Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Max. Velocity= 10.06 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 5.64 fps, Avg. Travel Time= 0.1 min

Peak Storage= 2 cf @ 7.89 hrs
Average Depth at Peak Storage= 0.10'
Defined Flood Depth= 174.05' Flow Area= 23.8 sf, Capacity= -13,902.58 cfs
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 19.17 cfs

12.0" Round Pipe
n= 0.013
Length= 37.4' Slope= 0.2896 '/'
Inlet Invert= 174.05', Outlet Invert= 163.22'



Reach 2ER: EX. 12" OUTFALL



Summary for Reach 2R: 8" OUTFALL

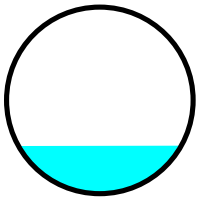
[52] Hint: Inlet/Outlet conditions not evaluated

Inflow Area = 1.766 ac, 72.75% Impervious, Inflow Depth = 3.26" for 25 YEAR event
Inflow = 0.67 cfs @ 8.36 hrs, Volume= 0.479 af
Outflow = 0.67 cfs @ 8.37 hrs, Volume= 0.479 af, Atten= 0%, Lag= 0.1 min

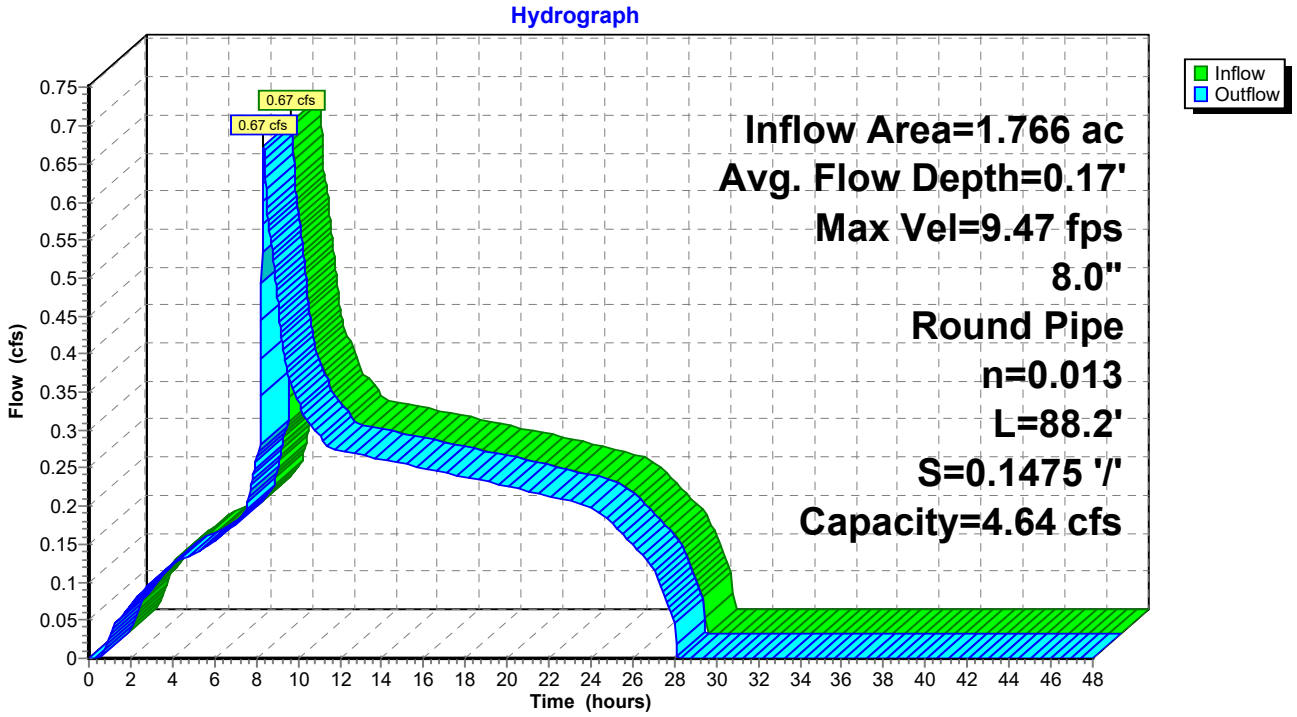
Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Max. Velocity= 9.47 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 6.54 fps, Avg. Travel Time= 0.2 min

Peak Storage= 6 cf @ 8.37 hrs
Average Depth at Peak Storage= 0.17'
Defined Flood Depth= 174.61' Flow Area= 15.8 sf, Capacity= -5,076.61 cfs
Bank-Full Depth= 0.67' Flow Area= 0.3 sf, Capacity= 4.64 cfs

8.0" Round Pipe
n= 0.013
Length= 88.2' Slope= 0.1475 '/'
Inlet Invert= 171.61', Outlet Invert= 158.60'



Reach 2R: 8" OUTFALL



Summary for Pond 6P: MC-3500 Chambers

[44] Hint: Outlet device #2 is below defined storage

Inflow Area = 1.368 ac, 78.39% Impervious, Inflow Depth = 3.36" for 25 YEAR event
Inflow = 1.10 cfs @ 7.96 hrs, Volume= 0.383 af
Outflow = 0.60 cfs @ 8.29 hrs, Volume= 0.383 af, Atten= 46%, Lag= 19.8 min
Primary = 0.60 cfs @ 8.29 hrs, Volume= 0.383 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 183.15' @ 8.29 hrs Surf.Area= 0.028 ac Storage= 0.069 af
Flood Elev= 186.23' Surf.Area= 0.028 ac Storage= 0.085 af

Plug-Flow detention time= 145.7 min calculated for 0.383 af (100% of inflow)
Center-of-Mass det. time= 146.0 min (858.2 - 712.3)

Volume	Invert	Avail.Storage	Storage Description
#1A	179.25'	0.033 af	**15.58'W x 77.40'L x 5.50'H Field A** 0.152 af Overall - 0.052 af Embedded = 0.100 af x 33.0% Voids
#2A	180.00'	0.052 af	**ADS_StormTech MC-3500 d +Cap**x 20 Inside #1 Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap 2 Rows of 10 Chambers Cap Storage= +14.9 cf x 2 x 2 rows = 59.6 cf
		0.085 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	179.05'	**8.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 179.05' / 179.00' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.35 sf
#2	Device 1	177.55'	**0.5" Horiz. 1/2 of 2-YR Orifice** C= 0.600 Limited to weir flow at low heads
#3	Device 1	180.00'	**2.5" Vert. 2-YR Orifice** C= 0.600
#4	Device 1	183.00'	**6.0" Horiz. 25-YR Orifice** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.60 cfs @ 8.29 hrs HW=183.15' TW=178.66' (Dynamic Tailwater)
└**1=Culvert** (Passes 0.60 cfs of 2.57 cfs potential flow)
  ├**2=1/2 of 2-YR Orifice** (Orifice Controls 0.01 cfs @ 9.75 fps)
  ├**3=2-YR Orifice** (Orifice Controls 0.29 cfs @ 8.40 fps)
  └**4=25-YR Orifice** (Weir Controls 0.30 cfs @ 1.26 fps)

Pond 6P: MC-3500 Chambers - Chamber Wizard Field A

Chamber Model = ADS_StormTechMC-3500 d +Cap (ADS StormTech®MC-3500 d rev 03/14 with Cap volume)
Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf
Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap
Cap Storage= +14.9 cf x 2 x 2 rows = 59.6 cf

77.0" Wide + 9.0" Spacing = 86.0" C-C Row Spacing

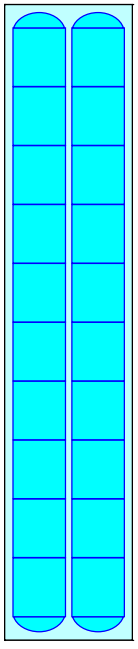
10 Chambers/Row x 7.17' Long +1.85' Cap Length x 2 = 75.40' Row Length +12.0" End Stone x 2 = 77.40' Base Length
2 Rows x 77.0" Wide + 9.0" Spacing x 1 + 12.0" Side Stone x 2 = 15.58' Base Width
9.0" Base + 45.0" Chamber Height + 12.0" Cover = 5.50' Field Height

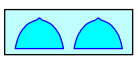
20 Chambers x 110.0 cf + 14.9 cf Cap Volume x 2 x 2 Rows = 2,258.6 cf Chamber Storage

6,633.8 cf Field - 2,258.6 cf Chambers = 4,375.2 cf Stone x 33.0% Voids = 1,443.8 cf Stone Storage

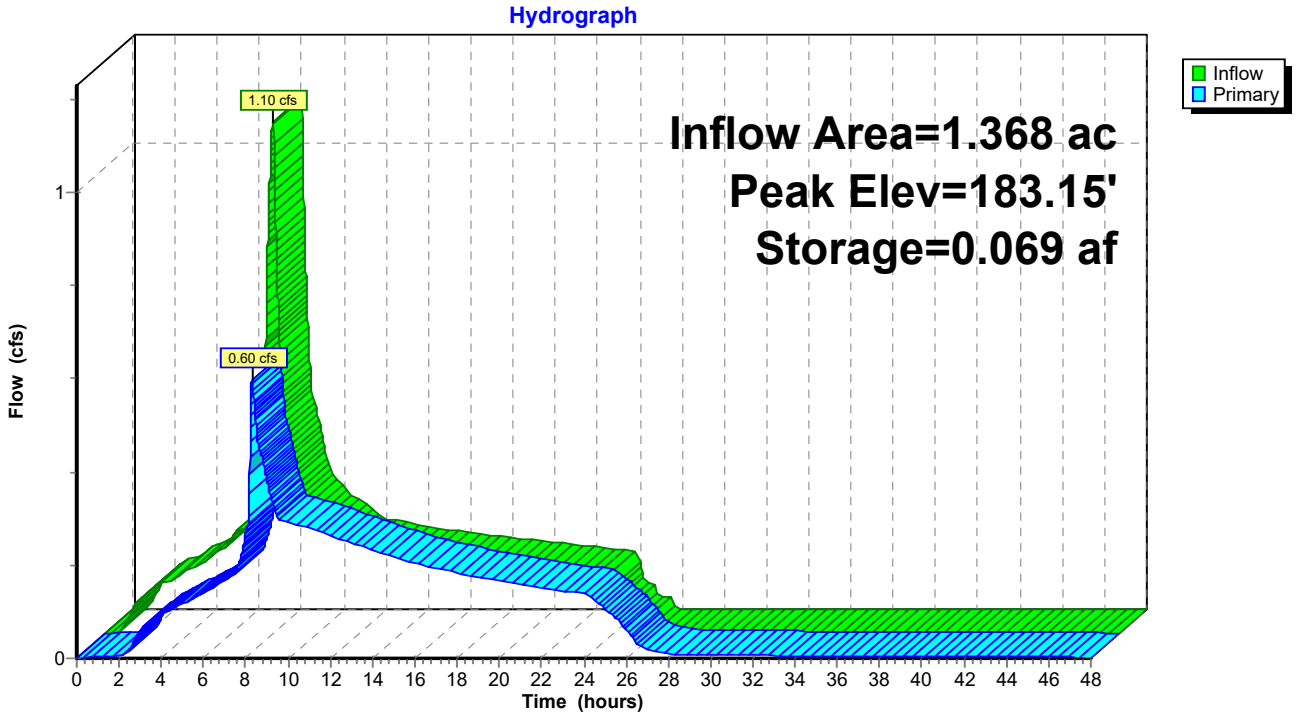
Chamber Storage + Stone Storage = 3,702.5 cf = 0.085 af
Overall Storage Efficiency = 55.8%
Overall System Size = 77.40' x 15.58' x 5.50'

20 Chambers
245.7 cy Field
162.0 cy Stone





Pond 6P: MC-3500 Chambers



Summary for Pond 7P: MC-3500 Chambers

[44] Hint: Outlet device #2 is below defined storage
[44] Hint: Outlet device #3 is below defined storage

Inflow Area = 1.749 ac, 72.48% Impervious, Inflow Depth = 3.25" for 25 YEAR event
Inflow = 1.34 cfs @ 7.98 hrs, Volume= 0.474 af
Outflow = 0.67 cfs @ 8.36 hrs, Volume= 0.474 af, Atten= 50%, Lag= 22.9 min
Primary = 0.67 cfs @ 8.36 hrs, Volume= 0.474 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 182.18' @ 8.36 hrs Surf.Area= 0.033 ac Storage= 0.086 af
Flood Elev= 185.37' Surf.Area= 0.033 ac Storage= 0.101 af

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 162.7 min (874.0 - 711.3)

Volume	Invert	Avail.Storage	Storage Description
#1A	178.00'	0.039 af	**15.58'W x 91.74'L x 5.50'H Field A** 0.181 af Overall - 0.062 af Embedded = 0.119 af x 33.0% Voids
#2A	178.75'	0.062 af	**ADS_StormTech MC-3500 d +Cap**x 24 Inside #1 Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap 2 Rows of 12 Chambers Cap Storage= +14.9 cf x 2 x 2 rows = 59.6 cf
		0.101 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	177.80'	**8.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 177.80' / 177.45' S= 0.0700 '/' Cc= 0.900 n= 0.013, Flow Area= 0.35 sf
#2	Device 1	176.30'	**0.5" Horiz. 1/2 of 2-YR Orifice** C= 0.600 Limited to weir flow at low heads
#3	Device 1	177.80'	**2.2" Vert. 2-YR Orifice** C= 0.600
#4	Device 1	182.00'	**6.0" Horiz. 25-YR Orifice** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.67 cfs @ 8.36 hrs HW=182.18' TW=171.78' (Dynamic Tailwater)
└─**1=Culvert** (Passes 0.67 cfs of 2.67 cfs potential flow)
  ├─**2=1/2 of 2-YR Orifice** (Orifice Controls 0.01 cfs @ 10.08 fps)
  ├─**3=2-YR Orifice** (Orifice Controls 0.26 cfs @ 9.97 fps)
  └─**4=25-YR Orifice** (Weir Controls 0.39 cfs @ 1.38 fps)

Pond 7P: MC-3500 Chambers - Chamber Wizard Field A

Chamber Model = ADS_StormTechMC-3500 d +Cap (ADS StormTech®MC-3500 d rev 03/14 with Cap volume)
Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf
Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap
Cap Storage= +14.9 cf x 2 x 2 rows = 59.6 cf

77.0" Wide + 9.0" Spacing = 86.0" C-C Row Spacing

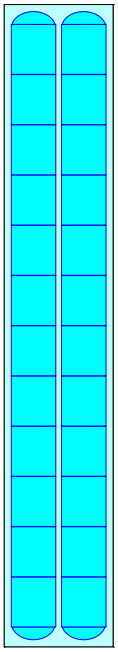
12 Chambers/Row x 7.17' Long +1.85' Cap Length x 2 = 89.74' Row Length +12.0" End Stone x 2 = 91.74' Base Length
2 Rows x 77.0" Wide + 9.0" Spacing x 1 + 12.0" Side Stone x 2 = 15.58' Base Width
9.0" Base + 45.0" Chamber Height + 12.0" Cover = 5.50' Field Height

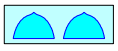
24 Chambers x 110.0 cf + 14.9 cf Cap Volume x 2 x 2 Rows = 2,698.4 cf Chamber Storage

7,862.9 cf Field - 2,698.4 cf Chambers = 5,164.4 cf Stone x 33.0% Voids = 1,704.3 cf Stone Storage

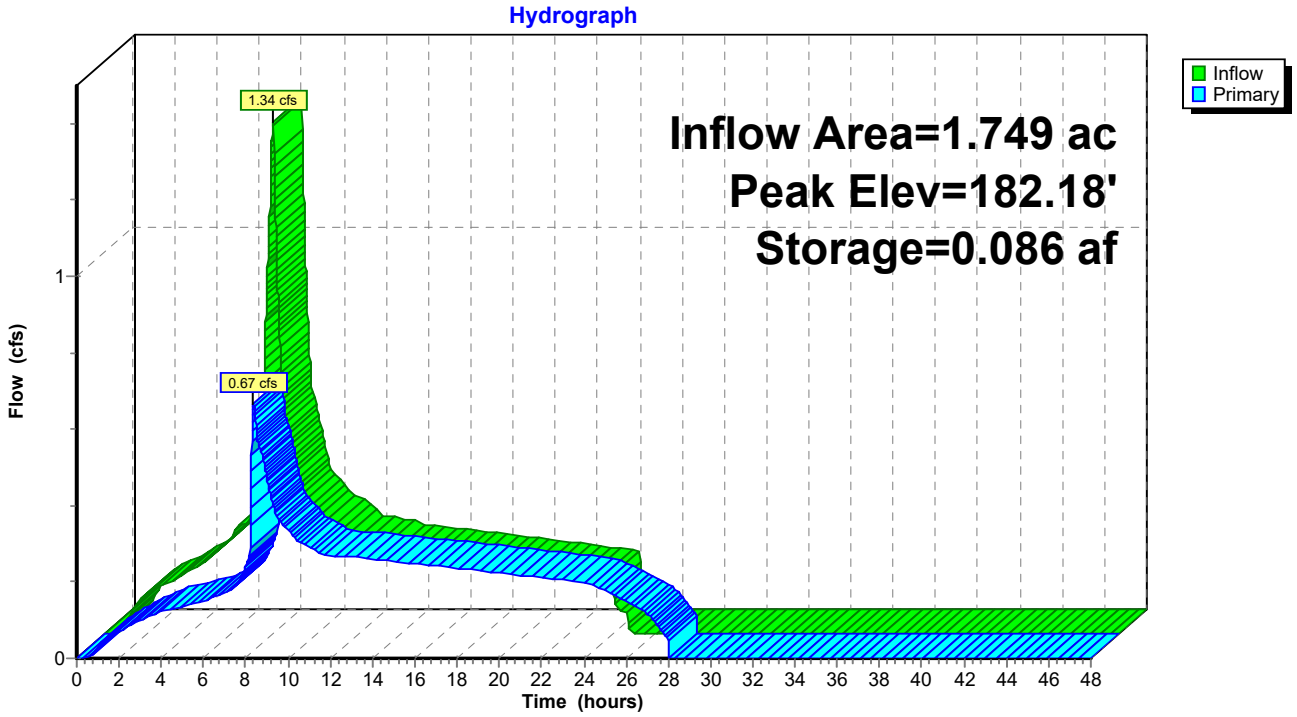
Chamber Storage + Stone Storage = 4,402.7 cf = 0.101 af
Overall Storage Efficiency = 56.0%
Overall System Size = 91.74' x 15.58' x 5.50'

24 Chambers
291.2 cy Field
191.3 cy Stone





Pond 7P: MC-3500 Chambers

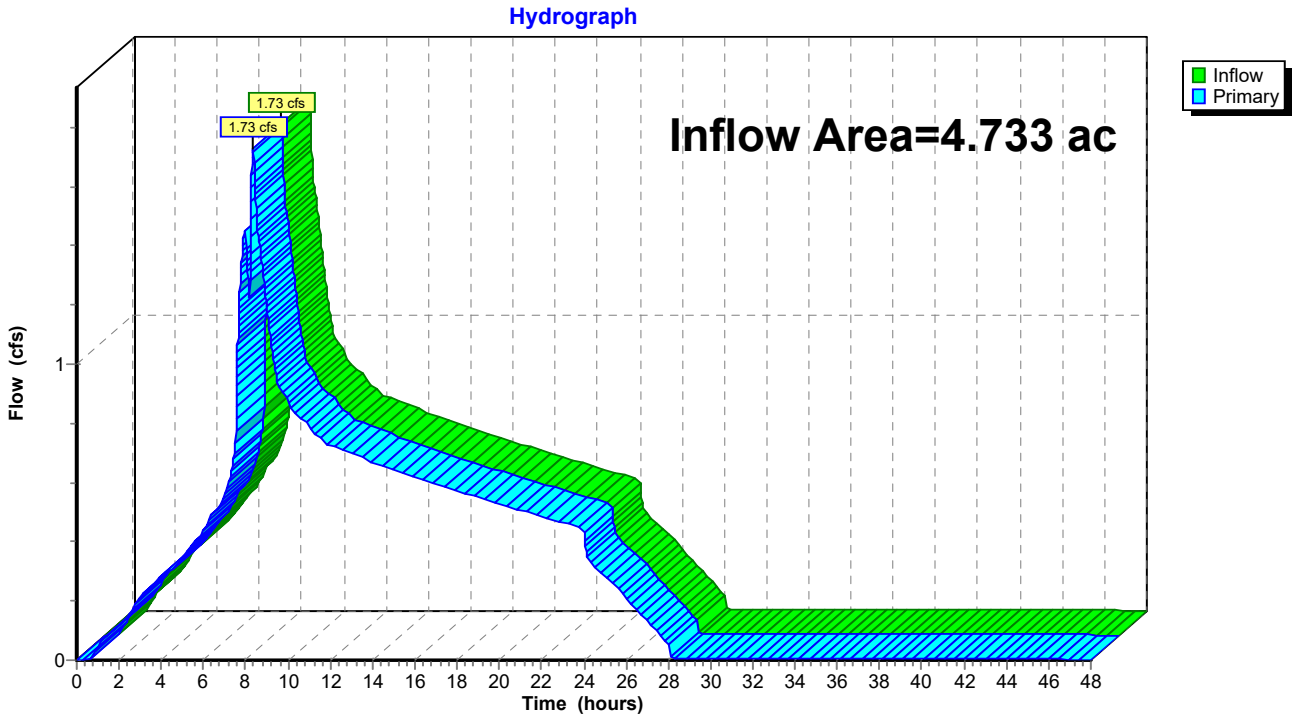


Summary for Link 1T: TOTAL - STREAM

Inflow Area = 4.733 ac, 60.67% Impervious, Inflow Depth = 3.03" for 25 YEAR event
Inflow = 1.73 cfs @ 8.33 hrs, Volume= 1.195 af
Primary = 1.73 cfs @ 8.33 hrs, Volume= 1.195 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Link 1T: TOTAL - STREAM

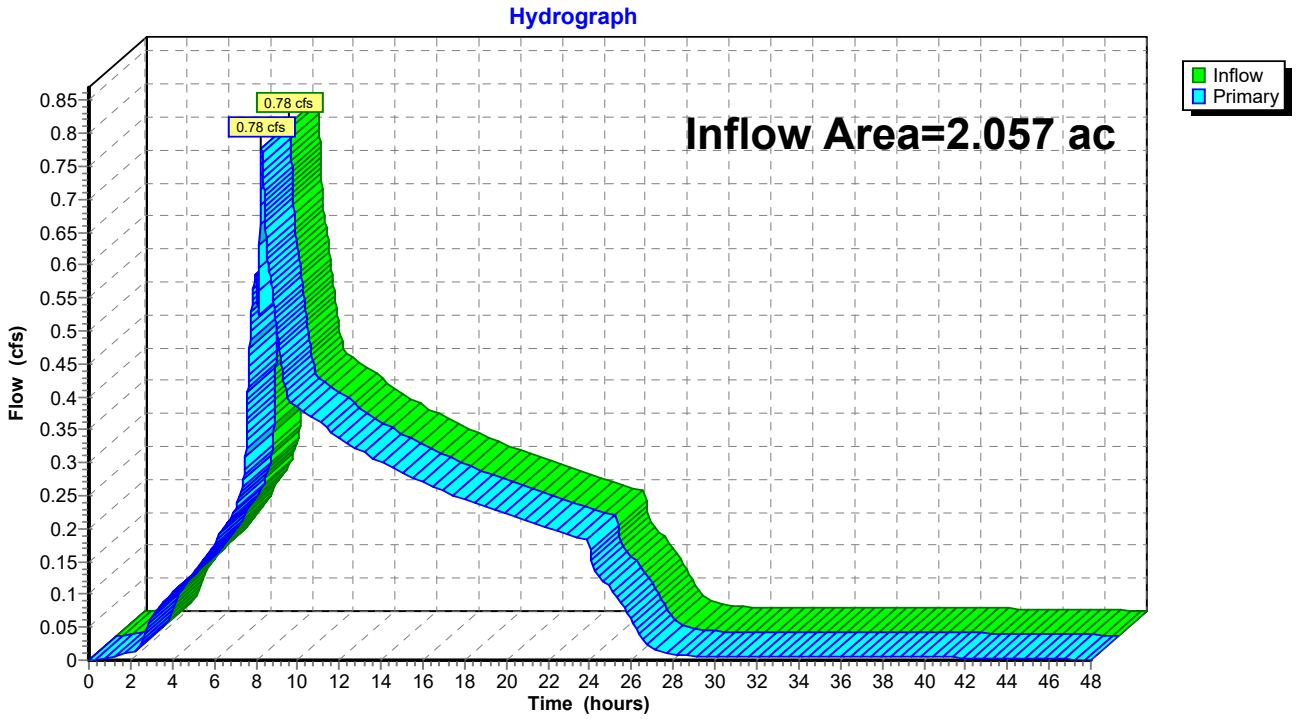


Summary for Link 2T: SUBTOTAL - LOT 2017

Inflow Area = 2.057 ac, 55.46% Impervious, Inflow Depth = 2.92" for 25 YEAR event
Inflow = 0.78 cfs @ 8.28 hrs, Volume= 0.501 af
Primary = 0.78 cfs @ 8.28 hrs, Volume= 0.501 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Link 2T: SUBTOTAL - LOT 2017

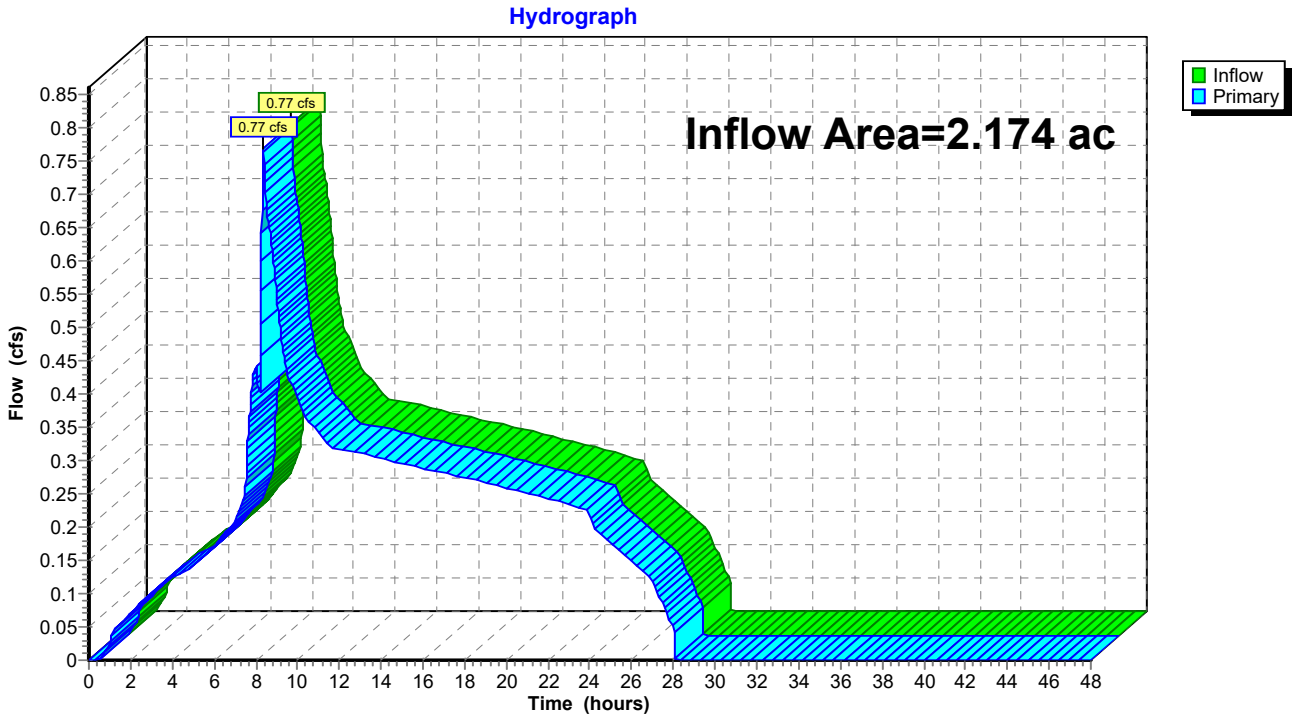


Summary for Link 3T: SUBTOTAL - LOT 2025

Inflow Area = 2.174 ac, 59.26% Impervious, Inflow Depth = 3.02" for 25 YEAR event
Inflow = 0.77 cfs @ 8.36 hrs, Volume= 0.547 af
Primary = 0.77 cfs @ 8.36 hrs, Volume= 0.547 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Link 3T: SUBTOTAL - LOT 2025

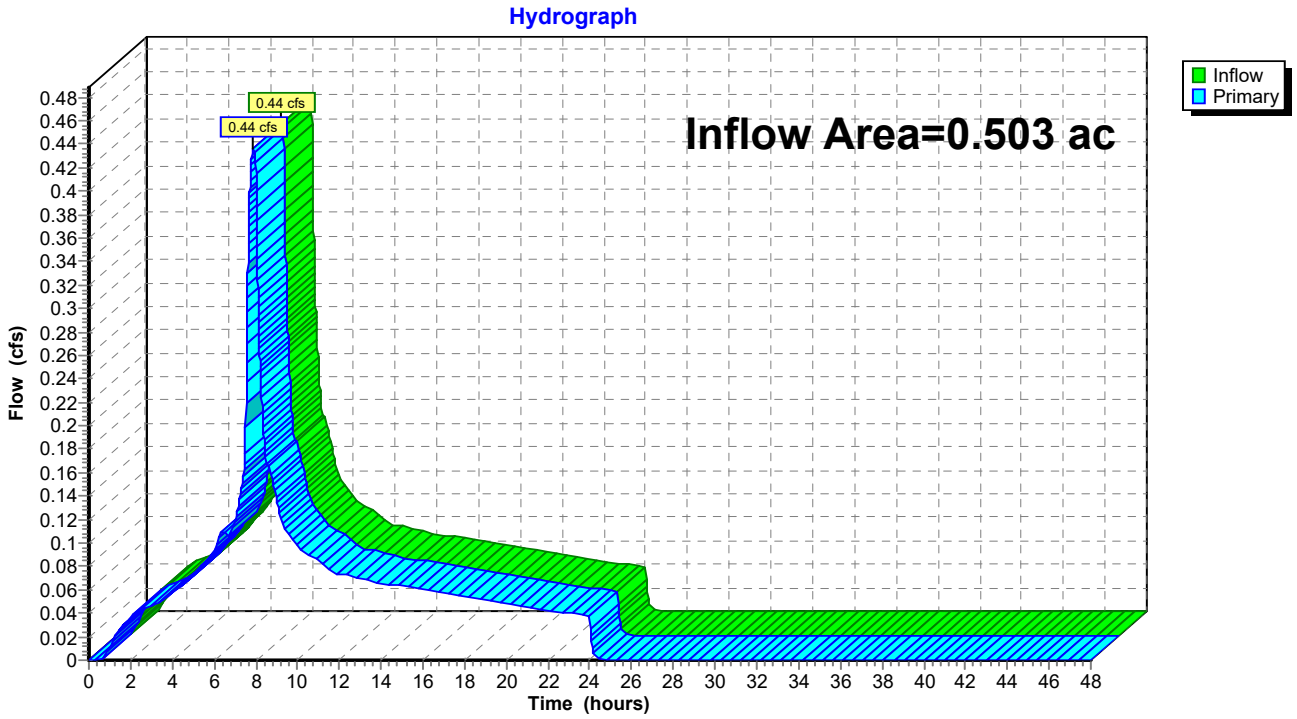


Summary for Link 4T: SUBTOTAL - HAYES ST

Inflow Area = 0.503 ac, 88.12% Impervious, Inflow Depth = 3.51" for 25 YEAR event
Inflow = 0.44 cfs @ 7.89 hrs, Volume= 0.147 af
Primary = 0.44 cfs @ 7.89 hrs, Volume= 0.147 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Link 4T: SUBTOTAL - HAYES ST



Time span=0.00-48.00 hrs, dt=0.01 hrs, 4801 points
Runoff by SBUH method, Split Pervious/Imperv.
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Pond 1P: LIDA Flow Through 282 SF Peak Elev=189.23' Storage=16 cf Inflow=0.02 cfs 0.007 af
Outflow=0.01 cfs 0.007 af

Pond 2P: LIDA Flow Through 282 SF Peak Elev=185.23' Storage=16 cf Inflow=0.02 cfs 0.007 af
Outflow=0.01 cfs 0.007 af

Pond 3P: LIDA Flow Through 638 SF Peak Elev=188.71' Storage=25 cf Inflow=0.04 cfs 0.014 af
Outflow=0.03 cfs 0.014 af

Pond 4P: LIDA Flow Through 638 SF Peak Elev=190.71' Storage=25 cf Inflow=0.04 cfs 0.014 af
Outflow=0.03 cfs 0.014 af

Pond 5P: LIDA Flow Through 638 SF Peak Elev=184.21' Storage=25 cf Inflow=0.04 cfs 0.014 af
Outflow=0.03 cfs 0.014 af

Pond 8P: WQ CB Peak Elev=184.50' Inflow=0.05 cfs 0.017 af
6.0" Round Culvert n=0.013 L=21.4' S=0.1257 '/' Outflow=0.05 cfs 0.017 af

Pond 9P: WQ CB Peak Elev=182.60' Inflow=0.08 cfs 0.026 af
6.0" Round Culvert n=0.013 L=14.2' S=0.1711 '/' Outflow=0.08 cfs 0.026 af

Pond 10P: WQ CB Peak Elev=181.50' Inflow=0.07 cfs 0.022 af
6.0" Round Culvert n=0.013 L=29.3' S=0.0280 '/' Outflow=0.07 cfs 0.022 af

Pond 11P: WQ CB Peak Elev=180.34' Inflow=0.10 cfs 0.033 af
6.0" Round Culvert n=0.013 L=12.6' S=0.1111 '/' Outflow=0.10 cfs 0.033 af

Summary for Pond 1P: LIDA Flow Through 282 SF

Inflow Area = 0.108 ac,100.00% Impervious, Inflow Depth = 0.79" for WQ event
Inflow = 0.02 cfs @ 7.90 hrs, Volume= 0.007 af
Outflow = 0.01 cfs @ 7.72 hrs, Volume= 0.007 af, Atten= 41%, Lag= 0.0 min
Primary = 0.01 cfs @ 7.72 hrs, Volume= 0.007 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 189.23' @ 8.20 hrs Surf.Area= 282 sf Storage= 16 cf
Flood Elev= 190.00' Surf.Area= 282 sf Storage= 234 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 5.8 min (718.4 - 712.6)

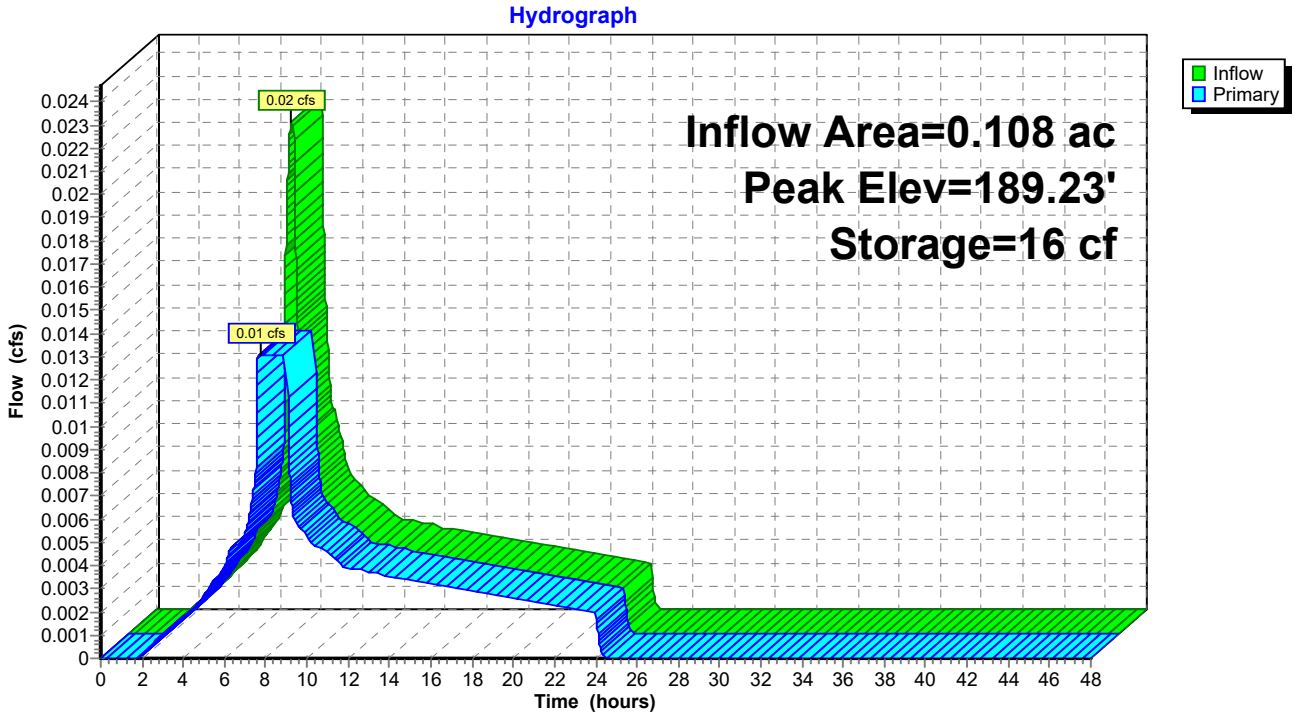
Volume	Invert	Avail.Storage	Storage Description
#1	189.17'	234 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
189.17	282	0	0
190.00	282	234	234

Device	Routing	Invert	Outlet Devices
#1	Primary	186.67'	**6.0" Round Culvert** L= 34.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 186.67' / 185.99' S= 0.0200 '/' Cc= 0.900 n= 0.013, Flow Area= 0.20 sf
#2	Device 1	189.17'	**2.000 in/hr Exfiltration over Surface area** Phase-In= 0.01'
#3	Device 1	189.67'	**6.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.01 cfs @ 7.72 hrs HW=189.19' TW=180.21' (Dynamic Tailwater)
↑**1=Culvert** (Passes 0.01 cfs of 1.12 cfs potential flow)
↑**2=Exfiltration** (Exfiltration Controls 0.01 cfs)
3=Orifice/Grate (Controls 0.00 cfs)

Pond 1P: LIDA Flow Through 282 SF



Summary for Pond 2P: LIDA Flow Through 282 SF

Inflow Area = 0.107 ac,100.00% Impervious, Inflow Depth = 0.79" for WQ event
Inflow = 0.02 cfs @ 7.90 hrs, Volume= 0.007 af
Outflow = 0.01 cfs @ 7.72 hrs, Volume= 0.007 af, Atten= 40%, Lag= 0.0 min
Primary = 0.01 cfs @ 7.72 hrs, Volume= 0.007 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 185.23' @ 8.20 hrs Surf.Area= 282 sf Storage= 16 cf
Flood Elev= 186.00' Surf.Area= 282 sf Storage= 234 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 5.7 min (718.3 - 712.6)

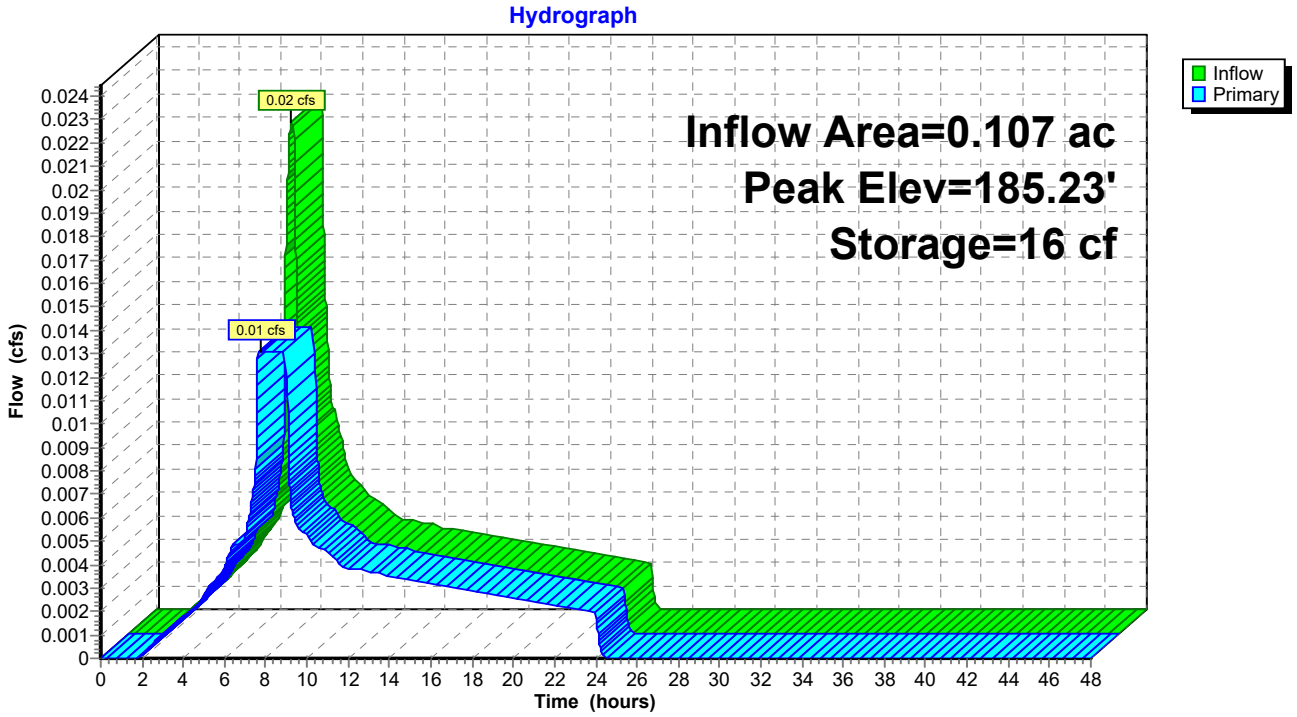
Volume	Invert	Avail.Storage	Storage Description
#1	185.17'	234 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
185.17	282	0	0
186.00	282	234	234

Device	Routing	Invert	Outlet Devices
#1	Primary	182.67'	**6.0" Round Culvert** L= 27.5' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 182.67' / 182.12' S= 0.0200 '/' Cc= 0.900 n= 0.013, Flow Area= 0.20 sf
#2	Device 1	185.17'	**2.000 in/hr Exfiltration over Surface area** Phase-In= 0.01'
#3	Device 1	185.67'	**6.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.01 cfs @ 7.72 hrs HW=185.19' TW=180.21' (Dynamic Tailwater)
↑**1=Culvert** (Passes 0.01 cfs of 1.12 cfs potential flow)
↑**2=Exfiltration** (Exfiltration Controls 0.01 cfs)
3=Orifice/Grate (Controls 0.00 cfs)

Pond 2P: LIDA Flow Through 282 SF



Summary for Pond 3P: LIDA Flow Through 638 SF

Inflow Area = 0.215 ac,100.00% Impervious, Inflow Depth = 0.79" for WQ event
Inflow = 0.04 cfs @ 7.90 hrs, Volume= 0.014 af
Outflow = 0.03 cfs @ 7.77 hrs, Volume= 0.014 af, Atten= 33%, Lag= 0.0 min
Primary = 0.03 cfs @ 7.77 hrs, Volume= 0.014 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 188.71' @ 8.14 hrs Surf.Area= 638 sf Storage= 25 cf
Flood Elev= 189.50' Surf.Area= 638 sf Storage= 530 cf

Plug-Flow detention time= 4.7 min calculated for 0.014 af (100% of inflow)
Center-of-Mass det. time= 4.7 min (717.4 - 712.6)

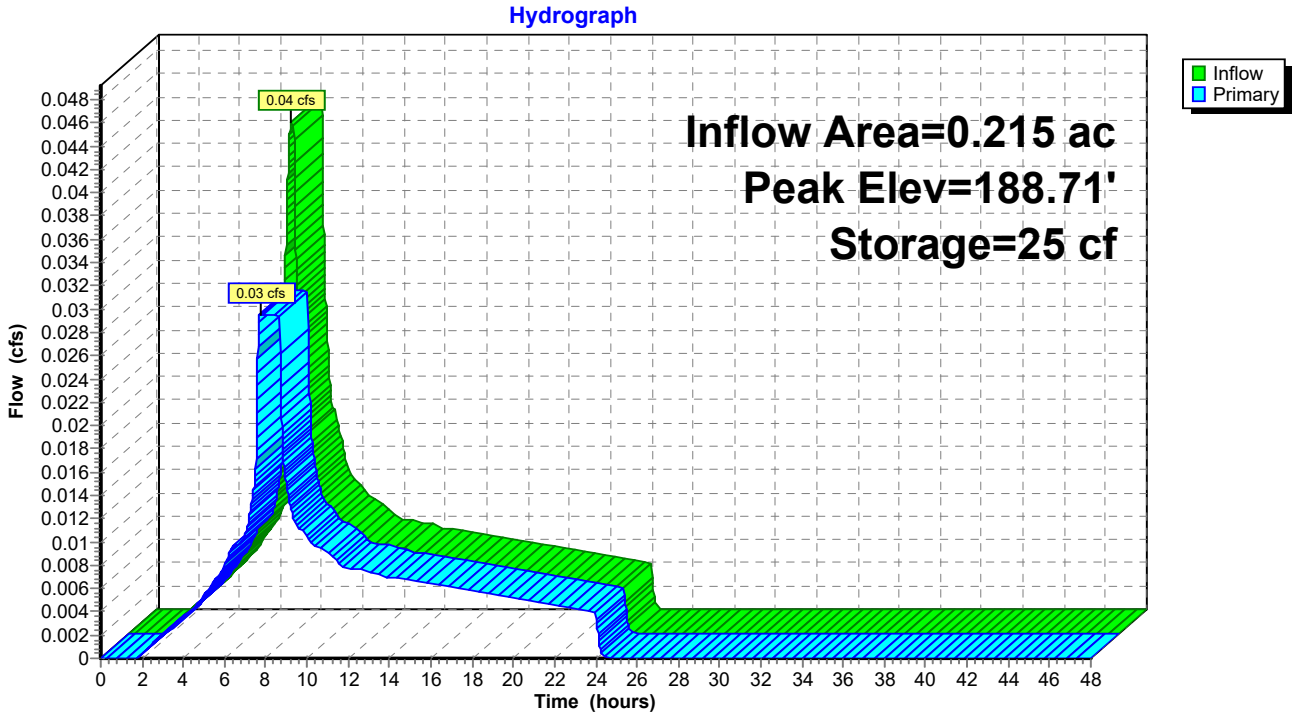
Volume	Invert	Avail.Storage	Storage Description
#1	188.67'	530 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
188.67	638	0	0
189.50	638	530	530

Device	Routing	Invert	Outlet Devices
#1	Primary	186.17'	**6.0" Round Culvert** L= 31.7' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 186.17' / 185.54' S= 0.0199 '/' Cc= 0.900 n= 0.013, Flow Area= 0.20 sf
#2	Device 1	188.67'	**2.000 in/hr Exfiltration over Surface area** Phase-In= 0.01'
#3	Device 1	189.17'	**6.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.03 cfs @ 7.77 hrs HW=188.69' TW=180.24' (Dynamic Tailwater)
↑**1=Culvert** (Passes 0.03 cfs of 1.12 cfs potential flow)
↑**2=Exfiltration** (Exfiltration Controls 0.03 cfs)
3=Orifice/Grate (Controls 0.00 cfs)

Pond 3P: LIDA Flow Through 638 SF



Summary for Pond 4P: LIDA Flow Through 638 SF

Inflow Area = 0.215 ac,100.00% Impervious, Inflow Depth = 0.79" for WQ event
Inflow = 0.04 cfs @ 7.90 hrs, Volume= 0.014 af
Outflow = 0.03 cfs @ 7.77 hrs, Volume= 0.014 af, Atten= 33%, Lag= 0.0 min
Primary = 0.03 cfs @ 7.77 hrs, Volume= 0.014 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 190.71' @ 8.14 hrs Surf.Area= 638 sf Storage= 25 cf
Flood Elev= 191.50' Surf.Area= 638 sf Storage= 530 cf

Plug-Flow detention time= 4.7 min calculated for 0.014 af (100% of inflow)
Center-of-Mass det. time= 4.7 min (717.4 - 712.6)

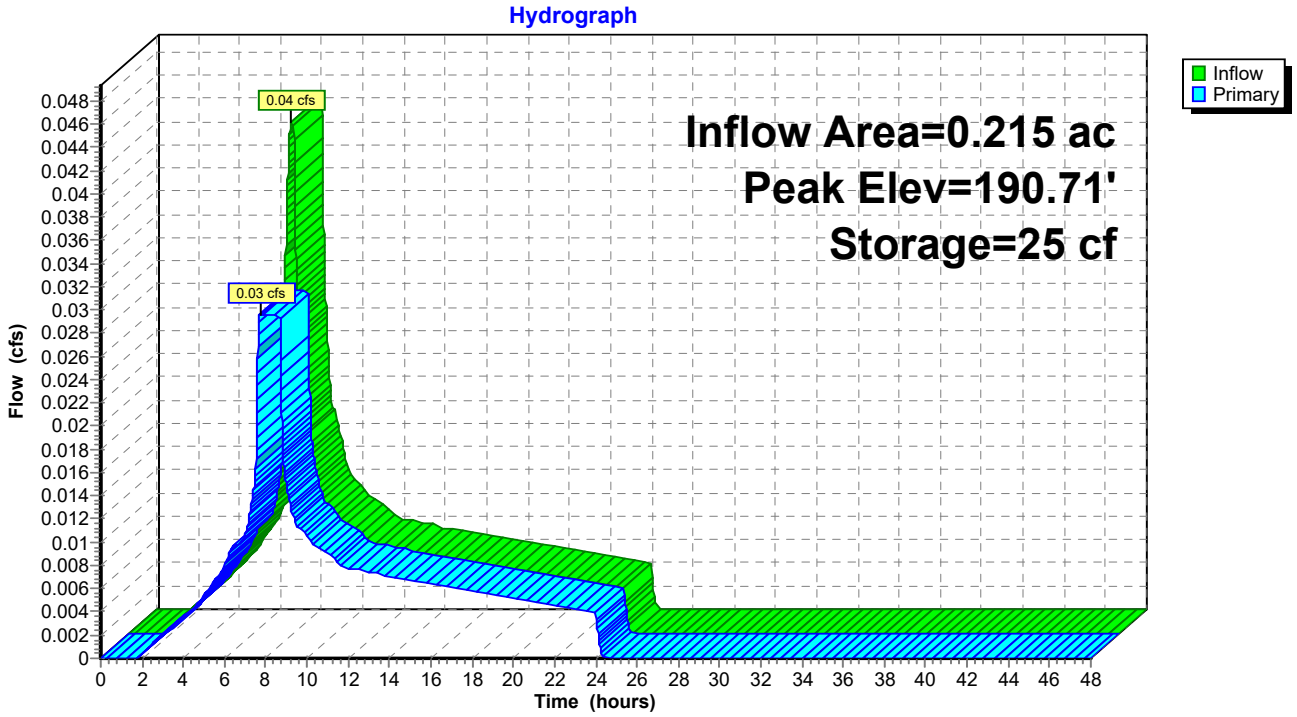
Volume	Invert	Avail.Storage	Storage Description
#1	190.67'	530 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
190.67	638	0	0
191.50	638	530	530

Device	Routing	Invert	Outlet Devices
#1	Primary	188.17'	**6.0" Round Culvert** L= 16.5' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 188.17' / 187.84' S= 0.0200 '/' Cc= 0.900 n= 0.013, Flow Area= 0.20 sf
#2	Device 1	190.67'	**2.000 in/hr Exfiltration over Surface area** Phase-In= 0.01'
#3	Device 1	191.17'	**6.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.03 cfs @ 7.77 hrs HW=190.69' TW=178.34' (Dynamic Tailwater)
↑**1=Culvert** (Passes 0.03 cfs of 1.12 cfs potential flow)
↑**2=Exfiltration** (Exfiltration Controls 0.03 cfs)
3=Orifice/Grate (Controls 0.00 cfs)

Pond 4P: LIDA Flow Through 638 SF



Summary for Pond 5P: LIDA Flow Through 638 SF

Inflow Area = 0.215 ac,100.00% Impervious, Inflow Depth = 0.79" for WQ event
Inflow = 0.04 cfs @ 7.90 hrs, Volume= 0.014 af
Outflow = 0.03 cfs @ 7.77 hrs, Volume= 0.014 af, Atten= 33%, Lag= 0.0 min
Primary = 0.03 cfs @ 7.77 hrs, Volume= 0.014 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 184.21' @ 8.14 hrs Surf.Area= 638 sf Storage= 25 cf
Flood Elev= 185.00' Surf.Area= 638 sf Storage= 530 cf

Plug-Flow detention time= 4.7 min calculated for 0.014 af (100% of inflow)
Center-of-Mass det. time= 4.7 min (717.4 - 712.6)

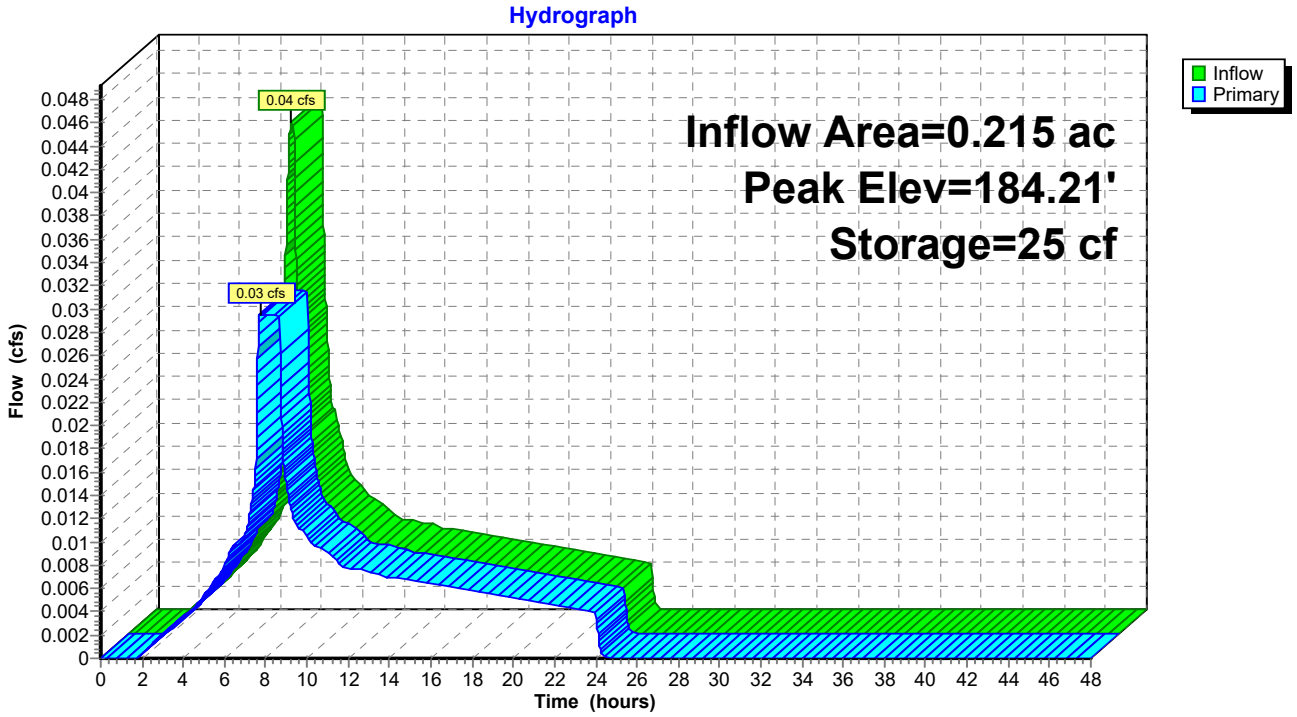
Volume	Invert	Avail.Storage	Storage Description
#1	184.17'	530 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
184.17	638	0	0
185.00	638	530	530

Device	Routing	Invert	Outlet Devices
#1	Primary	181.67'	**6.0" Round Culvert** L= 27.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 181.67' / 181.13' S= 0.0200 '/' Cc= 0.900 n= 0.013, Flow Area= 0.20 sf
#2	Device 1	184.17'	**2.000 in/hr Exfiltration over Surface area** Phase-In= 0.01'
#3	Device 1	184.67'	**6.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.03 cfs @ 7.77 hrs HW=184.19' TW=178.34' (Dynamic Tailwater)
↑ **1=Culvert** (Passes 0.03 cfs of 1.12 cfs potential flow)
↑ **2=Exfiltration** (Exfiltration Controls 0.03 cfs)
3=Orifice/Grate (Controls 0.00 cfs)

Pond 5P: LIDA Flow Through 638 SF



Summary for Pond 8P: WQ CB

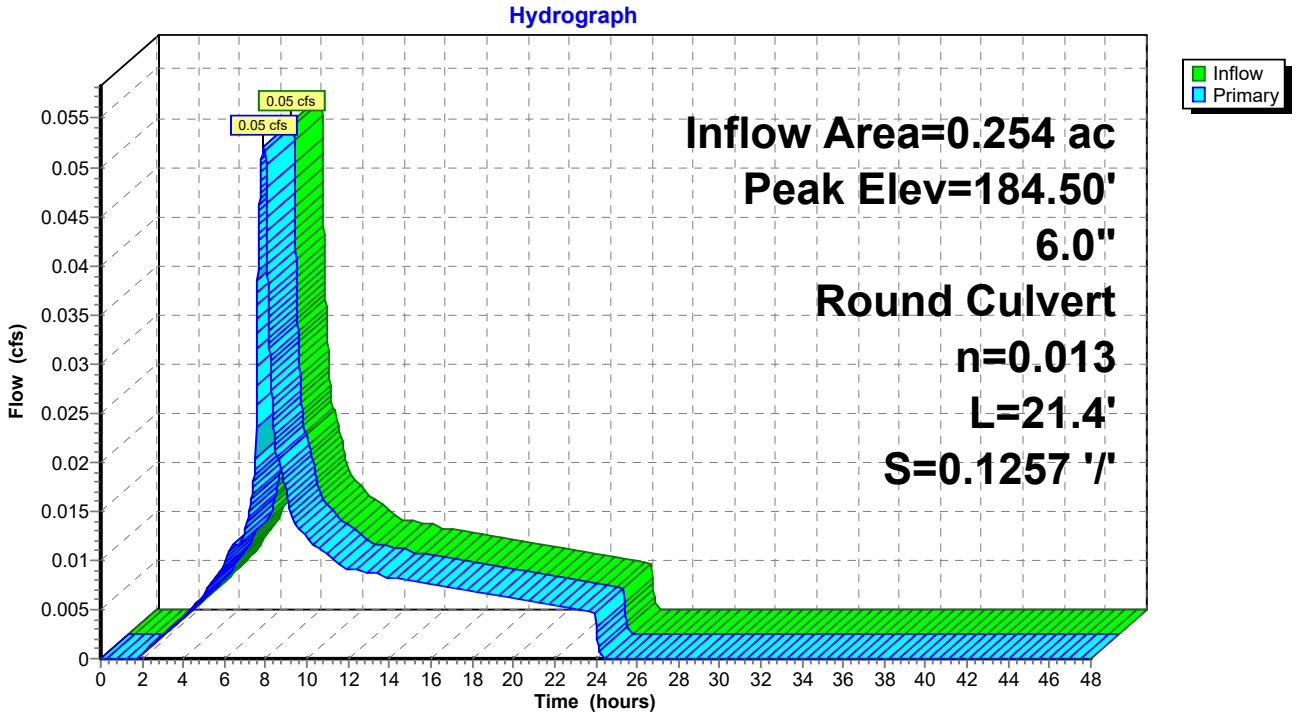
Inflow Area = 0.254 ac,100.00% Impervious, Inflow Depth = 0.79" for WQ event
Inflow = 0.05 cfs @ 7.90 hrs, Volume= 0.017 af
Outflow = 0.05 cfs @ 7.90 hrs, Volume= 0.017 af, Atten= 0%, Lag= 0.0 min
Primary = 0.05 cfs @ 7.90 hrs, Volume= 0.017 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 184.50' @ 7.90 hrs
Flood Elev= 189.78'

Device	Routing	Invert	Outlet Devices
#1	Primary	184.37'	**6.0" Round Culvert** L= 21.4' Ke= 0.500 Inlet / Outlet Invert= 184.37' / 181.68' S= 0.1257 '/' Cc= 0.900 n= 0.013, Flow Area= 0.20 sf

Primary OutFlow Max=0.05 cfs @ 7.90 hrs HW=184.50' TW=180.29' (Dynamic Tailwater)
1=Culvert (Inlet Controls 0.05 cfs @ 1.24 fps)

Pond 8P: WQ CB



Summary for Pond 9P: WQ CB

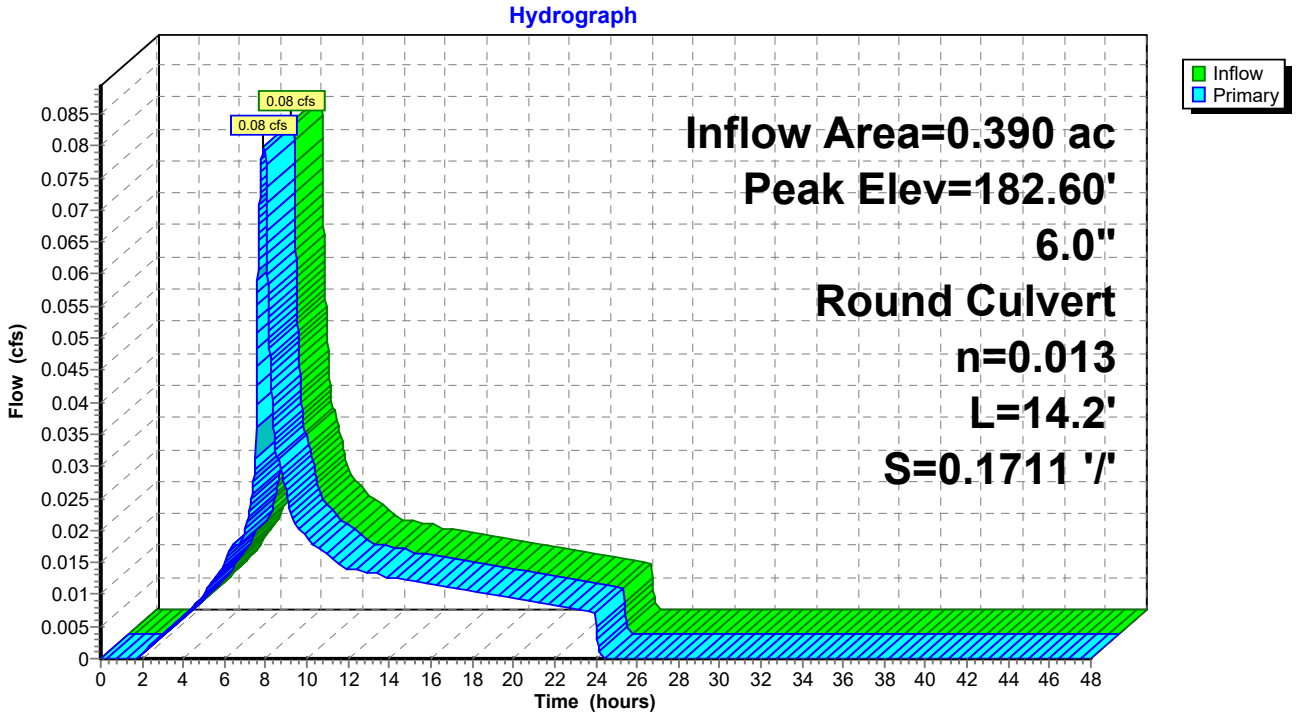
Inflow Area = 0.390 ac,100.00% Impervious, Inflow Depth = 0.79" for WQ event
Inflow = 0.08 cfs @ 7.90 hrs, Volume= 0.026 af
Outflow = 0.08 cfs @ 7.90 hrs, Volume= 0.026 af, Atten= 0%, Lag= 0.0 min
Primary = 0.08 cfs @ 7.90 hrs, Volume= 0.026 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 182.60' @ 7.90 hrs
Flood Elev= 185.38'

Device	Routing	Invert	Outlet Devices
#1	Primary	182.43'	**6.0" Round Culvert** L= 14.2' Ke= 0.500 Inlet / Outlet Invert= 182.43' / 180.00' S= 0.1711 '/' Cc= 0.900 n= 0.013, Flow Area= 0.20 sf

Primary OutFlow Max=0.08 cfs @ 7.90 hrs HW=182.60' TW=180.29' (Dynamic Tailwater)
1=Culvert (Inlet Controls 0.08 cfs @ 1.39 fps)

Pond 9P: WQ CB



Summary for Pond 10P: WQ CB

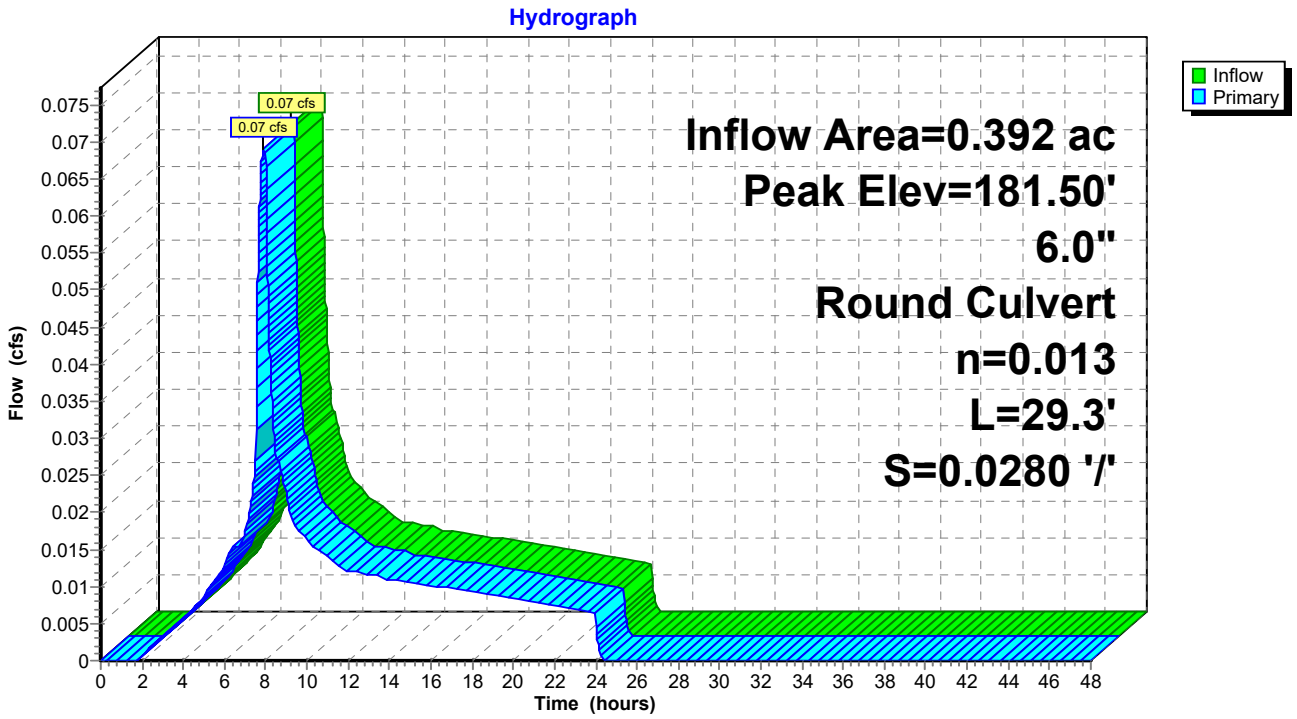
Inflow Area = 0.392 ac, 85.83% Impervious, Inflow Depth = 0.68" for WQ event
Inflow = 0.07 cfs @ 7.90 hrs, Volume= 0.022 af
Outflow = 0.07 cfs @ 7.90 hrs, Volume= 0.022 af, Atten= 0%, Lag= 0.0 min
Primary = 0.07 cfs @ 7.90 hrs, Volume= 0.022 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 181.50' @ 7.90 hrs
Flood Elev= 183.70'

Device	Routing	Invert	Outlet Devices
#1	Primary	181.35'	**6.0" Round Culvert** L= 29.3' Ke= 0.500 Inlet / Outlet Invert= 181.35' / 180.53' S= 0.0280 '/' Cc= 0.900 n= 0.013, Flow Area= 0.20 sf

Primary OutFlow Max=0.07 cfs @ 7.90 hrs HW=181.50' TW=178.47' (Dynamic Tailwater)
1=Culvert (Inlet Controls 0.07 cfs @ 1.34 fps)

Pond 10P: WQ CB



Summary for Pond 11P: WQ CB

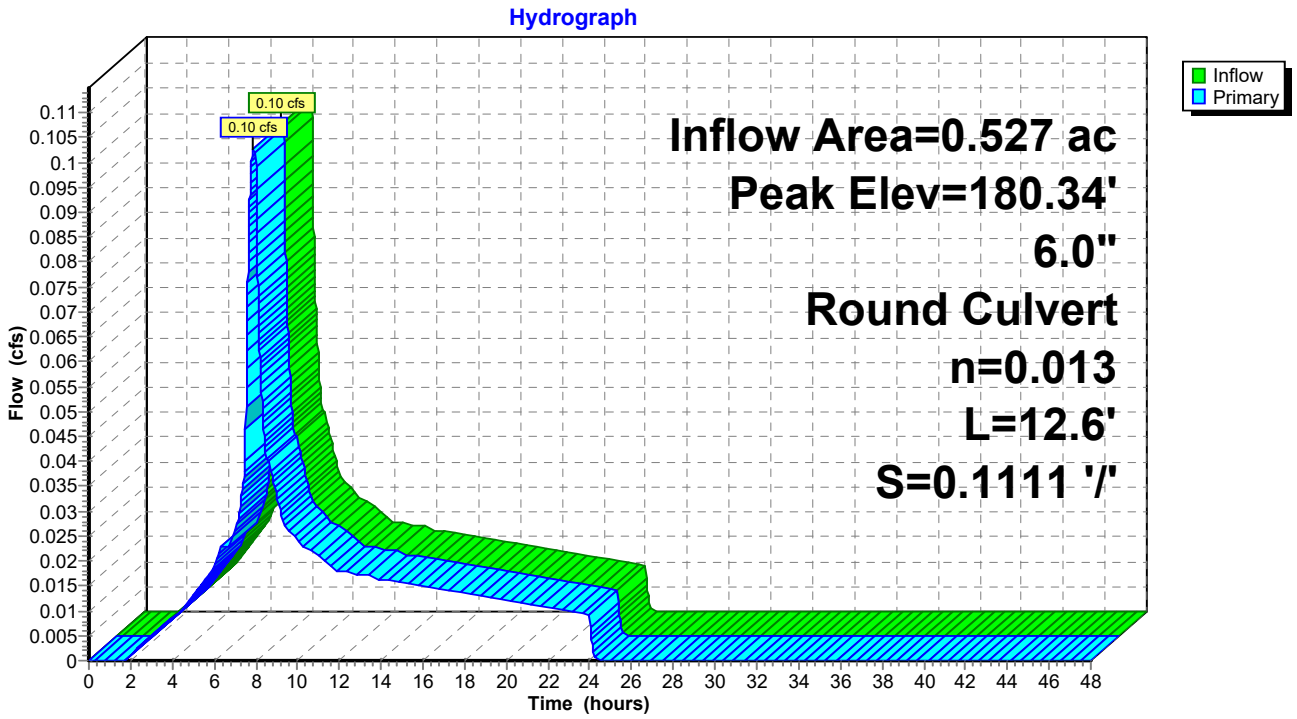
Inflow Area = 0.527 ac, 95.09% Impervious, Inflow Depth = 0.75" for WQ event
Inflow = 0.10 cfs @ 7.90 hrs, Volume= 0.033 af
Outflow = 0.10 cfs @ 7.90 hrs, Volume= 0.033 af, Atten= 0%, Lag= 0.0 min
Primary = 0.10 cfs @ 7.90 hrs, Volume= 0.033 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 180.34' @ 7.90 hrs
Flood Elev= 183.84'

Device	Routing	Invert	Outlet Devices
#1	Primary	180.15'	**6.0" Round Culvert** L= 12.6' Ke= 0.500 Inlet / Outlet Invert= 180.15' / 178.75' S= 0.1111 '/' Cc= 0.900 n= 0.013, Flow Area= 0.20 sf

Primary OutFlow Max=0.10 cfs @ 7.90 hrs HW=180.34' TW=178.47' (Dynamic Tailwater)
1=Culvert (Inlet Controls 0.10 cfs @ 1.49 fps)

Pond 11P: WQ CB



Appendix C:
Stormwater Quality Calculations

AKS ENGINEERING & FORESTRY, LLC.
12965 SW HERMAN ROAD, SUITE 100
TUALATIN, OR 97062
503-563-6151

Date: 7/3/2024
Designed by: AMJ
Checked by: CEG

West Branch Apartments

StormFilter Catchbasin Sizing - 8P

STORMFILTER® DESIGN PARAMETERS

Number of Cartridges Required:

$N=Q_{treat}\,(449_{gpm/cfs} / Q_{cart\ gpm/cart})$

Q_{treat} = Water Quality Volume (WQV)

$Q_{cart\ gpm/cart}$ = Treatment per 18" Cartridge = 15 $_{gpm/cart}$

StormFilter Sizing		
Area Requiring Treatment	11,070 SF	
Water Quality Stormwater Event	1.0 inches falling in 24 hr	
WQF (See Hydrograph)	0.05 CFS	
Cartridge Required	$N=Q_{treat}\,(449_{gpm/cfs} / Q_{cart\ gpm/cart})$	$N=Q_{treat}\,(449_{gpm/cfs} / 15_{cart\ gpm/cart})$
	N= 1.50 cart	2 CARTRIDGE STORMFILTER CATCHBASIN

AKS ENGINEERING & FORESTRY, LLC.
12965 SW HERMAN ROAD, SUITE 100
TUALATIN, OR 97062
503-563-6151

Date: 7/3/2024
Designed by: AMJ
Checked by: CEG

West Branch Apartments

StormFilter Catchbasin Sizing - 9P

STORMFILTER® DESIGN PARAMETERS

Number of Cartridges Required:

$N=Q_{treat}\,(449_{gpm/cfs} / Q_{cart\ gpm/cart})$

Q_{treat} = Water Quality Volume (WQV)

$Q_{cart\ gpm/cart}$ = Treatment per 18" Cartridge = 15 $_{gpm/cart}$

StormFilter Sizing		
Area Requiring Treatment	16,971 SF	
Water Quality Stormwater Event	1.0 inches falling in 24 hr	
WQF (See Hydrograph)	0.08 CFS	
Cartridge Required	$N=Q_{treat}\,(449_{gpm/cfs} / Q_{cart\ gpm/cart})$	$N=Q_{treat}\,(449_{gpm/cfs} / 15_{cart\ gpm/cart})$
	N= 2.39 cart	3 CARTRIDGE STORMFILTER CATCHBASIN

AKS ENGINEERING & FORESTRY, LLC.
12965 SW HERMAN ROAD, SUITE 100
TUALATIN, OR 97062
503-563-6151

Date: 7/3/2024
Designed by: AMJ
Checked by: CEG

West Branch Apartments

StormFilter Catchbasin Sizing - 10P

STORMFILTER® DESIGN PARAMETERS

Number of Cartridges Required:

$N=Q_{treat}\,(449_{gpm/cfs} / Q_{cart\ gpm/cart})$

Q_{treat} = Water Quality Volume (WQV)

$Q_{cart\ gpm/cart}$ = Treatment per 18" Cartridge = 15 $_{gpm/cart}$

StormFilter Sizing		
Area Requiring Treatment	14,670 SF	
Water Quality Stormwater Event	1.0 inches falling in 24 hr	
WQF (See Hydrograph)	0.07 CFS	
Cartridge Required	$N=Q_{treat}\,(449_{gpm/cfs} / Q_{cart\ gpm/cart})$	$N=Q_{treat}\,(449_{gpm/cfs} / 15_{cart\ gpm/cart})$
	N= 2.10 cart	3 CARTRIDGE STORMFILTER CATCHBASIN

AKS ENGINEERING & FORESTRY, LLC.
12965 SW HERMAN ROAD, SUITE 100
TUALATIN, OR 97062
503-563-6151

Date: 7/3/2024
Designed by: AMJ
Checked by: CEG

West Branch Apartments

StormFilter Catchbasin Sizing - 11P

STORMFILTER® DESIGN PARAMETERS

Number of Cartridges Required:

$N=Q_{treat}\,(449_{gpm/cfs} / Q_{cart\ gpm/cart})$

Q_{treat} = Water Quality Volume (WQV)

$Q_{cart\ gpm/cart}$ = Treatment per 18" Cartridge = 15 $_{gpm/cart}$

StormFilter Sizing		
Area Requiring Treatment	21,835 SF	
Water Quality Stormwater Event	1.0 inches falling in 24 hr	
WQF (See Hydrograph)	0.10 CFS	
Cartridge Required	$N=Q_{treat}\,(449_{gpm/cfs} / Q_{cart\ gpm/cart})$	$N=Q_{treat}\,(449_{gpm/cfs} / 15_{cart\ gpm/cart})$
	N= 2.99 cart	3 CARTRIDGE STORMFILTER CATCHBASIN

Appendix D:
USDA-NRCS Soil Resource Report

United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Yamhill County, Oregon

May 22, 2024

Map Scale: 1:2,000 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 25 50 100 150

Feet
0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 10N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Yamhill County, Oregon
Survey Area Data: Version 12, Sep 8, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Sep 26, 2022—Oct 11, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
2300A	Aloha silt loam, 0 to 3 percent slopes	8.0	42.5%
2301A	Amity silt loam, 0 to 3 percent slopes	1.2	6.4%
2310A	Woodburn silt loam, 0 to 3 percent slopes	1.6	8.7%
2310D	Woodburn silt loam, 12 to 20 percent slopes	6.0	31.8%
2310F	Woodburn silt loam, 20 to 55 percent slopes	2.0	10.6%
Totals for Area of Interest		**18.8**	**100.0%**

Soil Information for All Uses

Soil Reports

The Soil Reports section includes various formatted tabular and narrative reports (tables) containing data for each selected soil map unit and each component of each unit. No aggregation of data has occurred as is done in reports in the Soil Properties and Qualities and Suitabilities and Limitations sections.

The reports contain soil interpretive information as well as basic soil properties and qualities. A description of each report (table) is included.

Soil Physical Properties

This folder contains a collection of tabular reports that present soil physical properties. The reports (tables) include all selected map units and components for each map unit. Soil physical properties are measured or inferred from direct observations in the field or laboratory. Examples of soil physical properties include percent clay, organic matter, saturated hydraulic conductivity, available water capacity, and bulk density.

Engineering Properties

This table gives the engineering classifications and the range of engineering properties for the layers of each soil in the survey area.

Hydrologic soil group is a group of soils having similar runoff potential under similar storm and cover conditions. The criteria for determining Hydrologic soil group is found in the National Engineering Handbook, Chapter 7 issued May 2007(http://directives.sc.egov.usda.gov/OpenNonWebContent.aspx?content=17757.wba). Listing HSGs by soil map unit component and not by soil series is a new concept for the engineers. Past engineering references contained lists of HSGs by soil series. Soil series are continually being defined and redefined, and the list of soil series names changes so frequently as to make the task of maintaining a single national list virtually impossible. Therefore, the criteria is now used to calculate the HSG using the component soil properties and no such national series lists will be maintained. All such references are obsolete and their use should be discontinued. Soil properties that influence runoff potential are those that influence the minimum rate of infiltration for a bare soil after prolonged wetting and when not frozen. These properties are depth to a seasonal high water table, saturated hydraulic conductivity after prolonged wetting, and depth to a layer with a very slow water transmission

rate. Changes in soil properties caused by land management or climate changes also cause the hydrologic soil group to change. The influence of ground cover is treated independently. There are four hydrologic soil groups, A, B, C, and D, and three dual groups, A/D, B/D, and C/D. In the dual groups, the first letter is for drained areas and the second letter is for undrained areas.

The four hydrologic soil groups are described in the following paragraphs:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

Depth to the upper and lower boundaries of each layer is indicated.

Texture is given in the standard terms used by the U.S. Department of Agriculture. These terms are defined according to percentages of sand, silt, and clay in the fraction of the soil that is less than 2 millimeters in diameter. "Loam," for example, is soil that is 7 to 27 percent clay, 28 to 50 percent silt, and less than 52 percent sand. If the content of particles coarser than sand is 15 percent or more, an appropriate modifier is added, for example, "gravelly."

Classification of the soils is determined according to the Unified soil classification system (ASTM, 2005) and the system adopted by the American Association of State Highway and Transportation Officials (AASHTO, 2004).

The Unified system classifies soils according to properties that affect their use as construction material. Soils are classified according to particle-size distribution of the fraction less than 3 inches in diameter and according to plasticity index, liquid limit, and organic matter content. Sandy and gravelly soils are identified as GW, GP, GM, GC, SW, SP, SM, and SC; silty and clayey soils as ML, CL, OL, MH, CH, and OH; and highly organic soils as PT. Soils exhibiting engineering properties of two groups can have a dual classification, for example, CL-ML.

The AASHTO system classifies soils according to those properties that affect roadway construction and maintenance. In this system, the fraction of a mineral soil that is less than 3 inches in diameter is classified in one of seven groups from A-1 through A-7 on the basis of particle-size distribution, liquid limit, and plasticity index. Soils in group A-1 are coarse grained and low in content of fines (silt and clay). At the other extreme, soils in group A-7 are fine grained. Highly organic soils are classified in group A-8 on the basis of visual inspection.

If laboratory data are available, the A-1, A-2, and A-7 groups are further classified as A-1-a, A-1-b, A-2-4, A-2-5, A-2-6, A-2-7, A-7-5, or A-7-6. As an additional refinement, the suitability of a soil as subgrade material can be indicated by a group

index number. Group index numbers range from 0 for the best subgrade material to 20 or higher for the poorest.

Percentage of rock fragments larger than 10 inches in diameter and 3 to 10 inches in diameter are indicated as a percentage of the total soil on a dry-weight basis. The percentages are estimates determined mainly by converting volume percentage in the field to weight percentage. Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

Percentage (of soil particles) passing designated sieves is the percentage of the soil fraction less than 3 inches in diameter based on an ovendry weight. The sieves, numbers 4, 10, 40, and 200 (USA Standard Series), have openings of 4.76, 2.00, 0.420, and 0.074 millimeters, respectively. Estimates are based on laboratory tests of soils sampled in the survey area and in nearby areas and on estimates made in the field. Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

Liquid limit and *plasticity index* (Atterberg limits) indicate the plasticity characteristics of a soil. The estimates are based on test data from the survey area or from nearby areas and on field examination. Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

References:

American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.

American Society for Testing and Materials (ASTM). 2005. Standard classification of soils for engineering purposes. ASTM Standard D2487-00.

Absence of an entry indicates that the data were not estimated. The asterisk '*' denotes the representative texture; other possible textures follow the dash. The criteria for determining the hydrologic soil group for individual soil components is found in the National Engineering Handbook, Chapter 7 issued May 2007(http://directives.sc.egov.usda.gov/OpenNonWebContent.aspx?content=17757.wba). Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

Engineering Properties–Yamhill County, Oregon														
Map unit symbol and soil name	Pct. of map unit	Hydrologic group	Depth	USDA texture	Classification		Pct Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
					Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
			In				*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*
2300A—Aloha silt loam, 0 to 3 percent slopes														
Aloha	96	C/D	0-8	Silt loam	ML, CL, CL-ML	A-4, A-6	0- 0- 0	0- 0- 0	100-100-100	95-100-100	95-97-100	85-85-95	25-35-40	5-9 -15
			8-15	Loam, silt loam	ML, CL-ML, CL	A-6, A-4	0- 0- 0	0- 0- 0	100-100-100	95-100-100	95-97-100	75-85-95	25-35-40	5-9 -15
			15-22	Silt loam, loam	CL	A-6	0- 0- 0	0- 0- 0	100-100-100	100-100-100	95-97-100	75-85-95	30-36-40	10-13-15
			22-31	Silt loam, loam	CL	A-6	0- 0- 0	0- 0- 0	100-100-100	100-100-100	95-98-100	75-82-95	30-36-40	10-13-15
			31-46	Loam, silt loam	CL	A-6	0- 0- 0	0- 0- 0	100-100-100	100-100-100	90-98-100	65-82-95	30-36-40	10-13-15
			46-60	Silt loam, loam	CL-ML, CL	A-6, A-4	0- 0- 0	0- 0- 0	100-100-100	100-100-100	90-98-100	65-80-95	25-30-40	5-10-15
			60-65	Silt loam, loam, very fine sandy loam	CL, CL-ML	A-4, A-6	0- 0- 0	0- 0- 0	100-100-100	100-100-100	90-97-100	60-64-95	25-28-40	5-8 -15

Engineering Properties–Yamhill County, Oregon														
Map unit symbol and soil name	Pct. of map unit	Hydrologic group	Depth	USDA texture	Classification		Pct Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
					Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
			In				*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*
2310D—Woodburn silt loam, 12 to 20 percent slopes														
Woodburn	95	C	0-9	Silt loam	ML, CL	A-4, A-6	0- 0- 0	0- 0- 0	95-99-100	95-98-100	95-97-100	85-94-100	30-36-40	5-11-15
			9-17	Silt loam	CL, ML	A-6, A-4	0- 0- 0	0- 0- 0	95-99-100	95-98-100	95-97-100	85-94-100	30-36-40	5-11-15
			17-25	Silt loam, silty clay loam	CL	A-7, A-6	0- 0- 0	0- 0- 0	100-100-100	100-100-100	95-99-100	90-97-100	30-38-45	10-15-20
			25-32	Silt loam, silty clay loam	CL	A-6, A-7	0- 0- 0	0- 0- 0	100-100-100	100-100-100	95-99-100	90-97-100	30-38-45	10-15-20
			32-39	Silt loam, silty clay loam	CL	A-7, A-6	0- 0- 0	0- 0- 0	100-100-100	100-100-100	95-99-100	90-97-100	30-36-45	10-14-20
			39-54	Silt loam, silty clay loam	CL	A-7, A-6	0- 0- 0	0- 0- 0	100-100-100	100-100-100	95-99-100	90-97-100	30-36-45	10-14-20
			54-68	Silty clay loam, silt loam	CL-ML, CL	A-6, A-4	0- 0- 0	0- 0- 0	100-100-100	100-100-100	95-98-100	80-90-100	25-35-40	5-11-15
			68-80	Stratified fine sandy loam to silt loam	SM, ML	A-4	0- 0- 0	0- 0- 0	100-100-100	100-100-100	70-92-100	40-60-90	20-28-35	NP-5-10
			80-92	Stratified fine sandy loam to silt loam	ML, SM	A-4	0- 0- 0	0- 0- 0	100-100-100	100-100-100	70-92-100	40-51-90	20-28-35	NP-5-10

Engineering Properties–Yamhill County, Oregon														
Map unit symbol and soil name	Pct. of map unit	Hydrologic group	Depth	USDA texture	Classification		Pct Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
					Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
			In				*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*
2310F—Woodburn silt loam, 20 to 55 percent slopes														
Woodburn	100	C	0-9	Silt loam	ML, CL	A-4, A-6	0- 0- 0	0- 0- 0	95-99-100	95-98-100	95-97-100	85-94-100	30-36-40	5-11-15
			9-17	Silt loam	ML, CL	A-6, A-4	0- 0- 0	0- 0- 0	95-99-100	95-98-100	95-97-100	85-94-100	30-36-40	5-11-15
			17-25	Silt loam, silty clay loam	CL	A-7, A-6	0- 0- 0	0- 0- 0	100-100-100	100-100-100	95-99-100	90-97-100	30-38-45	10-15-20
			25-32	Silt loam, silty clay loam	CL	A-6, A-7	0- 0- 0	0- 0- 0	100-100-100	100-100-100	95-99-100	90-97-100	30-38-45	10-15-20
			32-39	Silt loam, silty clay loam	CL	A-7, A-6	0- 0- 0	0- 0- 0	100-100-100	100-100-100	95-99-100	90-97-100	30-36-45	10-14-20
			39-54	Silt loam, silty clay loam	CL	A-7, A-6	0- 0- 0	0- 0- 0	100-100-100	100-100-100	95-99-100	90-97-100	30-36-45	10-14-20
			54-68	Silt loam, silty clay loam	CL-ML, CL	A-4, A-6	0- 0- 0	0- 0- 0	100-100-100	100-100-100	95-98-100	80-90-100	25-35-40	5-11-15
			68-80	Stratified fine sandy loam to silt loam	ML, SM	A-4	0- 0- 0	0- 0- 0	100-100-100	100-100-100	70-92-100	40-60-90	20-28-35	NP-5-10
			80-92	Stratified fine sandy loam to silt loam	SM, ML	A-4	0- 0- 0	0- 0- 0	100-100-100	100-100-100	70-92-100	40-51-90	20-28-35	NP-5-10

Appendix E:
TR55 Runoff Curve Numbers

Table 2-2a Runoff curve numbers for urban areas [1/]

Cover description		Curve numbers for hydrologic soil group			
Cover type and hydrologic condition	Average percent impervious area [2/]	A	B	C	D
Fully developed urban areas (vegetation established)					
Open space (lawns, parks, golf courses, cemeteries, etc.) [3/]:					
Poor condition (grass cover < 50%)		68	79	86	89
Fair condition (grass cover 50% to 75%)		49	69	79	84
Good condition (grass cover > 75%)		39	61	74	80
Impervious areas:					
Paved parking lots, roofs, driveways, etc. (excluding right-of-way)		98	98	98	98
Streets and roads:					
Paved; curbs and storm sewers (excluding right-of-way)		98	98	98	98
Paved; open ditches (including right-of-way)		83	89	92	93
Gravel (including right-of-way)		76	85	89	91
Dirt (including right-of-way)		72	82	87	89
Western desert urban areas:					
Natural desert landscaping (pervious areas only) [4/]		63	77	85	88
Artificial desert landscaping (impervious weed barrier, desert shrub with 1- to 2-inch sand or gravel mulch and basin borders)		96	96	96	96
Urban districts:					
Commercial and business	85	89	92	94	95
Industrial	72	81	88	91	93
Residential districts by average lot size:					
1/8 acre or less (town houses)	65	77	85	90	92
1/4 acre	38	61	75	83	87
1/3 acre	30	57	72	81	86
1/2 acre	25	54	70	80	85
1 acre	20	51	68	79	84
2 acres	12	46	65	77	82
Developing urban areas					
Newly graded areas (pervious areas only, no vegetation) [5/]		77	86	91	94
Idle lands (CN's are determined using cover types similar to those in table 2-2c).					

1 Average runoff condition, and $I_a = 0.2S$.

2 The average percent impervious area shown was used to develop the composite CN's. Other assumptions are as follows: impervious areas are directly connected to the drainage system, impervious areas have a CN of 98, and pervious areas are considered equivalent to open space in good hydrologic condition. CN's for other combinations of conditions may be computed using figure 2-3 or 2-4.

3 CN's shown are equivalent to those of pasture. Composite CN's may be computed for other combinations of open space cover type.

4 Composite CN's for natural desert landscaping should be computed using figures 2-3 or 2-4 based on the impervious area percentage (CN = 98) and the pervious area CN. The pervious area CN's are assumed equivalent to desert shrub in poor hydrologic condition.

5 Composite CN's to use for the design of temporary measures during grading and construction should be computed using figure 2-3 or 2-4 based on the degree of development (impervious area percentage) and the CN's for the newly graded pervious areas.

Table 2-2c Runoff curve numbers for other agricultural lands [1/]

Cover description		Curve numbers for hydrologic soil group			
Cover type	Hydrologic condition	A	B	C	D
Pasture, grassland, or range—continuous forage for grazing. [2/]	Poor	68	79	86	89
	Fair	49	69	79	84
	Good	39	61	74	80
Meadow—continuous grass, protected from grazing and generally mowed for hay.	—	30	58	71	78
Brush—brush-weed-grass mixture with brush the major element. [3/]	Poor	48	67	77	83
	Fair	35	56	70	77
	Good	30 [4/]	48	65	73
Woods—grass combination (orchard or tree farm). [5/]	Poor	57	73	82	86
	Fair	43	65	76	82
	Good	32	58	72	79
Woods. [6/]	Poor	45	66	77	83
	Fair	36	60	73	79
	Good	30 [4/]	55	70	77
Farmsteads—buildings, lanes, driveways, and surrounding lots.	—	59	74	82	86

1 Average runoff condition, and $I_a = 0.2S$.

2 *Poor:* <50%) ground cover or heavily grazed with no mulch.
Fair: 50 to 75% ground cover and not heavily grazed.
Good: > 75% ground cover and lightly or only occasionally grazed.

3 *Poor*: <50% ground cover.
Fair: 50 to 75% ground cover.
Good: >75% ground cover.

4 Actual curve number is less than 30; use CN = 30 for runoff computations.

5 CN's shown were computed for areas with 50% woods and 50% grass (pasture) cover. Other combinations of conditions may be computed from the CN's for woods and pasture.

6 *Poor:* Forest litter, small trees, and brush are destroyed by heavy grazing or regular burning.
Fair: Woods are grazed but not burned, and some forest litter covers the soil.
Good: Woods are protected from grazing, and litter and brush adequately cover the soil.

Exhibit G: Ownership Information

First American Title Insurance Company

775 NE Evans Street
McMinnville, OR 97128
Phn - (503)376-7363
Fax - (866)800-7294

PUBLIC RECORD REPORT
FOR NEW SUBDIVISION OR LAND PARTITION

THIS REPORT IS ISSUED BY THE ABOVE-NAMED COMPANY ("THE COMPANY") FOR THE EXCLUSIVE USE OF:

MJG Development
901 N Brustcher STE D352
Newberg, OR 97132
Phone: (503)810-5576
Fax: (503)655-3209

Date Prepared : July 15, 2024
Effective Date : 8:00 A.M on July 03, 2024
Order No. : 1039-4183192
Subdivision :

The information contained in this report is furnished by First American Title Insurance Company (the "Company") as an information service based on the records and indices maintained by the Company for the county identified below. This report is not title insurance, is not a preliminary title report for title insurance, and is not a commitment for title insurance. No examination has been made of the Company's records, other than as specifically set forth in this report. Liability for any loss arising from errors and/or omissions is limited to the lesser of the fee paid or the actual loss to the Customer, and the Company will have no greater liability by reason of this report. This report is subject to the Definitions, Conditions and Stipulations contained in it.

REPORT

A. The Land referred to in this report is located in the County of Yamhill, State of Oregon, and is described as follows:

As fully set forth on Exhibit "A" attached hereto and by this reference made a part hereof.

B. As of the Effective Date, the tax account and map references pertinent to the Land are as follows:

As fully set forth on Exhibit "A" attached hereto and by this reference made a part hereof.

C. As of the Effective Date and according to the Public Records, we find title to the land apparently vested in:

As fully set forth on Exhibit "B" attached hereto and by this reference made a part hereof

D. As of the Effective Date and according to the Public Records, the Land is subject to the following liens and encumbrances, which are not necessarily shown in the order of priority:

As fully set forth on Exhibit "C" attached hereto and by this reference made a part hereof.

EXHIBIT "A"
(Land Description Map Tax and Account)

PARCELS 1 AND 2 OF PARTITION PLAT 2014-19 RECORDED DECEMBER 04, 2014 AS INSTRUMENT NO. 201415251, DEED AND MORTGAGE RECORDS, YAMHILL COUNTY, STATE OF OREGON.

EXCEPTING THE PORTION CONVEYED TO STATE OF OREGON, BY AND THROUGH ITS DEPARTMENT OF TRANSPIRATION BY WARRANTY DEED RECORDED FEBRUARY 10, 2016 AS INSTRUMENT NO. 201601724.

Map No.: R3216 02017 and R3216 02025
Tax Account No.: 527509, 559105

EXHIBIT "B"
(Vesting)

Werth Family LLC, an Oregon limited liability company

EXHIBIT "C"
(Liens and Encumbrances)

1. City liens, if any, of the City of Newberg.

2. The rights of the public in and to that portion of the premises herein described lying within the limits of streets, roads and highways.

3. Easement as shown on the recorded plat/partition 2002-44
   For: Public Utility
   Affects: see plat for exact location

4. Easement as shown on the recorded plat/partition 2013-03 and 2014-19
   For: Private Storm Drainage
   Affects: see plat for exact location

   (Affects Parcel 2)

5. An easement reserved in a deed, including the terms and provisions thereof;
   Recorded: February 10, 2016
   Recording Information: 201601724, Deed and Mortgage Records
   From: Werth Family LLC, an Oregon limited liability company
   To: State of Oregon, by and through its Department of Transportation
   For: slope and utilities

NOTE: Taxes for the year 2023-2024 PAID IN FULL
Tax Amount: $14,638.85
Map No.: R3216 02017
Property ID: 527509
Tax Code No.: 29.0

(Affects Parcel 1)

NOTE: Taxes for the year 2023-2024 PAID IN FULL
Tax Amount: $14,136.23
Map No.: R3216 02025
Property ID: 559105
Tax Code No.: 29.0
(Affects Parcel 2)

NOTE: We find no outstanding voluntary liens of record affecting subject property. An inquiry should be made concerning the existence of any unrecorded lien or other indebtedness which could give rise to any security interest in the subject property.

DEFINITIONS, CONDITIONS AND STIPULATIONS

1. **Definitions.** The following terms have the stated meaning when used in this report:
   (a) "Customer": The person or persons named or shown as the addressee of this report.
   (b) "Effective Date": The effective date stated in this report.
   (c) "Land": The land specifically described in this report and improvements affixed thereto which by law constitute real property.
   (d) "Public Records": Those records which by the laws of the state of Oregon impart constructive notice of matters relating to the Land.

2. **Liability of the Company.**
   (a) THIS REPORT IS NOT AN INSURED PRODUCT OR SERVICE OR A REPRESENTATION OF THE CONDITION OF TITLE TO REAL PROPERTY. IT IS NOT AN ABSTRACT, LEGAL OPINION, OPINION OF TITLE, TITLE INSURANCE COMMITMENT OR PRELIMINARY REPORT, OR ANY FORM OF TITLE INSURANCE OR GUARANTY. THIS REPORT IS ISSUED EXCLUSIVELY FOR THE BENEFIT OF THE APPLICANT THEREFOR, AND MAY NOT BE USED OR RELIED UPON BY ANY OTHER PERSON. THIS REPORT MAY NOT BE REPRODUCED IN ANY MANNER WITHOUT FIRST AMERICAN'S PRIOR WRITTEN CONSENT. FIRST AMERICAN DOES NOT REPRESENT OR WARRANT THAT THE INFORMATION HEREIN IS COMPLETE OR FREE FROM ERROR, AND THE INFORMATION HEREIN IS PROVIDED WITHOUT ANY WARRANTIES OF ANY KIND, AS-IS, AND WITH ALL FAULTS. AS A MATERIAL PART OF THE CONSIDERATION GIVEN IN EXCHANGE FOR THE ISSUANCE OF THIS REPORT, RECIPIENT AGREES THAT FIRST AMERICAN'S SOLE LIABILITY FOR ANY LOSS OR DAMAGE CAUSED BY AN ERROR OR OMISSION DUE TO INACCURATE INFORMATION OR NEGLIGENCE IN PREPARING THIS REPORT SHALL BE LIMITED TO THE FEE CHARGED FOR THE REPORT. RECIPIENT ACCEPTS THIS REPORT WITH THIS LIMITATION AND AGREES THAT FIRST AMERICAN WOULD NOT HAVE ISSUED THIS REPORT BUT FOR THE LIMITATION OF LIABILITY DESCRIBED ABOVE. FIRST AMERICAN MAKES NO REPRESENTATION OR WARRANTY AS TO THE LEGALITY OR PROPRIETY OF RECIPIENT'S USE OF THE INFORMATION HEREIN.
   (b) No costs (including, without limitation attorney fees and other expenses) of defense, or prosecution of any action, is afforded to the Customer.
   (c) In any event, the Company assumes no liability for loss or damage by reason of the following:

      (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.
      (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, liens or encumbrances, or claims thereof, which are not shown by the Public Records.
      (4) Discrepancies, encroachments, shortage in area, conflicts in boundary lines or any other facts which a survey would disclose.
      (5) (i) Unpatented mining claims; (ii) reservations or exceptions in patents or in Acts authorizing the issuance thereof, (iii) water rights or claims or title to water.
      (6) Any right, title, interest, estate or easement in land beyond the lines of the area specifically described or referred to in this report, or in abutting streets, roads, avenues, alleys, lanes, ways or waterways.
      (7) Any law, ordinance or governmental regulation (including but not limited to building and zoning laws, ordinances or regulations) restricting, regulating, prohibiting or relating to (i) the occupancy, use or enjoyment on the land; (ii) the character, dimensions or location of any improvement now or hereafter erected on the land; (iii) a separation in ownership or a change in the dimensions or area of the land or any parcel of which the land is or was a part; or (iv) environmental protection, or the effect of any violation of these laws, ordinances or governmental regulations, except to the extent that a notice of the enforcement thereof or a notice of a defect, lien or encumbrance resulting from a violation or alleged violation affecting the land has been recorded in the Public Records at the effective date hereof.
      (8) Any governmental police power not excluded by 2(d)(7) above, except to the extent that notice of the exercise thereof or a notice of a defect, lien or encumbrance resulting from a violation or alleged violation affecting the land has been recorded in the Public Records at the effective date hereof.
      (9) Defects, liens, encumbrances, adverse claims or other matters created, suffered, assumed, agreed to or actually known by the Customer.

3. **Charge.** The charge for this report does not include supplemental reports, updates or other additional services of the Company.

First American Title Insurance Company
775 NE Evans Street
McMinnville, OR 97128

Illegal Restrictive Covenants

Please be advised that any provision contained in this document, or in a document that is attached, linked, or referenced in this document, that under applicable law illegally discriminates against a class of individuals based upon personal characteristics such as race, color, religion, sex, sexual orientation, gender identity, familial status, disability, national origin, or any other legally protected class, is illegal and unenforceable by law.

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 CONDITIONAL USE PERMIT

A property owner in your neighborhood submitted an application to the City of Newberg for a conditional use permit for a residential development project that would include 96 new multi-family homes. The Newberg Planning Commission will hold a hearing on ***(Date of hearing)*** at 7 p.m. 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 by testifying before the Planning Commission. For more details about giving comments, please see the back of this sheet.

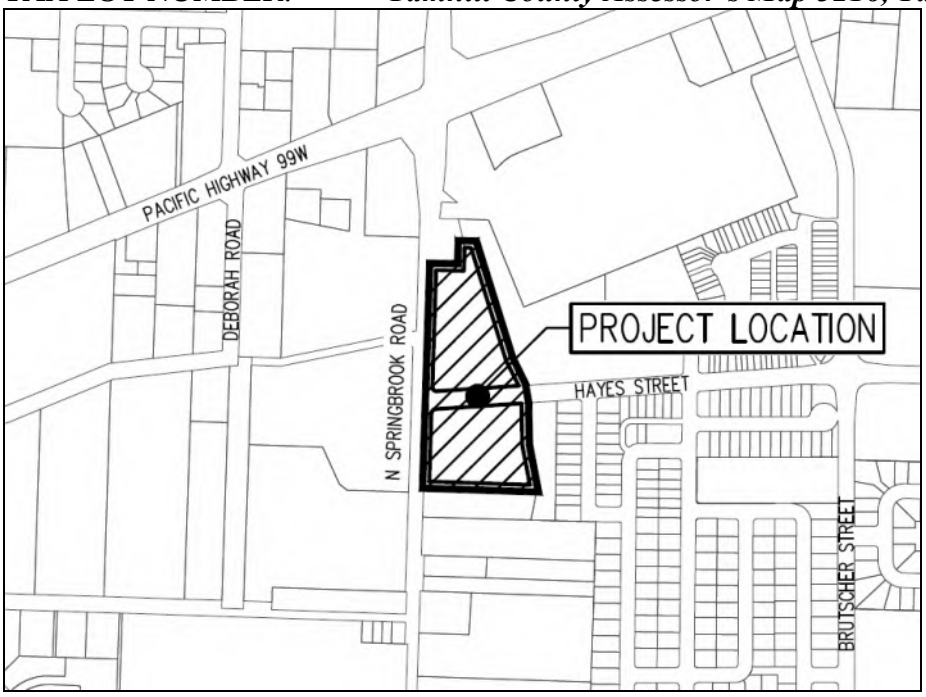
The application would change the land use of this ***±5.58*** acre parcel to allow 96 new multi-family homes, including on site playgrounds, vehicle parking, tenant storage, and frontage and site landscaping upgrades

APPLICANT: **DMKS, LLC**
TELEPHONE: **(503) 563-6151**

PROPERTY OWNER: ***Werth Family, LLC***

LOCATION: ***3411 E Hayes Street, Newberg, OR 97132***

TAX LOT NUMBER: ***Yamhill County Assessor's Map 3216, Tax Lots 2017 and 2025***



We are mailing you information about this project because you own land within 500 feet of the proposed subdivision. 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. Oral testimony typically is 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.***(staff will provide)***
City of Newberg
Community Development Department
PO Box 970
Newberg, OR 97132

All written comments must be turned in by noon on Monday, ***(insert date – Monday prior to hearing).*** 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. Application material can also be accessed at https://www.newbergoregon.gov/planning under the "Current Planning Projects" 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 503-537-1240.

Any issue which might be raised in an appeal of this case to the Land Use Board of Appeals (LUBA) must be raised during the public hearing process. 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 a conditional use permit are found in Newberg Development Code Section 15.225.060.

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 decision at the end of the public hearing process. If you participate in the public hearing process, either by testifying at the public hearing, or by sending in written comments, you will be sent information about any decision made by the City relating to this project.

Date Mailed: ***Date notice is mailed***

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 TTY services please dial 711.

Land Use Notice

FILE # (insert the file number assigned to you at the time of application)

PROPOSAL: Type III Site Design Review, Conditional Use Permit, and Stream Corridor Overlay Review to accommodate 96 multi-family homes on a ±5.58-acre site.

FOR FURTHER INFORMATION, CONTACT:

City of Newberg
Community Development Department
414 E First Street
Phone: 503-537-1240

PHILLIPS FAMILY TRUST
PO BOX 2938
OREGON CITY, OR 97045

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OREGON CITY, OR 97045

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WHITE JACOB D
251 ROYAL OAK ST
NEWBERG, OR 97132

BERNHARDT TANNER J
208 N SPRINGBROOK RD
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JOHNSON-OPITZ NANCY L TRUSTEE
276 ROYAL OAK ST
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WATTS AARON L
286 ROYAL OAK ST
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SENEGOR MORIS TRUSTEE FOR
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CONNORS ERIC M
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BONNELL JAMES M
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ALBADRI THAER MAJID
3221 E PROVINCE CT
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NEWBERG, OR 97132

VARGAS JOSE M ZAVALA &
256 ROYAL OAK ST
NEWBERG, OR 97132

SHINNEMAN FAMILY TRUST
266 ROYAL OAK ST
NEWBERG, OR 97132

MENDENHALL MANAGEMENT LLC
ATTN: DAVID & VICTORIA MENDENHALL
WILSONVILLE, OR 97070

LANDIS CURT
212 NE SPRINGBROOK RD
NEWBERG, OR 97132

CREIGHTON KIRK G
303 OAK LEAF ST
NEWBERG, OR 97132

WANG PETER TRUSTEE
425 N WHISMAN RD STE 600
MOUNTAIN VIEW, CA 94043

JENSEN GAYLE M
316 ROYAL OAK ST
NEWBERG, OR 97132

WELLS JEFFREY D
231 ROYAL OAK ST
NEWBERG, OR 97132

PHILLIPS FAMILY TRUST
PO BOX 2938
OREGON CITY, OR 97045

PRINCE AARON &
PO BOX 1064
NEWBERG, OR 97132

BUSCH DANIEL J
261 ROYAL OAK ST
NEWBERG, OR 97132

HICKISH ROBERT J
271 ROYAL OAK ST
NEWBERG, OR 97132

NADORA LUISITO S
281 BURL ST
NEWBERG, OR 97132

MARTINSON BARRY A
301 BURL ST
NEWBERG, OR 97132

GRIMES KATHRYN T
311 BURL ST
NEWBERG, OR 97132

COPPOLINO MICHAEL C
308 OAK LEAF ST
NEWBERG, OR 97132

GARDINER RICHARD G & KAREN J TRUSTEES OF
847 SW HOODVIEW LN
LAKE OSWEGO, OR 97034

VANDERAS ELIZABETH M
319 OAK LEAF ST
NEWBERG, OR 97132

MONTGOMERY NATHAN A J
326 ROYAL OAK ST
NEWBERG, OR 97132

FRAKES TYLER S
336 ROYAL OAK ST
NEWBERG, OR 97132

MEYER MARY H
338 OAK LEAF ST
NEWBERG, OR 97132

PATTERSON JUSTIN T
348 OAK LEAF ST
NEWBERG, OR 97132

MOLLENCOP LESLIE C
400 OAK LEAF ST
NEWBERG, OR 97132

CHUNG JAMES
408 OAK LEAF ST
NEWBERG, OR 97132

BEAVERS JASON D &
3505 WILLOW OAK DR
NEWBERG, OR 97132

SCOPACASA TOM M
419 OAK LEAF ST
NEWBERG, OR 97132

WATERS TODD
439 OAK LEAF ST
NEWBERG, OR 97132

FERNWOOD GRANGE NO 770
1002A N SPRINGBROOK RD #303
NEWBERG, OR 97132

ELLIS JONATHAN W
328 OAK LEAF ST
NEWBERG, OR 97132

POPOFF FAMILY TRUST
341 BURL ST
NEWBERG, OR 97132

CREW HILLERY A TRUSTEE
351 BURL ST
NEWBERG, OR 97132

RISO REVOCABLE TRUST
349 OAK LEAF ST
NEWBERG, OR 97132

JOHNSON LIVING TRUST
22195 NE SUNNYCREST RD
NEWBERG, OR 97132

MACKEN NICOLE
3513 WILLOW OAK DR
NEWBERG, OR 97132

DAVIDHI ARBER
3501 WILLOW OAK DR
NEWBERG, OR 97132

GARCIA DANIEL TINOCO
428 OAK LEAF ST
NEWBERG, OR 97132

POOLE CHRISTOPHER T
438 OAK LEAF ST
NEWBERG, OR 97132

PETERS DEWAYNE (DECEASED)
331 BURL ST
NEWBERG, OR 97132

CLEMANS DAVID C
329 OAK LEAF ST
NEWBERG, OR 97132

WILD IAN
339 OAK LEAF ST
NEWBERG, OR 97132

HUGHES KRISTIAN B
346 ROYAL OAK ST
NEWBERG, OR 97132

SPENCER JOHN & JANELLE TRUST
305 N SPRINGBROOK RD
NEWBERG, OR 97132

RUDIE KATHERINE
409 OAK LEAF ST
NEWBERG, OR 97132

SUMMERS JOSEPH K
3509 WILLOW OAK DR
NEWBERG, OR 97132

TSCHEN LIANA T
418 OAK LEAF ST
NEWBERG, OR 97132

ALWINEYAN MAJED A
PO BOX 3219
NEWBERG, OR 97132

HOLLIDAY LAURIE TRUSTEE
3503 BUR OAK ALLEY
NEWBERG, OR 97132

BEYER KALE
3507 BUR OAK ALLEY
NEWBERG, OR 97132

ALLIED CHRISTIAN FOUNDATIONS INC
PO BOX 1153
NEWBERG, OR 97132

CHEHALEM PARK & RECREATION DISTRICT
125 S ELLIOTT RD
NEWBERG, OR 97132

FRANCIS ENTERPRISES INC
ATTN: BRIAN FRANCIS
NEWBERG, OR 97132

UNITED STATES NATIONAL BANK OF OREGON
C/O RYAN PTS DEPT. 908
HOUSTON, TX 77056

SPENCER JOHN W
PO BOX 228
NEWBERG, OR 97132

WERTH FAMILY LLC
ATTN: HOWARD WERTH
PORTLAND, OR 97225

TOYE RYAN M (WROS)
7933 SW WHITFURROWS CT
TIGARD, OR 97224

PORTLAND GENERAL ELECTRIC COMPANY
309 N SPRINGBROOK RD
NEWBERG, OR 97132

WG APARTMENTS LLC
901 N BRUSTSCHER ST STE 206
NEWBERG, OR 97132

FRANCIS ENTERPRISES INC
ATTN: BRIAN FRANCIS
NEWBERG, OR 97132

FRED MEYER STORES INC
ATTN: PROPERTY TAX
CINCINNATI, OH 45202

PRINCE AARON &
PO BOX 1064
NEWBERG, OR 97132

SIDDIQUI TARIQ MASOOD
3515 BUR OAK ALLEY
NEWBERG, OR 97132

WERTH FAMILY LLC
ATTN: HOWARD WERTH
PORTLAND, OR 97225

FRANCIS DEBORAH L
PO BOX 85
CLACKAMAS, OR 97015

CROSSROADS PLAZA LLC
PO BOX 8880
KETCHUM, ID 83340

WEST ONE HOMES INC
PO BOX 2938
OREGON CITY, OR 97045

WERTH FAMILY LLC
ATTN: HOWARD WERTH
PORTLAND, OR 97225

Exhibit H: Type I Stream Corridor Memo

AKS ENGINEERING & FORESTRY

BEND, OR
2777 NW Lolo Drive, Suite 150
Bend, OR 97703
(541) 317-8429

KEIZER, OR
3700 River Road N, Suite 1
Keizer, OR 97303
(503) 400-6028

TUALATIN, OR
12965 SW Herman Road, Suite 100
Tualatin, OR 97062
(503) 563-6151

VANCOUVER, WA
9600 NE 126th Avenue, Suite 2520
Vancouver, WA 98682
(360) 882-0419

www.aks-eng.com

Date: 7/10/2024
To: City of Newberg Planning Division
From: Emma Eichhorn, Natural Resource Specialist
Project Name: West Branch Apartments
AKS Job No.: 9028
Project Site: 3411 E Hayes Street 5, Newberg, Yamhill County, OR 97132
Yamhill County Assessor's Map 3S 2W 16, Tax Lot 2017, 2025, and E Hayes Street ROW
Subject: Type I Stream Corridor Memo

Introduction

AKS Engineering & Forestry, LLC (AKS) conducted a stream corridor impact assessment for a multifamily residential project referred to as West Branch Apartments. The project area consists of Tax Lots 2017 and 2025 and a portion of the Hayes Street right-of-way on Yamhill of County Assessor's Tax Map 3S 2W 16 (Figures 1, and 2). The study area includes a portion of Tax Lot 2024 on County Assessor's Tax Map 3S 2W 16, located directly east of the project area. This report has been prepared to meet the requirements listed under Newberg Municipal Code (NMC) Section 15.342.

According to City of Newberg zoning map, the eastern portion of the project area is mapped within the Stream Corridor (SC) subdistrict (Figure 5). On September 14, 2021, AKS delineated a perennial stream, referred to as Water 1, in the eastern portion of the study area. The Stream Corridor associated with Water 1 extends into the project area. The project will result in encroachment into the Stream Corridor for two stormwater outfalls. Temporary impacts to install the outfalls will be restored to preconstruction conditions in accordance with NMC 15.342.060, resulting in no loss of ecological functions or values within the stream corridor. No impacts to Water 1 are required.

Background and Existing Conditions

The study area is largely undeveloped with Hayes Street bisecting the study area east-west. The surrounding land use is a mix of residential and commercial. Vegetation within the project area is dominated by tall false rye grass (*Schedonorus arundinaceus;* FAC) and common velvet grass (*Holcus lanatus;* FAC) in the central and western portions of the project area, and Oregon ash (*Fraxinus latifolia;* FACW), balsam poplar (*Populus balsamifera;* FAC), and Himalayan blackberry (*Rubus armeniacus;* FAC) in the eastern portion of the site, with lesser amounts of Oregon white oak (*Quercus garryana;* FACU), Pacific madrone (*Arbutus menziesii;* FACU), cascara false buckthorn (*Frangula purshiana;* FAC), English hawthorn (*Crataegus monogyna;* FAC), English ivy (*Hedera helix;* FACU), and a bentgrass species (*Agrostis* spp.; assumed FAC).

Topography across most of the study area slopes gently (less than 3 percent) to the east toward Water 1. The following soil units are mapped within the study area, according to the Natural Resources Conservation Service (NRCS) Yamhill County Area Soil Survey Map and hydric soil list (Figure 3):

- Aloha silt loam, 0 to 3 percent slopes (Unit 2300A) – Non-hydric
- Woodburn silt loam; 12 to 20 percent slopes (Unit 2310D) – Non-hydric

- Woodburn silt loam; 20 to 55 percent slopes (Unit 2310F) – Non hydric

Per the Oregon Department of State Lands (DSL) Statewide Wetlands Inventory (SWI) Map, a Palustrine forested (PFO) wetland and an intermittent stream are mapped in the eastern part of the study area (Figure 4). Water 1 was delineated in the approximate vicinity of the SWI-mapped stream.

Per the City of Newberg zoning map (Figure 5), a Stream Corridor is mapped in the eastern portion of the study area. According to "City of Newberg, Stream Corridors as a Goal 5 Resource" report, prepared by CDA Consulting Group and Fishman Environmental Services (CDA and FES, 1995), Lower West Fork Springbrook is mapped in the Stream Corridor in the eastern part of the study area. AKS delineated the ordinary high water (OHW) of Water 1 in the approximate location of Lower West Fork Springbrook.

Stream Corridor

AKS Natural Resource Specialist Margret Harburg conducted a site visit on September 14, 2021, to evaluate current site conditions. The methodology used to determine the presence or absence of wetlands followed the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region* (Environmental Laboratory 2010). The *National Wetland Plant List* (USACE 2020) was used to assign wetland indicator status for the appropriate region. Soils, vegetation, and indicators of hydrology were recorded at one sample plot on standardized wetland determination data forms to document site conditions (Attachment A).

No wetlands were determined to be present within the study area. Vegetation at Plot 1 was dominated by Oregon ash and reed canary grass. However, the plot lacked hydric soils and wetland hydrology indicators and was therefore determined to be upland.

Water 1 (referred to as Lower West Fork Springbrook by CDA and FES) was delineated in the eastern portion of the study area. The east OHW represents the eastern boundary of the study area. Water 1 is a perennial stream that flows southerly through Tax Lot 2024, eventually reaching Spring Brook, a tributary to the Willamette River. Water 1 is conveyed beneath E Hayes Street via a 72-inch corrugated metal culvert. The methodology used to delineate the Ordinary High Water Mark (OHW) for Water 1 included physical field indicators in accordance with Oregon Administrative Rule (OAR) 141-085-0515(3).

The Stream Corridor associated with Water 1 extends into the project area (Figure 6). Vegetation within the on-site portion of the Stream Corridor is dominated by Oregon ash, balsam poplar, and Himalayan blackberry, along with lesser amounts of tall false rye grass, common velvet grass, English hawthorn, pineland sword fern (*Polystichum munitum*; FACU), Douglas meadowsweet and rose species (*Rosa* spp.; assumed FAC). Representative photographs of the existing conditions of the Stream Corridor are included in Attachment B.

Project Description

The project consists of a multifamily residential development project, including apartment buildings, driveways, parking spaces, utilities, and stormwater infrastructure. Stormwater runoff generated by new impervious surfaces will be treated to City of Newberg standards before discharging to two riprap outfalls in the eastern part of the project site.

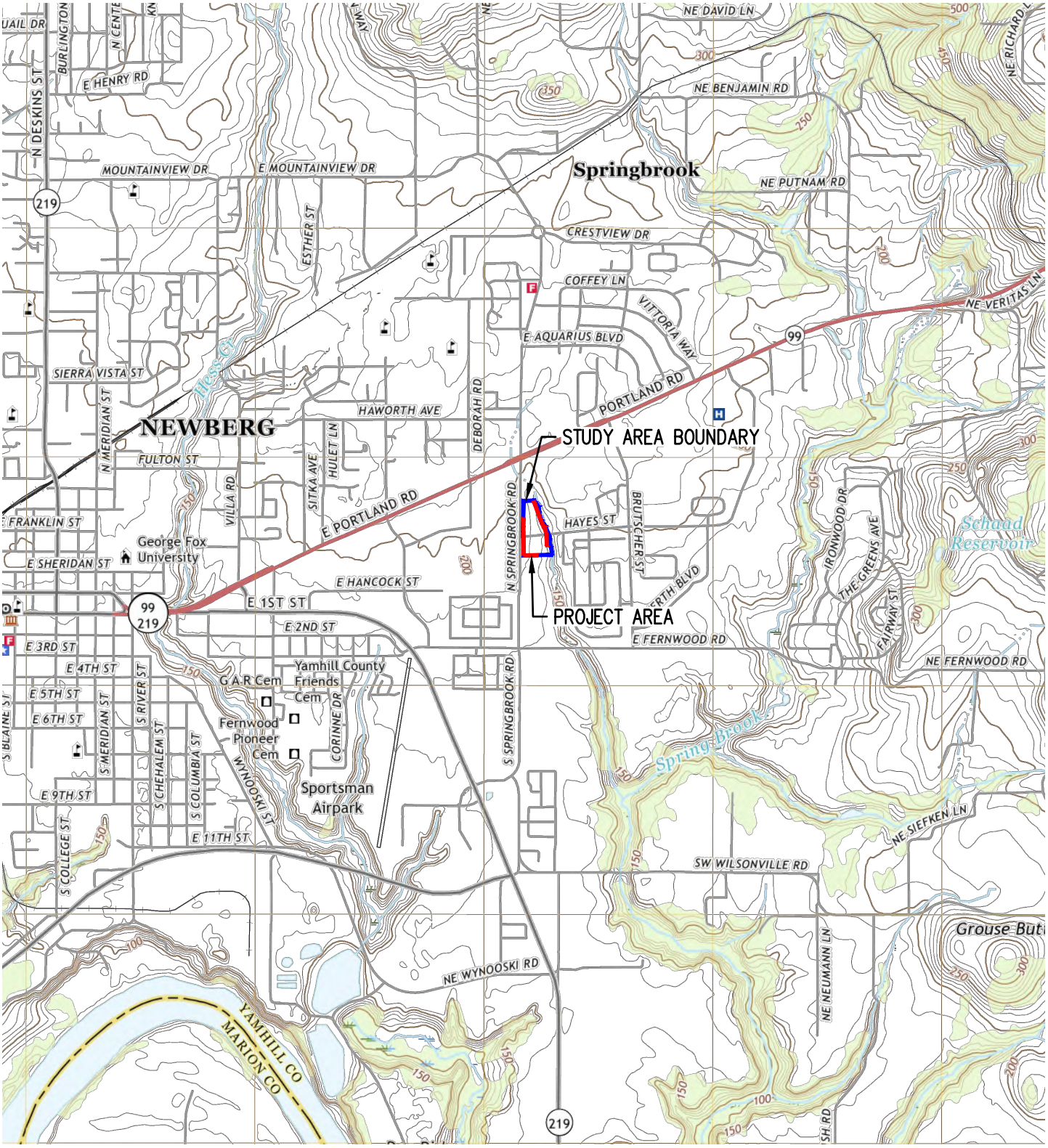
As shown on the Natural Resources Site Plan (Figure 7), minor temporary encroachment to the Stream Corridor is necessary for the trenching and installation of two new stormwater lines. No changes to the existing contours are proposed and no trees larger than six inches in diameter at breast height (DBH) will be removed. After installation of the stormwater lines, the areas will be restored to pre-construction contours and replanted with native shrubs and grasses selected from the Newberg Stream Corridor Plant List, in accordance with NMC 15.342.060. No tree plantings are proposed in the temporary disturbance areas because they could damage the new stormwater lines. Plants will be installed at densities to achieve 90 percent cover in one year. The minor permanent encroachment to the Stream Corridor for the associated riprap outfall pads will not adversely affect the existing ecological functions and values provided by the Stream Corridor. The stormwater outfall pads will consist of natural material (rock) and are the minimum size necessary to meet the design storm standards. No impacts to Water 1 are required as part of the project.

List of Figures

Figure 1. USGS Vicinity Map
Figure 2. Tax Map (Map 3S 2W 16),
Figure 3. NRCS Soil Survey Map
Figure 4. Newberg Local Wetland Inventory Map
Figure 5. City of Newberg Zoning Map
Figure 6. Natural Resources Existing Condition
Figure 7. Natural Resources Site Plan

List of Attachments

Attachment A: Wetland Determination Data Sheet
Attachment B: Representative Site Photographs
Attachment C: Planting Specification Table



USGS 7.5' TOPOGRAPHIC SERIES
QUADRANGLE: NEWBERG, OR (2020)

N

SCALE: 1"= 2000 FEET

2000 0 400 1000 2000

ORIGINAL PAGE SIZE: 8.5" x 11"

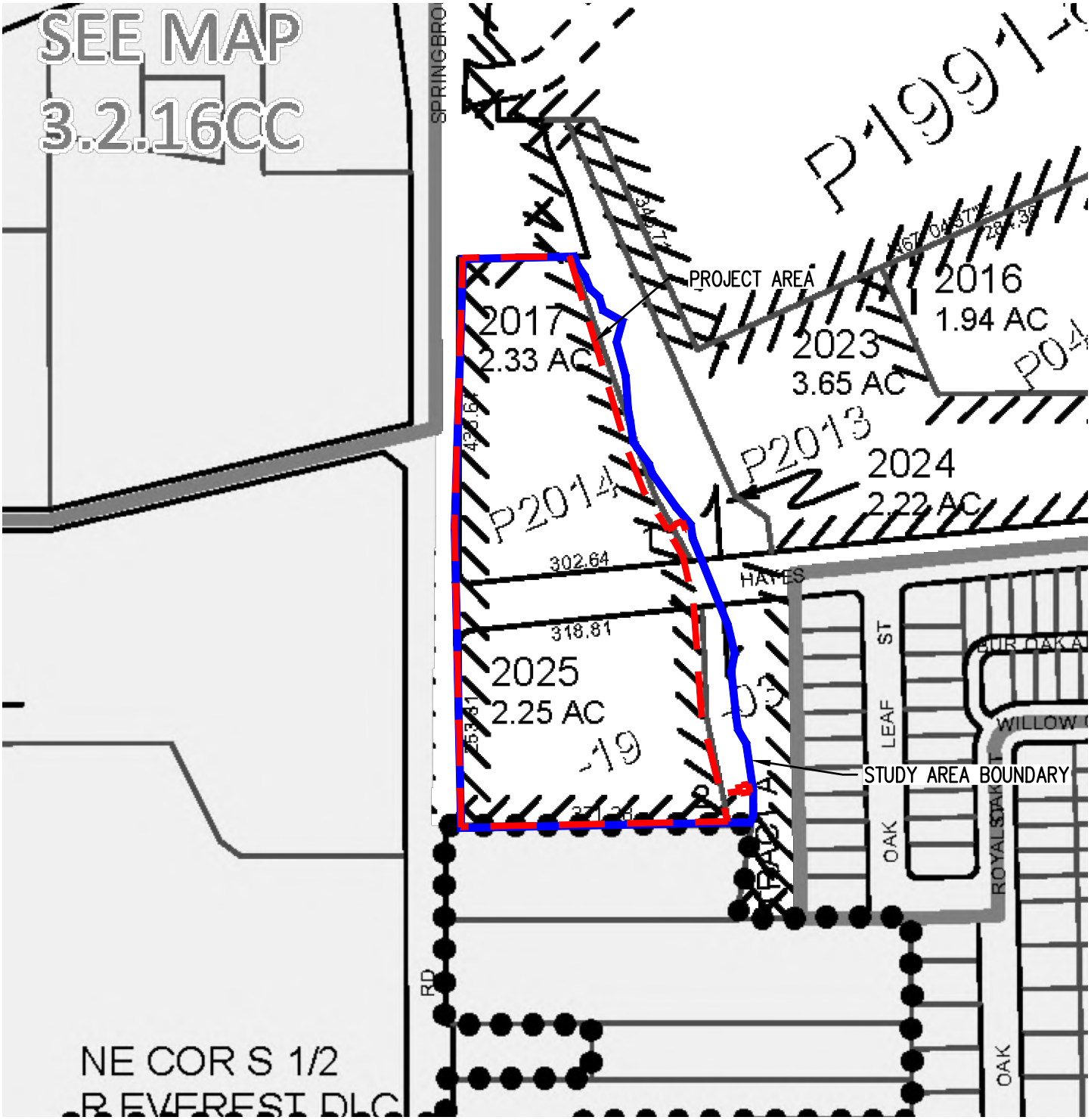
DATE: 07/10/2024

USGS VICINITY MAP
WEST BRANCH APARTMENTS STREAM CORRIDOR MEMO

FIGURE 1

AKS ENGINEERING & FORESTRY, LLC
12965 SW HERMAN RD, STE 100
TUALATIN, OR 97062
503.563.6151 WWW.AKS-ENG.COM

DRWN: GPM
CHKD: SKD
AKS JOB: 9028



YAMHLL COUNTY
TAX LOTS 2017 & 2025 AND
PORTION TAX LOT 2024 & ROW
TAX MAP 3 2 16

N

SCALE: 1"= 200 FEET

200 0 40 100 200

ORIGINAL PAGE SIZE: 8.5" x 11"

DATE: 07/10/2024

TAX MAP (MAP 3 2 16) WEST BRANCH APARTMENTS STREAM CORRIDOR MEMO	FIGURE 2
AKS ENGINEERING & FORESTRY, LLC 12965 SW HERMAN RD, STE 100 TUALATIN, OR 97062 503.563.6151 WWW.AKS-ENG.COM	DRWN: GPM CHKD: SKD AKS JOB: 9028

DWG: 9028 SCIR BACKGROUND FIGURES | FIGURE 2

MAP UNIT SYMBOL	MAP UNIT NAME
2300A	ALOHA SILT LOAM, 0% TO 3% SLOPES; NON-HYDRIC
2310D	WOODBURN SILT LOAM, 12% TO 20% SLOPES; NON-HYDRIC
2310F	WOODBURN SILT LOAM, 20% TO 55% SLOPES; NON-HYDRIC

NRCS WEB SOIL SURVEY FOR
YAMHILL COUNTY

DATE: 07/10/2024

N

SCALE: 1"=150 FEET

150 0 30 75 150

ORIGINAL PAGE SIZE: 8.5" x 11"

NRCS SOIL SURVEY MAP
WEST BRANCH APARTMENTS STREAM CORRIDOR MEMO

FIGURE 3

AKS ENGINEERING & FORESTRY, LLC
12965 SW HERMAN RD, STE 100
TUALATIN, OR 97062
503.563.6151 WWW.AKS-ENG.COM

DRWN: GPM
CHKD: SKD
AKS JOB: 9028

OREGON DEPARTMENT OF STATE LANDS (DSL)
STATEWIDE WETLANDS INVENTORY (2024)

SCALE: 1"= 250 FEET

250 0 50 125 250

ORIGINAL PAGE SIZE: 8.5" x 11"

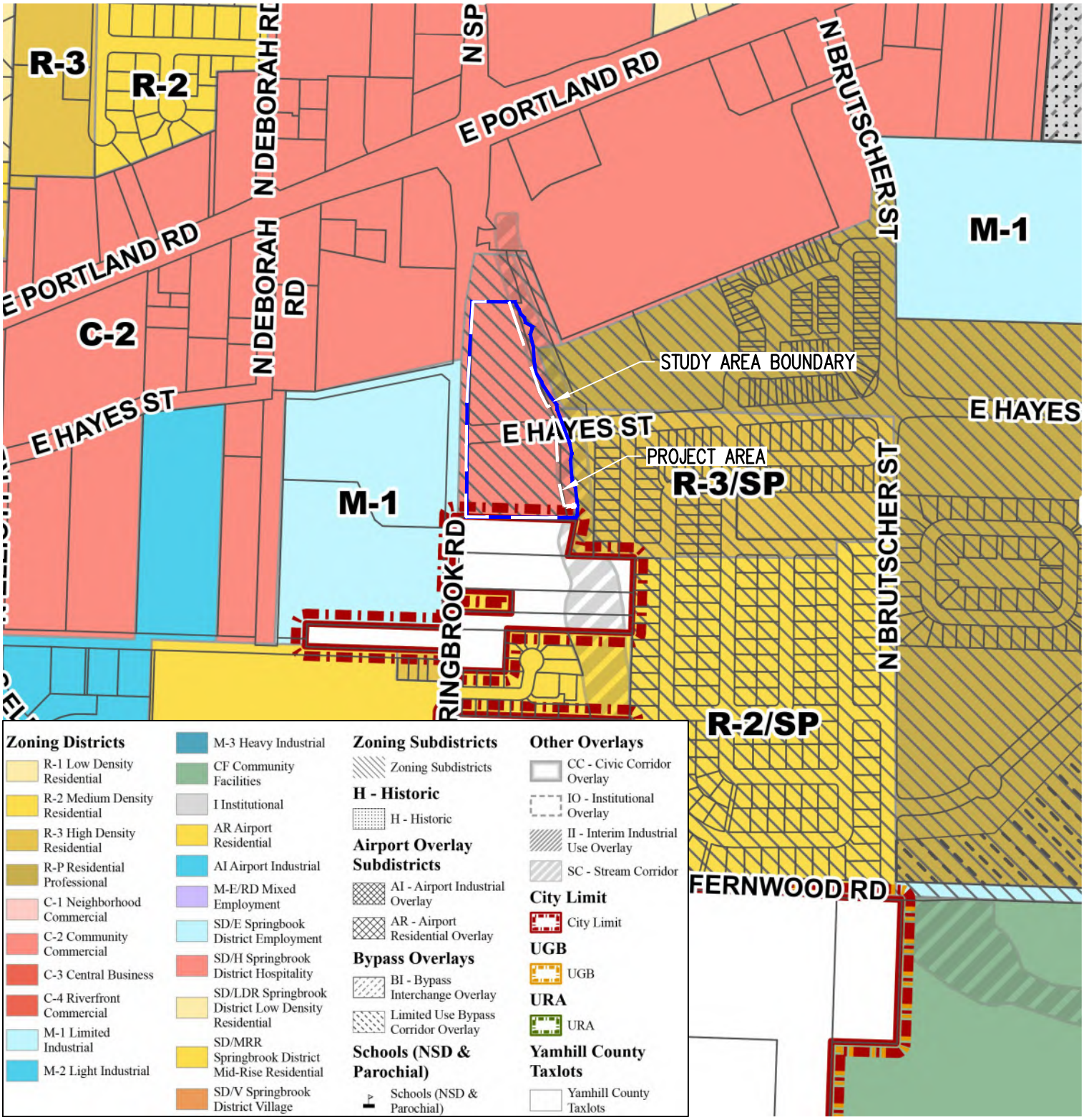
DATE: 07/10/2024

STATEWIDE WETLANDS INVENTORY MAP
WEST BRANCH APARTMENTS STREAM CORRIDOR MEMO

FIGURE 4

AKS ENGINEERING & FORESTRY, LLC
12965 SW HERMAN RD, STE 100
TUALATIN, OR 97062
503.563.6151 WWW.AKS-ENG.COM

DRWN: GPM
CHKD: SKD
AKS JOB: 9028



CITY OF NEWBERG ZONING MAP
(2023)

N

SCALE: 1"= 500 FEET

500 0 100 250 500

ORIGINAL PAGE SIZE: 8.5" x 11"

DATE: 07/10/2024

ZONING MAP
WEST BRANCH APARTMENTS STREAM CORRIDOR MEMO

FIGURE 5

AKS ENGINEERING & FORESTRY, LLC
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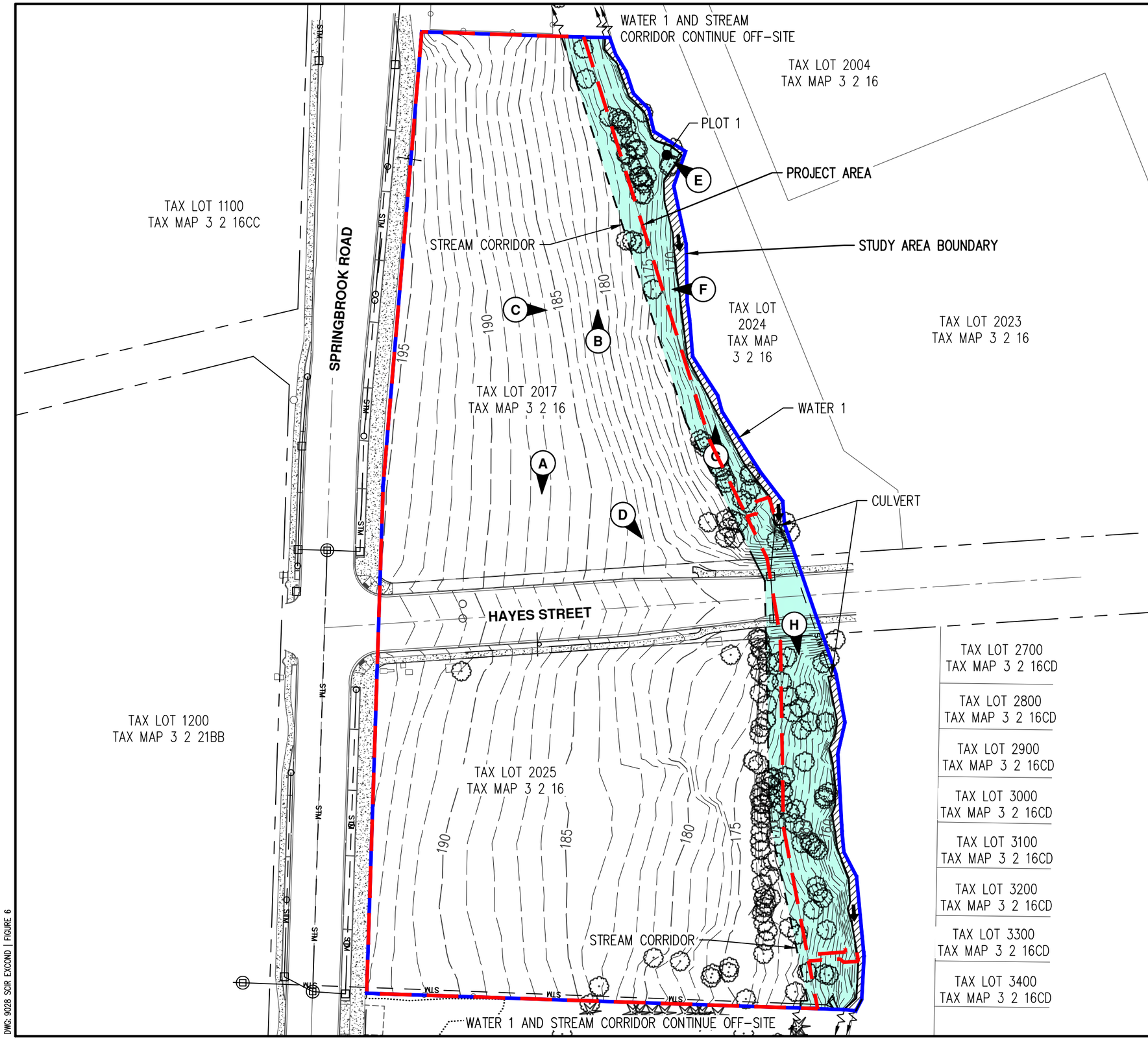
TUALATIN, OR 97062
503.563.6151 WWW.AKS-ENG.COM

DRWN: GPM
CHKD: SKD
AKS JOB: 9028



LEGEND (COLOR COPY):

- TOTAL ON-SITE WATER 1 OHW AREA: 4,319 SF± (0.10 ACRES) / 723 LF± (±7 FEET WIDE)
- TOTAL ON-SITE STREAM CORRIDOR AREA: 32,548 SF± (0.75 ACRES±)
- STUDY AREA BOUNDARY
- PROJECT AREA
- STM — EXISTING STORMWATER LINE
- A — PHOTO POINT LOCATION & ORIENTATION

WATER BOUNDARIES AND DATA PLOT SHOWN WERE DELINEATED BY AKS ENGINEERING & FORESTRY, LLC (AKS) ON SEPTEMBER 14, 2021. WATER BOUNDARIES AND DATA PLOT WERE RECORDED BY AKS PROFESSIONAL LAND SURVEY.

TAX LOT BOUNDARIES, EXISTING CONDITIONS, 1-FOOT INTERVAL GROUND CONTOURS, AND TREE SURVEY OF TREES >6" DBH DERIVED FROM AKS PROFESSIONAL LAND SURVEY FROM SEPTEMBER 8, TO 28, 2021.

STREAM CORRIDOR BOUNDARY DERIVED FROM GIS DATA BASE ±5FT ACCURACY.

N

SCALE: 1"= 80 FEET

80 0 16 40 80

ORIGINAL PAGE SIZE: 11" x 17"

DATE: 07/10/2024

NATURAL RESOURCES EXISTING CONDITIONS

FIGURE 6

WEST BRANCH APARTMENTS STREAM CORRIDOR MEMO

AKS ENGINEERING & FORESTRY, LLC
12965 SW HERMAN RD, STE 100
TUALATIN, OR 97062
503.563.6151 WWW.AKS-ENG.COM

DRWN: GPM
CHKD: SKD
AKS JOB: 9028

DWG: 9028 SCR EXCOND | FIGURE 6

WATER 1 AND STREAM CORRIDOR CONTINUE OFF-SITE

TAX LOT 2004
TAX MAP 3 2 16

STUDY AREA BOUNDARY

PROJECT AREA

TAX LOT 1100
TAX MAP 3 2 16CC

SPRINGBROOK ROAD

STREAM CORRIDOR

LIMITS OF GRADING

TAX LOT 2023
TAX MAP 3 2 16

TAX LOT 2024
TAX MAP 3 2 16

BUILDING C

TAX LOT 2021
TAX MAP 3 2 16

WATER 1

SEE INSERT 1

STORMWATER OUTFALL
(53 SF± PERMANENT IMPACT)

BUILDING A

BUILDING B

CULVERT

UNDERGROUND
STORMWATER CHAMBER

HAYES STREET

LIMITS OF GRADING

TAX LOT 1200
TAX MAP 3 2 21BB

BUILDING E

TAX LOT 2025
TAX MAP 3 2 16

BUILDING D

SEE INSERT 2

UNDERGROUND
STORMWATER CHAMBER

TAX LOT 3300
TAX MAP 3 2 16CD

TAX LOT 3400
TAX MAP 3 2 16CD

WATER 1 AND STREAM CORRIDOR CONTINUE OFF-SITE

N

SCALE: 1"= 80 FEET

80 0 16 40 80

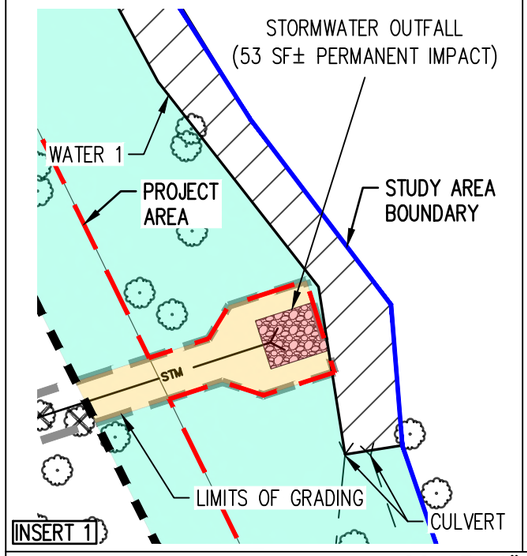
ORIGINAL PAGE SIZE: 11" x 17"

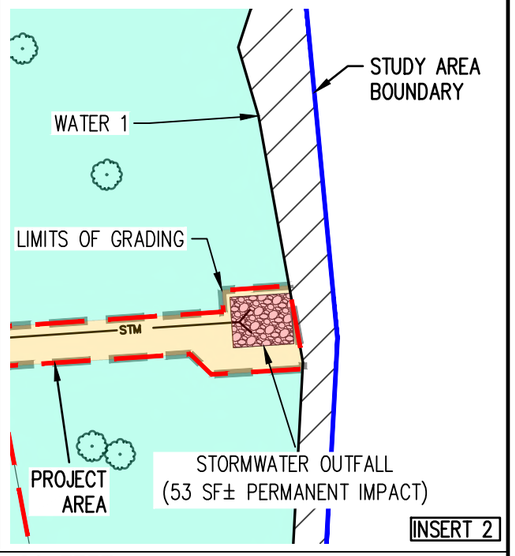
LEGEND (COLOR COPY):

- TOTAL ON-SITE WATER 1 OHW AREA TO REMAIN: 4,319 SF± (0.10 ACRES) / 723 LF± (±7 FEET WIDE)
- TOTAL ON-SITE STREAM CORRIDOR AREA TO REMAIN UNDISTURBED: 31,955 SF± (0.74 ACRES±)
- TOTAL ON-SITE TEMPORARY IMPACTS TO STREAM CORRIDOR TO BE RESTORED: 487 SF± (0.01 ACRES±)
- TOTAL ON-SITE PERMANENT IMPACTS TO STREAM CORRIDOR: 106 SF±
- STUDY AREA BOUNDARY
- PROJECT AREA
- STM — PROPOSED STORMWATER LINE
- TREE TO BE REMOVED

WATER BOUNDARIES SHOWN WERE DELINEATED BY AKS ENGINEERING & FORESTRY, LLC (AKS) ON SEPTEMBER 14, 2021. WATER BOUNDARIES WERE RECORDED BY AKS PROFESSIONAL LAND SURVEY FROM SEPTEMBER 8, TO 28, 2021.

INSERTS 1 AND 2:
VIEIW OF PROPOSED STORMWATER OUTFALLS





SCALE: 1"= 20 FEET

20 0 4 10 20

ORIGINAL PAGE SIZE: 11" x 17"

DATE: 07/10/2024

NATURAL RESOURCES SITE PLAN

FIGURE 7

WEST BRANCH APARTMENTS STREAM CORRIDOR MEMO

AKS ENGINEERING & FORESTRY, LLC
12965 SW HERMAN RD, STE 100
TUALATIN, OR 97062
503.563.6151 WWW.AKS-ENG.COM

DRWN: GPM
CHKD: SKD
AKS JOB: 9028

DWG: 9028 SCR SITE PLAN | FIGURE 7

Attachment A: Wetland Determination Data Sheet

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys and Coast Region

Project/Site: West Branch Apartments | City/County: Newberg/Yamhill | Sampling Date: 9/14/2021

Applicant/Owner: DMKS LLC | State: Oregon | Sampling Point: 1

Investigator(s): Margret Harburg | Section, Township, Range: Section 16, T.3S, R.2W

Landform (hillslope, terrace, etc.): Terrace | Local relief (concave, convex, none): Concave | Slope (%): <10

Subregion (LRR): A. Northwest Forests and Coast | Lat: 45.30445700 | Long: -122.94594800 | Datum: NAD 1983

Soil Map Unit Name: Woodburn silt loam, 12 to 20 percent slopes (Unit 2310D); Non-hydric | NWI classification: PFO1C

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If no, explain in Remarks)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?**	**Yes ____ No X**
Hydric Soil Present?	Yes ____	No X		
Wetland Hydrology Present?	Yes ____	No X		

Precipitation:
According to the ACIS McMinnville Municipal Airpotr weather station, no rainfall was received on the day of the site visit and nones within the two weeks prior. According to the WETS data, the previous three months were drier than normal.

Remarks:
Plot located ±4 feet above channel bed of Water 1.

VEGETATION

Tree Stratum (Plot Size: 30' r or)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0% = Total Cover		
Sapling/Shrub Stratum (Plot Size: 10' r or)			
1. *Fraxinus latifolia*	40%	Yes	FACW
2. *Rubus armeniacus*	4%	No	FAC
3.			
4.			
5.			
	44% = Total Cover		
Herb Stratum (Plot Size: 5' r or)			
1. *Phalaris arundinacea*	86%	Yes	FACW
2. *Solanum dulcamara*	5%	No	FAC
3. *Holcus lanatus*	3%	No	FAC
4. *Juncus effusus*	2%	No	FACW
5. *Carex obnupta*	2%	No	OBL
6. *Cirsium vulgare*	2%	No	FACU
7.			
8.			
9.			
10.			
11.			
	100% = Total Cover		
Woody Vine Stratum (Plot Size: 10' r or)			
1.			
2.			
	0% = Total Cover		

% Bare Ground in Herb Stratum 0%

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species 2	x 1 =	2
FACW species 128	x 2 =	256
FAC species 12	x 3 =	36
FACU species 2	x 4 =	8
UPL species 0	x 5 =	0
Column Totals: 144 (A)		302 (B)
Prevalence Index = B/A =		2.10

Hydrophytic Vegetation Indicators:
- ____ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- ____ 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ 5 - Wetland Non-Vascular Plants[1]
- ____ Problematic Hydrophytic Vegetation (Explain)[1]

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? **Yes X No ____**

Remarks:

SOIL

Sampling Point: 1

Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators):

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 3/2	100					SiL	
8-12	10YR 3/2	99	7.5YR 3/4	1	C	M	SiL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix CS=Covered or Coated Sand Grains.
[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1) (except MLRA 1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: ___

Depth (inches): ___

Hydric Soil Present? Yes ___ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Stunted or Stressed Plants (D1) (LRR A)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) (LRR A)
- ___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes ___ No X	Depth (inches): ___	
Water Table Present?	Yes ___ No X	Depth (inches): >16	
Saturation Present? (includes capillary fringe)	Yes ___ No X	Depth (inches): >16	

Wetland Hydrology Present? Yes ___ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Soils dry throughout.

Attachment B: Representative Site Photographs

Photo A. Overall view of the project area looking south. The project area is bisected by existing E Hayes Street.

Photo B. North facing view of study area. The Stream Corridor is located beyond the mowed grassy area. A fragmented native tree canopy and balsam poplar snag are pictured.

Photo C. East facing view of the northern portion of the Stream Corridor, approximately located beyond silt fence. The Stream Corridor was determined to be in marginal condition because invasive species are dominant in the understory.

Photo D. View of the eastern part of the study area, looking southeast. The Stream Corridor is pictured in the background beyond the grassy field.

Photos taken by Margret Harburg, September 14, 2021

Photo E. Northwest facing view of Plot 1 documenting up-land conditions within the Stream Corridor.

Photo F. View of conditions within the on-site stream corridor, looking east from the bank of Water 1.

Photo G. View of conditions in the northern part of the Stream Corridor. The OHW of Water 1 is delineated with red pin flags.

Photo H. View of conditions in the southern part of the on-site Stream Corridor, looking south. Water 1 is pictured in the left

Photos taken by Margret Harburg, September 14, 2021

Attachment C: Planting Specification Table

West Branch Apartments
Stream Corridor Planting Specifications

Planting specifications for **±487 square feet** of Stream Corridor restoration.

TEMPORARY DISTURBANCE RESTORATION – ±487 square feet

Scientific Name	Common Name	Size*	Spacing/Seeding Rate	Quantity
Shrubs (total 24)*				
Crataegus douglasii	black hawthorn	1 gallon	4-5 feet on center	8
Rosa nootkana	Nootka rose	1 gallon	4-5 feet on center	8
Symphoricarpos albus	common snowberry	1 gallon	4-5 feet on center	8
Seed Mix				
Bromus vulgaris	Columbia brome	seed	1 lb/acre	As needed for bare soil areas >25 square feet
Festuca roemeri	Roemer's fescue	seed	1 lb/acre	

**Bare root plants may be substituted for container plants based on availability. If bare root plants are used, they must be planted during the late winter/early spring dormancy period.*

Planting Notes

1) Container stock shall be installed only from February 1 through May 1 and October 1 through November 15. Bare root stock shall be installed only from December 15 through April 15. Plantings outside these times may require additional measures to ensure survival which shall be specified on the plans.

2) The removal of any nonnative vegetation by mechanical means and any plant identified on the Newberg Plant List as a nuisance plant such as Himalayan blackberry, English ivy, English hawthorn, reed canary grass, tall fescue, and non-native bentgrass.

3) Appropriate plant selection, along with adequate site preparation and maintenance, reduces the need for irrigation. However, an irrigation system or equivalent (i.e., polymer, plus watering) is recommended during the plant establishment period. Watering shall be at a minimum rate of at least one inch per week from June 15 through October 15.

4) Trees, shrubs, and groundcovers planted shall be mulched at a minimum of three inches in depth and 18 inches in diameter, to retain moisture and discourage weed growth around newly installed plant material. Appropriate mulches are made from composted bark or leaves that have not been chemically treated.

5) Appropriate measures shall be taken to limit wildlife-related plant damage such as tubing, netting, or fencing.

Maintenance Plan

1) Plant Survival: Success criterion for stream corridor enhancement is 90% cover in one year following plantings. If any mortality is noted on the site, the factor likely to have caused mortality of the plantings is to be determined and corrected if possible, to achieve 90% native woody plant cover

Exhibit I: Hydrant Flow Test

Shane Langley

AKS Engineering & Forestry

6/5/2024 | 6 Photos

9028 - West Branch Apts - Hydrant Flow Test

1

Mueller gauge hydrant located on the northwest corner of the intersection of N Springbrook Rd & Hayes St.

Project: 9028 West Branch Apts
Date: 6/4/2024, 9:11am
Creator: Shane Langley

2

Gauge hydrant static pressure of 90 PSI.

Project: 9028 West Branch Apts
Date: 6/4/2024, 9:11am
Creator: Shane Langley

3

Gaugle hydrant residual pressure of 88 PSI.

Project: 9028 West Branch Apts
Date: 6/5/2024, 8:46am
Creator: Shane Langley

4

Clow flow hydrant located at the southeast intersection of Hayes St & Oak Leaf St.

Project: 9028 West Branch Apts
Date: 6/4/2024, 9:19am
Creator: Shane Langley

5

Flow hydrant static pressure of 90 PSI.

Project: 9028 West Branch Apts
Date: 6/4/2024, 9:19am
Creator: Shane Langley

6

Flow of 1375 GPM at 67 PSI at flow hydrant during test.

Project: 9028 West Branch Apts
Date: 6/4/2024, 9:23am
Creator: Shane Langley

HYDRANT FLOW TEST REPORT

Project Name/#/Address: 9028 - West Branch Apartments
Client: City of Newberg

Document Owner: John Christiansen

SAFETY PLAN

	Notify fire department
x	Identify discharge point
x	Verify downstream
	Traffic Control
x	PPE
x	Gauge Calibration

Notes: A 25% drop in pressure at the gauge hydrant was not achevied during this test. Based on previous results of flow tests in the area it was determined that flowing an additional hydrant would not be enough to drop the pressure 25% and that flowing 2 hydrants simultaneously would cause an impact to local traffic.

Date/time of test: 6/4/24 at 9:00am
Tested by: Shane Langley (AKS)
Witness: Joey and Brandon with the City of Newberg
Test duration: 30 min

FLOWED HYDRANT

	1F-A		1F-B	
Make:	Clow			
Static:	90	PSI		PSI
Pitot:	67	PSI		PSI
Inside diamater of outlet:	2.5	Inch		Inch
Discharge coeff:	0.9		0.9	
Observed flow:	**1,375**	**GPM**		**GPM**
Flow method:	Pollard Diffuser with Pitot			
Ground elevation:	192	FT		FT

Location description: Located at the southeast corner of the intersection of Hayes St & Oak Leaf St.

GAUGE HYDRANT

	1G-A	
Make:	Mueller	
Static:	90	PSI
Residual:	88	PSI
Ground Elevation:	196	FT

Note: Pressure drop at gauge hydrant must be 25% to determine projected fire flow

Location Description: Located on the northwest corner of the intersection of N Springbrook Rd & Hayes St.

PROJECTED FIRE FLOW

Projected Flow at 20-PSI: **Insufficient pressure drop to calc projected fire flow**

NOTES/OBSERVATIONS

Q_{Flowed} = Observed from gauge

$Q_{Projected}$= QF x ((GS – Pdesign)^0.54)/((GS – GR)^0.54)

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: Mike Gougler

Address: 901 N Brutscher St, Ste 206, Newberg, OR 97132

Phone: 503-537-9011

Email: ggoug@yahoo.com

Site Address: 3411 E Hayes St

City: Newberg, OR 97132

Map & Tax Lot #: Tax Lots 2017 and 2025 of Tax Map 3S2W16

Business Name: MJG Development, INC.

Land Use/Building Jurisdiction: Yamhill County

Land Use/ Building Permit # TBD

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

Improvements to the existing undeveloped lots with apartment buildings and associated parking lots, utility installation and frontage improvements.

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 # 2024-0094

Permit Type: SPP Newberg

Submittal Date: 7-15-24

Assigned To: DFM Arn

Due Date: NA

Fees Due: $0

Fees Paid: $0

Approval/Inspection Conditions

(For Fire Marshal's Office Use Only)

This section is for application approval only

0430 7-15-24
Fire Marshal or Designee Date

Conditions:
See approved fire service plan.

See Attached Conditions: ☐ Yes ☒ No

Site Inspection Required: ☒ Yes ☐ No

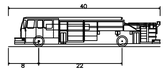
This section used when site inspection is required

Inspection Comments:

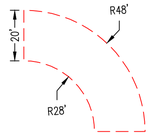
Final TVFR Approval Signature & Emp ID Date

LEGEND

- NEW ASPHALT
- NEW CONCRETE
- FIRE HYDRANT HOSE LAY (600' MAXIMUM)
- FIRE APPARATUS HOSE LAY (150' MAXIMUM)
- VEHICLE BODY
- TIRE PATH



Pumper Fire Truck	
Overall Length	40.000ft
Overall Width	8.167ft
Overall Body Height	7.745ft
Min Body Ground Clearance	0.656ft
Track Width	8.167ft
Lock-to-lock time	5.00s
Max Wheel Angle	45.00°



FIRE TRUCK TURNING MOVEMENT MINIMUM DIMENSIONS
SCALE: 1" = 30'

N

SCALE: 1"= 30 FEET
30 0 6 15 30
ORIGINAL PAGE SIZE: 22" x 34"

TAX LOT 2024
TAX MAP 3S 2W 16

WETLAND BOUNDARY
STREAM CORRIDOR BOUNDARY
FEMA FLOODPLAIN BOUNDARY
10' PUE PER PP. NO. 2014-19
±150 LF
±150 LF
FIRE TRUCK TURNING MOVEMENT AUTOCAD VEHICLE TRACKING
BUILDING E
3-STORY
24 UNITS
FIRE RISER ROOM
TAX LOT 2025
TAX MAP 3S 2W 16
R5'
R8' (TYP.)
NO PARKING, FIRE LANE SIGNAGE WITH PAINTED CURB (TYP.)
24.0'
R20'
NEW FIRE HYDRANT
FDC LOCATION
31.0'
29.5'
R3'
24.0'
TAX LOT 2024
TAX MAP 3S 2W 16
WETLAND BOUNDARY
STREAM CORRIDOR BOUNDARY
FEMA FLOODPLAIN BOUNDARY
±128 LF
±136 LF
BUILDING B
3-STORY
12 UNITS
FIRE RISER ROOM
±422 LF
±150 LF
±163 LF
FIRE RISER ROOM
R52'
BUILDING C
3-STORY
24 UNITS
R28'
NO PARKING, FIRE LANE SIGNAGE WITH PAINTED CURB (TYP.)
FIRE TRUCK TURNAROUND
R28'
R28'
70.0'
R52'
R28'
FDC LOCATION
24.0'
TAX LOT 2017
TAX MAP 3S 2W 16
BUILDING A
3-STORY
12 UNITS
FIRE RISER ROOM
±83 LF
±150 LF
10' PUE PER PP. NO. 2014-19
HAYES STREET
±430 LF
FIRE RISER ROOM
BUILDING D
3-STORY
24 UNITS
10' PRIVATE STORM DRAINAGE EASEMENT PER PP. NO. 2013-03
±86 LF
±86 LF
±150 LF
±150 LF
N SPRINGBROOK ROAD

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# 2024-0094

FD Notes: Fire lane and address markings to be determined prior to building final.

AKS ENGINEERING & FORESTRY, LLC
12965 SW HERMAN RD, STE 100
TUALATIN, OR 97062
503.563.6151
WWW.AKS-ENG.COM

ENGINEERING · SURVEYING · NATURAL RESOURCES
FORESTRY · PLANNING · LANDSCAPE ARCHITECTURE

PRELIMINARY FIRE ACCESS PLAN
WEST BRANCH APARTMENTS
DMKS, LLC
NEWBERG, OREGON

REGISTERED PROFESSIONAL ENGINEER
OREGON
JULY 13, 2010
CHRISTOPHER E. GOODELL
EDWARD GREGORY
PRELIMINARY NOT FOR CONSTRUCTION
RENEWS: JUNE 30, 2025

JOB NUMBER:	9028
DATE:	07/15/2024
DESIGNED BY:	TMI
DRAWN BY:	AMJ
CHECKED BY:	CEG

FS-1

AKS DRAWING FILE: 9028 P08 FIRE.DWG | LAYOUT: FS-1

Attachment 2: Agency Comments

From: Brown, Jason <JBrown2@wm.com>
Sent: Friday, November 22, 2024 1:54 PM
To: Fe Bates
Cc: Jeremiah Cromie
Subject: RE: City of Newberg Request for Referral Review: West Branch Apartments

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.

Good afternoon Fe,

WM does not see any service issues here.

Thanks

From: Fe Bates <Fe.Bates@newbergoregon.gov>
Sent: Friday, November 22, 2024 10:36 AM
Cc: Fe Bates <Fe.Bates@newbergoregon.gov>; Jeremiah Cromie <Jeremiah.Cromie@newbergoregon.gov>
Subject: [EXTERNAL] City of Newberg Request for Referral Review: West Branch Apartments

Good Day,

Attached is Referral application for the West Branch Apartments, a proposed 96-unit apartment complex at the corner of N Springbrook Rd and E Hayes Street on Two Tax Lots with a proposed name of West Branch Apartments. The file numbers are CUP24-0004/DR224-0006/MISC124-0018. This is for a conditional use permit (Apartments allowed in C-2/SP zone with a CUP). Design Review, and Stream Corridor Overlay Disturbance (for 2 stormwater pipes only).

The full application for can be viewed by clicking on the Link located on the Form. The application is bookmarked for ease of use. The webpage for the project can be found here: https://www.newbergoregon.gov/planning/page/cup24-0004dr224-0006misc124-0018-west-branch-apartments-corner-springbrook-and-hayes

Please fill out the Referral Sign Off sheet and email it back no later than December 6, 2024 to Planning@newbergoregon.gov .

If you have any questions about the information in the application, you can reach out to Jeremiah Cromie directly.

Jeremiah Cromie
Associate Planner
jeremiah.cromie@newbergoregon.gov
Direct: 503-554-7772

Thank you,

The City is closed Next week from Wednesday, 11/27 to Friday, 11/29. All Departments will be back at City Hall and open to the public Monday, 12/2

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.*

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: December 06, 2024
Please refer questions and comments to: Jeremiah Cromie

NOTE: Additional information can be viewed on our website at:

APPLICANT: DMKS LLC

REQUEST: Res in C-2/SP Zone for 96 multi-family Homes - West Branch Apt

SITE ADDRESS:

LOCATION: Corner of N Springbrook Rd and E Hayes Street

TAX LOT: R3216 02025 & R3216 02017

FILE NO: CUP24-0004/DR224-0006/MISC124-0018

ZONE: C-2(Community Coommercial Zone) & SP(Specific Plan Zone)

HEARING DATE: January 9, 2025

For full Project Information click on the Link Here: West Branch Apartments Full Application

☑ 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)

Scot Siegel Digitally signed by Scot Siegel
DN: C=US, OU=Community Development, O=City of Newberg, CN=Scot Siegel, E=scot.siegel@newbergoregon.gov
Reason: I am the author of this document
Location: your signing location here
Date: 2024.11.22 14:17:47-08'00'
Foxit PhantomPDF Version: 10.1.12

Reviewed By:

11/22/24

Date:

Organization:

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LAND USE APPLICATION REFERRAL

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---

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☐ Require additional information to review. (Please list information required)

☐ Meeting requested.

☐ Comments. (Attach additional pages as needed)

W E Worthey

Digitally signed by W E Worthey
DN: O=City of Newberg, CN=W E Worthey, E=will.worthey@newbergoregon.gov
Reason: I have reviewed this document
Location: your signing location here
Date: 2024.11.22 16:49:15-08'00'
Foxit PhantomPDF Version: 10.1.12

Reviewed By: Will Worthey CM

11/22/24

Date:

Organization:

From: PIKE Brandon <Brandon.PIKE@odav.oregon.gov>
Sent: Friday, December 6, 2024 5:04 PM
To: PLANNING
Cc: Jeremiah Cromie
Subject: RE: City of Newberg Request for Referral Review: West Branch Apartments

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.

Good afternoon,

Thank you for providing the opportunity for the Oregon Department of Aviation (ODAV) to comment on this application.

ODAV has reviewed the proposal and prepared the following comment(s):

1. In accordance with FAR Part 77.9 and OAR 738-070-0060, the proposed development may be required to undergo aeronautical evaluations by the FAA and ODAV. The applicant can use the FAA's Notice Criteria Tool to determine which proposed structures, including any cranes used during construction, warrant a *notice of construction* filing. If so, they are required to provide separate notices of construction to both the FAA and ODAV. The applicant should receive the resulting aeronautical determination letters from the FAA and ODAV prior to approval of any building permits.

2. The height of any new structures, trees, and other planted vegetation should not penetrate FAR Part 77 Imaginary Surfaces, as determined by the FAA and ODAV.

Please reach out if you have questions or concerns. I'm available if the applicant has any questions or wants our input at this stage.

Best,

BRANDON PIKE
OREGON DEPARTMENT OF AVIATION (ODAV)
AVIATION PLANNER

PHONE 971-372-1339
EMAIL brandon.pike@odav.oregon.gov
3040 25TH STREET SE, SALEM, OR 97302
WWW.OREGON.GOV/AVIATION

Alternative Contacts:
COAR Grants: Grants@ODAV.Oregon.Gov
Procurement / Contracts: Contracts@ODAV.Oregon.Gov
Pavement (PEP/PMP): Pavement@ODAV.Oregon.Gov
Land Use / Tall Structures: LandUse@ODAV.Oregon.Gov

*****CONFIDENTIALITY NOTICE*****

This e-mail may contain information that is privileged, confidential, or otherwise exempt from disclosure under applicable law. If you are not the addressee or it appears from the context or otherwise that you have received this e-mail in error, please advise me immediately by reply e-mail, keep the contents confidential, and immediately delete the message and any attachments from your system.

From: Fe Bates <Fe.Bates@newbergoregon.gov>
Sent: Friday, November 22, 2024 10:36 AM
Cc: Fe Bates <Fe.Bates@newbergoregon.gov>; Jeremiah Cromie <Jeremiah.Cromie@newbergoregon.gov>
Subject: City of Newberg Request for Referral Review: West Branch Apartments

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Jeremiah Cromie
Associate Planner
jeremiah.cromie@newbergoregon.gov
Direct: 503-554-7772

Thank you,

The City is closed Next week from Wednesday, 11/27 to Friday, 11/29. All Departments will be back at City Hall and open to the public Monday, 12/2

From: SCOTT Brion <Brion.SCOTT@odot.oregon.gov>
Sent: Friday, December 6, 2024 3:08 PM
To: Fe Bates
Cc: Jeremiah Cromie
Subject: RE: City of Newberg Request for Referral Review: West Branch Apartments

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.

Fe/Jeremiah,

Thanks for notifying Oregon Department of Transportation (ODOT) of the West Branch Apartments application at N. Springbrook Road and E. Hayes Street. N. Springbrook Road is also Salmon-River Highway No. 039 and under jurisdiction of ODOT. This development is not proposing direct access to the highway or performing improvements or work on the highway. The only comment ODOT has is that if the applicant needs to occupy the highway during construction, or if Newberg requires improvements on Springbrook as a condition of approval, they will need to contact District 3 permits.

We previously reviewed a TIA scoping memo for this development but have not completed review of the full TIA that was included in the referral. I will return comments on that TIA as soon as possible.

Let me know if there are any questions.

Thanks,

Brion Scott, PE
Development Review Coordinator
ODOT - Region 2 - Area 3
885 Airport Road SE, Building P Salem, OR 97301
(503) 871-1411
Brion.Scott@odot.oregon.gov

From: Fe Bates <Fe.Bates@newbergoregon.gov>
Sent: Friday, November 22, 2024 10:36 AM
Cc: Fe Bates <Fe.Bates@newbergoregon.gov>; Jeremiah Cromie <Jeremiah.Cromie@newbergoregon.gov>
Subject: City of Newberg Request for Referral Review: West Branch Apartments

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Good Day,

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From: SCOTT Brion
Sent: Monday, December 16, 2024 1:11 PM
To: Jeremiah Cromie
Subject: RE: City of Newberg Request for Referral Review: West Branch Apartments

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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.

Jeremiah,

Apologies for not getting back to you sooner on this. We reviewed the submitted TIA for West Branch Apartments at Springbrook and Hayes and have no comments.

Thanks,
Brion Scott, PE
Development Review Coordinator
ODOT - Region 2 - Area 3
885 Airport Road SE, Building P Salem, OR 97301
(503) 871-1411
Brion.Scott@odot.oregon.gov

From: SCOTT Brion
Sent: Friday, December 6, 2024 3:08 PM
To: Fe Bates <Fe.Bates@newbergoregon.gov>
Cc: Jeremiah Cromie <Jeremiah.Cromie@newbergoregon.gov>
Subject: RE: City of Newberg Request for Referral Review: West Branch Apartments

Fe/Jeremiah,

Thanks for notifying Oregon Department of Transportation (ODOT) of the West Branch Apartments application at N. Springbrook Road and E. Hayes Street. N. Springbrook Road is also Salmon-River Highway No. 039 and under jurisdiction of ODOT. This development is not proposing direct access to the highway or performing improvements or work on the highway. The only comment ODOT has is that if the applicant needs to occupy the highway during construction, or if Newberg requires improvements on Springbrook as a condition of approval, they will need to contact District 3 permits.

We previously reviewed a TIA scoping memo for this development but have not completed review of the full TIA that was included in the referral. I will return comments on that TIA as soon as possible.

Let me know if there are any questions.

Thanks,
Brion Scott, PE
Development Review Coordinator
ODOT - Region 2 - Area 3
885 Airport Road SE, Building P Salem, OR 97301
(503) 871-1411
Brion.Scott@odot.oregon.gov

From: Fe Bates <Fe.Bates@newbergoregon.gov>
Sent: Friday, November 22, 2024 10:36 AM
Cc: Fe Bates <Fe.Bates@newbergoregon.gov>; Jeremiah Cromie

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: December 06, 2024
Please refer questions and comments to: Jeremiah Cromie

NOTE: Additional information can be viewed on our website at:

APPLICANT: DMKS LLC

REQUEST: Res in C-2/SP Zone for 96 multi-family Homes - West Branch Apt

SITE ADDRESS:

LOCATION: Corner of N Springbrook Rd and E Hayes Street

TAX LOT: R3216 02025 & R3216 02017

FILE NO: CUP24-0004/DR224-0006/MISC124-0018

ZONE: C-2(Community Coommercial Zone) & SP(Specific Plan Zone)

HEARING DATE: January 9, 2025

For full Project Information click on the Link Here: West Branch Apartments Full Application

---

☑ 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) **PGE work order M3818524**

__Shelley Eggiman_____ _12/3/2024____
Reviewed By Date

PGE_____
Organization

COMMUNITY DEVELOPMENT
LAND USE APPLICATION REFERRAL

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HEARING DATE: January 9, 2025

For full Project Information click on the Link Here: West Branch Apartments Full Application

---

☑ 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)

Jeff Kosmicki Digitally signed by Jeff Kosmicki
DN: O=Chief of Police, CN=Jeff Kosmicki, E=jeff.kosmicki@newbergoregon.gov
Reason: I am the author of this document
Location: your signing location here
Date: 2024.11.22 13:00:19-08'00'
Foxit PhantomPDF Version: 10.1.12

Reviewed By:

11/22/24

Date:

Newberg-Dundee Police Department

Organization:

COMMUNITY DEVELOPMENT
LAND USE APPLICATION REFERRAL

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Please refer questions and comments to: Jeremiah Cromie

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REQUEST: Res in C-2/SP Zone for 96 multi-family Homes - West Branch Apt

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FILE NO: CUP24-0004/DR224-0006/MISC124-0018

ZONE: C-2(Community Coommercial Zone) & SP(Specific Plan Zone)

HEARING DATE: January 9, 2025

For full Project Information click on the Link Here: West Branch Apartments Full Application

---

☑ 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)

April Catan Digitally signed by April Catan
DN: C=US, OU=Operations, O=City of Newberg, CN=April Catan, E=april.catan@newbergoregon.gov
Reason: I am the author of this document
Location: your signing location here
Date: 2024.11.26 09:09:47-08'00'
Foxit PhantomPDF Version: 10.1.10

Reviewed By:

11/26/24

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: December 06, 2024
Please refer questions and comments to: Jeremiah Cromie

NOTE: Additional information can be viewed on our website at:

APPLICANT: DMKS LLC

REQUEST: Res in C-2/SP Zone for 96 multi-family Homes - West Branch Apt

SITE ADDRESS:

LOCATION: Corner of N Springbrook Rd and E Hayes Street

TAX LOT: R3216 02025 & R3216 02017

FILE NO: CUP24-0004/DR224-0006/MISC124-0018

ZONE: C-2(Community Coommercial Zone) & SP(Specific Plan Zone)

HEARING DATE: January 9, 2025

For full Project Information click on the Link Here: West Branch Apartments Full Application

☐ 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)

If Approved, construction plans for all public utility and Public ROW elements to be reviewed and approved by City of Newberg's Engineering Department prior to permitting and construction.

Russ Thomas

Digitally signed by Russ Thomas
DN: C=US, OU=Public Works Director, O=City of Newberg, CN=Russ Thomas, E=russ.thomas@newbergoregon.gov
Reason: I am approving this document
Location: your signing location here
Date: 2024.11.22 11:53:34-08'00'
Foxit PhantomPDF Version: 10.1.10

Reviewed By:

11/22/24

Date:

Public Works Director, City of Newberg

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: December 06, 2024
Please refer questions and comments to: Jeremiah Cromie

NOTE: Additional information can be viewed on our website at:

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REQUEST: Res in C-2/SP Zone for 96 multi-family Homes - West Branch Apt

SITE ADDRESS:

LOCATION: Corner of N Springbrook Rd and E Hayes Street

TAX LOT: R3216 02025 & R3216 02017

FILE NO: CUP24-0004/DR224-0006/MISC124-0018

ZONE: C-2(Community Coommercial Zone) & SP(Specific Plan Zone)

HEARING DATE: January 9, 2025

For full Project Information click on the Link Here: West Branch Apartments Full Application

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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)

Reviewed By: _____ Date: 11/25/24

Maintenance Superintendent
Organization:

1. Streets trees near drive way should be revaluated for site line issues assuming the tree is at full maturity.
2. Subsurface stormwater is private.
3. Catch basins should be located as close as possible to Trash bins to minimize tracking.
4. There should be a oil and floatable and sediment separator prior to stormwater leaves the facility.

From: Arn, Jason S. <Jason.Arn@tvfr.com>
Sent: Monday, November 25, 2024 7:37 AM
To: Fe Bates
Cc: Jeremiah Cromie
Subject: RE: City of Newberg Request for Referral Review: West Branch Apartments

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.

Hi,

We have approved their design.

Thank you.

Jason Arn | Deputy Fire Marshal CFI
Tualatin Valley Fire & Rescue
Direct: 503-259-1510
www.tvfr.com

From: Fe Bates <Fe.Bates@newbergoregon.gov>
Sent: Friday, November 22, 2024 10:36 AM
Cc: Fe Bates <Fe.Bates@newbergoregon.gov>; Jeremiah Cromie <Jeremiah.Cromie@newbergoregon.gov>
Subject: City of Newberg Request for Referral Review: West Branch Apartments

The sender is from outside TVF&R – Do not click on links or attachments unless you are sure they are safe

Good Day,

Attached is Referral application for the West Branch Apartments, a proposed 96-unit apartment complex at the corner of N Springbrook Rd and E Hayes Street on Two Tax Lots with a proposed name of West Branch Apartments. The file numbers are CUP24-0004/DR224-0006/MISC124-0018. This is for a conditional use permit (Apartments allowed in C-2/SP zone with a CUP). Design Review, and Stream Corridor Overlay Disturbance (for 2 stormwater pipes only).

The full application for can be viewed by clicking on the Link located on the Form. The application is bookmarked for ease of use. The webpage for the project can be found here: https://www.newbergoregon.gov/planning/page/cup24-0004dr224-0006misc124-0018-west-branch-apartments-corner-springbrook-and-hayes

Please fill out the Referral Sign Off sheet and email it back no later than December 6, 2024 to Planning@newbergoregon.gov .

If you have any questions about the information in the application, you can reach out to Jeremiah Cromie directly.

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: December 06, 2024
Please refer questions and comments to: Jeremiah Cromie

NOTE: Additional information can be viewed on our website at:

APPLICANT:	DMKS LLC
REQUEST:	Res in C-2/SP Zone for 96 multi-family Homes - West Branch Apt
SITE ADDRESS:	
LOCATION:	Corner of N Springbrook Rd and E Hayes Street
TAX LOT:	R3216 02025 & R3216 02017
FILE NO:	CUP24-0004/DR224-0006/MISC124-0018
ZONE:	C-2(Community Coommercial Zone) & SP(Specific Plan Zone)
HEARING DATE:	January 9, 2025

For full Project Information click on the Link Here: West Branch Apartments Full Application

- [X] Reviewed, no conflict. no Liens
- [ ] Reviewed; recommend denial for the following reasons:
- [ ] Require additional information to review. (Please list information required)
- [ ] Meeting requested.
- [ ] Comments. (Attach additional pages as needed)

Mary Kuhlman
Reviewed By:

11/25/2024
Date:

Finance
Organization:

From: Fantz, Justin <justin.fantz@ziply.com>
Sent: Thursday, December 12, 2024 4:12 PM
To: Fe Bates
Cc: Jeremiah Cromie
Subject: RE: City of Newberg Request for Referral Review: West Branch Apartments
Attachments: Referral - West Branch Apartments.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

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 no conflicts. We do have a Manhole and duct run on the southside of E Hayes that turns S. onto N Springbrook.

Please pass along my contact to represent Ziply for this project.

Thank you,

Justin Fantz OSP Engineer – GF/BF Team Lead
971-387-1590 (M)
Justin.Fantz@ziply.com
ziplyfiber.com

From: Fe Bates <Fe.Bates@newbergoregon.gov>
Sent: Friday, November 22, 2024 10:36 AM
Cc: Fe Bates <Fe.Bates@newbergoregon.gov>; Jeremiah Cromie <Jeremiah.Cromie@newbergoregon.gov>
Subject: City of Newberg Request for Referral Review: West Branch Apartments

WARNING: External email. Please verify sender before opening attachments or clicking on links.

Good Day,

ENGINEERING COMMENTS
December 17, 2024

FILE NO:	DR224-0006
REQUEST:	Apartment Complex – 96 Unit
LOCATION:	3200 Block of E Hayes Street, Northeast and Southeast Corners of N Springbrook and E Hayes

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SITE INFORMATION:

Access and Transportation: Access to the proposed development is provided from E Hayes Street. It is classified as a major collector under the jurisdiction of the City of Newberg. The site also has frontage on N Springbrook Road (OR 219) which is classified as a Minor Arterial and is under the jurisdiction of Oregon Department of Transportation (ODOT). Both streets along the project site are fully developed with the exception of street lights on both frontages and sidewalks along the north side of E Hayes Street.

Utilities:

Water: The City's online GIS mapping and the submitted preliminary plans show that there is an existing 24-inch water line located in Hayes Street and an 8-inch water line serving the property on each side of the street.

Wastewater: The City's online GIS mapping and the submitted preliminary plans show that there is an existing 8-inch wastewater line in Hayes Street with 8-inch wastewater service laterals extended to the property on each side of the street. The 8-inch line in Hayes Street flows to the Fernwood Lift Station. There is also a 15-inch wastewater line in N Springbrook. Capacity issues with the wastewater system in this area are identified in the Wastewater Master Plan.

Stormwater: The City's GIS mapping and the submitted preliminary plans show that there are several nearby stormwater lines which all drain to Springbrook located on the east side the property.

Overhead Lines: There are no overhead utility lines along the project site frontages. Any new connection the property will need to be undergrounded. See NMC 15.430.010 for exception provisions.

Chapter 12.05 Street and Sidewalks
12.05.090 Permits and certificates.
A. Concurrent with the issuance of a building permit for the construction of a building for residential use or business structures or an addition to a dwelling or business structure, the value of which is $30,000 or more except as the city engineer may require on building permits of lesser value in accordance with NMC 12.05.040, the owner, builder or contractor to whom the building permit is issued shall meet the following requirements:

> ***1. Construct a sidewalk within the dedicated right-of-way for the full frontage in which a sidewalk in good repair does not exist. The sidewalk construction shall be completed within the building construction period or prior to issuance of an occupancy permit, whichever is the lesser.***

Finding: The submitted materials do not clearly indicate if existing sidewalks are in condition. Sidewalks do not exist on the north side of E Hayes along the project site frontage.

The applicant will be required to replace any sidewalks along the site's frontage that are in poor condition or not in compliance with City of Newberg ADA standards. Determination of any sidewalk panels to be replaced will occur as part of the building permit process.

The applicant will be required to build a new 5-foot wide Type A sidewalk, with a minimum five-foot wide planter strip between the sidewalk and the curb line and 1-foot between the back of the sidewalk and the right-of-way line, on the north side of Hayes Street along the project site frontage.

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

> ***2. Dedicate right-of-way in accordance with the city transportation plan.***

Finding: The submitted materials indicate that there may not be adequate existing right-of-way along the project site's frontage for the construction of new Type A sidewalks. The applicant will be required to dedicate sufficient right-of-way for construction of new Type A sidewalks on the north Hayes Street along the project site frontage.

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

B. The city engineer may issue a permit and certificate allowing noncompliance with the provisions of subsection (A) of this section to the owner, builder or contractor when, in the city engineer's opinion, the construction of a sidewalk is impractical for one or more of the following reasons:

> ***1. Sidewalk grades have not and cannot be established for the property in question within a reasonable period of time.***

2. Future installation of public utilities or street paving would, of necessity, cause severe damage to existing sidewalks.

3. Topography or contours make the construction of a sidewalk impractical.

4. The noncompliance provided in subsection (B)(1) of this section shall be temporary and shall cease to exist when grades are established for sidewalks by the public works department or when public utilities or street paving have been constructed. The permit shall indicate the reason for its issuance.

Finding: The submitted materials do not indicate that any of the above criteria is met for not requiring sidewalks to be installed where sidewalks in good repair do not exist.

This criterion is not applicable.

Chapter 15.220 Site Design Review
15.220.030 Site design review requirements.
B. Type II. The following information is required to be submitted with all Type II applications for site design review:

13. Roadways and Utilities. The proposed plans shall indicate any public improvements that will be constructed as part of the project, including, but not limited to, roadway and utility improvements.

Finding: The submitted materials show that the project site is served by existing public improvements. Most required public improvements were constructed as part of a previous project. New public roadway and utility improvements are not proposed, and except for street lighting and sidewalks none are required.

The plans do show proposed driveway locations, existing and proposed water service laterals and existing wastewater service laterals at the site. All improvements reviewed under this application are identified in the NMC 15.505 section specific to them and are conditioned to comply with the Public Works Design and Construction Standards in those sections.

This criterion is met.

14. Traffic Study. A traffic study shall be submitted for any project that generates 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 projects 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. [Ord. 2619, 5-16-05; Ord. 2451, 12-2-96. Code 2001 § 151.192.]

Finding: The submitted materials include a traffic study dated July 8, 2024. The traffic study identified that the N Springbrook Road/E Haworth Avenue intersection is functioning below the City's level of service standard and that trips from the proposed development would continue to degrade the performance of the existing stop-controlled intersection.

Project I09 in the City's 2016 Transportation System Plan (TSP) calls for installing a traffic signal and left turn lanes on E Haworth, at the N Springbrook Road/E Haworth Avenue intersection with an estimated cost of $400,000 (2016 dollars). The traffic study notes that 8 AM trips out of a total 1259 AM trips and 9 PM trips out of a total of 1589 PM trips are being added to the Springbrook Road/Haworth Avenue intersection as a direct result of the development. A Traffic Impact Fee was developed to capture the proportional impact of the development on public facilities and services.

Because the applicant's development is adversely impacting the N Springbrook Road/E Haworth Avenue intersection, the applicant will be required to pay a Traffic Impact Fee for the Springbrook Road/Haworth Avenue intersection which is being assessed based on the proportional impact of the development on public facilities and services. The following formula was used to develop a Traffic Impact Fee to capture the proportional impact of the development based on the most significant AM or PM proportional volume contribution:

(8 AM trips directly proportional to the development)/(1259 AM peak hour total trips through the intersection)*($400,000 for the TSP cost of an intersection upgrade) = $2,542 Traffic Impact Fee.

The Traffic Impact Fee of $2,542 is to be paid at the time of, or prior to, building permit issuance.

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

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.

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.

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 the utility is extraordinarily expensive.

2. There are physical factors that make undergrounding extraordinarily difficult.

3. Existing utility facilities in the area are primarily overhead and are unlikely to be changed. [Ord. 2537, 11-6-00. Code 2001 § 151.589.]

Finding: The submitted materials do not show new connections to or relocations of electric, communication, natural gas, or cable television. Any new service connection to the property is required to be undergrounded. See NMC 15.430.010 for additional requirements and exception provisions.

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

Chapter 15.505 Public Improvement Standards

15.505.010 Purpose.

This chapter provides standards for public infrastructure and utilities installed with new development, consistent with the policies of the City of Newberg comprehensive plan and adopted city master plans. The standards are intended to minimize disturbance to natural features, promote energy conservation and efficiency, minimize and maintain development impacts on surrounding properties and neighborhoods, and ensure timely completion of adequate public facilities to serve new development. [Ord. 2810 § 2 (Exhs. B, C), 12-19-16.]

15.505.020 Applicability.

The provision and utilization of public facilities and services within the City of Newberg shall apply to all land developments in accordance with this chapter. No development shall be approved unless the following improvements are provided for prior to occupancy or operation, unless future provision is assured in accordance with NMC 15.505.030(E).

Finding: All improvements reviewed under this application are identified in the NMC 15.505 section specific to them and are conditioned to comply with the Public Works Design and Construction Standards in those sections.

This criterion is met.

A. Public Works Design and Construction Standards. The design and construction of all improvements within existing and proposed rights-of-way and easements, all improvements to be maintained by the city, and all improvements for which city approval is required shall comply with the requirements of the most recently adopted Newberg public works design and construction standards.

Finding: The submitted materials show that the project site is served by existing public improvements. Most required public improvements were constructed as part of a previous project. New public roadway and utility improvements are not proposed, and except for street lighting and sidewalks none are required.

The plans do show proposed driveway locations, existing and proposed water service laterals and existing wastewater service laterals at the site.

Plans submitted with a permit application for public improvements, as found to be required during the permit plan review process, are to meet the requirements of the current City of Newberg Public Works Design and Construction Standards.

Plans will be fully reviewed for compliance with city standards including the Public Works Design and Construction Standards as part of the permit plan review process.

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

B. Street Improvements. All projects subject to a Type II design review, partition, or subdivision approval must construct street improvements necessary to serve the development.

Finding: The submitted materials show that the project site is served by existing public improvements. Most required public improvements were constructed as part of a previous project. New public roadway and utility improvements are not proposed, and except for street lighting and sidewalks none are required.

All street improvements required for this application are identified in the NMC 15.505.030 section specific to them and are conditioned to comply with the Public Works Design and Construction Standards in those sections. Sections of NMC 15.505.030 that are not applicable for this application are omitted for brevity.

This criterion is met.

C. Water. All developments, lots, and parcels within the City of Newberg shall be served by the municipal water system as specified in Chapter 13.15 NMC.

Finding: The submitted materials show that the project site is served by existing public improvements. There is an existing 24-inch water main located along E Hayes Street. Water service stubs to the project site are shown connected to this water main. The preliminary plans do show new water connections to the public water line in E Hayes Street.

Because the has not submitted construction plans for the new water connections, the applicant is required to submit construction plans and obtain a public improvement permit for connection to the public water main for the proposed water services.

Plans will be fully reviewed for compliance with city standards including the Public Works Design and Construction Standards as part of the permit plan review process.

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

D. Wastewater. All developments, lots, and parcels within the City of Newberg shall be served by the municipal wastewater system as specified in Chapter 13.10 NMC.

Finding: The submitted materials show that the project site is served by existing public improvements. There is an existing 8-inch wastewater line in E Hayes Street. Service laterals to the site are also shown. The preliminary plans do show new connections to the public wastewater system

Because the has not submitted construction plans for the new wastewater connections, the applicant is required to submit construction plans and obtain a public improvement permit for connection to the public wastewater system for the proposed wastewater services. A manhole will be required at the connection to the public wastewater system.

The wastewater analysis of impacts to the wastewater system from the proposed development is required to be submitted with permit applications.

Plans will be fully reviewed for compliance with city standards including the Public Works Design and Construction Standards as part of the permit plan review process.

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

E. Stormwater. All developments, lots, and parcels within the City of Newberg shall manage stormwater runoff as specified in Chapters 13.20 and 13.25 NMC.

Finding: The submitted materials show that there will be a net increase in impervious area of more than 500-square feet. The applicant has proposed private stormwater facilities to meet stormwater management requirements.

Because there is a net increase of 500 square feet or more in impervious area, the applicant will be required to submit a stormwater report and plans for stormwater management that meet the requirements of Chapters 13.20 and 13.25 NMC and comply with the Public Works Design and Construction Standards with the permit application. This includes compliance with Public Works Design and Construction Standards section 4.6.8 Facility Selection Hierarchy.

Plans will be fully reviewed for compliance with city standards including the Public Works Design and Construction Standards as part of the permit plan review process.

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

F. Utility Easements. Utility easements shall be provided as necessary and required by the review body to provide needed facilities for present or future development of the area.

Finding: The submitted materials show existing utility easements. The preliminary plans show construction activity occurring on an adjacent property, Tax Lot 2024 of Tax Map 3S2W16, east of the project site.

The applicant is required to provide recorded access and private utility easements necessary for work and private stormwater facilities shown on plans as occurring on adjacent property, Tax Lot 2024 of Tax Map 3S2W16, east of the project site. The necessary recorded easements are to be submitted during the Building Permit process and prior to occupancy.

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

G. City Approval of Public Improvements Required. No building permit may be issued until all required public facility improvements are in place and approved by the director, or are otherwise bonded for in a manner approved by the review authority, in conformance with the provisions of this code and the Newberg Public Works Design and Construction Standards. [Ord. 2810 § 2 (Exhs. B, C), 12-19-16.]

Finding: Any required public improvement permit(s) for this project must be submitted, approved and issued prior to building permits being issued.

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

15.505.030 Street standards.
A. Purpose. The purpose of this section is to:

> ***1. Provide for safe, efficient, and convenient multi-modal transportation within the City of Newberg.***
>
> ***2. Provide adequate access to all proposed and anticipated developments in the City of Newberg. For purposes of this section, "adequate access" means direct routes of travel between destinations; such destinations may include residential neighborhoods, parks, schools, shopping areas, and employment centers.***
>
> ***3. Provide adequate area in all public rights-of-way for sidewalks, wastewater and water lines, stormwater facilities, natural gas lines, power lines, and other utilities commonly and appropriately placed in such rights-of-way. For purposes of this section, "adequate area" means space sufficient to provide all required public services to standards defined in this code and in the Newberg public works design and construction standards.***

B. Applicability. The provisions of this section apply to:

1. The creation, dedication, and/or construction of all public streets, bike facilities, or pedestrian facilities in all subdivisions, partitions, or other developments in the City of Newberg.

2. The extension or widening of existing public street rights-of-way, easements, or street improvements including those which may be proposed by an individual or the city, or which may be required by the city in association with other development approvals.

3. The construction or modification of any utilities, pedestrian facilities, or bike facilities in public rights-of-way or easements.

4. The designation of planter strips. Street trees are required subject to Chapter 15.420 NMC.

5. Developments outside the city that tie into or take access from city streets.

Finding: The submitted materials show that the project site is served by existing public improvements. Most required public improvements were constructed as part of a previous project. New public roadway and utility improvements are not proposed, and except for street lighting and sidewalks none are required.

All street improvements required for this application are identified in the NMC 15.505.030 section specific to them and are conditioned to comply with the Public Works Design and Construction Standards in those sections. Sections of NMC 15.505.030 that are not applicable for this application are omitted for brevity.

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

……..

E. Improvements to Existing Streets.

1. All projects subject to partition, subdivision, or Type II design review approval shall dedicate right-of-way sufficient to improve the street to the width specified in subsection (G) of this section.

2. All projects subject to partition, subdivision, or Type II design review approval must construct a minimum of a three-quarter street improvement to all existing streets adjacent to, within, or necessary to serve the development. The director may waive or modify this requirement where the applicant demonstrates that the condition of existing streets to serve the development meets city standards and is in satisfactory condition to handle the projected traffic loads from the development. Where a development has frontage on both sides of an existing street, full street improvements are required.

3. In lieu of the street improvement requirements outlined in NMC 15.505.040(B), the review authority may elect to accept from the applicant monies to be placed in a fund dedicated to the future reconstruction of the subject street(s). The amount of money deposited with the city shall be 100 percent of the estimated cost of the required street improvements (including any associated utility improvements), and 10 percent of the estimated cost for inflation. Cost estimates used for this purpose shall be based on preliminary design of the constructed street provided by the applicant's engineer and shall be approved by the director.

Finding: The submitted materials show that the project site is served by existing public improvements. Most required public improvements were constructed as part of a previous project. New public roadway and utility improvements are not proposed, and except for street lighting and sidewalks none are required.

All street improvements required for this application are identified in the NMC 15.505.030 section specific to them and are conditioned to comply with the Public Works Design and Construction Standards in those sections. Sections of NMC 15.505.030 that are not applicable for this application are omitted for brevity.

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

F. Improvements Relating to Impacts. Improvements required as a condition of development approval shall be roughly proportional to the impact of the development on public facilities and services. The review body must make findings in the development approval that indicate how the required improvements are roughly proportional to the impact. Development may not occur until required transportation facilities are in place or guaranteed, in conformance with the provisions of this code. If required transportation facilities cannot be put in place or be guaranteed, then the review body shall deny the requested land use application.

Finding: The submitted materials include a traffic study dated July 8, 2024. The traffic study identified that the N Springbrook Road/E Haworth Avenue intersection is functioning below the City's level of service standard and that trips from the proposed development would continue to degrade the performance of the existing stop-controlled intersection.

Project I09 in the City's 2016 Transportation System Plan (TSP) calls for installing a traffic signal and left turn lanes on E Haworth, at the N Springbrook Road/E Haworth Avenue intersection with an estimated cost of $400,000 (2016 dollars). The traffic study notes that 8 AM trips out of a total 1259 AM trips and 9 PM trips out of a total of 1589 PM trips are being added to the Springbrook Road/Haworth Avenue intersection as a direct result of the development. A Traffic Impact Fee was developed to capture the proportional impact of the development on public facilities and services.

Because the applicant's development is adversely impacting the N Springbrook Road/E Haworth Avenue intersection, the applicant will be required to pay a Traffic Impact Fee for the Springbrook Road/Haworth Avenue intersection which is being assessed based on the proportional impact of the development on public facilities and services. The following formula was used to develop a Traffic Impact Fee to capture the proportional impact of the development based on the most significant AM or PM proportional volume contribution:
(8 AM trips directly proportional to the development)/(1259 AM peak hour total trips through the intersection)*($400,000 for the TSP cost of an intersection upgrade) = $2,542 Traffic Impact Fee.
The Traffic Impact Fee of $2,542 is to be paid at the time of, or prior to, building permit issuance.

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

…….

R. Vehicular Access Standards.

1. Purpose. The purpose of these standards is to manage vehicle access to maintain traffic flow, safety, roadway capacity, and efficiency. They help to maintain an adequate level of service consistent with the functional classification of the street. Major roadways, including arterials and collectors, serve as the primary system for moving people and goods within and through the city. Access is limited and managed on these roads to promote efficient through movement. Local streets and alleys provide access to individual properties. Access is managed on these roads to maintain safe maneuvering of vehicles in and out of properties and to allow safe through movements. If vehicular access and circulation are not properly designed, these roadways will be unable to accommodate the needs of development and serve their transportation function.

2. Access Spacing Standards. Public street intersection and driveway spacing shall follow the standards in Table 15.505.R below. The Oregon Department of Transportation (ODOT) has jurisdiction of some roadways within the Newberg city limits, and ODOT access standards will apply on those roadways.

Table 15.505.R. Access Spacing Standards

Roadway Functional Classification	*Area[1]*	*Minimum Public Street Intersection Spacing (Feet)[2]*	*Driveway Setback from Intersecting Street[3]*
Expressway	*All*	*Refer to ODOT Access Spacing Standards*	*NA*
Major arterial	*Urban* *CBD*	*Refer to ODOT Access Spacing Standards*	
Minor arterial	*Urban* *CBD*	*500* *200*	*150* *100*

Roadway Functional Classification	*Area*[1]	*Minimum Public Street Intersection Spacing (Feet)*[2]	*Driveway Setback from Intersecting Street*[3]
Major collector	*All*	*400*	*150*
Minor collector	*All*	*300*	*100*

[1] *"Urban" refers to intersections inside the city urban growth boundary outside the central business district (C-3 zone).*

"CBD" refers to intersections within the central business district (C-3 zone).

"All" refers to all intersections within the Newberg urban growth boundary.

[2] *Measured centerline to centerline.*

[3] *The setback is based on the higher classification of the intersecting streets. Measured from the curb line of the intersecting street to the beginning of the driveway, excluding flares. If the driveway setback listed above would preclude a lot from having at least one driveway, including shared driveways or driveways on adjoining streets, one driveway is allowed as far from the intersection as possible.*

Finding: The submitted materials show the beginning of the proposed driveways on E Hayes Street as being greater than 150-feet from the curb line of the intersecting street, N Springbrook Road, a minor arterial.

This criterion is met.

3. Properties with Multiple Frontages. Where a property has frontage on more than one street, access shall be limited to the street with the lesser classification.

a. For a duplex, triplex or quadplex dwelling or a cottage cluster project with frontage on two local streets, access may be permitted on both streets.

Finding: The submitted materials show that the properties comprising the project site have frontages on E Hayes Street, a major collector and on N Springbrook Road, a minor arterial. Proposed driveways are shown only on E Hayes Street, the street with the lesser classification.

This criterion is met.

……...

T. Street Trees. Street trees shall be provided for all projects subject to Type II design review, partition, or subdivision. Street trees shall be installed in accordance with the provisions of NMC 15.420.010(B)(4).

Finding:

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

or
This criterion is not applicable.
or
This criterion is met.

U. Street Lights. All developments shall include underground electric service, light standards, wiring and lamps for street lights according to the specifications and standards of the Newberg public works design and construction standards. The developer shall install all such facilities and make the necessary arrangements with the serving electric utility as approved by the city. Upon the city's acceptance of the public improvements associated with the development, the street lighting system, exclusive of utility-owned service lines, shall be and become property of the city unless otherwise designated by the city through agreement with a private utility.

Finding: The submitted materials do not include street lighting along the project site street frontages meeting city standards.

An analysis of street lighting along Springbrook Road and Hayes Steet frontages demonstrating that the existing lighting along the project site's frontages meet city standards or plans to install additional PGE Option A streetlights necessary to meet City standards will be required with the public works improvements permit application.

Street lighting analysis will need to extend to the center line of the street for all frontages, unless otherwise coordinated with, or directed by, the City Engineer.

An analysis to determine, and address any potential lighting trespass onto properties on the west side of Springbrook will also be required.

Plans will be fully reviewed for compliance with city standards including the Public Works Design and Construction Standards as part of the permit plan review process.

Because the submitted materials do not address the need for possible permits from ODOT for installation of streetlights along the N Springbrook Road frontages, the applicant will be required to obtain any necessary ODOT permits to perform work within ODOT right-of-way. Any necessary ODOT permit are to be obtained and submitted as part of the public improvement permit process.

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

V. Transit Improvements. Development proposals for sites that include or are adjacent to existing or planned transit facilities, as shown in the Newberg transportation system plan or adopted local or regional transit plan, shall be required to provide any of the following, as applicable and required by the review authority:

1. Reasonably direct pedestrian connections between the transit facility and building entrances of the site. For the purpose of this section, "reasonably direct" means a route that does not deviate unnecessarily from a straight line or a route that does not involve a significant amount of out-of-direction travel for users.

2. A transit passenger landing pad accessible to disabled persons.

3. An easement of dedication for a passenger shelter or bench if such facility is in an adopted plan.

4. Lighting at the transit facility. [Ord. 2889 § 2 (Exh. B §§ 43 – 45), 12-6-21; Ord. 2880 § 2 (Exh. B §§ 51, 52), 6-7-21; Ord. 2871 § 3 (Exh. D), 3-1-21; Ord. 2862 § 1 (Exh. A § 1), 6-15-20; Ord. 2822 § 1 (Exh. A), 2-5-18; Ord. 2810 § 2 (Exhs. B, C), 12-19-16; Ord. 2763 § 1 (Exh. A § 19), 9-16-13; Ord. 2736 § 1 (Exh. A §§ 1, 3, 4), 3-21-11; Ord. 2619, 5-16-05; Ord. 2513, 8-2-99; Ord. 2507, 3-1-99; Ord. 2494, 4-6-98; Ord. 2451, 12-2-96. Code 2001 §§ 151.681, 151.683, 151.684 – 151.686, 151.689 – 151.692, 151.694, 151.695, 151.701 – 151.703, 151.705.]

Finding: The submitted materials do not include planned transit facilities, and none are required. The project site does not include and is not adjacent to existing or planned transit facilities.

This criterion is not applicable.

15.505.040 Public utility standards.
A. Purpose. The purpose of this section is to provide adequate services and facilities appropriate to the scale and type of development.

B. Applicability. This section applies to all development where installation, extension or improvement of water, wastewater, or private utilities is required to serve the development or use of the subject property.

C. General Standards.

1. The design and construction of all improvements within existing and proposed rights-of-way and easements, all improvements to be maintained by the city, and all improvements for which city approval is required shall conform to the Newberg public works design and construction standards and require a public improvements permit.

2. The location, design, installation and maintenance of all utility lines and facilities shall be carried out with minimum feasible disturbances of soil and site. Installation of all proposed public and private utilities shall be coordinated by the developer and be approved by the city to ensure the orderly extension of such utilities within public right-of-way and easements.

D. Standards for Water Improvements. All development that has a need for water service shall install the facilities pursuant to the requirements of the city and all of the following standards.

Installation of such facilities shall be coordinated with the extension or improvement of necessary wastewater and stormwater facilities, as applicable.

> ***1. All developments shall be required to be linked to existing water facilities adequately sized to serve their intended area by the construction of water distribution lines, reservoirs and pumping stations which connect to such water service facilities. All necessary easements required for the construction of these facilities shall be obtained by the developer and granted to the city pursuant to the requirements of the city.***
>
> ***2. Specific location, size and capacity of such facilities will be subject to the approval of the director with reference to the applicable water master plan. All water facilities shall conform with city pressure zones and shall be looped where necessary to provide adequate pressure and fire flows during peak demand at every point within the system in the development to which the water facilities will be connected. Installation costs shall remain entirely the developer's responsibility.***
>
> ***3. The design of the water facilities shall take into account provisions for the future extension beyond the development to serve adjacent properties, which, in the judgment of the city, cannot be feasibly served otherwise.***
>
> ***4. Design, construction and material standards shall be as specified by the director for the construction of such public water facilities in the city.***

Finding: The submitted materials show that the project site is served by existing public improvements. There is an existing 24-inch water main located along E Hayes Street. Water service stubs to the project site are shown connected to this water main. The preliminary plans do show new water connections to the public water line in E Hayes Street.

Because the has not submitted construction plans for the new water connections, the applicant is required to submit construction plans and obtain a public improvement permit for connection to the public water main for the proposed water services.

Plans will be fully reviewed for compliance with city standards including the Public Works Design and Construction Standards as part of the permit plan review process.

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

E. Standards for Wastewater Improvements. All development that has a need for wastewater services shall install the facilities pursuant to the requirements of the city and all of the following standards. Installation of such facilities shall be coordinated with the extension or improvement of necessary water services and stormwater facilities, as applicable.

> ***1. All septic tank systems and on-site sewage systems are prohibited. Existing septic systems must be abandoned or removed in accordance with Yamhill County standards.***

2. All properties shall be provided with gravity service to the city wastewater system, except for lots that have unique topographic or other natural features that make gravity wastewater extension impractical as determined by the director. Where gravity service is impractical, the developer shall provide all necessary pumps/lift stations and other improvements, as determined by the director.

3. All developments shall be required to be linked to existing wastewater collection facilities adequately sized to serve their intended area by the construction of wastewater lines which connect to existing adequately sized wastewater facilities. All necessary easements required for the construction of these facilities shall be obtained by the developer and granted to the city pursuant to the requirements of the city.

4. Specific location, size and capacity of wastewater facilities will be subject to the approval of the director with reference to the applicable wastewater master plan. All wastewater facilities shall be sized to provide adequate capacity during peak flows from the entire area potentially served by such facilities. Installation costs shall remain entirely the developer's responsibility.

5. Temporary wastewater service facilities, including pumping stations, will be permitted only if the director approves the temporary facilities, and the developer provides for all facilities that are necessary for transition to permanent facilities.

6. The design of the wastewater facilities shall take into account provisions for the future extension beyond the development to serve upstream properties, which, in the judgment of the city, cannot be feasibly served otherwise.

7. Design, construction and material standards shall be as specified by the director for the construction of such wastewater facilities in the city.

Finding: The submitted materials show that the project site is served by existing public improvements. There is an existing 8-inch wastewater line in E Hayes Street. Service laterals to the site are also shown. The preliminary plans do show new connections to the public wastewater system

Because the applicant has not submitted construction plans for the new wastewater connections, the applicant is required to submit construction plans and obtain a public improvement permit for connection to the public wastewater system for the proposed wastewater services. A manhole will be required at the connection to the public wastewater system.

The wastewater analysis of impacts to the wastewater system from the proposed development is required to be submitted with permit applications.

Plans will be fully reviewed for compliance with city standards including the Public Works Design and Construction Standards as part of the permit plan review process.

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

F. Easements. Easements for public and private utilities shall be provided as deemed necessary by the city, special districts, and utility companies. Easements for special purpose uses shall be of a width deemed appropriate by the responsible agency. Such easements shall be recorded on easement forms approved by the city and designated on the final plat of all subdivisions and partitions. Minimum required easement width and locations are as provided in the Newberg public works design and construction standards. [Ord. 2810 § 2 (Exhs. B, C), 12-19-16.]

Finding: The submitted materials show existing utility easements. The preliminary plans show construction activity occurring on an adjacent property, Tax Lot 2024 of Tax Map 3S2W16, east of the project site.

The applicant is required to provide recorded access and private utility easements necessary for work and private stormwater facilities shown on plans as occurring on adjacent property, Tax Lot 2024 of Tax Map 3S2W16, east of the project site. The necessary recorded easements are to be submitted during the Building Permit process and prior to occupancy.

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

15.505.050 Stormwater system standards.
A. Purpose. The purpose of this section is to provide for the drainage of surface water from all development; to minimize erosion; and to reduce degradation of water quality due to sediments and pollutants in stormwater runoff.

B. Applicability. The provisions of this section apply to all developments subject to site development review or land division review and to the reconstruction or expansion of such developments that increases the flow or changes the point of discharge to the city stormwater system. Additionally, the provisions of this section shall apply to all drainage facilities that impact any public storm drain system, public right-of-way or public easement, including but not limited to off-street parking and loading areas.

C. General Requirement. All stormwater runoff shall be conveyed to a public storm wastewater or natural drainage channel having adequate capacity to carry the flow without overflowing or otherwise causing damage to public and/or private property. The developer shall pay all costs associated with designing and constructing the facilities necessary to meet this requirement.

Finding: The submitted materials show that there will be a net increase in impervious area of more than 500-square feet. The applicant has proposed private stormwater facilities to meet stormwater management requirements.

Because there is a net increase of 500 square feet or more in impervious area, the applicant will be required to submit a stormwater report and plans for stormwater management that meet the requirements of Chapters 13.20 and 13.25 NMC and comply with the Public Works Design and

Construction Standards with the permit application. This includes compliance with Public Works Design and Construction Standards section 4.6.8 Facility Selection Hierarchy.

Plans will be fully reviewed for compliance with city standards including the Public Works Design and Construction Standards as part of the permit plan review process.

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

D. Plan for Stormwater and Erosion Control. No construction of any facilities in a development included in subsection (B) of this section shall be permitted until an engineer registered in the State of Oregon prepares a stormwater report and erosion control plan for the project. This plan shall contain at a minimum:

> ***1. The methods to be used to minimize the amount of runoff, sedimentation, and pollution created from the development both during and after construction.***
>
> ***2. Plans for the construction of stormwater facilities and any other facilities that depict line sizes, profiles, construction specifications, and other such information as is necessary for the city to review the adequacy of the stormwater plans.***
>
> ***3. Design calculations shall be submitted for all drainage facilities. These drainage calculations shall be included in the stormwater report and shall be stamped by a licensed professional engineer in the State of Oregon. Peak design discharges shall be computed based upon the design criteria outlined in the public works design and construction standards for the city.***

Finding: The submitted materials include a preliminary stormwater report and preliminary erosion and sediment control plans for the proposed project.

Because the applicant has not submitted a final stormwater report, the applicant will be required to submit a stormwater report and plans for stormwater management that meet the requirements of Chapters 13.20 and 13.25 NMC and comply with the Public Works Design and Construction Standards with the permit application. This includes compliance with Public Works Design and Construction Standards section 4.6.8 Facility Selection Hierarchy.

Plans will be fully reviewed for compliance with city standards including the Public Works Design and Construction Standards as part of the permit plan review process.

Because the proposed project will disturb more than 1 acre, the applicant will be required to obtain a DEQ 1200C permit and submit the approved DEQ 1200C Permit with permit applications.

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

E. Development Standards. Development subject to this section shall be planned, designed, constructed, and maintained in compliance with the Newberg public works design and construction standards. [Ord. 2810 § 2 (Exhs. B, C), 12-19-16.]

Finding: The submitted materials indicate that the development will to meet requirements of the Newberg Public Works Design and Construction A Standards.

Because the applicant has not submitted construction plans, construction plans which comply with the Newberg Public Works Design and Construction Standards shall be submitted with the public works improvement permit application.

Plans will be fully reviewed for compliance with city standards including the Public Works Design and Construction Standards as part of the permit plan review process.

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

Attachment 3: Public Comments

From: Ashton Livingston <oldmemea16@gmail.com>
Sent: Friday, December 13, 2024 3:07 PM
To: PLANNING
Subject: CUP24-0004 west branch apt. Comments

Categories: Jeremiah

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,

I am emailing in about the planned apartment complex being built across from the 99w drive in. This complex could be a big problem for the historic drive in.

I am the manager of the drive in and have been seeing a major uptick in traffic for the 99w this season. This season could very well have been one of our best.

With this proposed apartment complex, our screen could be even harder to see for our customers and travelers to newberg. This is how our business and a major landmark in newberg makes money and creates an amazing experience in newberg.

We would love for our 72nd season to be even better than our 71st, this light pollution would be a major detriment to our business.

Ashton T. Livingston
Manager of the 99w Drive In

From: Briar Smith <briar.r.smith@gmail.com>
Sent: Friday, December 13, 2024 2:45 PM
To: PLANNING
Subject: CUP24-0004 West Branch Apt. Comments

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.

To Whom It May Concern,

Subject: CUP24-0004 West Branch Apt. Comments

I am writing to express my concerns regarding the proposed 96-unit apartment complex planned for the space directly across from the historic Newberg Drive-In. As the last remaining drive-in theater in Oregon, this iconic venue holds significant cultural and community value, providing a unique gathering space for generations.

While I understand the importance of addressing housing needs in our area, I urge planners to prioritize considerations that ensure the long-term coexistence of the drive-in and the new apartments. Specifically, I propose the following:

1. **Lighting Considerations**: Ambient light pollution from windows, parking lots, and outdoor fixtures can harm the drive-in's viewing experience. Measures such as shielding outdoor lights, using lower-intensity fixtures, and equipping apartment windows with blackout

shades should be implemented to preserve the dark environment necessary for the drive-in to operate successfully.

2.

Noise Mitigation in Apartment Construction: The drive-in experience naturally includes loud audio to accommodate outdoor viewing. To avoid potential conflicts with future apartment renters, the apartment complex should incorporate soundproofing measures, such as thicker insulation, noise-canceling drywall, and acoustic windows. Proactive noise mitigation will reduce complaints and ensure that renters are aware they are moving near an active drive-in, which operates seasonally and serves as a vital community resource.

The Newberg Drive-In is not just a business; it is a cultural landmark and a testament to Oregon's rich history. Any new development near this cherished venue must respect its legacy and prioritize measures that will allow it to continue to thrive for generations to come.

Thank you for considering these recommendations. I trust that the planning process will reflect the community's commitment to preserving this irreplaceable institution.

Sincerely,
Briar Smith

3255 Latimer Rd
Tillamook Oregon, 97141
503-812-8427

We make the 2 Hour (each way) drive to the drive-in multiple times a season, and have made memories and traditions that will be passed on for generations to come. We are thankful for the Newberg drive-in making that possible.

From: Britt
Sent: Saturday, December 14, 2024 4:57 PM
To: PLANNING
Subject: CUP24-0004 West Branch Apt. Comments

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,
The 99W Drive In theatre will be adversely affected by the planned development. The drive in theatre is an important cultural landmark and I ask that at the very least lighting considerations be made. Ideally this space would be used for a different purpose, but it seems all open lots are going towards these massive box structures. Good city planning goes beyond filling lots to the highest bidder. The 99W Theatre is so important to families and generally the culture of Newberg. When I was a new mom it was something I could do with my baby that was low cost and something I could time with her nap. It's worth traveling for, and a place that keeps me going back to Newberg.
Thank you for your time.

From: cathie vacca
Sent: Sunday, December 15, 2024 10:39 AM
To: PLANNING
Subject: CUP24-0004 West Branch Apt. Comments

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.

To whom it may concern,

Please consider 99-W Drive-in when building the massive 96 unit building across the way. The drive-in is a historical gem that Newberg is well known for. It is the only drive-in close to the Portland Metro area and it needs to be preserved. Light pollution is already a main concern for the metro area for certain activities. Please consider all light pollution causing sources when designing and constructing this new unit to preserve the enjoyment of the historical drive-in. Please be mindful of the lighting coming from the building and external sources like parking lots or walkways, so as not to ruin this nostalgic, unique, and family experience enjoyed by so many in the Portland metro area. We would love to be able to fully partake and preserve this experience for decades to come.

Thank you,
Cathie Vacca

From: joy joy
Sent: Saturday, December 14, 2024 11:23 PM
To: PLANNING
Subject: “CUP24-0004 West Branch Apt. Comments

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.

Dear Sirs,
All cities struggle with growth and the need for more housing. As you consider improving Newberg by allowing this development, please remember that it is things like the drive-in that makes Newberg unique, fun, a place for families and draws in people from all over. Please make sure that the lighting issues are dealt with. There are not many places close to town for late night fun with your family or friends. Don't develop a dull, run-of-the-mill city. Keep the rarity of the drive-in.
Thank you,
Charlotte Smail
503-277-9774
McMinnville

From: Chelsea Fritzler
Sent: Sunday, December 15, 2024 5:48 PM
To: PLANNING
Subject: CUP24-0004 West Branch Apt. Comments

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.

Dear Planning Commission,

I am writing to express my strong opposition to the proposed 96-unit apartment complex near the 99W Drive-In and the Fernwood Grange #770. As a longtime supporter and admirer of the historic 99W Drive-In, I believe this project would have an incredibly negative impact on both the drive-in and our community.

The 99W Drive-In is an iconic and beloved piece of Newberg's history, and it has been a cornerstone of local culture for decades. The proposed development, with its associated traffic and lighting concerns, threatens to disrupt the drive-in's long-standing role as a cherished landmark. Specifically, the lighting from the complex could be particularly damaging, as it could interfere with the drive-in's outdoor cinema experience, which relies on dark skies and minimal light pollution.

Additionally, the planned road placement and increased traffic would put unnecessary strain on the surrounding area, including the Fernwood Grange #770, a historic building integral to our community. The road and its associated traffic will negatively affect not only the Grange but the character of the neighborhood as a whole.

I strongly urge you to reconsider this development and the negative consequences it could have on the historical and cultural fabric of our community. The 99W Drive-In and the surrounding areas hold immense significance, and we should work to preserve them for future generations.

Thank you for your time and attention to this matter. I look forward to seeing the voices of the community taken into account during the public hearing.

Sincerely,

Chelsea Fritzler

From: Cristal Rodriguez
Sent: Friday, December 13, 2024 9:04 PM
To: PLANNING
Subject: Stop Building

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,

I recently came across a post on Facebook about proposed 96 unit complex. I am writing to ask this not be continued. I grew up in Newberg and since I moved away and visit occasionally it is baffling and shocking to see how many homes have been built and how many trees have been torn down and how ugly (and poorly made) the new homes being constructed are.

I quite honestly have a difficult time understanding how all of this was approved in the first place. How do school's have the capacity to add so many more children? The Welfare system in Yamhill is drowning and Newberg is becoming a city where traffic is becoming more common and looking like Beaverton and bringing unsafe people in.

It'd be great if you could focus on preserving the historic buildings and allowing individuals (not big corporations) to buy land and build their home.

Driving through the Dundee Bypass and over those weird rectangular homes makes Newberg seem money hungry approving everyone and anyone who will pay to build.

It's sad to see Newberg losing greenery and replacing it with generic, ugly builds. Especially those 3 story rectangle homes where a large sectional wont even fit right.

Please don't be like the rest of the surrounding cities. Stop letting these corporations take over towns.

From: Cyndi White
Sent: Saturday, December 14, 2024 1:04 PM
To: PLANNING
Subject: CUP24-0004 West Branch Apt. Comments”

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.

We are asking that lighting considerations be made, including that which emits from windows and the parking lot. Ambient lights can be detrimental to drive-ins and will destroy this iconic and special business that enhances the community of Newberg. Please consider adjusting the lighting so that both can co-exist, the residents can enjoy more housing, and the drive in can continue to survive and hopefully even thrive. Let's not lose our beloved drive in.

From: Daniel Kiser
Sent: Friday, December 13, 2024 6:17 PM
To: PLANNING
Subject: CUP24-0004 West Branch Apt. Comments

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.

To whom it may concern,

As a customer of the 99W Drive-In, I request the city give special consideration to the requests of the 99W Drive-In with regards to the planned apartment complex next door. Yamhill County is extremely lucky to have one of the last remaining drive-in theaters in the state. Its value as a cultural and economic asset shouldn't be minimized and any risk this complex poses to its business (including ambient lighting) should be considered so that a mutually beneficial outcome is achieved.

Thanks,

Daniel Kiser
McMinnville, OR

From: Dave Ganslein <daveganslein@hotmail.com>
Sent: Friday, December 13, 2024 2:41 PM
To: PLANNING
Subject: CUP24-0004 West Branch Apartments Comments

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.

Greetings,

I oppose any development that jeopardizes the 99W drive in theater with ambient light pollution. Sources including light from apartment windows, security parking lot etc.
I'm sure I don't need to remind you the 99W drive in is a historic treasure and must not be jeopardized.

Seasons Greetings

Dave Ganslein
9009 NE Emerson St
Portland, OR
97220-4612

From: Denise Wolfe
Sent: Friday, December 13, 2024 6:12 PM
To: PLANNING
Subject: CUP24-0004 West Branch Apt. Comments”

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,

I am writing to request that the applicant and planning commission review the lighting plans to include lights that will not impact the 99W Drive In. This iconic landmark has been a part of our city/state for generations, and we must ensure that light pollution does not compromise its significance.

Sincerely,
Denise Wolfe
Concerned Citizen

From: Jessica Howard
Sent: Saturday, December 14, 2024 7:04 AM
To: PLANNING
Subject: CUP24-0004 West Branch Apt. Comment

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.

To the powers that be,

This new development will jeopardize the 99 drive in. Housing is essential but so is the ability for everyone in Newberg and the surrounding areas to enjoy life in all the fine ways, including enjoying a drive in movie from time to time. Very few drive ins remain. Please do not allow this development. There are plenty of other spaces to add homes. Even if its allowed and they work with the drive in about low lighting as to not disturb the movie, complaints of the noise and lights from the drive in by the residents may cause a shut down as it has for other drive ins across the country. This business deserves to continue without the worry of a brand new business putting them out. I urge you to do the right thing and put the 99w drive in first by rejecting this development and not giving them the opportunity to shut them down which is extremely likely to happen if you approve the complex. Thank you for your time and consideration.

Peacefully,
The Howard Family

From: Drake295
Sent: Saturday, December 14, 2024 1:31 PM
To: PLANNING
Subject: CUP24-0004 West Branch Apt. Comments

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,

Lighting considerations need to be made during construction of the West Branch Apartment Complex, for the Newberg 99W Drive In to be able to operate at full capacity. This Drive In is loved by many around the state, and sacrificing quality could have huge consequences.

The necessary updates include accounting for the light that emits from windows and lighting in the parking lot. Please include these considerations when building begins on the referenced complex.

Thanks,

Jeremy Drake

From: John Bartley <john.bartley@gmail.com>
Sent: Friday, December 13, 2024 4:14 PM
To: PLANNING
Subject: CUP24-0004 West Branch Apt. Comments

Categories: Jeremiah

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.

Drive-ins are a cherished institution under enormous pressure from NIMBY neighbors and the absurdly high cost of land.
Please preserve the Newberg Drive-In by requiring developers nearby to make entirely reasonable and inexpensive limits on their lighting.
-- --
73/Best regards de John Bartley K7AAY CN85oj @503bartley.bsky.social

From: Jonathan Carpenter <jcarpenter788@gmail.com>
Sent: Friday, December 13, 2024 3:09 PM
To: PLANNING
Subject: CUP24-0004 West Branch Apt. Comments

Categories: Jeremiah

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.

Good afternoon,

As a frequent patron of the 99W drive-in I must comment on the proposed apartment complex adjacent to the drive-in. Light emitted from that apartment complex, especially from a parking lot and unit windows, would be detrimental to the business of the drive-in, and consideration should be made to minimize the impact of the complex on its proposed neighbors' ability to run their business. Thank you.

- Jon Carpenter

From: Julie Baumler
Sent: Friday, December 13, 2024 6:21 PM
To: PLANNING
Subject: CUP24-0004 West Branch Apt. Comments

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 -

I am writing to you because I am concerned that these apartments could have lighting that would interfere with the 99W Drive-in. The drive-in is a treasure not just to Newberg but to this entire region of Oregon. I travel to Newburg for the drive-in and in the process shop and dine elsewhere in town. Please ensure that ambient lighting from the complex is appropriately controlled to allow all of us to continue to enjoy the drive-in.

Juli Baumler
Eugene, OR

From: Justin Moss
Sent: Friday, December 13, 2024 7:40 PM
To: PLANNING
Subject: CUP24-0004 West Branch Apt. Comments

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.

Good Day Newberg Planning Team,

Writing to request your rejection of the proposed complex of the West Branch apartment proposal.

I am a homeowner in the city of Newberg and I do not support this proposal. I see 3 primary justifications:

1. No benefit to Newberg residents
    a. Is there any evidence to support additional apartments will significantly reduce rent for Newberg residents?
    b. Is there any evidence to support that a significant portion of tenants will be Newberg residents?
    c. The proposal appears to have little to no value added for Newberg residents.
2. Increased traffic
    a. Increasing housing will increase traffic
    b. Are there any required infrastructure developments to support increased traffic?
    c. Will maintenance be increased to compensate for increased wear?
    d. It appears we are already resource constrained in road maintenance with the existing traffic/loads.
3. Impact to 99W Drive-In and Fernwood Grange?
    a. How will we ensure these community pillars are not impacted and may continue unimpeded operation?
        i. From the apt. complex as well as any necessary infrastructure changes.
    b. What is the plan from the city to address friction between land uses in this area when they arise?

Thank you for evaluating these considerations.

Best regards,
Justin

From: Karina Pickett
Sent: Saturday, December 14, 2024 10:22 PM
To: PLANNING
Subject: CUP24-0004 West Branch Apt. Comments

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.

Good evening City of Newberg,

There is a new 96-unit apartment complex planned for a space directly across from the drive-in in Newberg. Please consider the lighting, including that which emits from windows and the parking lot. Ambient lights can be detrimental to drive-ins. Additionally, the possible complaints from the tenants for the lighting at the drive in.

As Newberg has one of the last drive-ins in Oregon, and a bit part of my summer's growing up and still to this day, please do not build the complex. Please protect the drive in.

Thank you,
Karina Pickett

From: Kevin Williams
Sent: Saturday, December 14, 2024 5:33 PM
To: PLANNING
Subject: CUP24-0004 West Branch Apt. Comments

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.

Building this apartment complex is a gross and unethical decision. Nobody wants that. Leave the land alone. Profits shouldn't supercede local businesses, land, or culture. Thank you.

From: Kristina Ernstrom <plaid.chick@gmail.com>
Sent: Friday, December 13, 2024 3:14 PM
To: PLANNING
Subject: Apartment Spring Brook &Hayes

Categories: Jeremiah

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.

I am tired of all these new homes and apartments going in, but none of them are supporting the local wage earners.

What I mean is the resident here living in Newberg, Dundee, or any other close towns are not making enough to accommodate these asking prices. What these new homes and apartments are doing is being used to bring in higher wage earner that are supporting other economies, and driving up the price of homes which then is driving out your base workers. Instead we need to be looking at options that will serve the lower wage earners to support them staying in this area. Especially as most if not all of the are supporting the local economy on a daily basis.

From: krystallica a
Sent: Saturday, December 14, 2024 2:06 PM
To: PLANNING
Subject: CUP24-0004 West Branch Apt

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.

There is a new 96-unit apartment complex planned for a space directly across from the drive-in. I am asking that lighting considerations be made, including that which emits from windows and the parking lot. Ambient lights can be detrimental to drive-ins. This is a huge staple in our community for recreational use. Beloved by many. Please take great care in future planning. The apartments could be highly sought-after if done correctly and the drive in is not affected. Thank you.

~Thank you .

From: lily Ritsema <lily_reza@outlook.com>
Sent: Friday, December 13, 2024 2:16 PM
To: PLANNING
Subject: CUP24-0004 West Branch Apt. Comments

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.

We are asking that lighting considerations be made, including that which omits from windows and the parking lot. Ambient lights can be detrimental to drive-ins; please consider the 99 Newberg Drive In when/ how apartments are designed to keep a historical and cherished Drive in.
~Thank you.

Sent from my T-Mobile 5G Device
Get Outlook for Android

From: Molly Parmer <missmollyo@msn.com>
Sent: Friday, December 13, 2024 3:56 PM
To: PLANNING
Subject: Apartments in Newberg

Categories: Jeremiah

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.

Hi, my name is Molly and I just wanted to bring up issues with lighting if you put an apartment complex in on Springbrook Rd and Hayes.

There are only 4 drive ins open in the state of Oregon and we hope you consider lighting with this project if it goes through so you don't bring the total Oregon Drive ins down to 3. The city does not need yet ANOTHER apartment complex and we don't need to take away the nostalgia of this city. I've watched movies when the people next to me came down from Battleground WA or over from Damascus OR.

The city loves this drive in so much that they got the new dolby digital system free from Honda because of how many votes they got to keep it open. That vote was for the whole country, not just Oregon. Please don't let another drive in go dark.

Sincerely, Molly
Sent from my T-Mobile 5G Device
Get Outlook for Android

From: morgan miller
Sent: Friday, December 13, 2024 7:23 PM
To: PLANNING
Subject: Cup2024-0004 west branch apartment comments

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.

In regards to the new apparents being planed by the Newberg drivin. I fully support their out door lighting limitation request. My family lives outside the Newberg city limits, but we attended 2-5 drive in shows a year. For each show we stop at the food cart pod in Newberg on hwy 99 and pick up dinner. I know this is a drop in the Newbergs economic bucket. However I think small drops is how buckets are best filled.
As small drops effectively fill buckets for good, small cuts can have a similar negative impact on existing entities. Please dont cut into the drive in experience by allowing new light to drowned out the shining light that is the drive in!
-Morgan Miller

From: Patti Hall
Sent: Saturday, December 14, 2024 8:09 AM
To: PLANNING
Subject: CUP24-0004 West Branch Apt. Comments

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.

I have lived and ran my business in Newberg for over 20 years, and many come to Newberg TO the Drive-In Just for the Drive in due to the nostalgia and being one if not the only drive in within Oregon.

The intersection and area for this apartment project would bring lights that would be detrimental to their business. We need to support small businesses in Oregon because there is a LACK of support and causes small businesses to close.

That area as well cannot support the traffic that is already heavy due to turning left from 99W on Springbrook to get to the Bi-pass. and the back up coming from 219 to go to 99W at many times of the day you can't even get out of the Fred Meyer parking lot due tol lines of traffic stopped in front of their exit/entrance.

There are over 400 apartment units going in across from Newberg Cristian Church and there are better locations for apartments.
I am all for supporting SMALL BUSINESS and these apartment complexes like this one to be thought out in better location... It's NOT always about the MONEY to these apartment owners,, think of the Community!

Pat Hall
The Leather Lady, LLC

From: Quanah Polichetti
Sent: Monday, December 16, 2024 6:43 AM
To: PLANNING
Subject: CUP24-0004 West Branch Apt. Comments

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.

To whom it may concern,

I'm not happy with recent city planning decisions. Traffic this project would cause to an already congested part of town is not okay. The light pollution this would cause to two historic building places, The Grange 770 and the 99W Drive In, is not okay.

96-unit apartment complex planned for a space directly across from the drive-in. Where are the lighting considerations? Ambient lights can be detrimental to drive-ins. The 99W drive In is part of what makes this City an attractive place to live. Please don't destroy it! It's part of this City's charm.

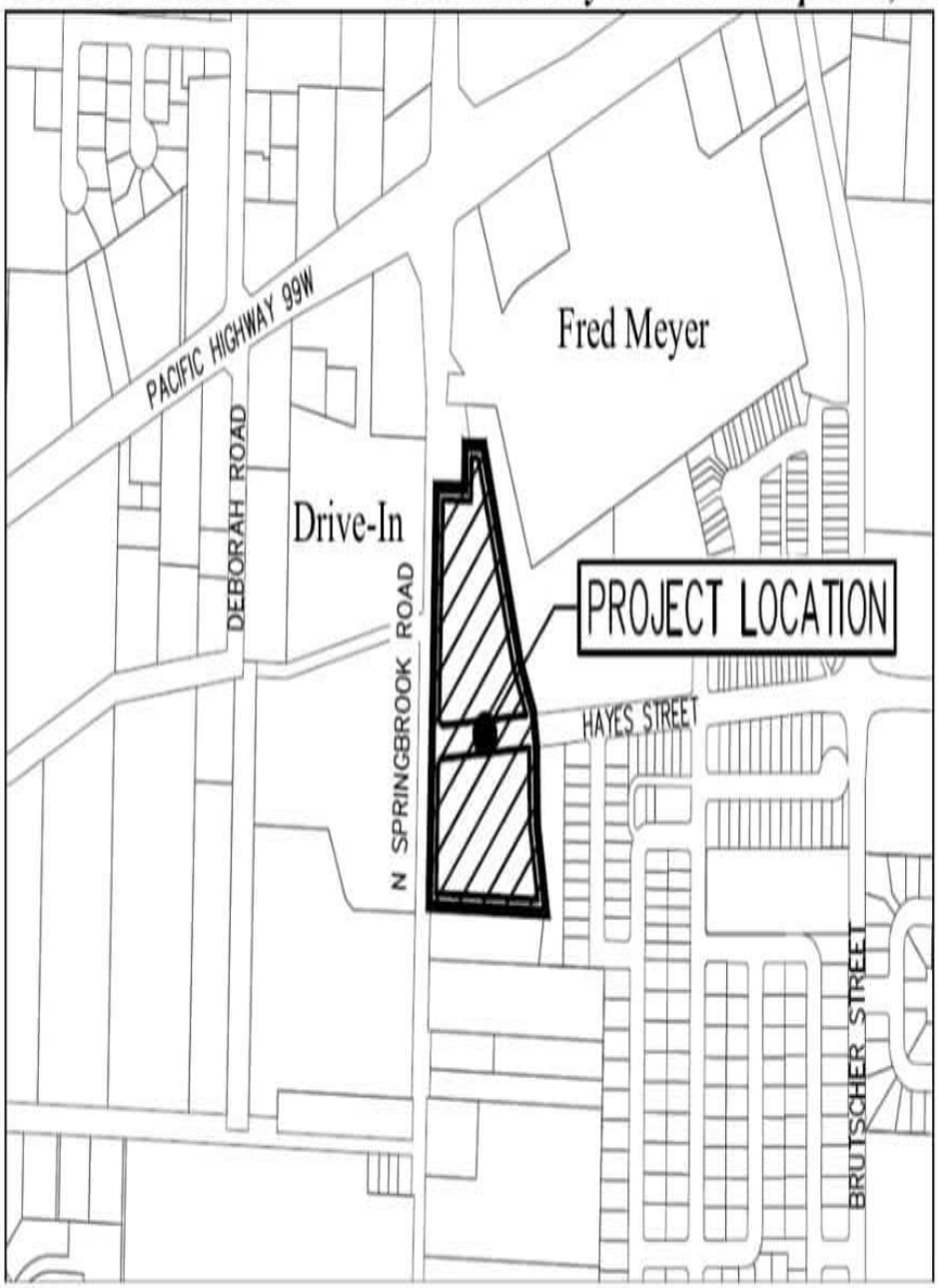
As a resident of Newberg, since 2016, I do not consent to this project.

Best Regards,

Quanah Polichetti

LOCATION: *3411 E Hayes Street, Newberg, OR 97132*

TAX LOT NUMBER: *Yamhill County Assessor's Map 3216, Tax Lots 2017*



Yahoo Mail: Search, Organize, Conquer

From: Rachel Stewart <curlycue1987@gmail.com>
Sent: Friday, December 13, 2024 9:41 PM
To: PLANNING
Subject: File No. CUP24-0004 West Branch Apartments

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.

To Whom It May Concern,

The 99W Drive In is a long time historical meeting spot for generations and generations to enjoy cinematic presentations out doors. There are only a few of them left in our nation. Families from all walks of life have enjoyed and continue to share that love with their newer members. The warm sticky nights filled with hot buttery popcorn, a cold drink, sound of crickets, and the big screen with family surrounding you is an experience that can only be enjoyed by this historical outdoor theater.

The addition of this apartment complex poses astounding problems for 99W Drive In, the future residents, and the wildlife. 99W Drive In needs particular lighting for the outdoor venue to be enjoyable and therefore it's continued success. The porch lights, living room lights, and the parking lot lights are all needed for safety at the complex. However, those lights would ruin the viewing on the big screen making watching the movie hard to do. Sound proofing would probably need to be added to the outer walls and windows of the complex. The sounds of the Drive In would disturb those attempting to have a quiet evening at home or going to bed early. This would not be conducive otherwise. Developing the land that this complex is destined to utilize would severely damage the wildlife population and disrupt water drainage. The development of this complex seems more trouble than it's worth. Please, consider alternatives and amendments to save the 99W Drive In and the local fauna!

Sincerely,
Rachel Stewart

From: Ruth Moser <ruth.moser76@gmail.com>
Sent: Friday, December 13, 2024 4:40 PM
To: PLANNING
Subject: Building proposal across from drive in

Categories: Jeremiah

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.

To whom it may concern,

As a resident of this city, a homeowner and taxpayer, I am writing to voice my concern about building in the wetlands across from the drive in. This should have never been approved. This is a disgusting misuse of land, and detrimental to the city and what little is left of the springbrook which the street is named after. The city currently is growing and cutting down the small number of trees all through town, when will the city have some regard for the environment we live in? There is already a number if approved building locations with housing of all kinds in the works, why here too? I will come to the meeting in January to personally voice my concerns. What a terrible location for yet even more apartments, how is springbrook supposed to handle the overload? I am so disappointed in the city planning or lack thereof.

Ruth Moser
3305 E Vittoria Way #13 and #28
Newberg
Chehalem Townhouse Association President

From: ShaeLee Grumazescu
Sent: Friday, December 13, 2024 6:24 PM
To: PLANNING
Subject: CUP24-0004 West Branch Apt. Comments

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.

To whom it may concern,

I am writing to request the proposed apartment complex being built directly across from the 99W drive-in be built with care and consideration for the landmark facility that is the drive in.

Ambient lighting highly affects drive ins and I would hate to see traffic to it lessen and lead to its closing. This is such an integral part of the community and surrounding cities, not just Newberg. But it is important to me and those like me, born and raised here, with families here for generations to keep this place here for a long time to come.

I ask that lighting considerations be made, including that which omits from any and all windows and the parking lots at this complex to the degree that will suit and not negatively impact the drive in.

Thank you

Sincerely,

ShaeLee Grumazescu

From: Stephanie Barnett
Sent: Friday, December 13, 2024 6:34 PM
To: PLANNING
Subject: CUP24-0004 West Branch Apt. Comments

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

I am emailing in regard to the proposed West Branch Apartments and the potential impact of them on the 99W drive in. I am asking that those in charge of planning and development will take into account and plan for the possible detrimental effects of the ambient lighting on the drive in theatre. The 99w drive in is a beloved institution in Newberg and beyond and should be protected and preserved.

Sincerely

Stephanie Barnett

Sent from my iPhone

From: Michele Warther <michele.warther@gmail.com>
Sent: Friday, December 13, 2024 2:35 PM
To: PLANNING
Subject: CUP24-0004 West Branch Apt. Comments

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.

I'm concerned about the potential impact of lighting from the proposed 96-unit apartment complex on the operations of the 99W Drive-In Theater, located directly across the street.

Drive-in theaters rely heavily on minimal ambient light to provide a quality viewing experience for patrons. Excessive lighting from windows, parking lots, and other sources can significantly diminish the visibility of the movie screen and negatively impact the enjoyment of the drive-in experience.

The 99W Drive-In Theater has been a beloved community asset since 1953. It has faced numerous challenges, including transitioning from film to digital projection. Therefore, it is crucial to ensure that the proposed apartment complex's development does not inadvertently jeopardize the continued operation of this valuable local entertainment venue.

Therefore, I respectfully request that the Zoning Board carefully consider the following lighting considerations during the planning and approval process:

- Minimize window lighting: Implement design measures to minimize light emission from apartment windows, such as using blackout curtains or light-filtering window treatments.
- Control parking lot lighting: Utilize shielded fixtures and directional lighting to direct light downwards and minimize spillover onto the drive-in property. Consider using low-glare, warm-colored LED lighting.
- Conduct a lighting study: A professional lighting study should be conducted to assess the potential impact of the proposed lighting scheme on the drive-in's operations and to identify potential mitigation measures.

With careful planning and consideration, developing the proposed apartment complex while minimizing its impact on the 99W Drive-In Theater is possible. I urge the Zoning Board to prioritize these lighting considerations to ensure the continued success of this important community asset.

Thank you for your time and attention to this matter.
The Warther Family

From: Lia G
Sent: Monday, December 16, 2024 4:27 PM
To: PLANNING
Subject: CUP24-0004 West Branch Apt. Comments

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.

The apartments, if not built with lights that are considerate to the local drive in, are I'll ruin my family's place or joy.. I have been going there as a child. I'd hate to see this complex ruin my family spot.

From: leslie lukas-recio
Sent: Wednesday, December 18, 2024 4:17 PM
To: PLANNING
Subject: CUP24-0004 West Branch Apt. Comments

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.

To Whom it May Concern;

I would like to submit a comment to be considered with the proposal of this new development. I reside at 3411 E Hayes St. Apt. 422 Newberg OR 97132.

My home overlooks the proposed area. While I understand and agree that our community needs more housing I would love for the developers to consider some ecological options when developing the site. We overlook the creek and the wetland/floodplain area at the base of the development site. On a daily basis we watch the many songbirds, herons, owls, Bitterns, beaver, cotton tails, chipmunks and other wildlife that frequent the small area. They utilize the many native plants, snags, reeds and sedges as their home. It is a gift to have such natural beauty in a small urban area.

I read the biologist's synopsis and it sounds like they either didn't spend much time in this small place or only saw what they wanted to see. They said the stream was seasonal, it is not and that it was upland (the top part of the property is but not the bottom wetland I am referring to.) This is such a wonderful thing for our community to have, it will be such a draw for the new development. I know they do have plans for keeping many of the large trees intact as well as doing some landscaping with native plants but I would like them to do more. I am not asking for major alterations, just some thought to thinks such as perhaps more permeable surfaces rather than asphalt or concrete for the areas that boarder the creek area, wildlife friendly lighting or even working with Dark Sky for the areas around and within the development (DarkSky International | Protecting the night skies for present and future generations). Alternative options to turf grass like native wildflower upland grasses would be incredible. There are so many partnerships that would make this development ahead of its time ecologically speaking (Yamhill County Soil and Water Conservation District, Xerces Society) This would not only be a benefit to our community but to the development and the residents within.

Any thought and consideration to our small yet beautiful "wild space" within Newberg and our neighborhood would be so worthwhile and appreciated.

Please take this into consideration, we all know we need more space for our community to live and thrive, please consider our wild community members both plant and animals in the development plans.

Thank you,
Leslie Lukas-Recio
5035777953
Sent from Mail for Windows

From: Kristen Russom
Sent: Thursday, December 19, 2024 5:22 PM
To: PLANNING
Subject: CUP24-0004 West Branch Apt. Comments

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.

I am writing as a citizen of Newberg who loves her town and wants to see what is good about it preserved. Please don't build an apartment complex by the drive-in theater. It would be such a blow to those of us who care about our community. The owners of the drive- in, who are good and faithful residents of this town, have made it clear how hard it would be on their business. It would also be a bad decision in regards to The Grange, which is where my son takes his fencing class, and it's such a beautiful old building. This is to say nothing of the traffic issues that already exist in this part of town. The thought of risking the good of these two properties for yet another apartment complex would surely show that money has become more important to the powers that be in this town than the quality of life for the residents of Newberg. Please make the right decision for Newberg!
Sincerely,
Kristen Russom

From: Ron James
Sent: Saturday, December 28, 2024 12:20 PM
To: PLANNING
Subject: CUP24-0004 West Branch Apt. Comments

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.

Dear City Planners
Please add our names to the large number of commenters **opposed to the subject project, as proposed.**

Our primary concerns relate to lighting and traffic.

The impact of ambient light on the operations of the historic 99W Drive-In has been well--addressed in previous submittals. The fact that the proposed apartment structures would be high-profile (three stories) makes the impact particularly severe.

In reading the traffic study produced for this project, the only recommended mitigation seems to be payment of $2700 +/- into a central fund which may be used someday for a signal at the intersection of Springbrook and Haworth. Although the fee amount may be derived from established guidelines, a project of this large scope (96 apartment homes) so close to an already congested portion of 99W within our city, seems to call for a more significant mitigation than $28 +/- per unit.

We appreciate your consideration of these and all the other comments.

Ron and Pat James
Newberg OR

Attachment 4: Historic Site Record - 99W Drive-in Movie Theatre (Oregon State Historic Preservation Office)

Oregon Historic Site Record

LOCATION AND PROPERTY NAME

address:	3110 Portland Rd Newberg, Yamhill County	**historic name:**	99W Drive-In Theatre
		current/other names:	99W Twin Cinemas/Drive-In
assoc addresses:		**block/lot/tax lot:**	
location descr:		**twnshp/rng/sect/qtr sect:**	3S 2W 16

PROPERTY CHARACTERISTICS

resource type:	site	**height (stories):**	1.0	**total elig resources:**	6	**total inelig resources:**	0
elig evaluation:	eligible/significant			**NR Status:**	Individually Listed		
prim constr date:	1953	**second date:**	c.1983	**date indiv listed:**	07/11/2014		

primary orig use:	RECR/CULTURE: General	**orig use comments:**	Drive-in
second orig use:			
primary style:	Modern Period: Other	**prim style comments:**	
secondary style:		**sec style comments:**	
primary siding:	Unknown	**siding comments:**	
secondary siding:			
plan type:		**architect:**	J.T. (Ted) Francis
		builder:	

comments/notes:

Owner interested in listing 03/15/11 (ck)

GROUPINGS / ASSOCIATIONS

Not associated with any surveys or groupings.

SHPO INFORMATION FOR THIS PROPERTY

NR date listed:	07/11/2014	106 Project(s)		**Special Assess Project(s):**	None
ILS survey date:		**SHPO Case**	**Date** / **Agency Effect Eval**		
RLS survey date:		07-0352	10/11/2011	**Federal Tax Project(s):**	None

ARCHITECTURAL / PROPERTY DESCRIPTION

(Includes expanded description of the building/property, setting, significant landscape features, outbuildings and alterations)

The 99W Drive-In Theatre is a single-screen drive-in theater with spaces to accommodate 275 to 300 cars (note that an indoor theater with two screens is also located on the parcel). The theater is a distinct property type of the Modern era which, in this case, displays modest influences of the Googie style. The elements direct the user to and into the site, setting the tone for the outdoor movie experience. The other buildings and structures are more utilitarian, supporting the functions of the theater. The theater was built by J.T. (Ted) Francis and opened July 31, 1953. The sign, ticket booth, projection booth, and concession stand are all original to the theater grounds, which cover approximately 4.5 acres. The drive-in is presently on its third screen. Although the drive-in has remained at the same location since 1953, the boundaries of the city of Newberg have changed. In 1953 the eastern city limit of Newberg was at Villa Road, leaving the 99W Drive-In Theatre about three-quarters of a mile outside the city limits. Today the city limit has advanced a half-mile further east, past the drive-in (to where the Newberg Ford and the Providence Hospital are now located), putting the 99W well within the city limits. The entrance is still on Portland Road but originally the entrance drive was just past the east side of the marquee. The driveway entrance was moved to the west side of the marquee when a traffic light was installed at the Portland Road/Springbrook Road intersection in the 1960s. The drive-in exit remains on North Springbrook Road. There are six contributing resources on the site: the drive-in sign, parking area, screen, ticket booth, maintenance shop, and the projection booth/concessions building/Twin Cinemas. The buildings lie on the northeastern portion of the property while the screen is to the southwest. The primary parking area is between the screen and the buildings.

HISTORY

(Chronological, descriptive history of the property from its construction through at least the historic period - preferably to the present)

The 99W Drive-In Theatre in Newberg, Oregon, which opened July 31, 1953, is eligible for listing in the National Register of Historic Places under Criterion A, ENTERTAINMENT/RECREATION, as a drive-in movie theater reflecting family entertainment trends in the post-World War II era. It also is eligible under Criterion C, ARCHITECTURE, as a rare, remaining, intact example of a drive-in theater. It is one of three remaining drive-ins in Oregon, and the only one extant in Yamhill County. This specific drive-in theater strongly represents the drive-in phenomenon from its rise to its decline, which occurred commensurate with the rise of home entertainment systems. It has been in continual operation from the time it opened, adapting to new entertainment trends over the years. As an important example of mid-century entertainment and car culture, the 99W Drive-In Theatre is a property that reflects the values of its time and continues to function as originally designed. It retains all the components of the property type, expressed in a Modern design with modest Googie-style elements, also a product of the times. Criterion A: Entertainment/Recreation The 99W Drive-In Theatre represents a type of mid-century entertainment that reflects the car culture of the period, consistent with the family-oriented values of the generations it attracted. The 99W Drive-In Theatre was part of a period of explosive growth in the industry in the post-World War II era, followed by a decline in the 1970s and 1980s that put many drive-ins - but not the 99W Drive-In Theatre - out of business. The history of this family-owned theater in Newberg, Oregon, is the local version of a national trend. Through its high integrity of design and function it is able to convey this history. Criterion C: Architecture As one of three extant drive-in theaters in Oregon, the 99W Drive-In Theatre is a rare remaining example of this property type, as well as being an excellent example of mid-20th century styling that reflects modest Googie elements within a Modern building complex. It was built by the Francis family. The buildings and structures were designed to draw people into the drive-in theater and create a unique experience for the audience. Style is not the only significant aspect of the drive-in; function also plays a large role. For example, the form of the 99W Drive-In Theatre sign is designed to draw the eye towards the 99W, and the use of mounds to raise the front of vehicles for better viewing of the movie is a functional component of the design. The integrity of the drive-in and its landscape features greatly enhance its significance, making the 99W Drive-In Theatre an excellent example of drive-in theater.

RESEARCH INFORMATION

Title Records	Census Records	Property Tax Records	✓ Local Histories
Sanborn Maps	Biographical Sources	✓ SHPO Files	✓ Interviews
Obituaries	✓ Newspapers	State Archives	✓ Historic Photographs
City Directories	Building Permits	State Library	

Local Library:		**University Library:**	
Historical Society:		**Other Respository:**	

Bibliography:

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Fe Bates

To: Rachel Thomas
Subject: RE: Form submission from: Public Comment for City Meetings

From: Newberg Oregon <newberg-or@municodeweb.com>
Sent: Monday, January 6, 2025 2:29 PM
To: City Recorder <cityrecorder@newbergoregon.gov>
Subject: Form submission from: Public Comment for City Meetings

Submitted on Monday, January 6, 2025 - 2:28pm

Submitted by anonymous user: 50.38.18.92

Submitted values are:

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) **Thu, 01/09/2025**
Please let us know the agenda item you will be speaking on, otherwise it will be submitted as a general comment. **CUP24-0004/DR224-0006/MISC124-0018 West Branch Apartments (Corner of Springbrook and Hayes)**
If you do not have a specific agenda item on which to testify/comment, please identify the subject matter you will comment on. **I appose the entire project**
Name **Stephen Brunner**
Representing (optional, include if speaking on behalf of a third party) **Fernwood grange**
Email Address stephenlbrunner@aol.com
Phone Number (optional)
Do not release my contact information in a public records request **No/No**
Is this a public hearing? **Yes/Sí**
If this is a public hearing, please choose one of the following **Opponent (against)/Oponente (contra)**
Mailing Address (optional for general meetings,required for land use hearings) **1102 N Springbrook RD #188 Newberg or 97132**
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.

The results of this submission may be viewed at:

https://www.newbergoregon.gov/node/28961/submission/28114

Fe Bates

To: Rachel Thomas
Subject: RE: Form submission from: Public Comment for City Meetings

From: Newberg Oregon <newberg-or@municodeweb.com>
Sent: Thursday, January 2, 2025 2:11 PM
To: City Recorder <cityrecorder@newbergoregon.gov>
Subject: Form submission from: Public Comment for City Meetings

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.

Submitted on Thursday, January 2, 2025 - 2:10pm

Submitted by anonymous user: 149.22.84.75

Submitted values are:

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) **Thu, 01/09/2025**
Please let us know the agenda item you will be speaking on, otherwise it will be submitted as a general comment. **West Branch Apartment complex proposal**
Name: **Sonia I French**
Representing (optional, include if speaking on behalf of a third party): **Fernwood Grange #770 and myself and citizen**
Email Address: french.sonia@comcast.net
Phone Number (optional): **503-235-3038**
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 : **Opponent (against)/Oponente (contra)**
Mailing Address (optional for general meetings,required for land use hearings): **1005 S Wynooski St, Apt 4, Newberg, OR. 97132**
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.

The results of this submission may be viewed at:

PLANNING COMMISSION WORK SESSION
ON MAINTENANCE AMENDMENTS TO NEWBERG MUNICIPAL CODE, TITLE 15 DEVELOPMENT CODE, AND CORRESPONDING AMENDMENTS TO TITLE 5 BUSINESS LICENSE REGULATIONS

HEARING DATE: January 9, 2024

FILE NO: DCA24-0002 Development Code Maintenance

APPLICANT: City of Newberg

RECOMMENDATION: Conduct a public hearing and approve Resolution 2025-398

EXHIBITS:

A. Planning Commission Resolution 2025-398
   A-1 Development Code Maintenance Amendments
   A-2 Legislative Findings

B. Native Plant Guide (Linn SWCS, 2005)

C. Expirations and Extensions Analysis

D. Code Maintenance Standard Operating Procedures

A. SUMMARY AND BACKGROUND

On January 9, 2025, the Planning Commission will conduct a legislative public hearing and consider recommending City Council approval of the Community Development Department's proposed 2024 Code Maintenance Amendments (DCA24-0002). Code Maintenance is a significant project in the 2024 Planning Division Work Program approved by City Council.

Code maintenance is intended to clarify and improve predictability and efficiency in the permit process through corrections, clarifications, and formatting changes to existing regulations, and code changes to maintain compliance with state and federal law. Maintenance amendments may also include minor policy changes to improve customer service and operational efficiency. Code maintenance does not include major policy changes. See Exhibit D, Code Maintenance Standard Operating Procedures.

The code amendments in Exhibit A-1 were identified by staff through application of the development code and customer feedback, and are intended to implement City Council's Goal to, "Create and maintain a high level of customer service." The proposal also addresses changes in state land use laws, including Oregon Revised Statutes (ORS), Chapter 222, relating to annexations, ORS 197.797 Local quasi-judicial land use hearings, ORS 227.175 Permit or zone change applications, and ORS 197.307(4) requiring clear and objective standards for housing.

B. PROCESS

The proposed amendments to Title 15 (Development Code) of the Newberg Municipal Code (NMC), presented in Exhibit A-1, are being processed as a Type IV (Legislative) application following the procedures in NMC 15.100.060, as follows ***[emphasis added]:***

> *A. Type IV Actions Are Legislative. The planning commission shall hold a public hearing and make a recommendation to the city council. The city council shall hold another public hearing and make a final decision.*
>
> *B. Legislative actions include, but are not limited to:*
>
> *1. Amendments to the Newberg comprehensive plan text;*
>
> ***2. Amendments to the Newberg development code;***
>
> *3. The creation of any land use regulation.*
>
> ***C. The public hearing before the planning commission shall be held in accordance with the requirements of this code. Notice of a hearing on a legislative decision need not include a mailing to property owners or posting of property (refer to NMC 15.100.200 et seq.).***
>
> *D. Interested persons may present evidence and testimony relevant to the proposal. If criteria are involved, the planning commission shall make findings for each of the applicable criteria.*
>
> *E. The city council shall conduct a new hearing pursuant to this code. At the public hearing, the staff shall present the report of the planning commission and may provide other pertinent information. Interested persons shall be given the opportunity to present new testimony and information relevant to the proposal that was not heard before the planning commission.*
>
> *F. To the extent that a finding of fact is required, the city council shall make a finding for each of the applicable criteria and in doing so may sustain or reverse a finding of the planning commission. In granting an approval, the city council may delete, add, or modify any of the provisions in the proposal or attach certain conditions beyond those warranted for the compliance with standards if the city council determines that the conditions are necessary to fulfill the approval criteria.*

G. The city council's decision shall become final upon the effective date of the ordinance or resolution.

As detailed above, the Planning Commission will hold a public hearing on the application and make a recommendation to the Newberg City Council based on findings that the proposal meets all applicable criteria. For this Type IV application, the applicable criteria are contained in Statewide Planning Goals, the Newberg Comprehensive Plan, and the above referenced code.

Following the Planning Commission review, City Council will hold its own legislative public hearing to consider the amendments. Proposed Planning Commission findings are provided in Exhibit A-2.

Key dates for this application follow:

11/14/2024	*Planning Commission Work Session (complete)*
12/05/2024	*DLCD 45-day notice prior to first hearing (complete)*
12/12/2024	*Planning Commission Continued Work Session (complete)*
01/09/2025	**Planning Commission Public Hearing**
02/02/2025	City Council Work Session
02/17/2025	City Council Public Hearing - First Reading
03/17/2025	City Council Public Hearing – Second Reading

C. **DISCUSSION:** The proposed Development Code Maintenance Amendments in Exhibit A-1 are summarized and indexed in Tables 1 through 5, beginning on page 4.

D. **STAFF RECOMMENDATION:** Conduct a legislative public hearing and approve Resolution 2025-398.

Table 1: NMC 15.100 - Procedures and General Provisions (Package 1 of 5)

NMC 15.100	*Pages*	*Topic*	*Code Maintenance Purpose*
15.05.030	3	Definitions	Building code consistency for exempt accessory structures, and clarification of "interior yard".
15.100.020	4	Type I Procedure for Manufactured Homes	Comply with ORS 197.307(8) for review of manufactured dwellings.
15.100.160	4-5	Appeals	Clarify appeals of historic resource related decisions reviewed by Historic Preservation Commission. Middle Housing Land Division appeals must be filed within 14 days and follow ORS 197.375. Change "may" to "must" for meeting appeal filing deadlines. Clarify appeals of Type III decisions are reviewed by City Council.
15.100.180	5	Appeal Scope of Review	Clarify initial appeal hearings are new hearings, not limited to evidence on the record.
15.100.250	6	Notice of Type IV Hearing	Add ORS 227.186 (Measure 56) notice requirement for certain land use regulatory changes. Correct DLCD notice requirement per OAR 660-018-0020, amended in 2013 from 45 days to 35 days.
15.100.260	7	Posting and mailing of notices	Simplify the code and improve noticing by using the same 20-day deadline for posting and mailing.

Table 2: NMC 15.200 - Land Use Applications (Package 2 of 5)

NMC 15.200	*Pages*	*Topic*	*Code Maintenance Purpose*
15.210.040	3	Code Adjustments	Added procedure for expiration and extension of code adjustments, consistent with other procedures. See also, Expirations and Extensions Analysis in Exhibit C.
15.215.060	3	Variances	Added procedure for expiration and extension of variances, consistent with other procedures. See also, Expirations and Extensions Analysis in Exhibit C.
15.220.020(A)(1)	4-5	Type I Site Design Review	Code streamlining for improved customer service, and consistency with state middle housing rules.
15.220.020(A)(4)	6	Exemptions to Type I and Type II Process	Clarify internal remodels that do not change or expand use are exempt, for improved customer service.
15.220.020(C)	6-7	Site Design Review Expiration and Extensions	Extend the SDR Time Limit (expiration) from one year to two years and change extensions from 6 months to 12 months each, and provide vesting options, for improved customer service. See also, Expirations and Extensions Analysis in Exhibit C.
15.220.020(E)	8	Modification to an Approved Design Review	Clarify the criteria and procedures for major modifications, for improved customer service.
15.220.030	8-9	wetland Delineations	Clarify that a wetland delineation approved by Oregon Department of State Lands is required for properties on the National Wetland Inventory, for improved customer service and quality control.
15.220.050	9-12	Design Review Criteria	Criteria reorganized for ease of use

NMC 15.200	*Pages*	*Topic*	*Code Maintenance Purpose*
		Reorganization	and consistency with other NMC chapters. No policy changes.
15.225.100(A)	12	Conditional Use Permit Expiration and Extensions	Clarify 1-year expiration for CUPs and change extensions from 6 months to 12 months each for improved customer service and consistency with other permit types.
15.230.030	13	Property Consolidations and Property Line Adjustments	Added procedure for expiration and extension of property consolidations and property line adjustments, consistent with other procedures.
15.235.030(C)	13-14	Preliminary Plat Approval Extensions	Clarify multiple extensions may be granted, for improved customer service and consistency with other permit types.
15.235.050(B)	14	Preliminary Plat for Middle Housing Land Divisions	Correct statute per update in legislative 2023 session.
15.240.020	15	Planned Unit Development Vesting	Add public improvement guarantee to vesting options for improved customer service.
15.242.030	15-16	Flexible Development Standards Affordable Housing Provision	Allow up to three years for construction of off-site affordable units when using incentive.
15.250.010 – 15.250.100	16-22	Annexations	Comply with ORS 222 and clarify annexation procedures. Remove citywide election procedure where it conflicts with statutes and make other housekeeping updates.

Table 3: NMC 15.300 - Zoning Districts (Package 3 of 5)

NMC 15.300	*Pages*	*Topic*	*Code Maintenance Purpose*
15.305	3-4	Use Table	Update footnote and cross-references.
15.326.020	5	Springbrook District Master Plan	Updated editorial notes to include complete list of ordinance citations.
15.326.025	5-9	Springbrook District Master Plan Development Standards Matrix	Incorporates development standards matrix into code for user-friendliness and quality control.
15.326.060	10	Springbrook District Master Plan Modifications	Clarifies procedure for modifying master plan. No substantive change.
15.342.040	11	Stream Corridor Overlay (SC) Subdistrict - Mitigation for Type II	Clarify approved list of native plants for mitigating development in stream corridor overlay. See Exhibit B.
15.342.150	11	Vesting of Development Permit in SC Subdistrict and Expiration	Clarify vesting and expiration of permit like other permit types.
15.348.040	12	Institutional Overlay (IO) Subdistrict Designations	Update procedure for IO map amendments to comply with ORS 197.797 Local quasi-judicial land use hearings, and ORS 227.175 Permit or zone change applications, which require a quasi-judicial review, not a Type I review, for zone changes involving one or a small group of properties.
15.352.050(B)	13	Riverfront (RD) Subdistrict Residential Design Standards	Clarify that the garage appearance standard applies to garage doors and not garages in general, consistent with past interpretation for houses built in the Riverfront Subdistrict.

Table 4: NMC 15.400 - Development Standards (Package 4 of 5)

NMC 15.400	*Pages*	*Topic*	*Code Maintenance Purpose*
15.410.070(D)	3	Fences and Walls	Institutional (IO) District added. Clarifies building permit required for certain types of fences and walls.
15.415.060	4	Home Occupations	Deleted/relocated to Special Use Standards, NMC 15.445.500 for readability.
15.440.010	5-6	Required Off-Street Parking	Improve readability and codify interpretation regarding garages. Existing NMC 15.440.010(F) text is deleted and relocated in NMC 15.440.030 for improved reading. Revised 15.440.010(F) clarifies that residential garage structures may be used to meet required off-street parking space requirements.
15.440.030 15.440.040	6-16	Parking Spaces Required Parking for Unlisted Uses	Improves readability and codifies interpretations. Columns and footnotes added as needed. Existing parking maximums incorporated into table. Clarifies methodology for rounding fractions. Maintains existing policies.
15.440.045	#	Parking Study Option	Minor policy update to include parking study option for uses that have unique parking needs and do not work with one-size-fits-all standards.
15.44.0070	17-20	Parking Tables and Diagrams (Minimum Dimensions)	Clarifies the minimum dimensions required for parking spaces, both standard and compact. Standards provided are consistent with those already present in NMC 15.440.070 tables and diagrams.
15.445.010	21	Bed and Breakfast Establishments	Clarify code and remove potential conflict with building code.

NMC 15.400	*Pages*	*Topic*	*Code Maintenance Purpose*
15.445.500	21-22	Home Occupations	Standards are relocated from NMC 15.415.060 for ease of use and because requirements are use-based, not design based.

Table 5: NMC 5 - Business Licensing (Package 5 of 5)

NMC 5.15	*Pages*	*Topic*	*Code Maintenance Purpose*
5.15.100	1	Home Occupation	Updates cross-reference. No other changes proposed.

PLANNING COMMISSION RESOLUTION 2025-398

A RESOLUTION RECOMMENDING CITY COUNCIL AMEND NEWBERG MUNICIPAL CODE, TITLE 15 DEVELOPMENT CODE, TO CLARIFY REGULATIONS, COMPLY WITH STATE LAND USE REQUIREMENTS, AND IMPROVE CUSTOMER SERVICE IN THE PERMIT PROCESS; AND AMEND TITLE 5 BUSINESS LICENSE REGULATIONS WITH CORRESPONDING CROSS-REFERENCES

RECITALS

1. Code Maintenance is part of the Community Development Department's continuous improvement efforts and is a "Significant Project" priority on the Planning Division Work Program, as approved by City Council on January 16, 2024.

2. Code Maintenance implements City Council's Goal to, "Create and maintain a high level of customer service," including code amendments that improve predictability in the permit process.

3. The proposed code amendments were identified by staff through use and application of the code, customer feedback, and industry best practices.

4. The proposal addresses changes in state land use laws, including Oregon Revised Statutes (ORS), Chapter 222, relating to annexations, ORS 197.797 Local quasi-judicial land use hearings, ORS 227.175 Permit or zone change applications, and ORS 197.307(4) requiring clear and objective standards for housing.

5. Code Maintenance amendments do not involve significant policy changes.

6. The Newberg Planning Commission conducted a duly noticed public hearing on January 9, 2025, and found that the proposed amendments are consistent with the Newberg Comprehensive Plan and Oregon Statewide Land Use Goals, and in the best interests of Newberg.

The Newberg Planning Commission resolves as follows:

1. The Planning Commission of the City of Newberg recommends the City Council adopt the proposed amendments to NMC Title 15 Development Code.

2. This recommendation is based on the January 9, 2025, Planning Commission Staff Report, the proposed code amendment text in Exhibit A-1, the Findings in Exhibit A-2, and all other exhibits attached hereto.

Adopted by the Newberg Planning Commission this 9th day of January 2025.

ATTEST:

Planning Commission Chair

Planning Commission Secretary

List of Exhibits:

A-1 Development Code Maintenance Amendments
A-2 Findings
B. Native Plant Guide (Linn SWCS, 2005)
C. Expirations and Extensions Analysis
D. Code Maintenance Standard Operating Procedures

Exhibit A-1 to Resolution No. 2025-398
Development Code Maintenance Amendments

DCA24-0002: 2024 Code Maintenance Package NMC 15.100

Draft Code Maintenance Amendments

Formatting of amendments:

1. Code edits and revisions are indicated using <u>double underline</u> for text additions and ~~strike-outs~~ text for deletions.

2. Backslashes "\\" indicate text that is unchanged and has been omitted for brevity.

3. The comments in text boxes summarize the proposed changes and the reasons for them.

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NMC 15.05 GENERAL PROVISIONS

Background: The building code recently changed to allow exempt structures to have a 15-foot height limit instead of a 10-foot height limit. The proposed code amendments reflect the update to be consistent with building code.

15.05.030 Definitions.

"**Accessory structure, exempt**" means a structure for which a permit is not required by the applicable building code, and which may or may not be subject to standards of this code. Until amended, this includes, but is not limited to, the following structures accessory to single-family and two-family dwellings:

1. Nonhabitable one-story detached accessory structures used as tool and storage sheds, playhouses and similar uses, provided the floor area does not exceed 200 square feet and a height of ~~10~~ 15 feet measured from the finished floor level to the average height of the roof surface.

Staff Comment: The change from 10 to 15 feet in height for exempt accessory structures is to have it consistent with building code which recently changed to 15 feet.

2. Prefabricated swimming pools where the pool walls are entirely above grade, excluding barriers subject to building permit requirements.

3. Swings and other playground equipment.

4. Patio and porch covers not over 200 square feet and supported by an exterior building wall.

5. Porches and decks, where the floor or deck is not more than 30 inches above adjacent grade at any point and where in the case of a covered porch, the covered portion of the porch does not come closer than three feet to property lines.

6. Frame-covered nonhabitable accessory buildings not more than 500 square feet in area, one story in height and not closer than three feet to a property line, where the structure is composed of a rigid framework that supports a fabric membrane.

"**Yard, interior**" means a yard ~~adjacent to~~ adjoining any lot line(s) which is not a street line, the depth of which yard shall be the horizontal distance measured at right angles to the interior lot line(s) and a line(s) being parallel with said interior lot line(s) (see Appendix A, Figures 5 and 10).

Staff Comment: Modified to clarify the relationship between *interior yards* and the presence or absence of a *street line*.

NMC 15.100 LAND USE PROCESSES AND PROCEDURES

15.100.020 Type I procedure – Administrative decision.

A. Type I development actions shall be decided by the director without public notice or public hearing. Notice of a decision shall be provided to the applicant.

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

1. Design review permits for single-family dwellings, duplex dwellings, triplex dwellings, quadplex dwellings, townhouses, cottage cluster projects, additions, accessory dwelling units, accessory structures, or other additions specifically listed in NMC 15.220.020(A)(1).

2. Home occupation permits.

3. Signs, not in conjunction with a new development or major remodel.

4. Adjustments.

5. Processing final land division maps and plats.

6. Manufactured homes contributing to development identified elsewhere in NMC 15.100.020(B) or other additions specifically listed in NMC 15.220.020(A)(1)

7. Determining compliance with the conditions of approval for a land use action processed under a Type II or Type III procedure.

Staff Comment: Clarifies that manufactured homes shall be reviewed following procedures that are equivalent to or not more restrictive than those applying to single family dwellings. (ORS 197.307(8))

//

15.100.160 Appeal procedures.

A. Type I. An appeal of a Type I decision by the director ~~may be appealed~~ must be filed within 14 calendar days of the date of the decision by the director. Appeals may be made only by an affected party, Type I (the person or party submitting the application). Appeals of a Type I application are processed as a Type III procedure and proceed to the planning commission, except that appeals of Type I applications relating to historic landmarks are reviewed by the historic preservation commission.

B. Type II. An appeal of a Type II decision by the director ~~may be appealed~~ must be filed within 14 calendar days of the date of the decision. Appeals may be made only by an affected party, Type II (the applicant, any party entitled to receive notice of the decision, or anyone providing written comments within 14 calendar days prior to the date of the decision). Appeals of a Type II application are processed as a Type III procedure and proceed to the planning commission,

except that appeals of Type II applications relating to historic landmarks are reviewed by the historic preservation commission.
C. Type II Middle Housing Land Divisions. An appeal of a Type II Middle Housing Land must be filed within 14 calendar days of the date of the decision and is subject to the appeal procedures in ORS 197.375, or as amended.
~~C~~D. Type III. An appeal of a Type III decision by the planning commission or historic preservation commission ~~may be appealed~~ must be filed within 14 calendar days of the date of that ~~the planning~~ commission's written decision. Appeals may be made only by an affected party.~~,~~ The city council following the Type III procedure shall decide all appeals of Type III decisions. [Ord. 2691 § 2, 2-19-08; Ord. 2451, 12-2-96. Code 2001 § 151.055.]

Staff Comment: The above amendments clarify the appeals process (appeals are filed, not "appealed"). Appeals of Type I and II decisions pertaining to historic resources are reviewed by the Historic Preservation Commission, consistent with current practice and Newberg City Charter, Section 2.15.580, Historic Preservation Commission Powers and Duties. Appeals of Middle Housing Land Division decisions follow the same procedure as appeals of expedited land divisions under ORS 197.360 through ORS 197.375. City Council hears all appeals of Type III decisions following the Type III hearing procedure.

15.100.180 Scope of review.

A. The initial appeal of a Type I, Type II, or Type III decision shall be a new hearing. Any second appeal to the city council of a Type I or Type II decision shall be a record hearing unless the applicant requests a new hearing and waives the 120-day time limit for processing applications in accordance with NMC 15.100.100 and state statutes. Appeal of a Type II decision must be based on the written comments raised prior to the expiration notice comment period pursuant to NMC 15.100.220. ~~Appeal of a Type III decision made by the planning commission must be based on the written or oral testimony and evidence raised in the record of the planning commission.~~

//

Staff Comment: This amendment clarifies that the initial hearing on any appeal is conducted as a new hearing, not limited to evidence already in the record, and subsequent hearings (second appeals) to City Council are on the record, resolving a conflict between the first and last sentence of NMC 15.100.180(A)

15.100.250 Notice procedures for Type IV legislative hearing.

A. There is no requirement for mailed notice to property owners or posting of property, except when mailed notice to property owners is required under ORS 227.186 Notice to property owners of hearing on certain land use regulatory changes.
B. Notice shall be provided to the Department of Land Conservation and Development as follows:
1. When LCDC Goals Apply. When the city determines that the statewide land conservation and development goals do apply to a proposal to amend the Newberg comprehensive plan, this code, or adoption of a new land use regulation, the proposal shall be forwarded to the Director of the Department of Land Conservation and Development at least 35 ~~45~~ days before the ~~final~~ first evidentiary hearing on adoption of the amendment or new regulation. The proposal shall contain the text and any supplemental information that the city believes is necessary to inform the director as to the effect of the proposal.
2. When Emergency Circumstances Require Expedited Review. The city may submit an amendment or new regulation to the Director of the Department of Land Conservation and Development with less than 35 ~~45~~ days' notice if the city determines that there are emergency circumstances requiring expedited review.
3. When LCDC Goals Do Not Apply. When the city determines that the statewide land conservation and development goals do not apply to a proposal to amend the Newberg comprehensive plan, this code, or adoption of a new land use regulation, notice to the Director of the Department of Land Conservation and Development is not required.

Staff Comments: The amendment to subsection A clarifies that property owner noticing is required for some legislative amendments. The amendments to subsection B are for consistency with minimum DLCD noticing requirements.

Existing code requires the City notify DLCD of proposed legislative land use amendments at least 45 days before "final hearing on adoption". This is more restrictive than State statues and administrative rules, which require DLCD be notified of such amendments **at least 35 days** prior to the City's first evidentiary hearing. Updating the city code to align with the minimum State requirement is a minor policy change that staff believes is consistent with City Council goals for customer service, as reducing the noticing time by 10 days allows for a legislative process that is more responsive to community needs. The Oregon Land Conservation and Development Commission amended the OAR 660-018-0020 in 2013, changing the minimum requirement from 45 days to 35 days.

OAR 660-018-0020
Notice of a Proposed Change to a Comprehensive Plan or Land Use Regulation
(1) Before a local government adopts a change to an acknowledged comprehensive plan or a land use regulation, unless circumstances described in OAR 660-018-0022 apply, the local government shall submit the proposed change to the department, including the information described in section (2) of this rule. The local government must submit the proposed change to the director at the department's Salem office at least 35 days before holding the first evidentiary hearing on adoption of the proposed change.

15.100.260 Procedure for posted notice for Type II and III procedures.

A. Posted Notice Required. Posted notice is required for all Type II and III procedures. The notice shall be posted on the subject property by the applicant.

//

F. Standards and Timing, Type II Actions. The applicant shall post the notice at least 14 days before a decision is rendered. The applicant shall file with the director an affidavit of posting as identified in subsection (B) of this section within two business days after notice is posted.

G. Standards and Timing, Type III Actions. The applicant shall post the notice at least ~~10~~ 20 days before the first scheduled hearing. The applicant shall file with the director an affidavit of posting as identified in subsection (B) of this section within two business days after notice is posted.

//

Staff Comments: The amendment to G is to match the required mailing date for Type III decisions so that the site is posted at approximately the same time as notices are mailed, not ten days later. Additionally, if the applicant mails and posts on the same day only one affidavit is required instead of two.

DCA24-0002: 2024 Code Maintenance Package
NMC 15.200

Draft Code Maintenance Amendments

Formatting of amendments:

1. Code edits and revisions are indicated using double underline for text additions and ~~strike-outs~~ text for deletions.

2. Backslashes "\\" indicate text that is unchanged and has been omitted for brevity.

3. The comments in text boxes summarize the proposed changes and the reasons for them.

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15.210 CODE ADJUSTMENTS

15.210.040 Adjustment right must be exercised to be effective.

An adjustment granted under this code shall be effective only when the exercise of the right granted thereunder shall be commenced within two years ~~one year~~ from the effective date of the decision. The director may authorize ~~an~~ extensions of the duration of the decision for an additional 12 months each not to exceed five years ~~six months~~ upon written application where necessary to complete substantially the same project for which the adjustment was granted and the applicable code adjustment criteria and zoning of the subject property have not changed. In case such right is not exercised, or extension obtained, the adjustment decision shall be void. Any adjustment granted pursuant to this code is transferable to subsequent owners or contract purchasers of the property unless otherwise provided at the time of granting such adjustment.

Staff Comment: Clarifies procedure and adds flexibility for extensions of permits consistent with other procedures.

15.215 VARIANCE PROCEDURES

15.215.060 Variance must be exercised to be effective.

A variance granted under this code shall be effective only when the exercise of the right granted thereunder shall be commenced within one year from the effective date of the decision. The director may authorize ~~an~~ extensions of the duration of the decision for an additional 12 months each not to exceed five years ~~six months~~ upon written application where necessary to complete substantially the same project for which the variance was granted and the applicable variance criteria and zoning of the subject property have not changed. In case such right is not exercised, or extension obtained, the variance decision shall be void. Any variance granted pursuant to this code is transferable to subsequent owners or contract purchasers of the property unless otherwise provided at the time of granting such variance.

Staff Comment: Clarifies procedure and adds flexibility for extensions of permits consistent with other procedures.

Background: The following amendments include minor policy changes and clarifications to streamline the permit process and improve customer service for more types of minor projects and decisions, consistent with state law, the Comprehensive Plan, and Council Goals. Amendments include defining more minor remodels as Type I reviews (versus Type II), reducing paperwork for Type I applications, complying with state requirements for processing of Middle Housing applications, and clarifying procedures and adding flexibility for extensions of permits.

NMC 15.220 SITE DESIGN REVIEW

15.220.020 Site design review applicability.

A. Applicability of Requirements. Site design review shall be required prior to issuance of building permits or commencement of work for all improvements noted below. Site design review permits shall be processed as either Type I or Type II, as noted below.

1. Type I. There are two subcategories of Type I site design review. Except as otherwise required by this code, uses listed in this subsection and indicated with an asterisk (*) do not require a land use application and are processed concurrently with any application for building permit when such permit is required. All other uses listed in this subsection require a Type I land use application which must be approved before building permits may be issued for the project.

a. Single-family dwellings*;

b. Duplex dwellings*;

c. Triplex dwellings*;

d. Quadplex dwellings*;

e. Townhouse dwellings*;

f. Cottage cluster projects;

g. Institutional, commercial or industrial building additions which do not exceed 1,000 square feet or 10 percent of the ~~in~~ gross floor area of an existing structure, whichever is greater, except as required by this code;

h. Multifamily additions or remodels which do not exceed 1,000 square feet or 10 percent of the ~~in~~ gross floor area of an existing structure, whichever is greater, and do not add any dwelling units~~, do not exceed 25 percent of the assessed value of the existing structure, and do not add any new units, or new construction incidental to the main use on an existing developed site which does not exceed 1,000 square feet in gross floor area and does not add any new units~~;

i. Multifamily additions or remodels that are internal to an existing structure and do not add floor area or dwelling units*;

j. New construction of any type that is accessory to an existing use on a developed site, does not add more than 1,000 square feet to an improved portion of the lot, or 10 percent of the gross floor area of an existing structure, whichever is greater, and does not add dwelling units;

~~i. Institutional, commercial or industrial interior remodels which do not exceed 25 percent of the assessed valuation of the existing structure;~~

~~j~~k. Signs which are not installed in conjunction with a new development or remodel;

~~k~~l. Parking area modifications ~~Modifications~~, including new paving, landscaping, lighting, restriping that adds, reduces, or reconfigures a parking space or drive aisle, ~~restriping~~, or regrading of an existing multifamily, institutional, commercial or industrial parking lot. Does not include restriping, sealing, and similar maintenance and repair;

~~l~~m. Fences and trash enclosures*;

~~m~~n. Accessory dwelling units*.

Staff Comments: These amendments allow more types of minor projects to be reviewed through the Type I process based on clear and objective standards. They also provide a more rational thresholds for Type versus Type II reviews. The City has found it difficult to apply "assessed value" criteria to developments with multiple buildings on a lot, because property taxes are assessed for all improvements on each tax lot, not individual buildings. Additionally, assessed value is not a good proxy for regulating land use impacts. By replacing assessed value with "percentage of" and actual increases in developed area, the code can address a wider variety of uses at different scales. For example, industrial uses typically have a larger footprint than many retail uses, but retail may have more employees and generate more traffic "per square foot" than light industry. Similarly, a minor remodel of an older apartment building, for example, adding a community room and HVAC upgrades with exterior changes could reach the 25% assessed value threshold more readily than the same addition to a high-end condominium complex due to the higher cost basis of the condos, even though the land use impacts of the additions would be the same.

The amendments also are intended to comply with OAR 660-046-0215, which requires that "Large Cities [population of 25,000 or greater] must apply the same approval process to Middle Housing as detached single-family dwellings in the same zone." The standard Type I review is maintained for cottage clusters due to the greater need for coordinating infrastructure for a larger number of dwelling units.

2. Type II.

a. Any new development or remodel which is not specifically identified within subsection (A)(1) or (A)(3) of this section.

b. Telecommunications facilities.

3. Type III.

a. Multifamily dwellings in the R-2, RP or C-4 zone not meeting the objective process requirements of NMC 15.220.060.

b. Multifamily dwellings in the R-1, R-4 or C-2 zone (conditional use permit also required).

c. Multifamily dwellings in the C-3 zone along Hancock Street (conditional use permit also required).

4. Exemptions to Type I and Type II Process. The following development activities are exempt from Type I or Type II standards:

a. Replacement of an existing item such as a roof, floor, door, window or siding.

b. ~~Plumbing and/or mechanical alterations which are completely internal to an existing structure.~~ Remodels that are completely internal to an existing structure and do not substantially change or expand the existing use of the structure.

Staff Comments: This amendment is a minor policy change to make the permit process more business friendly. It broadens the exemption from land use review to include all remodels that are completely internal to an existing structure. A land use review would still be required for remodels that change or expand a use due to potential impacts on parking and neighborhood livability.

For example, an internal remodel adding a utility closet or updating HVAC equipment would not require land use review if there is no change of use or expansion of an existing use. By comparison, changing an office use to a salon with plumbing and electrical work would require land use review because of the potential impact on public services, parking, etc.

//

C. Site Design Review Time Limit. An approved site design review plan intended to be constructed in a single phase shall be valid for two years ~~one year~~ from the effective date of the ~~notice of final~~ decision. ~~A~~ A complete application for public improvement plan review or building permit including all required plans and plan review fees must be submitted ~~acquired~~ within this time period or the design review approval shall terminate. The director under a Type I

procedure may grant ~~an~~ extensions ~~for~~ of up to 12 months each not to exceed five years ~~six months~~ if the applicant files a request in writing prior to the expiration of the approval and demonstrates compliance with the following:

1. The land use designation of the property has not been changed since the initial design review approval; and

2. The applicable standards in this code which applied to the project have not changed.

Staff Comments: These amendments contain minor policy changes to make the permit process more business friendly by lengthening the period that site design review approvals are valid, from one year to two years. This change is consistent with the current two-year expiration for preliminary land division approvals. The amendments also allow for extensions of the expiration date by 12 months, versus the current 6-month extension, and change vesting from the date of building permit approval (permit "acquired") to submittal of an application for public improvement plan review or building permit. This change is proposed for improved customer service, because applicants should not be penalized for delays in the permit process that are beyond their control. The amendments also clarify that the director may approve more than one extension over time provided there is no rezoning and no change to any applicable standard.

D. Phased Design Review Approval. If a site plan is approved to be constructed in phases, completion of each phase shall extend the expiration of the original design review approval by 12 months from the date of its expiration. Prior to the expiration of each phase, the applicant may apply for an extension to the phase which is about to expire through subsection (C) of this section. The extension of a phase under subsection (C) of this section shall also extend any subsequent phases. The total number of extensions shall not extend the original design review approval more than five years from its original approval date. An applicant with a project containing two or more phases may elect to submit a master site development plan, with the following options:

//

4. The approval(s) granted in this section shall be in effect as follows:

a. Once a master site development plan has been approved, completion of each phase shall extend the expiration of the original site design review approval by 12 months from the date of its expiration. Prior to the expiration of each phase, the applicant may apply for an extension to the phase which is about to expire through subsection (C) of this section. The extension of a phase under subsection (C) of this section shall also extend to any subsequent phases. The total number of extensions shall not extend the original site design review approval by more than five years from its original approval date.

Staff Comment: No change is proposed to this subsection. It is included for context. Note the existing 12-month extension period for master site development plans.

//

E. Modification to an Approved Design Review. Following design review approval, an applicant may make modifications to the plan consistent with the following procedures. The director will determine whether the proposed modification is a minor or a major modification.

1. Minor modifications are those which are in substantial compliance with the layout, uses and conditions of the original design review. Generally, the characteristics of the project, such as the layout or size of buildings, number of units, number of parking spaces, landscaping areas, and similar changes, are within five percent of those in the original proposal. The director may approve a minor modification under a Type I procedure upon finding that the modification is substantially consistent with the approved design review, is consistent with the provisions of this code and the conditions of approval, and does not have substantially greater impacts on surrounding properties than the original plan. Changes shall meet all development code requirements.
2. Other modifications are major modifications. Major modifications are any proposed changes to elements of the approved plan or conditions of approval not meeting the thresholds in subsection (E)(1) of this section ~~A in the whole application or substantive parts of an application shall be considered a new application~~. ~~The modified~~ An application for major modification shall be reviewed under the same procedure as the original application. The criteria for approval shall be those for design review.

Staff Comments: This amendment clarifies the criteria and procedures for review of major modifications to design reviews.

3. All applications for modifications under this provision shall be considered new applications for the purposes of the 120-day time limit for processing applications in accordance with NMC 15.100.100 and state statutes. The applicant shall acknowledge in writing that this is a new application for purposes of the 120-day rule.

4. The city council shall establish a fee for modification of approved design review by resolution.

15.220.030 Site design review requirements.

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B. Type II or III. The following information is required to be submitted with all Type II or III applications for site design review:
//

6. Existing Features and Natural Landscape Including Wetlands. The plans shall indicate existing landscaping and existing grades. Existing trees or other features intended to be preserved or removed shall be indicated on the plans. Wetland Delineation Approved by the Department of State Lands (DSL). An approved wetland delineation shall be submitted for any property listed in the National Wetlands Inventory (NWI) or that is located within the city's mapped stream corridor.

Staff Comments: This amendment clarifies the application requirement for properties containing wetlands and is consistent with the preliminary plat application submission requirements in NMC 15.235.040.

15.220.050 Criteria for design review.

A. Type I. The following criteria are required to be met in order to approve a Type I design review request:

1. ~~Parking. Parking areas shall meet the requirements of NMC 15.440.010.~~ Zoning District Compliance. The proposed use shall be listed as a permitted or conditionally permitted use in the zoning district in which it is located as found in NMC 15.305.010 through 15.336.020.

2. Setbacks and General Requirements. The proposal shall comply with
~~NMC 15.415.010 through 15.415.060 dealing with height restrictions, public access, residential development standards, and home occupations; and;~~
~~NMC 15.405.010 through 15.405.040 and 15.410.010 through 15.410.070 dealing with setbacks, coverage, vision clearance, and yard requirements~~ NMC 15.405.010 through 15.405.050 relating to lot size, lot coverage, and parking coverage requirements; NMC 15.410.010 through 15.410.080 dealing with yard setback, special setback, and vision clearance requirements; and NMC 15.415.010 through 15.415.070 dealing with height restrictions, public access, and residential development standards.

3. Landscaping Requirements. The proposal shall comply with NMC 15.420.010 dealing with landscape requirements and landscape screening.

4. Signs. Signs shall comply with NMC 15.435.010 et seq. dealing with signs.

5. ~~Zoning District Compliance. The proposed use shall be listed as a permitted or conditionally permitted use in the zoning district in which it is located as found in NMC 15.305.010 through 15.336.020.~~ Parking. Parking areas shall meet the requirements of NMC 15.440.010.

6. Sufficient Infrastructure. For all triplex dwellings, quadplex dwellings, townhouse dwellings, and cottage cluster developments, the city shall work with the applicant to ensure that sufficient infrastructure will be provided, or can be provided, to include:

a. Connection to a public wastewater system capable of meeting established service levels.
b. Connection to a public water system capable of meeting established service levels.
c. Access via public or private streets meeting adopted emergency vehicle access standards to a city's public street system.
d. Storm drainage facilities capable of meeting established service levels for storm drainage.

Staff Comment: Criteria for design reviews reviewed under a Type I procedure reorganized for consistency in order of appearance elsewhere in the NMC, specifically NMC Division 15.400, and to reference code sections related to middle housing land divisions that have been added since last revision.

The reference to home occupations is deleted from NMC 15.220.050(A)(2) because home occupations are proposed to be relocated to NMC 15.445 Special Use Standards.

B. Type II or III. The following criteria are required to be met in order to approve a Type II or III design review request:
//

2. ~~Parking and On-Site Circulation. Parking areas shall meet the requirements of NMC 15.440.010. Parking studies shall be required to determine if adequate parking and circulation are provided for uses not specifically identified in NMC 15.440.010. Provisions shall be made to provide on-site circulation without using the public streets as part of the parking lot circulation pattern. Parking areas shall be designed so that vehicles can efficiently enter and exit the public streets with a minimum impact on the functioning of the public street.~~ Zoning District Compliance. The proposed use shall be listed as a permitted or conditionally permitted use in the zoning district in which it is located as found in NMC 15.305.010 through 15.336.020. Through this site review process, the director may make a determination that a use is determined to be similar to those listed in the applicable zoning district, if it is not already specifically listed. In this case, the director shall make a finding that the use shall not have any different or more detrimental effects upon the adjoining neighborhood area than those specifically listed.

3. ~~Setbacks and General Requirements. The proposal shall comply with NMC 15.415.010 through 15.415.060 dealing with height restrictions, public access, residential development standards, and home occupations; and NMC 15.405.010 through 15.405.040 and 15.410.010 through 15.410.070 dealing with setbacks, coverage, vision clearance, and yard requirements.~~ Subdistrict Compliance. Properties located within subdistricts shall comply with the provisions of those subdistricts located in NMC 15.340.010 through 15.348.060.

4. ~~Landscaping Requirements. The proposal shall comply with NMC 15.420.010 dealing with landscape requirements and landscape screening~~. Setbacks and General Requirements. The proposal shall comply with NMC 15.405.010 through 15.405.050 relating to lot size, lot coverage, and parking coverage requirements; NMC 15.410.010 through 15.410.080 dealing with yard setback, special setback, and vision clearance requirements; and NMC 15.415.010 through 15.415.070 dealing with height restrictions, public access, and residential development standards.

5. ~~Signs. Signs shall comply with NMC 15.435.010 et seq. dealing with signs.~~ Landscaping Requirements. The proposal shall comply with NMC 15.420.010 dealing with landscape requirements and landscape screening.

6. ~~Manufactured Dwelling, Mobile Home and RV Parks. Manufactured dwelling and mobile home parks shall also comply with the standards listed in NMC 15.445.075 through 15.445.100 in addition to the other clear and objective criteria listed in this section. RV parks also shall comply with NMC 15.445.170 in addition to the other criteria listed in this section.~~ Signs. Signs shall comply with NMC 15.435.010 et seq. dealing with signs.

7. ~~Zoning District Compliance. The proposed use shall be listed as a permitted or conditionally permitted use in the zoning district in which it is located as found in NMC 15.305.010 through 15.336.020. Through this site review process, the director may make a determination that a use is determined to be similar to those listed in the applicable zoning district, if it is not already specifically listed. In this case, the director shall make a finding that the use shall not have any different or more detrimental effects upon the adjoining neighborhood area than those specifically listed.~~ Parking and On-Site Circulation. Parking areas shall meet the requirements of NMC 15.440.010. Parking studies shall be required to determine if adequate parking and circulation are provided for uses not specifically identified in NMC 15.440.010. Provisions shall be made to provide on-site circulation without using the public streets as part of the parking lot circulation pattern. Parking areas shall be designed so that vehicles can efficiently enter and exit the public streets with a minimum impact on the functioning of the public street.

8. ~~Subdistrict Compliance. Properties located within subdistricts shall comply with the provisions of those subdistricts located in NMC 15.340.010 through 15.348.060.~~ Manufactured Dwelling, Mobile Home and RV Parks. Manufactured dwelling and mobile home parks shall also comply with the standards listed in NMC 15.445.075 through 15.445.100 in addition to the other clear and objective criteria listed in this section. RV parks also shall comply with NMC 15.445.170 in addition to the other criteria listed in this section.

9. Alternative Circulation, Roadway Frontage Improvements and Utility Improvements. New developments shall provide for access for vehicles and pedestrians to adjacent properties which are currently developed or will be developed in the future. This may be accomplished through the provision of local public streets or private access and utility easements. At the time of

development of a parcel, provisions shall be made to develop the adjacent street frontage in accordance with city street standards and the standards contained in the transportation plan. At the discretion of the city, these improvements may be deferred through use of a deferred improvement agreement or other form of security.

10. Traffic Study Improvements. If a traffic study is required, improvements identified in the traffic study shall be implemented as required by the director.

Staff Comment: Criteria for design reviews reviewed under a Type I procedure reorganized for consistency in order of appearance elsewhere in the NMC, specifically NMC Division 15.400, and to reference code sections related to middle housing land divisions that have been added since last revision. The reference to home occupations is deleted from NMC 15.220.050(A)(2) because home occupations are proposed to be relocated to NMC 15.445 Special Use Standards. No change in policy is proposed.

NMC 15.225 CONDITIONAL USE PERMITS

15.225.100 Conditional use permit must be exercised to be effective.

A. A conditional use permit granted under this code shall be effective only when the exercise of the right granted thereunder commences. ~~shall be commenced~~ A conditional use permit shall expire if the use authorized thereunder has not commenced or a building permit application including all required plans and plan review fees for the use has not been submitted within one year from the effective date of the conditional use permit decision. The director under a Type I procedure may grant ~~an~~ extensions for up to 12 months each not to exceed three years ~~six months~~ if the applicant files a request in writing prior to the expiration of the approval and demonstrates compliance with the following:
1. The land use designation of the property has not been changed since the initial use permit approval; and
2. The applicable standards in this code which applied to the project have not changed.
B. In case such right is not exercised, or extension obtained, the conditional use permit decision shall be void. Any conditional use permit granted pursuant to this code is transferable to subsequent owners or contract purchasers of the property unless prohibited ~~otherwise provided at the time of granting~~ by such permit.

Staff Comments: Clarifies the timeframe for approvals and transferability of CUP. Allows extensions of the expiration date by 12 months, compared to 6-months currently, for consistency with other permit procedures. Vesting is clarified to include applying for a building permit. These changes are for improved customer service, as CUPs frequently involve new development or tenant improvements that can take longer to complete.

Note the shorter expiration periods for conditional use permits versus site design reviews and subdivisions (1 year, with extension up to 3 years; versus 2 years, with extension up to

5 years). This is because conditional uses are allowed only where they are found to not have a significant negative impact on surrounding properties, or where impacts can be mitigated with conditions of approval. The longer a conditional use is deferred the more opportunity there can be for land use conflicts to arise, as new neighbors move in or surrounding properties redevelop.

CHAPTER 15.230 PROPERTY CONSOLIDATIONS AND PROPERTY LINE ADJUSTMENTS

15.230.030 Expiration and extensions.

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D. Approvals granted under this chapter shall expire if the documents required by ORS 92 are not recorded with Yamhill County within two years from the effective date of the decision. The director may grant-extensions for up to 12 months each not to exceed five years total if the applicant files a request in writing prior to the expiration of the approval and demonstrates compliance with the following:
1. The land use designation of the property has not been changed since the initial use permit approval; and
2. The applicable standards in this code which applied to the project have not changed.

Staff Comment: Creates procedure for expiration and extension of property consolidation and property line adjustment approvals by the city where none exists. Aligns timeframes with code provisions for land division and site design review approvals.

NMC 15.235 LAND DIVISIONS

15.235.030 Preliminary plat approval process.

//

B. Preliminary Plat Approval Period. Preliminary plat approval shall be effective for a period of two years from the date of approval except for middle housing land divisions which are subject to NMC 15.235.050. The preliminary plat shall lapse if a final plat has not been submitted or other assurance provided, pursuant to NMC 15.235.070. Phased subdivisions may be approved, pursuant to subsection (E) of this section, with an overall time frame of not more than two years between preliminary plat approval and final plat approvals or submittal of a complete application for public improvement plan review. In no case shall phased subdivision approval extend for more than five years from the approval date.

C. Extensions. The director through a Type I procedure ~~original approval body~~ may, upon written request by the applicant and payment of the required fee, grant ~~a one-time~~ extensions of the approval period for ~~an additional~~ ~~one year~~ 12 months each not to exceed 5 years total. Extension approval will require written findings to the following criteria:

1. The applicant has submitted written intent to file a final plat within the one-year extension period;

2. An extension of time will not prevent the lawful development of abutting properties;

3. There have been no substantial changes to the applicable code provisions or public works design and construction standards on which the approval was based. If such changes have occurred, a new preliminary plat application shall be required; and

4. The extension request is made before expiration of the original approved plan.

Staff Comments: These amendments provide flexibility for vesting preliminary plat approval and clarify that the director may approve more than one extension over time provided existing criteria are met; five years aligns with the same period for phasing plans.

15.235.050 Preliminary plat approval criteria.

B. Middle Housing Land Division Criteria. The decision to approve a middle housing land division, processed as either a Type II or Type III procedure per NMC 15.100.030(B), shall be based on the following:

1. In addition to subsection (A) of this section, a middle housing land division shall comply with the following:

a. A proposal for development of middle housing in compliance with the Oregon Residential Specialty Code and land use regulations applicable to the original lot or parcel allowed under ORS 197A.420(5) ~~197.758(5)~~;

//

Staff Comments: Correct statute per update in legislative 2023 session.

NMC 15.240 PD PLANNED UNIT DEVELOPMENT REGULATIONS

15.240.020 General provisions.

//

D. Lapse of Approval. If the applicant fails to submit material required for consideration at the next step in accordance with the schedule approved at the previous step or, in the absence of a specified schedule, within one year of such approval, the application as approved at the previous step expires. If the applicant fails to submit a complete application for public improvement plan review or building permit including all required plans and plan review fees ~~obtain a building permit including for construction~~ in accordance with the schedule as previously approved, or in the absence of a specified schedule, within three years of a preliminary plan approval, preliminary and final plan approvals expire. Prior to expiration of plan approval at any step, the hearing authority responsible for approval may, if requested, extend or modify the schedule, providing it is not detrimental to the public interest or contrary to the findings and provisions specified herein for planned unit developments. Unless the preliminary plan hearing authority provides to the contrary, expiration of final plan approval of any phase automatically renders all phases void that are not yet finally approved or upon which construction has not begun.

E. Resubmittal Following Expiration. Upon expiration of preliminary or final plan approval, a new application and fee must be submitted prior to reconsideration. Reconsideration shall be subject to the same procedures as an original application.

Staff Comments: This amendment is minor policy change that makes the permit process more business friendly. The amendment changes vesting from the date of building permit approval ("obtain" permit) to submittal of an application for public improvement plan review or building permit for consistency with the amendments to other procedures.

NMC 15.242 FLEXIBLE DEVELOPMENT TRACK

15.242.030 Flexible development standards – Affordable housing provision.

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C. Construction of Off-Site Units. At the planning and building director's discretion, long-term affordable dwellings or market-rate affordable units may be constructed at an alternate location in the city and equal 75 percent of the EADUs of on-site units. The off-site unit may not be used as affordable dwelling points for any other project. If this option is selected, the applicant shall file an agreement with the city stating the election to use the off-site unit as credit for the applicant's project. A property for construction of the off-site units must be secured and platted in a reasonable time frame, as determined at the ~~planning and building~~

director's discretion. The off-site units must be constructed or have building permits issued within three ~~two~~ years of the completion of the principal on-site development.

Staff Comments: The above amendment is minor policy change allowing more time to construct affordable housing when the applicant elects to use the flexible development standards option.

NMC 15.250 ANNEXATIONS

Background: Existing City code requiring voter-approval of annexations conflicts with ORS 222.127 "Annexation without election notwithstanding contrary city law upon petition of all owners of land." The proposed amendments address the requirement that cities shall not refer annexation requests to a popular vote except under specific circumstances, as follows:

> ***ORS 222.127*** *Annexation without election notwithstanding contrary city law upon petition of all owners of land*
>
> ***(1)*** *This section applies to a city whose laws require a petition proposing annexation of territory to be submitted to the electors of the city.*
> ***(2)*** *Notwithstanding a contrary provision of the city charter or a city ordinance, upon receipt of a petition proposing annexation of territory submitted by all owners of land in the territory, the legislative body of the city shall annex the territory without submitting the proposal to the electors of the city if:*
> ***(a)*** *The territory is included within an urban growth boundary adopted by the city or Metro, as defined in ORS 197.015 (Definitions for ORS chapters 195, 196, 197 and ORS 197A.300 to 197A.325);*
> ***(b)*** *The territory is, or upon annexation of the territory into the city will be, subject to the acknowledged comprehensive plan of the city;*
> ***(c)*** *At least one lot or parcel within the territory is contiguous to the city limits or is separated from the city limits only by a public right of way or a body of water;* ***and***
> ***(d)*** *The proposal conforms to all other requirements of the city's ordinances.*

In practice, the City would not annex a property that does not meet criteria (a) through (d), so there are no longer occasions where the city refers annexations to the city's electorate. The City may still refer annexation requests to the voters within a territory that is proposed for annexation under state law. The following proposed amendments address the above statute and are intended to clarify other existing city requirements for annexation consistent with state law, the City of Newberg Charter and Comprehensive Plan, and City Council Goals.

15.250.010 Statement of purpose.

The city finds that annexation is the first step to converting future urbanizable lands to

urbanizable land within the Newberg urban growth boundary, and that as such it is an important part of the process of providing timely and orderly urban development. The city also recognizes that the development of lands at an urban density must include the provision of an adequate level of required urban services such as wastewater, water, and roads. Policies and procedures adopted in this code are intended to carry out the directives of the citizens of Newberg and the Newberg comprehensive plan, and to ensure that annexation of lands to the city is incorporated into the process of providing a timely and orderly conversion of lands to urban uses. The code provides for annexation elections consistent with state law and the City of Newberg Charter ~~city Charter~~ requirement ~~requires~~ that, unless otherwise mandated by state law, annexation may only be approved by a majority of those voting.

Cross-reference: See ORS 222.855 for annexation to abate a public danger. Also, see ORS 222.111 for annexation eligibility and ORS 222.010 – 222.750 for annexation procedures.

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.
C. The annexation application or legislative proposal must follow one of the statutory annexation procedures contained in ORS 222.

Staff Comment: The above amendment clarifies that the City may annex properties under the methods allowed by state law. ORS 222 contains several methods of annexation, including:

- ORS 222.111(5), annexation with referral to the electors of the territory proposed for annexation, except when referral to electors is not required by another method.
- ORS 222.125, annexation by consent of all owners of land and majority of electors residing within the territory to be annexed.
- ORS 222.170, annexation by consent more than half of the owners of land in the territory, who also own more than half of the land in the contiguous territory and of real property therein representing more than half of the assessed value of all real property in the contiguous territory.
- ORS 222.750, annexation of territory surrounded by city with or without the consent of any owner of real property within the territory or resident in the territory.
- The City also requires annexation as a condition of providing city services except in certain hardship situations as defined by code.

Other annexation procedures relate to boundary changes between cities or service districts, mergers of cities, withdrawal of territories from cities or service districts, annexation of service districts, and health hazard abatement. These procedures are used infrequently, and cities can apply the state statutes directly when needed without adding them to local codes.

//

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.~~
~~A. Annexation elections are normally scheduled for the biennial primary or general elections which are held in May and November of even-numbered years. Applications for annexation shall be filed with the planning division before 5:00 p.m. on October 1st for a primary ballot election in May and before 5:00 p.m. on April 1st for a general ballot election in November. An applicant may request that the city council schedule an annexation ballot measure for a special election date. Applications proposed for review at a special election must be filed with the city eight months prior to the proposed special election date. Filing of an annexation application and having the application deemed complete does not obligate the city to place the annexation question before the voters at any particular election. This subsection does not obligate the city to process an annexation application within any time frame not required by ordinance or state statute.~~
~~B.~~A. The application shall be processed in accordance with the Type III processing procedures outlined in this code. Once the director receives a completed application for annexation, the director shall schedule a recommendation hearing before the planning commission. The planning commission shall make a recommendation to the city council as to whether or not the application meets the criteria contained in NMC 15.250.030. This decision shall be a quasi-judicial determination and not a legislative determination. The planning commission may also recommend denial of an application based upon a legislative perception of the request even though the findings support and would allow annexation. A decision to recommend denial of an annexation, even though the findings support the request, shall be specifically stated in the record and noted as a legislative recommendation separate and apart from the quasi-judicial recommendation.

Staff Comment: The above amendment is to comply with ORS 222.127(2).

~~C.~~B. Following the planning commission hearing, the director shall schedule a city council hearing to consider the request. The city council shall conduct a quasi-judicial hearing and determine whether or not the application meets the criteria contained in NMC 15.250.030. The hearing at the city council shall be considered a new hearing. If new evidence ~~additional testimony~~ is submitted, the city council may, at its own discretion, return the application to the planning commission for further review and recommendation. The city council may also deny an application based upon findings that the applicable criteria are not met, or a legislative perception of the request even though the findings support and would allow annexation. A decision to deny an annexation~~, even though the findings support the request,~~ shall be supported by findings of fact in a city council order. ~~specifically stated in the record and noted as a legislative recommendation separate and apart from the quasi-judicial recommendation~~.

~~D. If the city council approves the annexation request, the proposal may, at the city council's sole discretion, be placed before the voters of the city as follows:~~
~~1. The biennial primary or general elections which are held in May and November of even-numbered years; or~~

~~2. An available special election.~~
~~E. If the city schedules the annexation election for an election other than the biennial primary or general election, the agreement of the applicant or~~
~~owner of the property must be obtained. All costs associated with placing the matter on the ballot shall be paid for by the applicant or owner of the property being annexed.~~
~~F. The city shall place a notice of the annexation election in a newspaper of general circulation in the city not more than 30 days nor less than 20 days prior to the date of the election. Such notice shall take the form of a minimum one-quarter-page layout, which includes a map of the property to be annexed and unbiased information regarding the annexation.~~
~~G. The city shall cause the property under consideration for annexation to be posted with a minimum of one sign not less than 16 square feet in size. The sign shall provide notice of the annexation election, a map of the subject property, and unbiased information regarding the annexation. The sign shall be removed by the applicant within 10 days following the election day.~~
~~H. In addition to the regular annexation fee, the applicant shall pay for all of the costs associated with the election, the ad in the newspaper, and posting of the notice. The city shall inform the applicant of the costs necessary for the newspaper ad and property posting and of the deadline for payment of these costs.~~

Staff Comment: The above amendments clarify that findings of fact are required for quasi-judicial annexation decisions, including denial, and are to comply with ORS 222.127(2) regarding state preemption of voter approval requirement for annexations.

~~I.~~ C. Should ~~this~~ an annexation ordinance ~~request~~ be approved by city council ~~a majority vote of the electorate of the city at the election date as identified by resolution of the city council~~, the property shall be annexed and the following events shall occur:
1. The property shall be ordered and declared annexed and withdrawn from the Newberg rural fire protection district.
2. The territory will be changed from a county zone to a city zoning designation as indicated in NMC 15.250.080. The Newberg, Oregon, zoning map shall be amended to indicate this change.
3. The recorder of the city is directed to make and submit to the Secretary of State, the Department of Revenue, the Yamhill County elections officer, and the assessor of Yamhill County a certified copy of the following documents:
a. A copy of the approved ordinance.
b. A map and legal description identifying the location of said territory.
~~J. If the city council refers an annexation to the voters at a particular election, and the annexation fails to pass at that election, the applicant may petition the city council to refer the annexation to the voters at a subsequent election, subject to the following:~~
~~1. The petition shall include a fee in an amount determined by resolution of the city council. In addition, should the petition be granted, the applicant shall be responsible for all election costs, including the cost of preparing the new annexation measure.~~
~~2. The applicant may only petition the city council once for resubmittal to place the annexation on the ballot in any 12-month period.~~
~~3. The city council shall hold a hearing to consider the petition. The hearing is a legislative~~

~~hearing. Notice of the hearing shall be published in accordance with NMC 15.100.270.~~
~~4. After hearing the petition, the city council may decide any of the following:~~
~~a. The city council may approve the petition and schedule the annexation for a subsequent election. The annexation may only be placed before the voters once in any 12-month period. The annexation shall be processed according to the procedures in subsections (D) through (I) of this section.~~
~~b. The city council may deny the petition.~~
~~c. If conditions affecting the original criteria for the approval of the annexation by the city council have changed significantly, the city council may require the applicant to resubmit the annexation application for consideration by the city council and to pay a new annexation application fee. The city council also may direct that the resubmitted application be referred to the planning commission for recommendation. If there is a period of more than five years between the city council's original quasi-judicial determination that the annexation meets applicable criteria and the annexation election date, then a new application shall be required.~~
~~5. The city council shall have total discretion in determining the timing of placing an annexation measure before the voters, in requiring the submittal of a new or modified annexation application, or in denying a petition for new election.~~
~~6. Where an annexation has been initiated by the city council, the city council may refer the annexation to a subsequent election upon its own motion.~~

Staff Comment: The above amendments are to comply with ORS 222.127(2) regarding state preemption of voter approval requirement for annexations.

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 to initiate an annexation request, 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.
//

Staff Comment: The above amendments are to comply with ORS 222.127(2) regarding state preemption of voter approval requirement for annexations.

15.250.055 Legislative annexations.

//

D. Approval. In approving any legislative annexation, the city council shall follow the applicable

procedures of state law and the Newberg Charter. ~~If the city council approves the annexation, where required by state law or city Charter the annexation shall be referred to an election at a date determined by the city council. If the annexation election is not approved, the city council, at its discretion, may refer the proposal to a future election with any modifications it determines are appropriate. If an election is not required by state law or city Charter, the city council shall by ordinance declare that the territory is annexed to the city.~~

Staff Comment: The above amendment is to comply with ORS 222.127(2) regarding state preemption of voter approval requirement for annexations.

15.250.060 Health hazard annexation.

~~The city shall annex those~~ Annexation of areas constituting a health hazard shall be processed in accordance with ORS 222.840 through 222.915 ~~the Oregon Revised Statutes~~, taking into consideration the ability of the city to provide necessary services. ~~Annexation of areas constituting a health hazard is not subject to voter approval.~~

Staff Comment: The above amendment clarifies applicable statutes.

15.250.070 Island annexation.

//

D. Annexation of an island shall be by ordinance, subject to approval by the voting majority. The city shall allow electors, if any, in the territory proposed to be annexed to vote in the election on the question of annexation. If the city council finds that a majority of the votes cast in the city and the territory combined favor annexation, the city council, by ordinance, shall proclaim the annexation approved. The proclamation shall contain a legal description of each territory annexed.

Staff Comment: No change is proposed to NMC 15.250.070. Under ORS 222.750(8), cities may or may not require an election for any island annexation with annexation approval contingent upon approval by a majority of electors within the island territory. Newberg code mirrors ORS 222.750(8): “If a city charter, ordinance or resolution requires the city to conduct an election in the city, the city shall allow electors, if any, in the territory proposed to be annexed to vote in the election on the question of annexation. If the governing body of the city finds that a majority of the votes cast in the city and the territory combined favor annexation, the governing body, by ordinance or resolution, shall proclaim the annexation approved...”

15.250.075 Batch annexation of small properties by consent.

With the consent of the property owners, the city may process multiple smaller annexations together as a legislative annexation in order to streamline the annexation process and to share the financial cost of the application.
//

D. Approval. The city council may approve or deny all or part of the proposed batch annexation. ~~If the city council approves, it shall refer the annexation to an election following the legislative process under NMC 15.250.050.~~

Staff Comment: Comply with ORS 222.127(2) state preemption of voter referral.

DCA24-0002: 2024 Code Maintenance Package

Draft Code Maintenance Amendments

Formatting of amendments:

1. Code edits and revisions are indicated using double underline for text additions and ~~strike-outs~~ text for deletions.

2. Backslashes "\\" indicate text that is unchanged and has been omitted for brevity.

3. The comments in text boxes summarize the proposed changes and the reasons for them.

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NMC 15.305 ZONING USE TABLE

Staff Comments: Amendments to Zoning Use Table begin on next page.

15.305.020 Zoning use table – Use districts.

#	Use	R-1	R-2	R-3	R-4	RP	C-1	C-2	C-3	C-4	M-E	M-1	M-2	M-3	M-4-I	M-4-C	CF	I	AR	AI	Notes and Special Use Standards
200	**RESIDENTIAL USES**																				
Def.	Dwelling, townhouse	P~~(2)~~	P	P(3)		P		C(4)	C(5)		X							P	P(6)		NMC 15.415.050(B); subject to lot or development site area requirements of NMC 15.405.010
Def.	Home occupation (no more than one outside paid employee)	S	S	S(13)	S	S	S(13)	S(13)	S(13)	S(13)	X	S(13)	S(13)	S(13)	S(13)	S(13)	S(13)	S	S	S(13)	~~NMC 15.415.060~~ NMC 15.445.500
Def.	Home occupation (more than one outside paid employee)	C	C	C(13)	C	C	C(13)	C(13)	C(13)	C(13)	X	C(13)	C(13)	C(13)	C(13)	C(13)	C(13)	C	C	C(13)	~~NMC 15.415.060~~ NMC 15.445.500

Key:

P: Permitted use	S: Special use – Use requires a special use permit	
C: Conditional use – Requires a conditional use permit	X: Prohibited use	(#): See notes for limitations

Notes.

//

(2) Limited to one per lot as a permitted use. More than one per lot allowed only through a conditional use permit or planned unit development, subject to density limits of NMC 15.405.010(B).

Staff Comments for Zoning Use Table: For the following revisions,

- "Dwelling, townhouse": Townhouse dwellings must be on their own individual lot per definition in NMC 15.05.030. Therefore, deletion of reference to Footnote 2 is made because it is not applicable to townhouses.
- "Home occupation (no more than one outside paid employee): Amendments to Notes and Special Use Standards for consistency with relocated home occupation standards.
- Home occupation (more than one outside paid employee): Amendments to Notes and Special Use Standards for consistency with relocated home occupation standards.

NMC 15.326 SPRINGBROOK (SD) DISTRICT

15.326.020 Adoption of Springbrook master plan.

Development within this zone shall be governed by a master plan approved and accepted by the city council, which ensures internal compatibility of use activities as well as compatibility with adjacent uses. Development within the Springbrook district shall follow the applicable standards set forth in this chapter, and those standards set forth in the "Development Standards Matrix" in the Springbrook master plan, codified in NMC 15.326.025. [Ord. 2923, 5-20-24, 2915, 7-7-23, Ord. 2889, 12-9-21, Ord. 2880, 6-10-21, Ord. 2678 § 4 (Exh. 6(1)), 9-4-07; Ord. 2619, 5-16-05; Ord. 2499, 11-2-98; Ord. 2451, 12-2-96. Code 2001 § 151.426.]

Staff Comment: The existing ordinance citations are being updated because the current editorial note is incomplete. In addition, the SD Development Standards Matrix is incorporated into the code, below, making it easier to find and use. Although a code amendment is not required to update editorial notes, these updates are included in the Code Maintenance package for transparency.

- Ordinance 2007-2678: Created the Master Plan and Development Agreement
- Ordinance 2021-2880: Added Duplexes as an allowed use to Low Density and Mid-Rise Residential Districts in the Development Standards Matrix
- Ordinance 2021-2889: Added Triplex, Quadplex and Cottage Clusters to Low Density Residential and Mid-Rise Residential Districts. Added "Attached dwelling units" to Low Density Residential in the Development Standards Matrix
- Ordinance 2023-2915: Amended the zoning of the property at Mountainview/College from Neighborhood Commercial to Mid-Rise Residential as well as modify other elements of the master plan where the Collina at Springbrook Subdivision is including the transportation plan.
- Ordinance 2024-2923: Altered the Development Standards Matrix for Middle Housing Standards.

15.326.025 Springbrook Master Plan Develop Standards Matrix

Staff Comment: This new section, NMC 15.326.025, beginning on the next page, incorporates the existing Development Standards Matrix of the Springbrook Master Plan within NMC Chapter 15.326 for improved ease of use. The regulations are unchanged.

15.326.025 - SPRINGBROOK DISRICT DEVELOPMNT STANDARDS MATRIX						
DEVELOPMENT STANDARDS	**LOW DENSITY RESIDENTIAL**	**MID – RISE RESIDENTIAL**	**NEIGHBORHOOD COMMERCIAL**	**EMPLOYMENT**	**VILLAGE**	**HOSPITALITY**
ALLOWED USE*	❖ Detached Dwelling Units ❖ Duplex Dwellings ❖ Triplex and Quadplex Dwellings ❖ Attached Dwelling Units ❖ Cottage Clusters ❖ Manufactured Home ❖ Accessory Dwellings ❖ Home Occupations ❖ Passive or Active Use Parks ❖ Agriculture ❖ Civic Uses: Post Office Museum Community Center Library School ❖ Day Care ❖ Group Care Facilities ❖ Church ❖ Transportation facilities and improvements and utility services ❖ Any other building or use determined to be similar to uses listed in this District	❖ Attached Dwelling Units ❖ Manufactured Home ❖ Detached Dwelling Units ❖ Duplex Dwellings ❖ Triplex and Quadplex Dwellings ❖ Cottage Clusters ❖ Multi-Family Units ❖ Home Occupations ❖ Passive or Active Use Parks ❖ Agriculture ❖ Civic Uses: Post Office Museum Community Center Library ❖ Day Care ❖ Group Care Facilities ❖ Church ❖ Transportation facilities and improvements and utility services ❖ Any other building or use determined to be similar to uses listed in this District	❖ Retail ❖ Restaurants ❖ Office ❖ Medical Clinics ❖ Financial Institutions ❖ Agriculture ❖ Civic Uses: Post Office Museum Community Center Library ❖ Day Care ❖ Group Care Facilities ❖ Transportation facilities and improvements and utility services ❖ Services for local residents, such as laundromat or barber ❖ Any other building or use determined to be similar to uses listed in this District	❖ Industrial Offices (knowledge- based industries where services are primarily provided outside the community) ❖ Light Industrial ❖ Supporting Retail (directly serving the employment district, such as a deli or printing service) ❖ Day Care ❖ Agriculture ❖ Transportation facilities and improvements and utility services ❖ Any other building or use determined to be similar to uses listed in this District	❖ Retail ❖ Restaurants ❖ Attached Dwelling Units ❖ Manufactured Home ❖ Multi-Family Units ❖ Home Occupations ❖ Church ❖ Artist Studios ❖ Passive or Active Use Parks ❖ Agriculture ❖ Civic Uses: Train Depot Community Center Museum Post Office Library ❖ Day Care ❖ Group Care Facilities ❖ Financial Institutions ❖ Winery ❖ Medical Clinics ❖ Office ❖ Transportation facilities and improvements and utility services ❖ Any other building or use determined to be similar to uses listed in this District	❖ Hotel ❖ Restaurants ❖ Spa ❖ Meeting Facilities ❖ Detached Dwelling Units, limited to vacation or transitory use or units for employees or caretakers of other uses within the Village or Hospitality areas ❖ Manufactured Home ❖ Home Occupations\ ❖ Retail ❖ Museum ❖ Artist Studios ❖ Group Care Facilities ❖ Agricultural Production or Processing ❖ Passive or Active Use Parks ❖ Transportation facilities and improvements and utility services ❖ Any other building or use determined to be similar to uses listed in this District
PROHIBITED USE	Home Occupation Signs	Home Occupation signs	Drive throughs, outside storage; temporary storage allowed	Outside storage or processing of materials	Drive throughs, outside storage; temporary storage allowed	-
NEWBERG ZONE DISTRICT MODELED AFTER **	R-1	R-2 and R-3	C-1	M-1, but office is not allowed	C-3	No comparison
BUILDING AND SITE STANDARDS						
BUILDING HEIGHT	R-1	45 feet, limited to three stories	C-1	M-1	C-3	Five stories or 75 feet

DEVELOPMENT STANDARDS	LOW DENSITY RESIDENTIAL	MID – RISE RESIDENTIAL	NEIGHBORHOOD COMMERCIAL	EMPLOYMENT	VILLAGE	HOSPITALITY
LOT REQUIREMENTS						
FRONT YARD SETBACK	Minimum 15 feet, except minimum 10 feet for porches and similar entry features Minimum 20 feet for garage	R-3	C-1	No minimum	No minimum setback. No maximum setback, if area between building and property line contains public space or landscaping	Minimum 20 feet or equal to height of building, if adjacent to residential uses
INTERIOR YARD SETBACKS	R-1	R-3	10 feet if abutting residential zones	M-1	C-3	Minimum 20 feet
SETBACKS AND YARD RESTRICTIONS AS TO SCHOOLS, CHURCHES, PUBLIC BUILDINGS	-	-	-	-	Does not apply	-
MINIMUM LOT AREA	Minimum 2,900 square feet, except: Minimum 1,500 square feet for attached dwelling units Minimum 4,500 square feet for triplex dwellings Minimum 7,000 square feet for quadplex dwellings and cottage clusters	Minimum 1,800 square feet, except: Minimum 1,500 square feet for attached dwelling units Minimum 4,500 square feet for triplex dwellings Minimum 6,000 square feet for quadplex dwellings and cottage clusters	C-1	M-1	C-3 (Minimum 1,800 square feet)	Minimum 5,000 square feet
MINIMUM LOT DIMENSIONS	The standard City lot frontage requirement applies Minimum lot width shall be 32 feet, except minimum 20 feet for middle housing dwelling units	The standard City lot frontage requirement applies	The standard City lot frontage requirement applies	The standard City lot frontage requirement applies	The standard City lot frontage requirement applies	The standard City lot frontage requirement applies
LOT COVERAGE AND PARKING COVERAGE REQUIREMENTS	(1) Maximum Lot Coverage: 55%, except 60% for attached dwelling units (2) Maximum Parking Lot Coverage: 30% (3) Maximum Combined Lot Parking Lot Coverage: 65%, except 70% for attached dwelling units	(1) Maximum Lot Coverage: 80% if parking is located in an underground structure; otherwise 60% (2) Maximum Parking Lot Coverage: 35%, unless parking is located in an underground structure (3) Maximum Combined Lot Coverage: 80%	Does not apply	Does not apply	Does not apply	Does not apply

DEVELOPMENT STANDARDS	**LOW DENSITY RESIDENTIAL**	**MID – RISE RESIDENTIAL**	**NEIGHBORHOOD COMMERCIAL**	**EMPLOYMENT**	**VILLAGE**	**HOSPITALITY**
ADDITIONAL DESIGN STANDARDS	***Additional standards apply for middle housing developments	-	Development shall meet the design standards of the C-2 zone, or alternate standards developed in a design standard accepted by the City specific for this area A minimum of 20,000 square feet of retail space shall be developed in this area	-	-	-
LANDSCAPE AND OUTDOOR AREAS						
REQUIRED MINIMUM STANDARDS	Private area requirements based upon use of will apply Area requirements: Min. 15%	Private area requirements based upon use of will apply Area requirements: Min. 15%	Area requirements: Min. 15%	Area requirements: Min. 15%	C-3	Private area requirement based upon use will apply Area requirements: Min. 15%
SIGNS						
EXEMPTIONS	Landscape Monument Signs, as indicated on the *Gateway Features Plan* and *Gateway Features Concepts* are exempt from this standard	Landscape Monument Signs, as indicated on the *Gateway Features Plan* and *Gateway Features Concepts* are exempt from this standard	Landscape Monument Signs, as indicated on the *Gateway Features Plan* and *Gateway Features Concepts* are exempt from this standard	Landscape Monument Signs, as indicated on the *Gateway Features Plan* and *Gateway Features Concepts* are exempt from this standard	Landscape Monument Signs, as indicated on the *Gateway Features Plan* and *Gateway Features Concepts* are exempt from this standard	Landscape Monument Signs, as indicated on the *Gateway Features Plan* and *Gateway Features Concepts* are exempt from this standard
SIGN REQUIREMENTS	Assume R-1 zone for applying standards in these sections	Assume R-3 zone for applying standards in these sections	Assume C-1 zone for applying standards in these sections	Assume "Other Zone" or "All Zone" for applying standards in these sections	Assume C-3 zone for applying standards in these sections	Assume "Other Zone" or "All Zone" for applying standards in these sections
OFF STREET PARKING REQUIREMENTS						
REQUIRED OFF-STREET PARKING	R-1	"Other Zones"	C-1	"Other Zones"	Parking studies will be required to be submitted with each phase of development in the Village District in order to ensure the parking provided is sufficient for the proposed use or uses	"Other Zones"

PARKING SPACES REQUIRED	Requirements based on use apply	Requirements based on use apply	Requirements based on use apply	Requirements based on use apply	Requirements based on use apply	Requirements based on use apply
PARKING REQUIREMENTS FOR USES NOT SPECIFIED	Uses not listed in table determined through Type I procedure	Uses not listed in table determined through Type I procedure	Uses not listed in table determined through Type I procedure	Uses not listed in table determined through Type I procedure	Uses not listed in table determined through Type I procedure	Uses not listed in table determined through Type I procedure

* Uses not identified herein shall be reviewed and if found to be similar to the allowed uses shall be approved through a Type I process.

** When the model zone requirement applies, the zone is listed in the table, otherwise an alternative standard is stated.

*** Middle Housing development standards within the Springbrook District west of Hess Creek:

1. Quadplex dwellings may be constructed as attached or detached dwellings.
2. Entry Orientation. At least one main entrance for each duplex, triplex, or quadplex structure must meet the standards. Any detached structure with more than 50 percent of its street facing facade separated from the street property line by a dwelling is exempt from meeting these standards.
   a. The entrance must be within eight feet of the longest street-facing wall of the dwelling unit; and minimum of 50 percent of units must be oriented to the common courtyard.
   b. The entrance must either:
      i. Face the street;
      ii. Be at an angle of up to 45 degrees from the street; or
      iii. Face a common open space that is adjacent to the street and is abutted by dwellings on at least two sides; or
      iv. Open onto a porch. The porch must:
         (A) Be at least 25 square feet in area; and
         (B) Have at least one entrance facing the street or have a roof.
3. Windows. A minimum of 15 percent of the area of all street-facing facades must include windows or entrance doors. Facades separated from the street
4. Garages and Off-Street Parking Areas. Garages and off-street parking areas shall not be located between a building and a public street (other than an alley), except in compliance with the standards of this section.
   a. The garage or off-street parking area is separated from the street property line by a dwelling; or
   b. The combined width of all garages and outdoor on-site parking and maneuvering areas does not exceed a total of 50 percent of the street frontage.
5. Driveway separation for quadplex and duplex lots may be reduced to 22 feet.
6. Shared driveways for middle housing may be provided within an access easement 24 feet wide with a 16-foot paved surface.

15.326.060 Modifications to the master plan.

A. The following modifications to the master plan shall follow the Type I administrative procedure identified in NMC 15.100.020:

1. Land use district boundary modifications prior to development within that phase of no more than one acre that adjust a boundary no more than 50 feet.

B. The following modifications to the master plan shall follow a Type II procedure identified in NMC 15.100.030:

1. Land use district boundary modifications prior to development within that phase greater than one acre and less than five acres that adjust a boundary no more than 100 feet.
2. Modifications to the "Trip Cap" established with approval of the master plan.

C. The following modifications to the master plan shall follow a Type III procedure identified in NMC 15.100.050 and be processed pursuant to OAR Chapter 660, Division 18, Post-Acknowledgement Amendments. In approving such modifications, the planning commission must find the modification conforms to the applicable comprehensive plan policies and statewide planning goals:

1. Modifications other than those noted above.
2. Modifications to the Springbrook district boundary.

Staff Comment: This amendment clarifies changes to the Springbrook District Master Plan processed as a Type III review follow the same procedure as other quasi-judicial comprehensive plan and land use regulatory amendments.

Prior interpretations have been inconsistent with respect to the State's "Post-Acknowledgement Plan Amendment (PAPA)" noticing of Springbrook Master Plan (MP) amendments. For the amendments processed in 2023 the City provided a PAPA notice for the zone map change only, even though the package of amendments transmitted to the Oregon Department of Land Conservation and Development contained both zone map and development code amendments and all were reviewed and approved by City Council in ordinance form.

In practice, the master plan operates like an overlay zone, and as such, any amendment to the master plan that is subject to the Type III procedure in NMC 15.326.060.C must be noticed in the same manner as any quasi-judicial comprehensive plan or land use regulation amendment under OAR 660, Division 18. However, minor master plan modifications processed respectively under NMC 15.326.060.A or NMC 15.326.060.B (Ministerial or Limited Land Use decision) are not land use regulatory amendments because they are Ministerial or Limited Land Use decisions under city code and ORS 197.195.

NMC 15.342 STREAM CORRIDOR OVERLAY (SC) SUBDISTRICT

15.342.090 Mitigation requirements for Type II activities.

//

B. Replanting shall be required using a combination of trees, shrubs and grass. Species shall be selected from the designated Newberg native plant list, "Guide for Using Willamette Valley Native Plants Along Your Stream" (Linn Soil and Water Conservation District, June 2005), or as approved by the director, except that ash species (Fraxinus spp.) and other species that are susceptible to invasive species including emerald ash borer (Agrilus planipennis) are prohibited. Planting shall be as follows:

1. At least eight species of plants shall be used.
2. At least two species must be trees and two species must be shrubs.
3. No more than 50 percent of any seed mix used can be grass.
4. A minimum of one tree and three shrubs shall be used for every 500 square feet of planting area.
5. Areas to be replanted must be completed at the time of final inspection or completion of the work, except as otherwise allowed by this code.
6. Existing vegetation that can be saved and replanted is encouraged, although not required.

Staff Comment: Clarify official list of approved plants for mitigating development in the Stream Corridor Overlay (SC) Subdistrict.

15.342.150 Permit approval must be exercised to be effective

An approval for development in the Stream Corridor Overlay (SC) Subdistrict shall be valid for two years from the effective date of the decision. A complete application for public improvement plan review or building permit including all required plans and plan review fees must be submitted within this time period or the approval shall terminate. The director under a Type I procedure may grant extensions for up to 12 months each not to exceed five years if the applicant files a request in writing prior to the expiration of the approval and demonstrates compliance with the following:

A. The land use designation of the property has not been changed since the initial design review approval; and

B. The applicable standards in this code which applied to the project have not changed.

Staff Comment: New NMC section added to clarify the approval, expiration, and extension timeframes associated with land use approvals for Chapter 15.342 Stream Corridor Overlay (SC) Subdistrict. Timeframe mirrors those found in other land use application including those for conditional use permits and site design review.

NMC 15.348 INSTITUTIONAL OVERLAY (IO) SUBDISTRICT

15.348.040 Procedures.

A. Designation of Overlay Boundary. The IO subdistrict boundary is defined by the institution in cooperation with the city, based on the institution's needs and acceptable areas for expansion. To amend an established boundary the institution will be required to submit a comprehensive plan amendment in accordance with established city procedures.

//

~~C. Conversion of Properties from IO Subdistrict to I Institutional District.~~
~~1. When the institution purchases property that is contiguous to the existing institutional district boundary, those properties can convert to the institutional district designation when the following applies:~~
~~a. The property contains or will be converted to an institutional use; and~~
~~b. The property is adjacent to the existing institutional boundary; and~~
~~c. The property meets either of the following locational factors:~~
~~i. In areas west of Hess Creek, more than 80 percent of the block is owned by the institution.~~
~~ii. The subject site is 100 percent owned by the institution and bounded on three sides by the institution; or when the subject site and abutting parcels on two sides of the site are owned by the institution and the third side of the site abuts the IO zone boundary.~~
~~2. When properties are eligible for conversion to the institutional district subject to the conditions in subsection (C)(1) of this section, the institution will be required to submit the following information to the director for administrative Type I review and approval:~~
~~a. Submit a title report showing ownership of the property by the institution.~~
~~b. Provide a map and legal description showing where the property is located.~~
~~c. Provide information and a description of how the institution meets the requirements of subsection (C)(1) of this section.~~
~~3. With approval of the zone map amendment by the director for property conversion from the IO subdistrict to the institutional district, the city shall update the zoning map to reflect the change.~~

Staff Comment: Remove IO map amendments to comply with ORS 197.797 Local quasi-judicial land use hearings, and ORS 227.175 Permit or zone change applications, which require a quasi-judicial review, not a Type I review, for zone changes involving one or a small group of properties. The procedures already exist elsewhere for zone changes.

NMC 15.352 RIVERFRONT (RD) OVERLAY SUBDISTRICT

15.352.050 Residential design standards.
In addition to the development standards of the base zone and the design standards in NMC 15.415.050, the following standards shall apply:

//

B. Standards for Primary Entrances, Garage Doors and Parking in Residential Zones.

1. Residential Entrances. All residential structures shall have a pedestrian entrance facing a street.

~~1.~~2. Garage Location. ~~All residential structures shall have a pedestrian entrance facing the street.~~ When parking is provided in a garage attached to the primary structure, and garage doors face a street, the following standards must be met:

a. The garage door, or doors if more than one door on same building elevation, must not be more than 40 percent of the length of the street-facing facade or 12 feet wide, whichever is greater.

Staff Comment: Clarify that the garage appearance standard applies to garage doors and not garages in general, consistent with past interpretation for houses built in the Riverfront Subdistrict.

b. The front of the garage can be no closer to the front lot line than the front facade of the primary structure.

c. Individual garage doors may be no more than 90 square feet in area for a single-car garage or 180 square feet in area for a two-car garage.

d. There may be no more than two individual garage doors located side by side without being separated by a space not less than 20 feet.

~~2.~~3. Surface parking areas shall be located behind or to the side of residential structures.

~~3.~~4. If carports are provided on surface lots, they must be of an architectural design that is compatible with the dwelling structure, and be constructed of similar materials.

DCA24-0002: 2024 Code Maintenance Package

Draft Code Maintenance Amendments

Formatting of amendments:

1. Code edits and revisions are indicated using double underline for text additions and ~~strike-outs~~ text for deletions.

2. Backslashes "\\" indicate text that is unchanged and has been omitted for brevity.

3. The comments in text boxes summarize the proposed changes and the reasons for them.

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NMC 15.405 LOT REQUIREMENTS

15.410.070 Yard exceptions and permitted intrusions into required yard setbacks.

D. Fences and Walls.

1. In the residential district, a fence or wall shall be permitted to be placed at the property line or within a yard setback as follows:

a. Not to exceed six feet in height. Located or maintained within the required interior yards. For purposes of fencing only, lots that are corner lots or through lots may select one of the street frontages as a front yard and all other yards shall be considered as interior yards, allowing the placement of a six-foot fence on the property line. In no case may a fence extend into the clear vision zone as defined in NMC 15.410.060.

b. Not to exceed four feet in height. Located or maintained within all other front yards.

2. In any commercial, industrial, institutional, or mixed employment district, a fence or wall shall be permitted to be placed at the property line or within a yard setback as follows:

a. Not to exceed eight feet in height. Located or maintained in any interior yard except where the requirements of vision clearance apply. For purposes of fencing only, lots that are corner lots or through lots may select one of the street frontages as a front yard and all other yards shall be considered as interior yards, allowing the placement of an eight-foot fence on the property line.

b. Not to exceed four feet in height. Located or maintained within all other front yards.

3. If chain link (wire-woven) fences are used, they are manufactured of corrosion-proof materials of at least 11-1/2 gauge.

4. The requirements of vision clearance shall apply to the placement of fences.

5. A fence building permit is required when building a wood fence taller than 7 feet, masonry or concrete fence or wall taller than 4 feet, woven wire or chain linked fence taller than 8 feet, fence or wall enclosing a swimming pool, and for other structures as required by the building code.

Staff Comment: Adds an exception for Institutional (I)) District and clarifies building permits required for certain types of fences and walls.

NMC 15.415 BUILDING AND SITE DESIGN STANDARDS

~~**15.415.060 Home occupation.**~~

~~Home occupations shall be processed as a Type I procedure. Home occupation uses shall comply with the following standards:~~
~~A. Signs shall comply with the standards of NMC 15.435.010 et seq.~~
~~B. There is no display that will indicate from the exterior that the building is used in whole or in part for any purpose other than a dwelling.~~
~~C. The building retains the characteristics of a residence.~~
~~D. There is no outside storage of materials, parts, tools, supplies, or other items related to the use as a home occupation, other than nursery plants.~~
~~E. No more than one outside paid employee shall be permitted to work at the residence at any given time.~~
~~F. The use does not destroy the residential character of the neighborhood.~~
~~G. All work being performed at the site is done within the confines of a building and no noise, odor, dust, smoke or other evidence of the home occupation permeates beyond the confines of the property.~~
~~H. The home occupation is incidental to the use of the building and site for residential purposes.~~
~~I. The work does not involve the use of hazardous substances or materials which might create a fire hazard or danger to the environment or neighboring properties, including but not limited to gasoline, paint, oxygen/acetylene tanks, or other flammable or hazardous materials. [Ord. 2499, 11-2-98; Ord. 2451, 12-2-96. Code 2001 § 151.540.]~~
~~**Penalty:** See NMC 15.05.120.~~

Staff Comment: The home occupations standards are relocated to Special Use Standards, NMC 15.445.500, for ease of use and because the standards are use-based, not design based. Cross-references in NMC 15.220 Site Design Review, NMC 15.305 Zoning Use Table, and NMC 5.15 Temporary Sales are amended for consistency.

NMC 15.440 OFF-STREET PARKING, BICYCLE PARKING, AND PRIVATE WALKWAYS

15.440.010 Required off-street parking.

A. Off-street parking shall be provided on the lot or development site for all R-1, C-1, M-1, M-2 and M-3 zones. In all other zones, the required parking shall be on the lot or development site or within 400 feet of the lot or development site which the parking is required to serve. All required parking must be under the same ownership as the lot or development site served except through special covenant agreements as approved by the city attorney, which bind the parking to the lot or development site.

~~1. In cases where the applicant is proposing off-street parking, refer to subsection (F) of this section for the maximum number of parking spaces.~~

B. Off-street parking is required pursuant to NMC 15.440.030 in the C-2 district.

~~1. In cases where the applicant is proposing off-street parking, refer to subsection (F) of this section for the maximum number of parking spaces.~~

C. Off-street parking is not required in the C-3 district, except for:

1. Dwelling units meeting the requirements noted in NMC 15.305.020.

2. New development which is either immediately adjacent to a residential district or separated by nothing but an alley.

~~3. In cases where the applicant is proposing off-street parking, refer to subsection (F) of this section for the maximum number of parking spaces.~~

D. Within the C-4 district, the minimum number of required off-street parking spaces shall be 50 percent of the number required by NMC 15.440.030, except that no reduction is permitted for residential uses. ~~For maximum number of off-street parking spaces refer to subsection (F) of this section.~~

E. All commercial, office, or industrial developments that have more than 20 off-street parking spaces and that have designated employee parking must provide at least one preferential carpool/vanpool parking space. The preferential carpool/vanpool parking space(s) must be located close to a building entrance.

F. Residential garages meeting the requirements of NMC 15.440.075 shall be counted towards required off-street parking spaces for residential uses. ~~Maximum Number of Off-Street Automobile Parking Spaces. The maximum number of off-street automobile parking spaces allowed per site equals the minimum number of required spaces, pursuant to NMC 15.440.030, multiplied by a factor of:~~

~~1. One and one-fifth spaces for uses fronting a street with adjacent on-street parking spaces; or~~

~~2. One and one-half spaces for uses fronting no street with adjacent on-street parking; or~~

~~3. A factor determined according to a parking analysis.~~

Staff Comment: Existing NMC 15.440.010(F) text is deleted and relocated in NMC 15.440.030 for improved reading. Revised 15.440.010(F) clarifies that residential garage structures may be used to meet required off-street parking space requirements.

15.440.030 Parking spaces required.

A. The minimum number of parking spaces required and maximum number of parking spaces allowed shall be calculated pursuant to Table 15.440.030(A) or with a parking study pursuant to NMC 15.440.045.

1. In calculations of the minimum number of required parking spaces that result in a fraction, the minimum number shall be rounded down for any fraction that is less than half of a whole number and rounded up for any fraction that is equal to or greater than a half of a whole number.
2. In calculations of the maximum number of required parking spaces that result in a fraction, the maximum number allowed shall be rounded up for any fraction of a whole number.

B. In any zoning district the maximum parking spaces allowed shall be regulated by the use type in Table 15.440.030(A) except when determined with a parking study pursuant to NMC 15.440.045.

C. There is no parking minimum or maximum where parking is the sole use of a lot and such parking is not provided to meet the parking requirement of any other use.

Staff Comment: The parking code sections are restructured for clarity. Content is relocated from 15.440.010(F) to this section and parking minimums and maximums are consolidated into one table. Parking study option added for situations where the parking table and existing code adjustments procedures do not address unique parking needs. Currently, a "parking analysis" option exists only for determining the maximum number of allowed parking spaces.

15.440.040 Parking requirements for uses not specified.

The parking space requirements for buildings and uses not set forth herein shall be determined by the director through a Type I procedure~~. Such determination shall be~~ based upon the requirements for the most comparable building or use specified herein, or with a parking study through the Type II procedure pursuant to NMC 15.440.045.

15.440.045 Parking study option.

Required parking spaces may be determined with a parking study approved by the director through a Type II procedure as an alternative to complying with the minimum and maximum number of parking spaces in Table 15.440.030(A). If the applicant elects to use a parking study, the parking study shall comply with the following:

A. The total number of parking spaces required shall equal the number of spaces determined to be necessary to accommodate the typical daily parking demand generated by the business or development use(s). "Typical daily parking demand" means the number of parking spaces required during the hours for the normal operation of the use or uses. The parking study shall be conducted by a registered traffic engineer or other qualified professional as determined by the director.

B. The parking study shall consider relevant references, guides, and factors that aid in the average peak parking demand determination. Such references, guides, and factors may include, but are not limited to:

a. The factors and considerations recommended by the Institute of Traffic Engineers (ITE) Industry Standards or comparable source approved by the director.

b. Availability and projected use of alternative transportation modes such as car share services, carpooling, bicycle, pedestrian, transit, and other modes.

c. Parking demands at similar types of facilities, in similar types of locations, either within the city or elsewhere.

C. Notwithstanding any other provision of this code to the contrary, the minimum number of parking spaces determined to be necessary pursuant to this subsection shall not be eligible for reduction using code adjustments or other parking discounts and modifiers in this code.

D. Parking studies approved under this section are not transferable to other locations or uses.

Staff Comment: The above "Parking Study" option if adopted provides flexibility for modifying parking minimums and maximums where the one-size-fits-all standards in Table 15.440.030(A) do not reflect actual parking needs or demand for in particular circumstances. If the Planning Commission concurs, the parking study provision will be added to DCA 24-0002.

Table 15.440.030(A) Minimum Parking Spaces Required and Maximum Parking Spaces Allowed by Use

Use	Minimum Parking Spaces Required	Maximum Parking Spaces Allowed***		Rate and Units
		Uses fronting a street with abutting on-street parking	*Uses fronting no street with abutting on-street parking*	
Residential Types				
Dwelling, multifamily and multiple single-family dwellings on a single lot				
Studio or one-	1 ~~per dwelling unit~~	1.2	1.5	Per dwelling unit
bedroom unit Two-bedroom unit	1.5 ~~per dwelling unit~~	1.8	2.25	Per dwelling unit
Three- and four-bedroom unit	2 ~~per dwelling unit~~	2.4	3	Per dwelling unit
Five- or more bedroom unit	0.75 ~~spaces per bedroom~~	0.9	1.13	Spaces per bedroom
Parking Requirement Modifiers for Multifamily Residential Developments				
• Unassigned spaces	If a development is required to have more than 10 spaces on a lot, then it must provide some unassigned spaces. At least 15 percent of the total required parking spaces must be unassigned and be located for convenient use by all occupants of the development. The location shall be approved by the director.			
• Visitor spaces	If a development is required to have more than 10 spaces on a lot, then it must provide at least 0.2 visitor spaces per dwelling unit.			
• On-street parking credit	On-street parking spaces may be counted toward the minimum number of required spaces for developments required to have more than 10 spaces on a lot. The on-street spaces must be directly adjoining and on the same side of the street as the subject property, must be legal spaces that meet all city standards, and cannot be counted if they could be removed by planned future street widening or a bike lane on the street.			

Use	Minimum Parking Spaces Required	Maximum Parking Spaces Allowed***		Rate and Units
		Uses fronting a street with abutting on-street parking	***Uses fronting no street with abutting on-street parking***	
• Available transit service	At the review body's discretion, affordable housing projects may reduce the required off-street parking by 10 percent if there is an adequate continuous pedestrian route no more than 1,500 feet in length from the development to transit service with an average of less than one hour regular service intervals during commuting periods or where the development provides its own transit. A developer may qualify for this parking reduction if improvements on a proposed pedestrian route are made by the developer, thereby rendering it an adequate continuous route.			
Dwelling, Commercial neighborhood district (C-1)	1 ~~for each dwelling~~	See Dwelling types, below	See Dwelling types, below	For each dwelling unit
Dwelling, single-family	2 ~~for each dwelling unit on a single lot~~	None	None	For each dwelling unit on a single lot
Dwelling, duplex	1 ~~for each dwelling unit~~	None	None	For each dwelling unit
Dwelling, triplex	1 ~~for each dwelling unit~~ Except that conversion of a detached single-family dwelling to a triplex dwelling shall not be subject to this requirement	None	None	For each dwelling unit
Dwelling, quadplex	1 ~~for each dwelling unit~~ Except that conversion of a detached single-family dwelling to a quadplex dwelling shall not be subject to this requirement	None	None	For each dwelling unit

Use	Minimum Parking Spaces Required	Maximum Parking Spaces Allowed***		Rate and Units
		Uses fronting a street with abutting on-street parking	***Uses fronting no street with abutting on-street parking***	
Dwelling, townhouse	1 ~~for each dwelling unit~~	None	None	For each dwelling unit
Dwelling, cottage	1 ~~for each dwelling unit~~	None	None	For each dwelling unit
Fraternities, sororities, cooperatives and dormitories	1 ~~for each three occupants for which sleeping facilities are provided~~	1.2	1.5	For each three occupants for which sleeping facilities are provided
Hotels, motels, motor hotels, etc.	1 ~~for each guest room~~	1.2	1.5	For each guest room
Rooming or boarding houses	1 ~~for each guest room~~	1.2	1.5	For each guest room
Special needs housing	1 ~~space per 3 beds or actual parking needs as demonstrated through a parking analysis.~~	1.2	1.5	Spaces per 3 beds or actual parking needs as demonstrated through a parking analysis.
Institutional Types				
Churches, clubs, lodges	1 ~~for every 4 fixed seats or every 8 feet of bench length or every 28 sq. ft. where no permanent seats or benches are maintained – in main auditorium (sanctuary or place of worship)~~	1.2	1.5	Spaces for every 4 fixed seats or every 8 feet of bench length or every 28 sq. ft. where no permanent seats or benches are maintained – in main auditorium (sanctuary or place of worship)

Use	Minimum Parking Spaces Required	Maximum Parking Spaces Allowed***		Rate and Units
	-	***Uses fronting a street with abutting on-street parking***	***Uses fronting no street with abutting on-street parking***	
Continuing care retirement community not including nursing care	1 ~~space per living unit~~	1.2	1.5	Space per living unit
Day care facility	1 ~~space per employee plus 1 space per 10 children/adults~~ 1	1.2 1.2	1.5 1.5	Spaces per employee Plus spaces per 10 children/adults
Family child care homes	No off-street parking other than for the required dwelling. Maximum number of spaces allowed is the same as the maximum number allowed for the required dwelling, if any.			
Hospitals (including accessory retail wholly contained within a hospital building)	2 ~~spaces for each 1,000 gross sq. ft.~~	2.4	3	Spaces for each 1,000 gross sq. ft.
Libraries, museums, art galleries	1 ~~for each 250 sq. ft. of gross floor area~~	1.2	1.5	Spaces for each 250 sq. ft. of gross floor area
Medical/dental offices and laboratories	3.5 ~~spaces for each 1,000 gross sq. ft.~~	4.2	5.25	Spaces for each 1,000 gross sq. ft.
Nursing homes, homes for the aged, group care homes, asylums, etc.	1 ~~for each 3 beds~~	1.2	1.5	Spaces for each 3 beds

Use	Minimum Parking Spaces Required	Maximum Parking Spaces Allowed***		Rate and Units
		Uses fronting a street with abutting on-street parking	***Uses fronting no street with abutting on-street parking***	
Schools, Colleges – "commuter" type	~~Colleges – "commuter" type,~~ 1 ~~for every full-time equivalent student (plus 1/2 of the requirements for accessory buildings, i.e., 1.-E* and 3.-G(1)**)~~	1.2	1.5	Spaces for every full-time equivalent student Plus half of the requirements for accessory buildings, i.e., 1.-E* and 3.-G(1)**)
Schools, Colleges – "resident" type	~~Colleges – "resident" type,~~ 1 ~~for every 3 full-time equivalent students (plus 1/2~~ 0.5 ~~of the requirements for accessory buildings, i.e., 1.-E* and 3.-G(1)**)~~	1.2	1.5	Spaces for every 3 full-time equivalent students Plus half of the requirements for accessory buildings, i.e., 1.-E* and 3.-G(1)**)
Schools, Elementary or junior high	~~Elementary or junior high, 1-1/2~~ 1.5 ~~for each teaching station plus 4 for every classroom, or 1 for every 42 sq. ft. of seating area where there are no fixed seats in an auditorium or assembly area~~	1.8	2.25	spaces for each teaching station Plus 4 for every classroom, or 1 for every 42 sq. ft. of seating area where there are no fixed seats in an auditorium or assembly area
Schools, High schools	~~High schools, 1-1/2~~ 1.5 ~~for each teaching~~	1.8	2.25	spaces for each teaching station.

Use	Minimum Parking Spaces Required	Maximum Parking Spaces Allowed***		Rate and Units
		Uses fronting a street with abutting on-street parking	***Uses fronting no street with abutting on-street parking***	
	~~station, plus 8 for every classroom, or 1 for every 28 sq. ft. of seating area where there are no fixed seats in an auditorium or assembly area~~			Plus 8 for every classroom, or 1 for every 28 sq. ft. of seating area where there are no fixed seats in an auditorium or assembly area
Schools, Colleges – commercial or business	~~Colleges – commercial or business,~~ 1 ~~for every 3 classroom seats (plus 1/2~~ 0.5 ~~of the requirements for accessory buildings, i.e., 1.-E* and 3.-G(1)**)~~	1.2	1.5	Spaces for every 3 classroom seats. Plus half of the requirements for accessory buildings, i.e., 1.-E* and 3.-G(1)**)
Welfare or correctional institutions	1 ~~for each 5 beds~~	1.2	1.5	Spaces for each 5 beds
Commercial Types				
Barber and beauty shops	1 ~~for each 75 sq. ft. of gross floor area~~	1.2	1.5	Spaces for each 75 sq. ft. of gross floor area
Bowling alleys	6 for each bowling lane	7.2	9	Spaces for each bowling lane
Establishments or enterprises of a recreational or an entertainment nature:				
Establishments for the sale and consumption on the premises of	1 ~~for each 75 sq. ft. of gross floor area~~	1.2	1.5	Spaces for each 75 sq. ft. of gross floor area

Use	Minimum Parking Spaces Required	Maximum Parking Spaces Allowed***		Rate and Units
		Uses fronting a street with abutting on-street parking	***Uses fronting no street with abutting on-street parking***	
food and beverages with a drive-up window				
Establishments for the sale and consumption on the premises of food and beverages without a drive-up window	1 ~~for each 100 sq. ft. of gross floor area~~	1.2	1.5	Spaces for each 100 sq. ft. of gross floor area
Participating type, e.g., skating rinks, dance halls	1 ~~for each 75 sq. ft. of gross floor area~~	1.2	1.5	Spaces for each 75 sq. ft. of gross floor area
Spectator type, e.g., auditoriums, assembly halls, theaters, stadiums, places of public assembly	1 ~~parking space for each 4 seats~~	1.2	1.5	Spaces for each 4 seats
Office buildings, business and professional offices	1 ~~for every 400 sq. ft. of gross floor area~~	1.2	1.5	Spaces for every 400 sq. ft. of gross floor area
Pharmacies	1 ~~for each 150 sq. ft. of gross floor area~~	1.2	1.5	Spaces for each 150 sq. ft. of gross floor area
Retail establishments, except as otherwise specified herein	1 ~~for each 300 sq. ft. of gross floor area~~	1.2	1.5	Spaces for each 300 sq. ft. of gross floor area

Use	Minimum Parking Spaces Required	Maximum Parking Spaces Allowed***		Rate and Units
		Uses fronting a street with abutting on-street parking	***Uses fronting no street with abutting on-street parking***	
Retail stores handling bulky merchandise, household furniture, or appliance repair	1 ~~for each 600 sq. ft. of gross floor area~~	1.2	1.5	Spaces for each 600 sq. ft. of gross floor area
Industrial Types				
Except as specifically mentioned herein, industrial uses listed as permitted in the M districts: M-1, M-2, M-3, M-4, and M-5	1 ~~for each 500 sq. ft. of gross floor area~~	1.2	1.5	Spaces for each 500 sq. ft. of gross floor area
Aircraft storage hangars up to 3,600 sq. ft. each enclosed hangar area	None (parking occurs in hangar)	None (parking shall occur in hangar)		-
Aircraft storage hangars over 3,600 sq. ft. each enclosed hangar area	1 ~~for every 700 sq. ft. of hangar area over 3,600 sq. ft.~~	1.2	1.5	Spaces for every 700 sq. ft. of hangar area over 3,600 sq. ft.
Aircraft hangars intended for repair and maintenance operations	1 ~~for each 5,000 sq. ft. of hangar, plus 1 for each 500 sq. ft. of shop area, plus 1 for each 400 sq. ft. of office area~~	1.2	1.5	Spaces for each 5,000 sq. ft. of hangar

Use	Minimum Parking Spaces Required	Maximum Parking Spaces Allowed***		Rate and Units
		Uses fronting a street with abutting on-street parking	***Uses fronting no street with abutting on-street parking***	
	1 1	1.2 1.2	1.5 1.5	Plus spaces for each 500 sq. ft. of shop area, Plus spaces for each 400 sq. ft. of office area
Laboratories and research facilities	1 ~~for each 300 sq. ft. of gross floor area~~	1.2	1.5	Spaces for each 300 sq. ft. of gross floor area
Machinery or equipment	1 ~~for each 400 sq. ft. of gross sales floor area~~	1.2	1.5	Spaces for each 400 sq. ft. of gross sales floor area
Wholesale and storage operations	1 ~~for each 700 sq. ft. of gross floor area~~	1.2	1.5	Spaces for each 700 sq. ft. of gross floor area

Staff Comment: Revisions to the table found in 15.440.030 relocates and distributes policy information previously found in 15.440.010(F) for improved clarity and to make calculation of parking space requirements easier for users. Content is relocated from 15.440.010(F) to this section in order to consolidate parking calculations for minimum number of parking spaces required and maximum allowable number of parking spaces within a single code section.

Notes:

* "1-E" refers to fraternities, sororities, cooperatives and dormitories that require one parking space for each three occupants for whom sleeping facilities are provided.

** "3.-G(1)" refers to establishments or enterprises of a recreational or an entertainment nature (spectator type, e.g., auditoriums, assembly halls, theaters, stadiums, places of public assembly) that require one parking space for each four seats.

*** May be calculated by a factor determined according to a parking analysis.

15.440.070 Parking tables and diagrams.

A. Minimum Dimensions for Parking Spaces.

1. A standard parking space is no less than 18 feet by 9 feet in size.

2. A compact parking space is no less than 16 feet by 8 feet in size.

All angle parking and dimensioning requirements are referenced in NMC 15.440.070(B)

B. The following tables provide the minimum dimensions of public or private parking areas:

Staff Comment: Clarifies the minimum dimensions required for parking spaces, both standard and compact. Standards provided are consistent with those already present in NMC 15.440.070 tables and diagrams.

Diagram 1

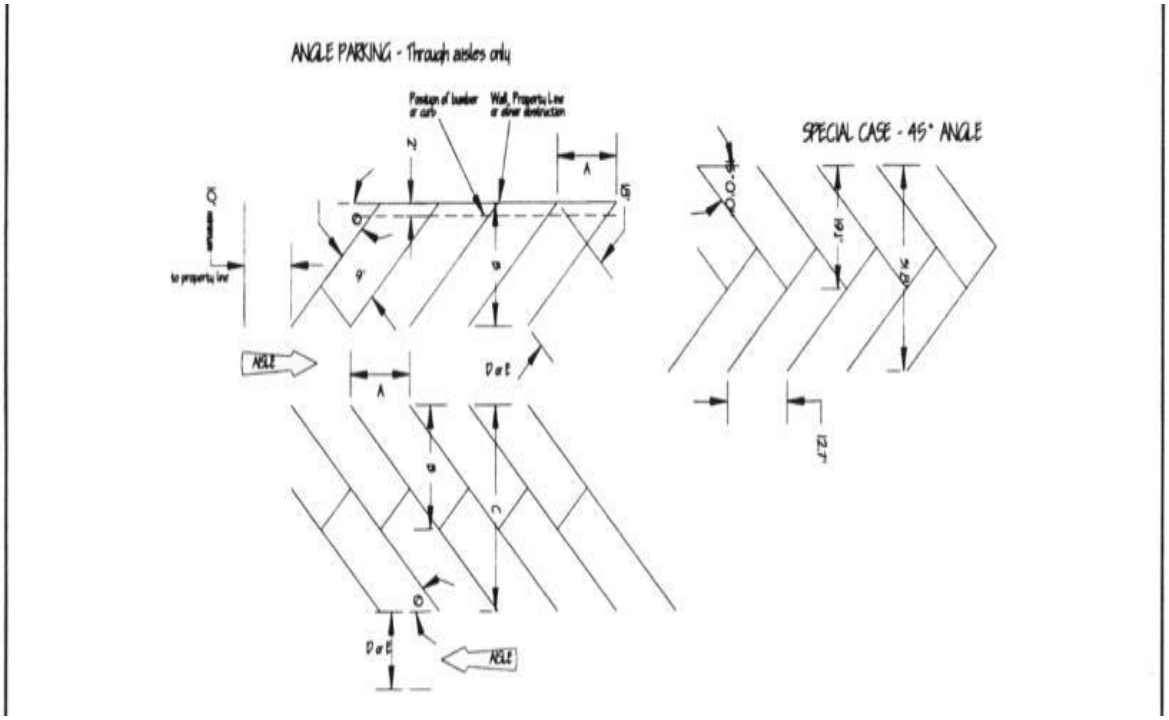
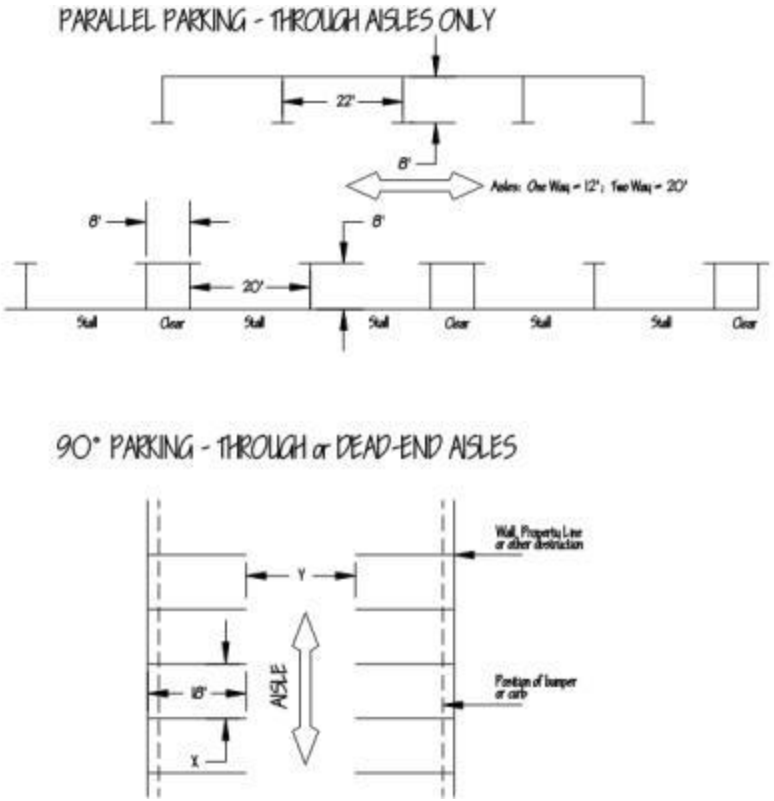


Table of Dimensions (In Feet)

	Basic Stall		Back to Back	Aisles	
Angle – °	**A**	**B**	**C**	**D (One-Way)**	**E (Two-Way)**
30°	18	16.8	25.8	12	20
38°	14.6	18.2	29.3	12	20
45°	12.7	19.1	31.8	12	20
52°	11.4	19.7	33.9	13	20
55°	11	19.9	34.6	14	20
60°	10.4	20.1	35.7	15	20
70°	9.6	20	36.9	18	20
80°	9.1	19.3	37	20	20

Diagram 2



Notes:

1. Bumpers must be installed where paved areas abut street right-of-way (except at driveways).

2. No stalls shall be such that cars must back over the property line to enter or leave stall.

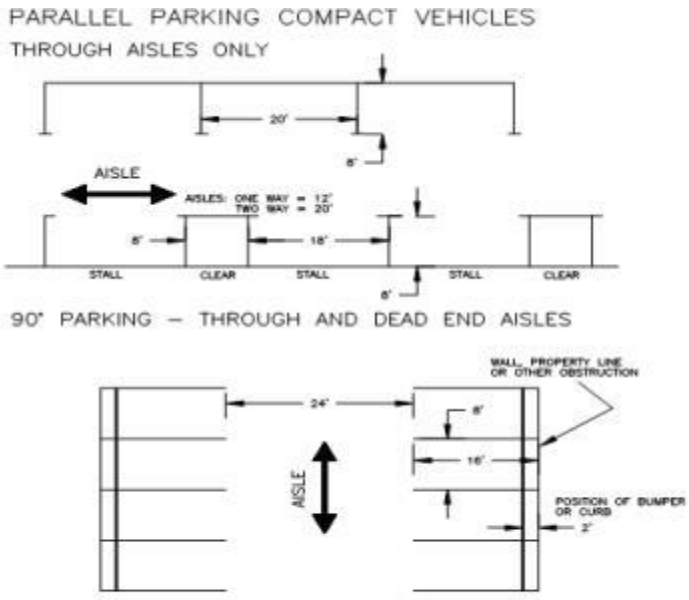
3. Stalls must be clearly marked and the markings must be maintained in good condition.

4. The sketches show typical situations to illustrate the required standards. For further information or advice, contact the community development department at 537-1210.

Table of Dimensions (In Feet)

Stall Width with Corresponding Aisle Width						
Stall Width = X	9	9.5	10	10.5	11	12
Aisle Width = Y	24	24	22	22	20	20

Diagram 3



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4. The sketches show typical situations to illustrate the required standards. For further information or advice, contact the planning department.

NMC 15.445 SPECIAL USE STANDARDS

15.445.010 Bed and breakfast establishments.

Bed and breakfast establishments shall comply with the following conditions:
A. The structure used for a bed and breakfast establishment shall be designed for and occupied as a single-family residence. The structure shall maintain the characteristics of a single-family residence.
B. All residences used for bed and breakfast establishments shall be applicant occupied.
C. A minimum of one off-street parking space shall be provided for every two permitted guest sleeping rooms. In addition, parking standards normally required for single-family residences will apply.
D. The duration of each guest's stay at the bed and breakfast establishment shall be limited to no more than seven consecutive days and no more than 15 days within a 30-day period.
~~E. Bed and breakfast establishments located in other than single-story buildings shall provide permanent or portable fire escape systems from the upper floor(s) in a manner acceptable to the Newberg fire department.~~
~~F.~~ E. All bed and breakfast establishments shall conform to the requirements of the current edition of the Oregon Structural Specialty Code and Oregon Fire Code. [Ord. 2451, 12-2-96. Code 2001 § 151.630.]
Penalty: See NMC 15.05.120.

Staff Comment: After conversations with Jason Arn at TVFR and Jared, current Letter E is not needed. It is covered by current letter F that says the establishments shall conform to the Oregon Structural Specialty Code and Oregon Fire Code.

15.445.500 Home occupation.

Home occupations shall be processed as a Type I procedure. Home occupation uses shall comply with the following standards:
A. Signs shall comply with the standards of NMC 15.435.010 et seq.
B. There is no display that will indicate from the exterior that the building is used in whole or in part for any purpose other than a dwelling.
C. The building retains the characteristics of a residence.
D. There is no outside storage of materials, parts, tools, supplies, or other items related to the use as a home occupation, other than nursery plants.
E. No more than one outside paid employee shall be permitted to work at the residence at any given time.
F. The use does not destroy the residential character of the neighborhood.

G. All work being performed at the site is done within the confines of a building and no noise, odor, dust, smoke or other evidence of the home occupation permeates beyond the confines of the property.
H. The home occupation is incidental to the use of the building and site for residential purposes.
I. The work does not involve the use of hazardous substances or materials which might create a fire hazard or danger to the environment or neighboring properties, including but not limited to gasoline, paint, oxygen/acetylene tanks, or other flammable or hazardous materials.

Penalty: See NMC 15.05.120.

Staff Comment: The home occupations standards are relocated from NMC 15.415.060 for ease of use and because the standards are use-based, not design based. Cross-references in NMC 15.220 Site Design Review, NMC 15.305 Zoning Use Table, NMC 5.15 Temporary Sales is also being updated. There is no change to the current home occupation standards.

Title 5 BUSINESS LICENSES AND REGULATIONS

Ch. 5.15 TEMPORARY SALES

5.15.100 Exemptions for temporary merchants.

The following temporary merchants do not require a license and are exempt from the application requirements contained within NMC 5.15.110(B), but must meet the standards under NMC 5.15.110(A). Residential garage and estate sales are regulated under ~~NMC 15.415.060~~ NMC 15.450.500, home occupation standards.

//

Staff Comments: Amendment for cross-referencing consistency only, due to relocation of home occupation standards within Title 15.

Exhibit A-2 to Resolution No. 2025-398
Findings – File DCA24-0002

Exhibit A-2 to Resolution No. 2025-398

Development Code Maintenance Amendments

Findings – File DCA24-0002

A. Statewide Planning Goals

GOAL 1: CITIZEN INVOLVEMENT

To develop a citizen involvement program that ensures the opportunity for citizens to be involved in all phases of the planning process.

Finding: Amendments to Title 15 (Development Code) of the Newberg Municipal Code (NMC) are typically processed as a Type IV (Legislative) application and follow the procedures in NMC 15.100.060. The Planning Commission will hold a public hearing on the application and make a recommendation to the Newberg City Council. Following the Planning Commission review, City Council will hold its own legislative public hearing to consider the amendments.

Because the proposal is limited to maintenance amendments, public outreach is limited to required noticing of public hearings. Key dates for this application follow:

11/14/2024	Planning Commission Work Session (complete)
12/05/2024	DLCD 45-day notice prior to first hearing (complete)
12/12/2024	Planning Commission Continued Work Session (complete)
01/09/2025	Planning Commission Public Hearing
02/02/2025	City Council Work ~~Study~~ Session
02/17/2025	City Council Public Hearing - First Reading
03/17/2025	City Council Public Hearing – Second Reading

The Goal is met.

GOAL 2: LAND USE PLANNING

To establish a land use planning process and policy framework as a basis for all decisions and actions related to use of land and to assure an adequate factual base for such decisions and actions.

Finding: This Goal requires that land use decisions 1) have an adequate factual base, 2) that alternatives have been considered, and 3) that implementation measures are consistent with and adequate to carry out comprehensive plan policies and designations.

The proposed code maintenance amendments are based on use and application of the development code and feedback from staff and development applicants. The Planning Commission considered alternatives discussed during the two public work sessions. These alternatives included expiration and extension periods for land use permits, and alternative methods of calculating required parking (parking study method), among others, consistent with comprehensive plan economic development policies.

The Goal is met.

GOAL 3: AGRICULTURAL LANDS

GOAL 4: FOREST LANDS

Finding: Goals 3 and 4 are not applicable because the development code applies to lands inside the Newberg City Limits and lands within the Urban Growth Boundary that the City may annex pursuant to its comprehensive plan and Goal 14 (Urbanization).

GOAL 5: NATURAL RESOURCES, SCENIC AND HISTORIC AREAS, AND OPEN SPACES

To protect natural resources and conserve scenic and historic areas and open spaces.

Finding: The proposed amendments do not diminish protection of any Goal 5 resource. The one amendment that does relate to Goal 5 is a requirement for site design review applications in wetland areas to provide a wetland delineation approved by the Oregon Department of State Lands, consistent with other existing application requirements for land divisions.

This Goal is met.

GOAL 6: AIR, WATER AND LAND RESOURCES QUALITY

To maintain and improve the quality of the air, water and land resources of the state.

Finding: Newberg has an acknowledged Comprehensive Plan that complies with this goal. Protections are already in place for air, water, and land resource quality, and this proposal does not modify them.

This Goal is met.

GOAL 7: AREAS SUBJECT TO NATURAL HAZARDS

To protect people and property from natural hazards.

Finding: Newberg has an acknowledged Comprehensive Plan that complies with this goal. This proposal does not modify the City's natural hazards requirements such as flood plain or landslide areas.

This Goal is met.

GOAL 8: RECREATIONAL NEEDS

To satisfy the recreational needs of the citizens of the state and visitors and, where appropriate, to provide for the siting of necessary recreational facilities including destination resorts.

Finding: Newberg has an acknowledged Comprehensive Plan that complies with this goal. This proposal does not modify the City's recreational goals and policies.

This Goal is met.

GOAL 9: ECONOMIC DEVELOPMENT

To provide adequate opportunities throughout the state for a variety of economic activities vital to the health, welfare, and prosperity of Oregon's citizens.

Finding: The proposed amendments focus on improving the permit process by clarifying and correcting the code, including updates to comply with state land use laws and process improvements that should help business development. For example, by providing a parking study option as an alternative to the numerical parking standards table, the code amendments support more efficient use of land for economic development.

The Goal is met.

GOAL 10: HOUSING

To provide for the housing needs of citizens of the state.

Finding: The proposed amendments focus on improving the permit process by clarifying and correcting the code, including updates to comply with state land use laws for annexations and process improvements that should help facilitate housing production. For example, by providing consistent permit expiration dates and opportunities for permit extensions, the code amendments support housing production. None of the amendments affect the supply of land for housing or residential land uses, and several changes improve code clarity, consistent with state requirements for clear and objective housing standards in ORS 197.307(4) Needed housing policy.

The Goal is met.

GOAL 11: PUBLIC FACILITIES AND SERVICES

To plan and develop a timely, orderly and efficient arrangement of public facilities and services to serve as a framework for urban and rural development.

Finding: The proposed amendments focus on improving the permit process by clarifying and correcting the code, including updates to comply with state land use laws and process improvements that should help business development. For example, by providing consistent permit expiration dates and opportunities for permit extensions, the code amendments support timely, orderly, and efficient development of infrastructure to support urban growth.

The proposal meets the Goal.

GOAL 12: TRANSPORTATION

To provide and encourage a safe, convenient and economic transportation system.

Finding: The City of Newberg's adopted Transportation System Plan (2016) has been acknowledged by DLCD. The transportation system is planned to accommodate the population growth of the community for a 20-year planning period. There are no proposed modifications to the transportation system or transportation standards with the adoption of the proposed amendments. The proposed amendments do not significantly affect any transportation facility or change the functional classification of any street, and therefore comply with OAR 660-012-0060 (Transportation Planning Rule). By clarifying existing parking standards in a new table, and by providing a parking study option as an alternative to the numerical parking standards table, the code amendments support transportation efficient development consistent with OAR 660-012-0045 (Transportation Planning Rule).

In conclusion, the amendments comply with Goal 12, and the provisions of OAR 660-012-0045 and 660-012-0060 Transportation Planning Rule.

GOAL 13: ENERGY CONSERVATION

To conserve energy.

Finding: The proposed amendments do not affect energy demands, though by providing alternative methods of calculating required parking, the amendments support transportation efficiency and energy conservation.

This Goal is met.

GOAL 14: URBANIZATION

To provide for an orderly and efficient transition from rural to urban land use, to accommodate urban population and urban employment inside urban growth boundaries, to ensure efficient use of land, and to provide for livable communities.

Finding: The proposed amendments to the City's annexation procedures are intended to comply with current state law and will ensure the efficient use of the land within the existing Urban Growth Boundary for the projected population and employment opportunities within the City.

This Goal is met.

GOAL 15: WILLAMETTE RIVER GREENWAY

To protect, conserve, enhance and maintain the natural, scenic, historical, agricultural, economic and recreational qualities of lands along the Willamette River as the Willamette River Greenway.

Finding: The proposed amendments do not alter any area or regulations within the boundaries of the Willamette River Greenway. The amendment requiring applications for site design review to provide a wetland delineation approved by the Oregon Department of State Lands is consistent with other existing application requirements for land divisions.

This Goal is met.

B. Newberg Comprehensive Plan

II. 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 Goal and its policies are met for the same reasons the proposal meets State Goal 1, as discussed in Part A.

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.

Finding: This Goal and its policies are met for the same reasons the proposal meets State Goal 2, as discussed in Part A.

C. AGRICULTURAL LANDS

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

D. WOODED AREAS

GOAL: To retain and protect wooded areas.

Finding: These Goals are not applicable for the same reasons that State Goals 3 and 4 are no applicable, as discussed in Part A.

E. AIR, WATER, AND LAND RESOURCE QUALITY

GOAL: To maintain and, where feasible, enhance the air, water and land resource qualities within the community.

Finding: This Goal and its policies are met for the same reasons the proposal meets State Goal 6, as discussed in Part A.

F. AREAS SUBJECT TO NATURAL HAZARDS

GOAL: To protect life and property from flooding and other natural hazards.

Finding: This Goal and its policies are met for the same reasons the proposal meets State Goal 7, as discussed in Part A.

G. OPEN SPACE, SCENIC, NATURAL, HISTORIC AND RECREATIONAL RESOURCES

GOALS:

1. To ensure that adequate land shall be retained in permanent open space use and that natural, scenic and historic resources are protected.

2. To provide adequate recreational resources and opportunities for the citizens of the community and visitors.

3. To protect, conserve, enhance and maintain the Willamette River Greenway.

Finding: These Goals and related policies are met for the same reasons the proposal meets State Goal 5, as discussed in Part A.

H. THE ECONOMY

GOAL: To develop a diverse and stable economic base.

1. *General Policies*
   a. *In order to increase the percentage of persons who live in Newberg and work in Newberg, the City shall encourage a diverse and stable economic base. Potential methods may include, but are not limited to, land use controls and capital improvement programs.*
   b. *The City shall encourage economic expansions consistent with local needs*
   c. *The City will encourage creation the creation of a diversified employment base, the strengthening of trade centers and the attraction of both capital and labor intensive enterprises.*
   d. *Newberg will encourage the development of industries which represent the most efficient use of existing resources including land, air, water, energy and labor*
   e. *Economic expansion shall not exceed the carrying capacity of the air, water or land resource quality of the planning area.*
   f. *The City shall participate with local and regional groups to coordinate economic planning.*
   g. *The City shall encourage business and industry to locate within the Newberg City limits.*
   h. *Yamhill County history, products and activities should be promoted.*

i. *The City shall encourage tourist-related activities and services such as motor inns, restaurants, parks and recreation facilities, a visitor center, conference and seminar activities.*
j. *A mixed-use river-oriented commercial area should be encourage to be developed near the Willamette River.*
k. *The City shall promote Newberg as a tourist destination location.*
l. *The City shall promote the expansion of local viticulture and wine productions as a method for increasing tourism.*

Finding: This Goal and its policies are met for the same reasons the proposal meets State Goal 9, as discussed in Part A.

J. URBAN DESIGN

GOAL 1: To maintain and improve the natural beauty and visual character of the City.

GOAL 2: To develop and maintain the physical context needed to support the livability and unique character of Newberg.

Finding: By clarifying and correcting the code and making other updates to comply with state land use laws, the proposal facilitates well planned growth that maintains Newberg's natural beauty, visual character, and livability.

These Goals are met.

K. TRANSPORTATION

GOAL 1: Establish cooperative agreements to address transportation based planning, development, operation and maintenance.

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

GOAL 3: Promote reliance on multiple modes of transportation and reduce reliance on the automobile.

GOAL 4: Minimize the impact of regional traffic on the local transportation system.

GOAL 5: Maximize pedestrian, bicycle and other non-motorized travel throughout the City.

GOAL 6: Provide effective levels of non-auto oriented support facilities (e.g. bus shelters, bicycle racks, etc.).

GOAL 8: Maintain and enhance the City's image, character and quality of life.

GOAL 9: Create effective circulation and access for the local transportation system.

GOAL 10: Maintain the viability of existing rail, water and air transportation systems.

GOAL 11: Establish fair and equitable distribution of transportation improvement costs.

GOAL 12: Minimize the negative impact of a Highway 99 bypass on the Newberg community.

GOAL 13: Utilize the Yamhill County Transit Authority (YCTA) Transit Development Plan (TDP) as a Guidance Document.

GOAL 14: Coordinate with Yamhill County Transit Area.

GOAL 15: Implement Transit-Supportive Improvements.

Finding: Where the above goals may apply, each goal and its policies are met for the same reasons the proposal meets State Goals 9 and 12, as discussed in Part A.

Commented [CD1]: Goal 9 is "Economic Development" - I am not clear how/why it would be applicable here.

L. PUBLIC FACILITIES AND SERVICES

GOAL: To plan and develop a timely, orderly and efficient arrangement of public facilities and services to serve as a framework for urban development.

Finding: This Goal and its policies are met for the same reasons the proposal meets State Goal 11, as discussed in Part A.

M. ENERGY

GOAL: To conserve energy through efficient land use patterns and energy- related policies and ordinances.

Finding: This Goal and its policies are met for the same reasons the proposal meets State Goal 13, as discussed in Part A.

N. URBANIZATION

GOALS:

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

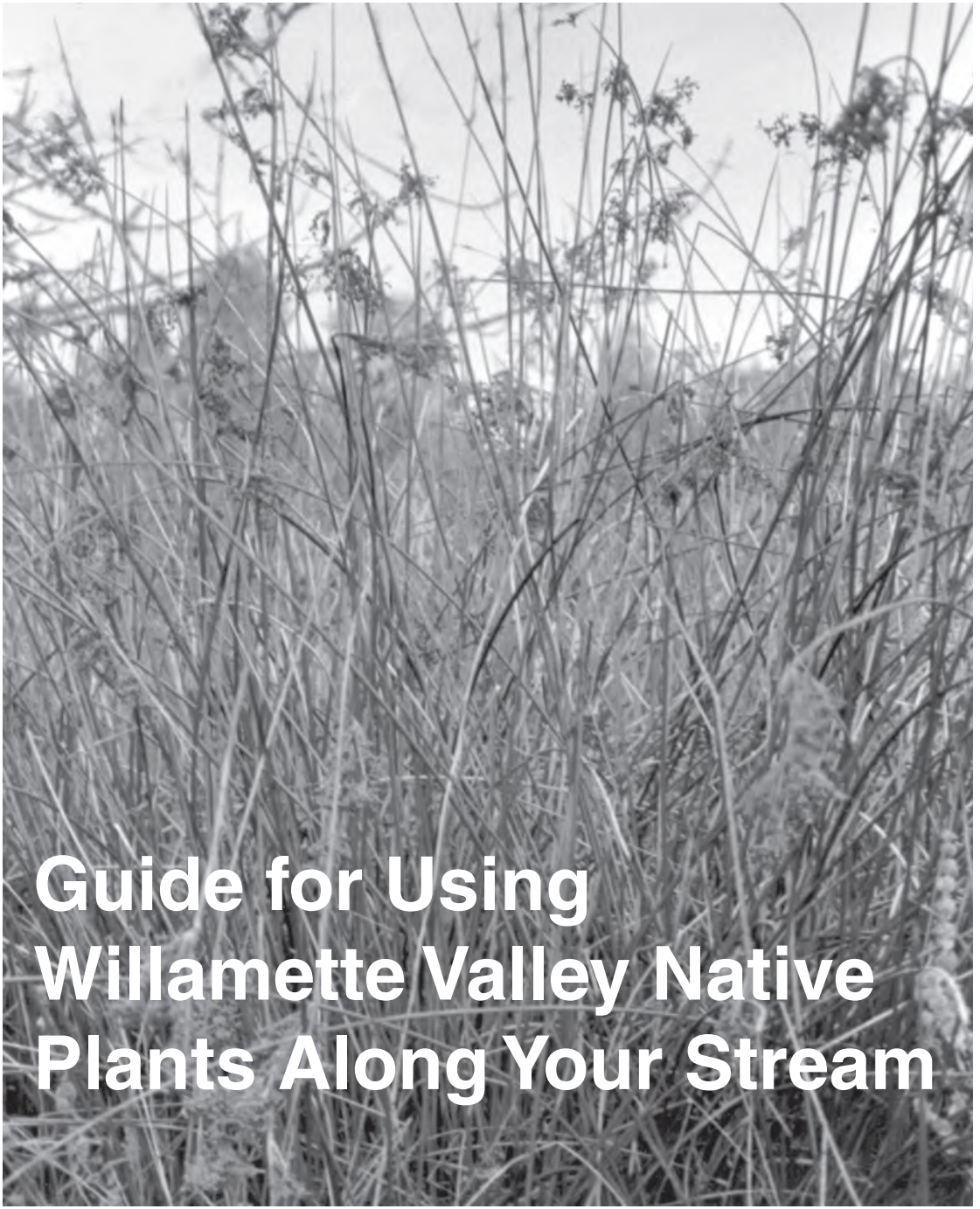
2. To maintain Newberg's identity as a community which is separate from the Portland Metropolitan area.

3. To create a quality living environment through a balanced growth of urban and cultural activities.

Finding: These Goals and any relevant policies are met for the same reasons the proposal meets State Goal 14, as discussed in Part A.

#

Exhibit B
Native Plant Guide (Linn SWCS, 2005)



Guide for Using Willamette Valley Native Plants Along Your Stream

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Why Use Native Plants?

Native plants are an important part of the local natural ecosystem. They provide a critical link for insects, birds, and other species that have evolved together. Native plants can also provide a variety of benefits such as:

- **streambank stabilization:** roots from native plants help hold soil and slow erosion.
- **easy care and water conservation:** native plants are adapted to the local soil types; they thrive in the Willamette Valley climate of high rainfall in winter and low rainfall in summer, if grown in the correct location.
- **beautiful landscaping:** many of the native plants have attractive flowers, foliage, winter twigs, fall color, and produce a unique landscape.
- **food and cover for wildlife:** migrating birds, waterfowl, and threatened and endangered species use the plants for food and cover. Fish feed on the aquatic organisms that consume leaves and twigs dropped in the water.
- **pollution filtration:** surrounding land uses can contribute pollution such as sediment and soil, human and animal waste, and toxics such as oil and car exhaust fumes, to a stream. A buffer strip of native plants can reduce the impact of surrounding land uses on the stream.

Many, if not all, of these objectives can also be accomplished with careful selection of nonnative plants. The use of native species is a conservative approach to ecosystem restoration and enhancement.

Who Should Use This Guide?

This introductory guide is intended for novices who want basic information on natural landscaping, streambank stabilization, and landscaping for wildlife habitat using native plants.

This brochure provides a step by step, easy to use guide to planting Willamette Valley natives along your streambank. Species which are not native, are not found frequently, or are not easily propagated are not covered in this guide. For more detailed information on native plant propagation and identification, please refer to the references at the end of the brochure.

If you have any questions regarding techniques, plant materials, etc., please contact your local Soil and Water Conservation District or the US Department of Agriculture's Natural Resources Conservation Service. The phone number can be found in the government pages of your local phonebook. Available support includes planning projects, plant selection and availability, and more.

Overview and History

The vegetation of the Willamette Valley has been extensively altered. So what did it look like before the settlers arrived? The journals of the pioneers who came to the Valley in the mid-nineteenth century described broad prairies bordered by thick, wide forests along the rivers. In those floodplains, river channels meandered; changing course during the winter high water and creating sloughs, swales, and marshes -- some of which dried out by the end of summer. Dense forests of cottonwood, alder, willow, ash, maple, and fir growing along these riparian corridors were as much as three to six miles wide. On the higher benches within the corridors were fir, oak and Ponderosa pine. The level prairies above the floodplains were also wet during the winter, because of the high water table, clay soils, and abundant rainfall. These were vegetated with grasses and herbaceous plants which could also survive the summer's dry, cracked soil. On the low hills around the valley floor were stands of oak trees surrounded by grasslands.

The pioneers' journals also described the abundant clouds of smoke that filled the Willamette Valley in late summer as a result of the extensive fires set by the Kalapuyan Indians, who had occupied the valley for thousands of years. The Kalapuyans used the annual burning to control the growth of underbrush and trees, which made it easier to hunt, and to improve growing conditions for edible plants such as camas, which were major food sources. The local plant communities were altered by the first known human inhabitants.

The pioneers continued altering the vegetation by cutting the forests to build their homes and towns and plowing the prairies to grow the crops that were their own, familiar, major food sources. They also halted the annual burning, allowing the underbrush and woodlands to grow.

Throughout much of the 1900's, the damming and channelization of streams and

rivers and the installation of drain tiles and ditches on the wet prairies reduced -- and in places eliminated -- the natural winter flooding, meandering, and ponding of water.

Farming, grazing, roadbuilding, logging, flood control, and urbanization have all contributed to the extensive alteration of the Willamette Valley's vegetation. Although the valley could still be described as predominantly broad plains bordered by woods, most of the original plant communities are gone. Native plant habitat is greatly reduced, and introduced exotics can quickly take over any disturbed ground that is not farmed, paved, or populated. Many places that seem to be natural have actually been altered, and many plants that look wild are really introduced species.

Although much of the Willamette Valley vegetation has been altered, there are a few places where local, native plant communities can be examined to gather ideas and inspiration. The following public and private lands contain some areas where native streamside plant communities remain intact:

- Adair Park in Benton County
- Deepwood Estate in Salem
- Delbert Hunter Arboretum and Botanic Garden, Dallas
- Fern Ridge in Veneta
- Finley National Wildlife Refuge, south of Corvallis
- Helmick Park near Monmouth
- Jackson-Frazier Wetlands in Corvallis
- Minto Brown Park in Salem
- Willamette Mission State Park north of Salem
- Simpson Park in Albany
- Smith Bybee Lakes in Portland
- Takena Landing Trail and Bowman Park in North Albany
- Tyee Vineyard's nature trail, near Monroe (private land)
- Waterloo County Park, near Lebanon
- Willamette Greenway parks, including the one on Riverside Drive between Albany and Corvallis
- Willow Creek in Eugene (privately owned by The Nature Conservancy, but is open to the public)
- Oxbow Regional Park in Troutdale
- John Inskeep Environmental Learning Center in Oregon City
- Forest Park in Portland
- Tryon Creek State Park in Portland
- Tualatin Hills Nature Park in Beaverton
- Jackson Bottom Wetlands Preserve in Hillsboro
- Audubon Society of Portland Sanctuary
- Oaks Bottom Wildlife Refuge in Portland
- Beggars-tick Wildlife Refuge in Portland
- Sauvie Island Wildlife Area in Portland
- Smith and Bybee Wetlands Natural Area in Portland
- Berry Botanical Garden in Portland
- Leach Botanical Garden in Portland
- Marquam Nature Park in Portland

The Willamette Valley

Courtesy of the Lane Council of Governments

Courtesy of the Army Corps of Engineers

Site Planning:

- Map your proposed planting site; buildings, paths and drives, utilities, year-round water, seasonal water, soil type, location and extent of streambank failure (if any), wind direction, existing trees and vegetation, neighboring properties, signs of wildlife, etc.
- Observe your site over time; note seasonal patterns of sun and shade, drainage, and wind.
- Identify plant distribution on the site; invasive species may need to be removed or controlled, desired species could be used to propagate additional plants (transplanted).
- Consider access to water and methods of irrigation for newly-established plants, protection from animals, and weed control.
- Plan a time-line for realization of the planting project, considering optimum planting times, plant availability and costs, requirements for soil cultivation or excavation, and the required permits.
- Select plant species that "fit" the proposed planting site in their requirements for sunlight, soil type, drainage, and moisture.
- Determine the stability of the streambank at the proposed site and determine if planting is enough to stabilize the bank. Select plants with soil-binding abilities as needed.
- Contact local agencies that provide technical assistance for guidance, advice, and permits.
- Obtain permits for soil excavation and removal, spraying, or vegetation removal or planting as required by laws. Please check with city, county, state and federal agencies for regulations.
- Research habitat-improvement financing options. Call the local Natural Resources Conservation Service in the phone book government pages.
- Notice location of powerlines and avoid planting trees near them or plant only low-growing (under 25 feet at maturity) trees adjacent to power lines.
- Be aware of underground power line safety. Call your local "One call underground locating" number found in the phone directory before you dig.

Site Preparation

Streambank Stability

To increase your chance of success with a streambank vegetative planting, you need to address bank stability and existing vegetation.

Adding plants along your streambank can aid in preventing soil erosion. However, if the bank is too unstable, planting may not be enough to stabilize and protect the streambanks.

Signs of an unstable bank include:

- Chunks of soil or sod falling into creek
- Unvegetated or eroded slopes
- Steep, irregular, vertical banks

When these occur, other stabilization measures may be necessary. Mechanical engineering and soil bioengineering measures can be taken to reduce the chances of streambank failures. Additionally, any land uses that could contribute to streambank instability; such as grazing, mowing, or cropping; should be evaluated and possibly eliminated. Stabilizing the bank by deflecting water through engineering means or altering land use practices may be enough to allow vegetation to become established.

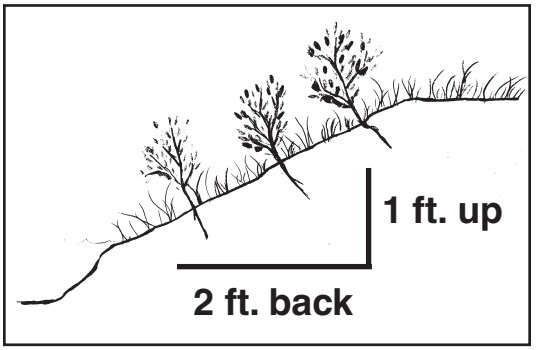
To increase the stability of the planting site, you can smooth out irregularities that may cause localized erosion. The bank should be sloped so that for every two feet or more of horizontal distance from the stream there is only one foot of vertical rise. Your project should end at two stable points on the bank, i.e. areas that are not eroding and have vegetative protection.

NOTE: If you intend to fill or remove soil on a project, you must apply for a joint permit from the Oregon Division of State Lands and the U.S. Army Corps of Engineers. Also contact your county's land use planning, zoning, or management agency.

Working With Existing Vegetation

Ideally, you want to keep as much of the existing, native, non-invasive vegetation as possible to get a jump-start on streambank recovery.

Certain types of existing vegetation will probably out compete anything you plant for water, nutrients and light. Too much competition from existing plants will reduce the success of your plantings. (See ***Invasive non-native plant species*** on page 11)



Cross-section of streambank after sloping

(Site Preparation continued)

Whether planting grasses, shrubs, or trees, look for any competition that may exist. Invading weeds can be removed by mechanical, hand, or chemical means. Limiting the use of chemicals is preferable because of potential contamination of nearby water sources. Spraying chemicals may also be illegal close to waterways. Call your local County Extension agent for more information. Also, some counties have land use regulations for riparian areas, so contact your county land use planning, zoning or land management before removing vegetation.

Buffers and Riparian Corridors

Grasses, trees and shrubs along a streambank, lake, or pond are called buffers, and can protect the waterbody from nearby land uses. Streamside plantings of trees, shrubs, and grasses can intercept contaminants from both surface water and groundwater before they reach a stream and help restore damaged streams.

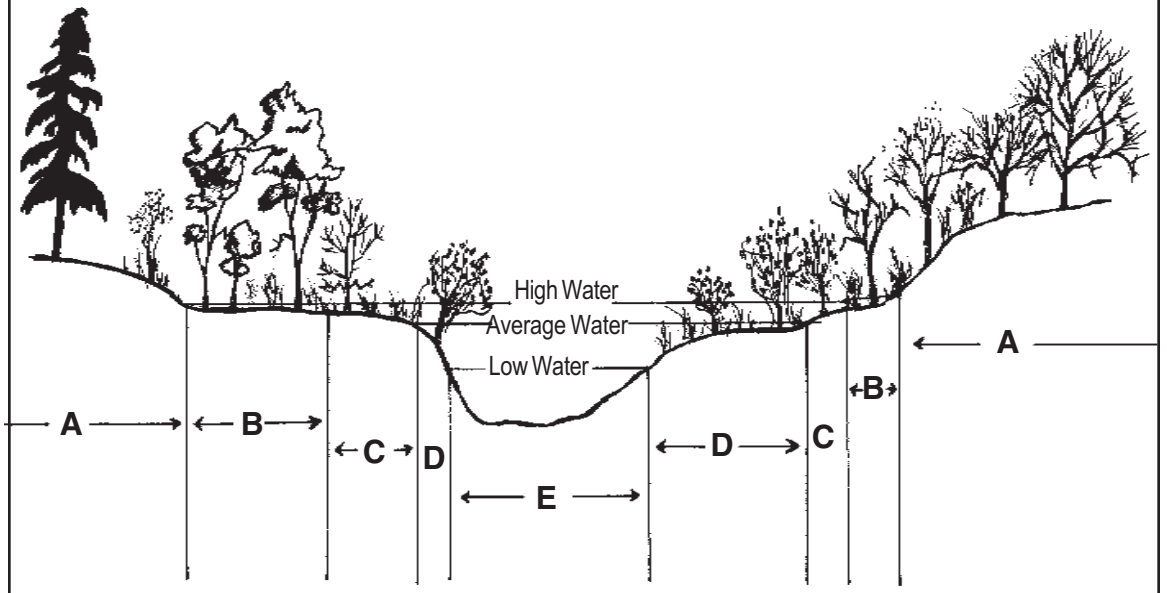
Buffers assist with conservation by slowing water runoff, trapping sediment and enhancing water infiltration in the buffer itself. They also trap fertilizers, pesticides, bacteria, pathogens, and heavy metals. They offer a natural habitat for wildlife, and improve fish habitat. All of these benefits add up to make buffers a visible demonstration of your own personal commitment to common-sense conservation.

Different buffer widths are recommended for different protection purposes. These are general distances and may change as new research becomes available. Under the Forestry Practices Act which is administered by the Oregon Department of Forestry, the recommended buffer width is 20 to 100 feet on either side of the stream. The Natural Resources Conservation Service recommends a minimum of 30 feet on either side. These buffer widths are recommended in order to protect water quality from logging, for maximum stream shading, for filtering pollutants, stabilizing the bank, and providing wildlife habitat. Good upland practices, such as erosion control and pasture management, are also necessary to maintain the health of the land and water.

Planting Location

Choose plants that are suited for site conditions: soil, shade and water. The diagram on the next page illustrates moisture zones along a creek and describes the planting zones. Refer to the ***Recommended Plants*** section (pages 12 - 20) for information on the zone in which plants will grow best. Clump plants or space them at irregular distances apart so that planting does not look like a grid.

Streamside Vegetation Zones



Zone Descriptions:

Zone A -- uplands

Zone B -- temporarily flooded: underwater only during periods of flooding

Zone C -- seasonally flooded: underwater during an average winter

Zone D -- intermittently exposed: exposed during summer low water

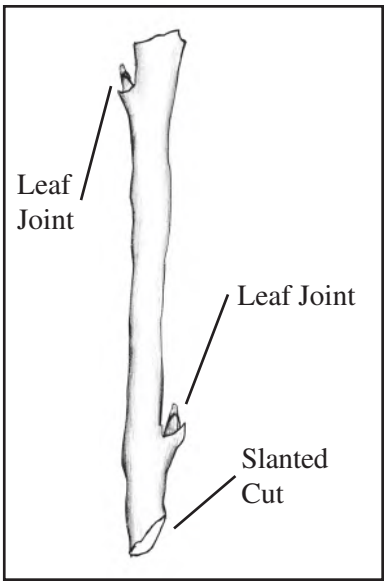
Zone E -- permanently flooded: streambed

Source: Fish and Wildlife Service, US Department of the Interior. Dec. 1979. Classification of Wetlands and Deepwater Habitats of the United States.

Planting and Propagation Techniques

Propagation techniques are described in detail below. This guidebook suggests only relatively easy plant propagation techniques for each plant. These are general guidelines and will not work in all cases. To determine which technique works for the plants you are interested in, please see the plant descriptions on the following pages. Buying rooted seedlings from a local nursery is the easiest of all methods, although locally adapted species may not be available. Given lead time, nurseries can grow stock or obtain cuttings if they do not carry the species you want. Proper instructions for planting and care can be obtained from the nursery. You might find sources of plants on your own property. Do not collect elsewhere without permission and permits. For information on sources of native plants, see page 23. For details on more difficult plant propagation techniques, please see the references at the end of this guidebook.

1) Rooted plants (bare-rooted, ball and burlap, or containerized): There are a wide variety of rooted stock available from commercial nurseries. Bare rooted plants are rooted seedlings or cuttings where most of the soil has been removed. Containerized plants are usually potted. Ball and burlap is usually native soil left intact around the root and held together with burlap. It is best to plant in fall, winter, or early spring. For specific methods on planting each type, check with the nursery where you obtained the plant and the references at the end of this publication.



Hardwood Cutting or Live Stake

2) Hardwood cutting: Harvest and plant hardwood cuttings as early as possible in the fall or winter or early spring when plant has dropped its leaves (when plant is dormant) for a better chance of survival. Cut the tip of a branch back until it is at least 1/4 to 1/2 inch in diameter. Use one to two year old wood. The age of the wood is easy to tell from the number of growth rings on the cutting. For some species it is necessary to use cuttings only from the previous years growth (older wood is less likely to root). Cut branch into pieces 12 to 24 inches long, being sure to keep at least two leaf joints. The bottom cut should be just below a leaf joint and slanted. If desired, use rooting hormone on slanted end. Bury cuttings in well drained soil with two thirds of cutting below ground. Protect your cuttings from frost. Use rebar or long metal stake to make holes in the bank to plant cuttings.

3) Live stakes: A live stake is a large hardwood cutting sturdy enough to hold down erosion control mats and bundles of branches. Plant live stakes as early as possible in the fall or winter for a better chance of survival. During the cold and wet season, cut a stem approximately 1/2" to 2 1/2" thick (often two to five year old wood) and 2 1/2 to 3 feet long. (See diagram of live stake) For willows, the larger diameter of the stem you use, the better. Be sure to plant the stake with the buds pointing up and the wider end in the ground. To plant, tap the stakes into the ground and be careful to avoid damaging the top of the stake. It may be necessary in harder ground to start the planting hole with a pipe.

4) Softwood cuttings: From soft, new spring growth, cut a 4 to 5 inch long cutting just below a leaf and remove all leaves but the top two. Clip off the top end. Dip the cut end into liquid rooting hormone and stick it into rooting medium (sand or perlite and less than 25% peat moss). Water daily and thoroughly. Keep humidity up by making a miniature greenhouse with a clear plastic—ventilate daily. Transplant growing cutting into its own pot until it is time to plant in final destination.

5) Layering: Layering is the process of inducing stems and branches to root while still attached to the parent plant. Use a low-growing branch that can be bent down to the ground. For woody species, make a slanting cut on the underside of the branch about 12 inches from the tip and just below a joint (DO NOT cut all the way through); keep cut open with a pebble or peg. Use a wire loop to secure the cut part of the branch in a hole about 2 to 4 inches deep. Fill the hole with good soil or soil mix and put a brick or stone on top to ensure the branch stays in the ground. Protect with a mulch in winter. When new growth shows, dig down to check root growth; and if they have grown, completely cut away from the parent and transplant.

6) Divisions of root, bulbs, rhizomes or tubers*: Done in autumn or early spring. To divide deciduous and semi-deciduous perennials, cut foliage back to about 4 inches from the ground. With evergreen perennials, leave all young, healthy foliage, but remove all dead leaves. Find natural divisions and cut or break them apart and plant.

7) Rooted sucker*: a shoot that grows from the roots of a parent plant. Dig it up and plant in new location.

8) Seeds: Each plant seed requires different growing conditions. Check with a local nursery or any source from the list at the back of this book to learn how to successfully sprout and grow seeds. Consider the use of erosion control fabrics and mulches to prevent the seed from washing away and to keep the soil moist for seed germination.

* NOT A SUGGESTED METHOD FOR COLLECTING WILD PLANTS, except from locations such as construction sites, or on your own property.

Site Maintenance

Even though your plants are natives, they will still need some attention until they are successfully established. You will most likely need to water them during the first summer after they are planted (water deeply rather than frequently) to help them form root systems. You may need to control plants that compete for water and nutrients and protect plants from animals that eat their leaves or bark. Some suggested methods of animal protection are tubing, repellents, netting, fencing, or trapping and baiting.

If topsoil is intact, you do not need to add new soil, fertilizers, or soil enrichers before planting or to fertilize after planting. If a plant fails to thrive after its first year, you may find it will be happier in a different location. However, if your bank is eroded and has little or no topsoil, the remaining subsoils should be amended with topsoil low in weed seeds where plant is planted. Some local topsoil amendment has soil organisms required for improving growth, health and vigor. These organisms improve nitrogen and moisture uptake, and help prevent disease. Slow release or organic fertilizer in the planting hole might be necessary if topsoil has eroded away. Recommended organic fertilizers include composted manure and/or vegetation.

Invasive Non-Native Plant Species

We recommend that you do **NOT** plant these species in or near streams or wetlands due to their aggressive growth habit and competitiveness. They can take over and dominate native plant species.

- Purple Loosestrife *(Lythrum salicaria)*
- Scotch Broom *(Cytisus scoparius)*
- Tall Fescue *(Festuca arundinacea)*
- Ivy *(Hedera helix and Hedera species)*
- Himalyan Blackberry *(Rubus discolor)*
- English Holly *(Ilex aquifolium)*
- Reed Canary Grass *(Phalaris arundinacea)**
- Yellow Water Iris *(Iris pseudacorus)*
- St. John's Wort *(Hypericum perforatum)*
- Ryegrasses *(Lolium perenne, multiflorum)*
- Bird's Foot Trefoil *(Lotus corniculatus)*
- English Laurel *(Prunus laurocerasus)*
- Periwinkles *(Vinca minor, V. major)*
- Bamboo species *(several genera)*
- Japanese Knotweed *(Polygonium cuspidatum, P. sacchilense)*
- Evergreen Blackberry *(Rubus lacimactus)*
- White poplar *(Populus alba)*
- Non-native Bentgrasses *(Agrostis tenuis, palustris, alba, stolanifera, capillaris, castellana, gigantea)*
- English Hawthorn *(Crataegus monogyra)*

* *Invasive, possibly native*

Recommended Plants

The following pages describe the some of the main trees, shrubs, herbaceous plants, flowers, grasses, sedges, and rushes recommended for stream side planting. **This guide does not cover all the recommended species; only the most common plants which are easily propagated. Local nurseries and experts can suggest additional plants which are native and easy to grow.** Seedlings and rooted stock of all the recommended species are commercially available. The symbols indicate which of the species recommended in this guide have the most value for bank stabilization and wildlife, and the amount of sun or shade in which the plant grows best. The zone refers to the area along the stream bank to which the plant is most adapted (see diagram on page 8). Please note that the scientific names change due to new genetic research. For an updated list of names see the National PLANTS Database at http://plants.usda.gov

Trees

Big Leaf Maple

(*Acer macrophyllum*) **Zone a, b**

40' - 100' tall. 2 - 4' diameter trunk. In clusters it is a tall, straight tree. In the open, it usually forms several large branches within the first 15 feet in a dense round, spreading crown. Good browse for black tailed and mule deer. Seeds are food source for mice, wood rats, squirrels, chipmunks, and some birds. Host to mosses, lichens, and ferns. Fast growing.

Prefers moist, well drained soils.

Propagate from seed.

Black Cottonwood

(*Populus trichocarpa, P. balsamifera ssp. trichocarpa*) **Zone a, b, c**

100' - 200' tall. 3' - 6' diameter. In dense clusters, the trunk is long and clear of branches for most of height with a narrow open crown. In the open, branches start about halfway up the trunk. Important browse for deer and elk and important resting habitat for large birds.

Grows in moist sites along streams. Grows fast and will sprout from stump.

Propagate from hardwood cuttings, live stakes, seed.

Legend

Oregon Ash

(*Fraxinus latifolia*) **Zone b, c, d**

40' - 80' tall. 1' - 2.5' diameter. When it grows in dense clusters, its shape is long, with a clean, narrow trunk and short crown; in the open it is short, with a thick trunk and wide, rounded crown. Abundant seed producer.

Grows in moist to wet soils near streams.

Propagate from seed.

Oregon Crabapple

(*Malus fusca, Pyrus fusca*) **Zone b, c, d**

Large shrubs or small trees grow up to 40' tall and 10" - 18" diameter with stiff, low branching, multiple trunks. Fruit eaten by birds. Indians used to soak fruit in water in order to eat them.

Grows in moist sites near streams.

Propagate from seed, layering.

Oregon White Oak

(*Quercus garryana*) **Zone a, b**

40 - 80' tall. 2 - 3' diameter with a short, thick trunk and a broad, round-topped crown of heavy, gnarled limbs. In the open, trees have a very regular, spherical shape that looks trimmed. Foliage rich in protein. Heavy seeder and vigorous sprouter, but delicate. Can withstand both flooding and drought.

Grows in dry to moist, well-drained soils. Forms pure stands.

Propagate from acorns.

Ponderosa Pine

(*Pinus ponderosa*) **Zone a, b**

(There is a Willamette Valley variety)

125 - 180' tall. 3 - 6' diameter with a tall, open canopy. Seeds are an important food source to all the seed eaters in the forest.

Commonly found on dry, sandy, or gravelly soils, but valley pine grows in seasonally wet places.

Propagate from seed.

Red Alder

(*Alnus rubra*) **Zone a, b, c**

30' - 120' tall. 1 - 3' diameter, slender tree with abundant leaves, but airy look. Relatively short lived (50 years). Inhibits growth of soil fungus that causes heart rot in Douglas-fir. Symbiotic relationship with nitrogen fixing bacteria (adds nitrogen to soil). Provides wildlife food and nest sites. Fast growing.

Mountain slopes, foot hills.

Propagate from seed.

Western Red Cedar

(*Thuja plicata*) **Zone a, b, c**

150' - 200' tall. 3 - 10' diameter. Pyramid shaped tree with straight trunk and branches nearly to the ground. Branches curve downward, then turn up at the ends. Essentially absent from the Willamette Valley south of Clackamas County.

Prefers stream banks, moist flats, forested swamps.

Propagate from seed, layering, softwood or hardwood cuttings.

White Alder

(*Alnus rhombifolia*) **Zone b, c**

40' - 80' tall. 1' - 2' diameter with multiple trunks. Grows quickly and lives around 100 yrs. max. Symbiotic relationship with nitrogen fixing bacteria.

Prefers moist areas and stream banks along the valley floor.

Propagate from seed.

Willows

(*Salix*) **Zone b, c, d**

Sitka *(sitchensis)*
Pacific *(lasiandra)*
Scouler *(scouleriana)**
Northwest *(sessilifolia)*
Piper *(piperi, hookeriana)*

Forms thickets. 10' - 40' depending on species and soil. Grows quickly and has a short life span. Erosion control, good browse. Grouse and quail feed on buds.

Grow in moist, well-drained soil, sun.

Propagate from live stakes, hard or softwood cuttings, seed, layering.

* Scouler willow is more drought and shade tolerant than other willows and does not tolerate standing water (see Cooke, Page 72).

Legend

- Bank Stabilization
- Sun
- Partial Sun
- Shade
- Wildlife

Shrubs

Black Hawthorn

(Crataegus douglasii, C. suksdorfii)

Zone b, c

Deciduous 10' - 30' tree or shrub, often thicket forming. White flowers and black berries. Provides food and shelter for birds.

Propagate from seed.

Cascara (buckthorn, chittam bark)

(Rhamnus purshiana) **Zone a, b**

Deciduous 10' - 35' tree. Small black berries eaten by wildlife. Bark used as a laxative. Often grows with conifers on moist, well-drained soils.

Propagate from seed.

Hazelnut

(Corylus cornuta var. californica) **Zone a, b**

Deciduous 20' - 30' shrub or tree often in dense clumps and understory of forests. Nuts are relished by wildlife.

Intolerant of saturated soil.

Propagate from nuts, layering.

Indian Plum/Osoberry

(Oemleria cerasiformis) **Zone a, b, c**

Deciduous 5' - 16' shrub that blooms in February and produces edible berries in June.

Prefers well drained soils.

Propagate from seed and hardwood cuttings.

Mock Orange

(Philadelphus lewisii) **Zone a, b**

Deciduous 5' - 10' multi-stemmed shrub. Ornamental white flowers attract bees and butterflies.

Propagate from hardwood cuttings, seed.

Nootka Rose

(Rosa nootkana) **Zone a, b, c**

Deciduous thorny bush to 6'. Pink flowers provide nectar for insects. Fruit eaten by birds and small mammals; deer and elk browse foliage. Provides wildlife cover.

Propagate from seed, live stakes, hardwood cuttings.

Ocean Spray

(Holodiscus discolor) **Zone a, b**

Deciduous multi-stemmed shrub to 15' provides wildlife cover, nectar, and browse.

Intolerant to saturated soils; very drought tolerant.

Propagate from seed, hardwood cuttings.

Oregon Grape (tall)

(Berberis aquifolium) **Zone a, b**

Oregon Grape *(Berberis nervosa* also called *Mahonia nervosa)*

Evergreen multi-stemmed shrub with holly-like leaves, yellow flowers, and dark blue berries. Tall variety 5' to 10'; low variety to 2'. Both spread from underground stems.

Fruit and nectar provide wildlife food.

The low variety tolerates full shade.

Propagate from seed, rooted suckers.

Pacific Ninebark

(Physocarpus capitatus) **Zone b, c**

Deciduous multi-stemmed shrub 6' to 13' provides cover and food for wildlife.

Prefers streambanks.

Propagate from hardwood or softwood cuttings, live stakes, seed.

Red Elderberry

(Sambucus racemosa ssp. pubens var. arborescens formerly S. racemosa var. arborescens) **Zone a, b, c**

Deciduous multi-stemmed shrub to 20' provides nectar, berries, and browse for wildlife.

Grows in clearings and on stream banks.

Propagate from hardwood cuttings, live stakes, layering, seed.

Red-osier Dogwood

(Cornus sericea ssp. occidentalis, Conus stolonifera var. occidentalis) **Zone b, c, d**

Deciduous multi-stemmed shrub to 15'. Provides cover, browse, and berries for wildlife.

Grows on streambanks and tolerates seasonal flooding.

Propagate by seeds, hardwood cuttings, live stakes, layering.

Salmonberry

(*Rubus spectabilis*) **Zone b, c**

Deciduous rapidly growing shrub, 3' to 10' in moist places. Best used in foothills of Coast and Cascade Ranges. Provides wildlife cover, nectar, berries, and forage.

Propagate from hardwood cuttings, rooted suckers, live stakes, seed.

Pacific Serviceberry

(*Amelanchier alnifolia, var semiintegrifolia*) **Zone a, b**

Deciduous multi-stemmed shrub 10' - 25' grows in well drained soils, often forming thickets. Provides cover, browse, and berries for wildlife. Berries edible by humans, too.

Propagate from seed, layering.

Snowberry

(*Symphoricarpos albus var. laevigatus*) **Zone a, b, c**

Deciduous 2 ' - 6' shrub spreads by rhizomes, often forms thickets. Provides cover, browse and white berries for wildlife.

Propagate from hardwood cuttings, seeds, rooted suckers.

Douglas Spiraea (Hardhack, Steeplebush)

(*Spiraea douglasii var. menziesii and var. douglasii*) **Zone b, c, d**

Deciduous wetland shrub, sometimes invasive in its preferred habitats. Provides cover for animals and nectar for insects.

Propagated from hardwood cuttings, seeds, divisions, rooted suckers.

Vine Maple

(*Acer circinatum*) **Zone a, b**

Deciduous small tree (to 25') or tangle of vine-like branches, depending on habitat. Common forest understory plant provides seeds, nectar, browse, and cover for wildlife.

Propagate by layering or from fresh seeds (sow immediately).

Legend

- Bank Stabilization
- Sun
- Partial Sun
- Shade
- Wildlife

Herbaceous Plants and Flowers

American Speedwell

(*Veronica americana*) **Zone c**

Perennial, to 1' tall. Blue flowers in clusters.

Grows in moist ground; shallow water of marshes; wet, sandy soil of gravely streams.

Propagate from seeds or rhizome.

Common Camas

(Camassia quamash) **Zone b, c**

Perennial, up to 1.5' tall.

Moist to wet prairies, important food source for Native Americans.

Propagate from seed, bulbs.

Leichtlin's Camas

(C. leichtlinii) **Zone b, c**

Moist to wet prairies, important food source for Native Americans. (Be aware that there is also a poisonous white flowered camas, known as death camas)

Propagate from seed, bulbs.

Cow Parsnip

(*Heracleum lanatum*) **Zone a, b**

Perennial/biennial. Up to 8' tall. White flowers.

Grows in streambanks, wet meadows.

Propagate from fresh seeds or seedling.

Hall's Aster

(*Aster hallii*) **Zone a, b**

Perennial/annual. Up to 2' tall. White flower.

Wet meadows, shrub swamps, forested wetlands, rocky streambanks.

Propagate from seeds or division of rootcrown.

Hedge Nettle

(*Stachys cooleyae*) **Zone a, b**

Perennial, up to 4' tall. Red to purple flowers.

Grows in swampy, marshy woods, lake shores, streambanks.

Propagate from seeds, seedlings, division.

Large-leaf Lupine

(*Lupinus polyphyllus*) **Zone a, b**

Perennial. 2 - 4' tall. Spike of pea-like white to blue flowers.

Grows on streambanks, wet meadows.

Propagate from seeds (steeped in hot water).

Northwest Cinquefoil

(*Potentilla gracilis*) **Zone a, b**

Perennial. Up to 2' tall. Yellow flowers.

Wet meadows, streambanks.

Propagate from seeds, divisions or seedlings.

Piggy-back Plant

(*Tolmiea menziesii*) **Zone a, b**

Perennial, up to 2' tall.

Wet woodlands, streambanks.

Propagate from seeds, plantlets, or rootstalk.

Seep-spring Monkey Flower

(*Mimulus guttatus*) **Zone b, c**

Annual/perennial. Up to 2' tall. Yellow flowers similar to snap dragons.

Habitat is wet meadow, marshes, springs, ponds, streambanks.

Propagate from seeds (easy to germinate) or seedlings.

Stinging Nettle

(*Urtica dioica*) **Zone a, b**

Up to 6' tall. Clusters of greenish flowers hang below leaves. Hairs of this plant sting bare skin.

Swampy/marshy/lakeshore/streambank.

Propagate from seed.

Water Parsley

(*Oenanthe sarmentosa*) **Zone c, d, e**
(in water less than 1.5 feet deep)

Perennial, up to 1.5' tall. White flowers.

Swamps, wet meadows, marshes, along the banks of slow-moving streams, wooded wetlands.

Propagate from seeds or seedlings.

Legend

- Bank Stabilization
- Sun
- Partial Sun
- Shade
- Wildlife

Grasses

American Sloughgrass

(*Beckmannia syzigachne*) **Zone b, c**

Grows 5' tall and produces many seeds for wildlife. Annual or short-lived perennial (2-3 years).

Grows in seasonal wetlands, pond shores, marshes, shallow water. Rapid growth and establishment.

Propagate from seed.

Columbia Brome

(Bromis vulgaris) **Zone a**

Grows 1.5 to 3.5' tall. One of the most shade tolerant native perennial bunchgrasses.

Excellent for understory soil protection in denser thickets and under trees. Needs well drained soils. Moist to dry banks in shade or open wood.

Propagate from seed.

Roemer's Fescue

(*Festuca roemerii*)

Zone a, b

1.5 - 2' tall. Long-lived perennial bunchgrass.

Loamy, sandy or gravely soils, grows in shade or sun and tolerates acidic soils. Requires good drainage.

Propagate from seed.

Short-awned Foxtail

(*Alopecurus aequalis var. aequalis*) **Zone b, c, d**

(Similar species: *A. geniculatus*) 1.5' tall.

Grows in shallow standing (or slow moving) water. Prefers mostly open areas, not often in shade.

Propagate from seed or layering.

Western Mannagrass

(Glyceria occidentalis) **Zone c, d**

1.5' -5' tall. Perennial that spreads by rhizomes. Good cover and seed source for many birds and waterfowl. Preferred forage for small mammals and deer.

Grows in shallow standing or slowly moving water, or permanently moist ground.

Propagate from seed or rhizome cuttings.

Tufted Hairgrass

(*Deschampsia cespitosa*) **Zone b, c**

Erect, perennial, bunchgrass from 1.5' - 6' tall grows in dense hummocks. Provides food and shelter for small animals.

Tolerates light grazing. Grow in full sun, no year round flooding. Tolerant of clay soils that are saturated in winter, but not flooded.

Propagate from seed or division of mature clumps or "tufts."

Sedges and Rushes

Propagating Sedges - Most sedges are easily propagated. Sedges can be grown from seed sown in the fall, either on-site (or in trays and allowed to overwinter), or in a greenhouse. Rhizome cuttings can be used, but only from appropriate salvage sites. Special seed treatments, such as seed coat removal, may be needed to enhance germination.

Dense Sedge

(*Carex densa*) **Zone b, c**

1' - 3.5' tall.

Grows at low elevations, floodplains, seasonal wetlands, and wet prairies. Scattered around the edges of pools, in shallow marshes and ditches.

Dewey Sedge

(*Carex deweyana*) **Zone a**

8" -3.5' tall.

Grows in mostly upland. Grows on hummocks, along stream banks, and in moist woodlands or forest openings, from valley floors up to near the timberline.

One-sided Sedge

(*Carex unilateralis*) **Zone b, c**

1' -3.5' tall.

Grows in moist or wet places at low elevations.

Saw-beak Sedge, Prickly Sedge

(*Carex stipata*) **Zone b, c**

1' - 3.5' tall.

Grows in disturbed wet meadows and ditches in lowland to mid-mountain elevations.

Slough Sedge

(*Carex obnupta*) **Zone b, c**

2' - 5' tall perennial. Forms rhizomes. Excellent understory species for erosion control.

Grows in seasonally saturated areas. Wet, shallowly inundated woods, meadows, roadside ditches, lake shores, bogs, marshes, and river banks.

Creeping Spikerush

(*Eleocharis palustris*) **Zone d, e**

(in water less than 1.5 feet deep)

Up to 3' tall. Spreads by rhizomes. Seed is food for geese and ducks.

Grows in shallow, permanently flooded or semi-permanently saturated soils.

Propagate from seeds and division of rhizomes.

Dagger-leaf rush

(*Juncus ensifolius*) **Zone c, d**

0.5' - 2' tall.

Moist sites, but not primarily around standing water. Occurs from sea level to mid mountain meadows.

Hardstem Bulrush, Tule

(*Scirpus acutus)* **Zone d, e**

(in water less than 3 ft. deep and slow moving)

3.5' - 10' tall and are used by birds for nesting material and nest sites. Provides food for water birds, cover for fish, shelter for small mammals and amphibians, and nesting habitat for the western grebe.

Lakeshores, emergent marshes, freshwater marshes, mud substrates; tolerates water up to 3 feet deep. Associated with cattails and yellow pond-lily. Stems help reduce shoreline erosion from wave action.

Propagate from seed or rhizome cuttings, salvaging clumps, or dividing salvaged plants.

Small-fruited Bulrush

(*Scirpus microcarpus*) **Zone d, e**

(in water less than 1.5 feet deep)

2' - 5' tall and provides cover for birds and small mammals.

Found on wet to inundated, nitrogen-rich soils. Disturbed sites. Wetlands, roadside ditches, and wet clearings. Tolerates shade.

Propagate from rhizome cuttings or seed.

Legend

- Bank Stabilization
- Sun
- Partial Sun
- Shade
- Wildlife

List of Recommended Plants

Trees

Big Leaf Maple (*Acer macrophyllum*)
Black Cottonwood (*Populus trichocarpa, P. balsamifera ssp.trichocarpa*)
Oregon Ash (*Fraxinus latifolia*)
Oregon Crabapple (*Malus fusca, Pyrus fusca*)
Oregon White Oak (*Quercus garryana*)
Ponderosa Pine (*Pinus ponderosa*)
Red Alder (*Alnus rubra*)
Western Red Cedar (*Thuja plicata*)
White Alder (*Alnus rhombifolia*)
Willows (*Salix*)
Sitka (*sitchensis*), **Pacific** (*lasiandra*), **Scouler** (*scouleriana*), **Northwest** (*sessilifolia*), **Piper** *(piperi, hookeriana)*

Shrubs

Black Hawthorn (*Crataegus douglasii, C. suksdorfii*)
Cascara (Buckthorn, Chittam Bark) (*Rhamnus purshiana*)
Hazelnut (*Corylus cornuta var. californica*)
Indian Plum/Osoberry (*Oemleria cerasiformis*)
Mock Orange (*Philadelphus lewisii*)
Nootka Rose (*Rosa nootkana*)
Ocean Spray (*Holodiscus discolor*)
Oregon Grape (tall) (*Berberis aquifolium)*
Oregon Grape *(Berberis nervosa* also called *Mahonia nervosa*)
Pacific Ninebark (*Physocarpus capitatus*)
Red Elderberry (*Sambucus racemosa ssp. pubens var. arborescens* formerly *S. racemosa var. arborescens*)
Red-osier Dogwood (*Cornus sericea ssp. occidentalis, Conus stolonifera var. occidentalis*)
Salmonberry (*Rubus spectabilis*)
Pacific Serviceberry (*Amelanchier alnifolia, var. semiintegrifolia*)
Snowberry (*Symphoricarpos albus var. laevigatus*)
Douglas Spirea (Hardhack, Steeplebush) (*Spirea douglasii var. menziesii* and *var. douglasii*)
Vine Maple (*Acer circinatum*)

Herbaceous Plants and Flowers

American Speedwell (*Veronica americana*)
Common Camas *(Camassia quamash)*
Leichtlin's Camas *(C. leichtlinii)*
Cow Parsnip (*Heracleum lanatum*)
Hall's Aster (*Aster hallii*)
Hedge Nettle (*Stachys cooleyae*)
Large-leaf Lupine (*Lupinus polyphyllus*)
Northwest Cinquefoil (*Potentilla gracilis*)
Piggy-back Plant (*Tolmiea menziesii*)
Seep-spring Monkey Flower (*Mimulus guttatus*)
Stinging Nettle (*Urtica dioica*)
Water Parsley (*Oenanthe sarmentosa*)

Grasses

American Sloughgrass (*Beckmannia syzigachne*).
Columbia Brome *(Bromis vulgaris)*
Roemer's Fescue (*Festuca idahoensis var. roemeri*)
Short-awned Foxtail (*Alopecurus aequalis var. aequalis*)
Western Mannagrass *(Glyceria occidentalis)*
Tufted Hairgrass (*Deschampsia cespitosa*)

Sedges and Rushes

Dense Sedge (*Carex densa*)
Dewey Sedge (*Carex deweyana*)
One-sided Sedge (*Carex unilateralis*)
Saw-beak Sedge, Prickly Sedge (*Carex stipata*)
Slough Sedge (*Carex obnupta*)
Creeping Spikerush (*Eleocharis palustris*)
Dagger-leaf Rush (*Juncus ensifolius*)
Hardstem Bulrush, Tule (*Scirpus acutus)*
Small-fruited Bulrush (*Scirpus microcarpus*)

Glossary

Buffer: A vegetated area of grass, shrubs or trees designed to (1) capture and filter runoff and sediment from surrounding land uses, (2) stabilize the streambank, (3) provide shade to stream, and (4) provide food and shelter to fish and wildlife.

Exotic: Introduced, non-native plants.

Floodplain: The flat area of land adjacent to a stream affected by floods.

Hydric Soils: Soils that are saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions in the rooting zone of plants. Often found in wetlands.

Intermittently Exposed: Exposed during summer low water.

Intermittent Stream: A stream that does not flow continuously throughout the year.

Invasive Vegetation: Aggressive, competitive types of plants that will often overwhelm and out-compete other varieties and will dominate an area.

Native: Originating naturally in a particular geographic region.

Perennial: A plant that has more than one growing season.

Rhizome: An underground stem that spreads by creeping; may be long and slender or thick and fleshy.

Riparian Zone: The vegetated area adjacent to a stream or any other waterbody. Its width varies according to the nature of the stream valley.

Seasonally Flooded: Underwater during an average winter.

Soil Bioengineering: The use of live, woody vegetation to increase slope stability.

Swale: A low lying, wet stretch of land.

Temporarily Flooded: An area which is under water only during periods of flooding.

Toe: The bottom of a slope or bank.

Upland: The area that is not usually affected by standing or moving water.

Watershed: The area that contributes water runoff to a stream.

Wetland: An area of land that is saturated at least part of the year by water. Usually found in depressions, low-lying areas or along floodplain or coastal areas.

Plant Material Sources

Oregon Association of Nurseries:
Phone: 1-800-342-6401 **Website:** http://www.nurseryguide.com

Contact your local **Soil and Water Conservation District** for information about native plant sales in your area.

Agencies/Contacts

Soil and Water Conservation Districts: To locate your local SWCD, look in the yellow pages, call the Oregon Department of Agriculture (Salem) (503) 986-4700 or on the web at http://www.oacd.org.

Call for: Technical assistance, cost share assistance, information on current conservation work in your area, assistance with projects.

Watershed Councils: To locate your local watershed council, see http://oregon.gov/OWEB or call the Oregon Watershed Enhancement Board at (503) 986-0178.

Call for: Information on current conservation work in your area, assistance with projects, help with natural resource concerns, and information on watershed conditions.

Natural Resources Conservation Service: Look in the federal section of the blue pages in the front of your local phone book. Your local Natural Resources Conservation Service office is listed under the Department of Agriculture, or on the web at www.or.nrcs.usda.gov.

Call for: Technical assistance, information on funding programs for projects and conservation easements.

Oregon State Univ. Extension Service
An office is located in each county, serviced by an Extension Agent; additional resources are available at the University.
Web page: http://extension.oregonstate.edu
Call For: Information on soils, plant establishment, and other related subjects.

Division of State Lands: 775 Summer Street NE, Suite 100, Salem, OR 97301-1279
Phone: 503-378-3805
Web page: www.oregonstatelands.us
Call for: State removal/fill law.

Oregon Department of Fish and Wildlife:
3406 Cherry Avenue NE, Salem, OR 97303
Phone: 503-947-6000 or 1-800-720-ODFW
Web page: www.dfw.state.or.us
Call for: Fish and wildlife habitat programs.

Oregon Water Resources Department:
725 Summer Street NE, Suite A,
Salem, OR 97301-1271
Phone: 503-986-0900
Web page: www.wrd.state.or.us
Call For: Water rights permits and information.

U.S. Army Corps of Engineers, Portland District:
PO Box 2946, Portland, OR 97208-2946
Phone: 503-808-5150
Web page: www.nwp.usace.army.mil
Call for: Removal/fill law.

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The Linn SWCD is an Equal Opportunity Employer, providing services to the public without regard to race, color, national origin, religious preference, sex, age, or disability.

Exhibit C
Expirations and Extensions Analysis

Exhibit C - Expirations and Extensions Analysis

Source: Wayne Hayson, Pioneer Design Group
Prepared: 07/04/2024 for Case #MIMD124-0008

Jurisdiction	Initial Approval Period	No. of Extensions Allowed	Length of Extension Allowed	Approval Period + Initial Extension	Commencement	Required Findings
Newberg	1 year	Unspecified	6 months	1 ½-years	Building permit issued & commenced construction	Land use designation has not changed; & applicable standards which applied to the project have not changed
Section 15.220.020 & 15.225.100	*…An approved site design review plan intended to be constructed in a single phase shall be valid for one year from the date of the notice of final decision. A building permit must be acquired within this time period or the design review approval shall terminate. The director under a Type I procedure may grant an extension for up to six months if the applicant files a request in writing …A conditional use permit granted under this code shall be effective only when the exercise of the right granted thereunder shall be commenced within one year from the effective date of the decision. The director under a Type I procedure may grant an extension for up to six months if the applicant files a request in writing……*					
Dundee	1 year	One	1 year	2 years	Building permit submittal	No changes to the applicable code provisions. If there have been changes and subject plan does not comply with those changes, extension shall not be granted
Section 17.402.070	*A. Approval Period. Site development review approvals shall be effective for a period of one year from the date of approval. The approval shall lapse if: 1. A public improvement plan or building permit application for the project has not been submitted within one year of approval;…….B. Extension. The city planning official, upon written request by the applicant, shall grant one written extension of the approval period not to exceed one year; provided, that the applicant demonstrates:……*					
Salem	2 years	Two	2 years	4 years	Building permit issuance	No changes to standards & criteria used to approve application; or no changes to standards & criteria that would require modification of the original approval.

Sections 300.850(a) & (b), Table 300-3	*…Unless a different period of time is established in the UDC or in the decision, all approvals of land use actions shall expire automatically upon the dates set forth in Table 300-3 unless one of the following has occurred:….2)……no exercise of the rights granted under the land use action shall be deemed to have commenced until a building permit has been issued. (b) (1) Whenever the decision requires exercise of approval rights or satisfaction of conditions of approval within a particular period of time, the approval period may be extended for the times set forth in Table 300-3 through filing an application for extension prior to the expiration date.*					
Sherwood	2 Years	Unspecified	1 year	3 years	Substantial construction	Written request showing adequate cause for such extension
Section 16.82.020.E.	*…….authorization of a conditional use shall be void after two (2) years or such lesser time as the approval may specify …….The Hearing Authority may extend authorization for an additional period, not to exceed one (1) year, upon a written request from the applicant…….*					
Tigard	3 years	One	2 Years	5 Years	Submit & pay for applicable development permits	Good faith effort to utilize approval; and if applicable, update TIS or sensitive lands report
Sections 18.020.050 & 18.745.030	*…For an approval requiring any kind of development permit, the development must: i. Submit and pay for all applicable development permits, excluding trade permits, within three years of the effective date of a conditional use…A. An approved land use application is eligible for one extension….D. If an extension is approved, the expiration date for the original approval is extended an additional 2 years from the effective date…….*					
Tualatin	2-years	Unspecified	2-years	4-years	Building permit issued & commenced construction	Written request
Section 33.040.(8)	*(a)…….a conditional use permit automatically is null and void two years after the effective date upon which it was granted, unless the applicant, or successor in interest, has done one of the following within two years of the effective date of the conditional use permit…….(c)……. The Planning Commission may grant or deny the extension of time, provided the extension of time does not exceed two years.*					
Washington County	4 years	One	2 years	6 years	Commenced Development (physical alteration of land or use)	Written request
Sections 201-4 & 201-5	*……Except as outlined below under Section 201-4.2 or as otherwise specifically provided in this Code, a development permit shall expire automatically four years from the date of issuance unless…….The development has commenced as provided in Section 201-6……An extension may be granted for a maximum of two years from the original date of expiration except as provided in Section 427-5.8. Subsequent extensions may not be granted.*					
McMinnville	1 year, or within 1 year of date specified on development schedule approved with the	NA	NA	2 years +	Commenced construction	NA

	conditional use					
Section 17.74.060	*B. Each conditional use permit issued after the effective date of this ordinance codified in this section shall be terminated if: 1. Construction or remodeling for the conditional use as approved has not been started within one year of the date specified on a development schedule approved with the conditional use, or in case no such development schedule was approved, within one year of the effective date of approval; 2. Construction once commenced does not substantially progress for a one-year period;3. After completion of the construction or remodeling, the approved use as authorized by the permit lapses for any one-year period.*					
Yamhill County	2 years	Unspecified	1 year	3 years	Completion or substantial construction	Written request demonstrating good cause for the delay
Section 1202.05	*D. A conditional use approval involving construction shall be null and void two (2) years from the date of final approval unless completion or substantial construction has taken place…The Director may extend the conditional use permit for an additional period not to exceed one (1) year upon receipt of a written request from the applicant…*					
North Plains	1 year	Unspecified	1 year	2 years	Completion or substantial construction	No significant changes to the applicable standards
Section 155.010	*(A) Except as otherwise provided in this chapter, approval of an application or permit is void after one year or such lesser time as the approval may specify unless substantial construction has taken place or the proposed use has occurred. Approval of a partition, subdivision or PUD is void after two years, or such lesser time as the approval may specify, unless substantial construction has taken place or the proposed use has occurred.*					
Cornelius	2 years	NA	NA	2 Years +	Building permit issued & substantial construction	NA
Section 18.105.030	(*F) Time Limit on Approvals. A conditional use permit shall become void two years after the date of final approval or after such time less than two years as may be specified as a condition of approval unless prior to that time a building permit has been issued for the project and substantial construction has taken place.*					
Forest Grove	2 years	Two	1 year	4 years	Substantial construction	Extension must not violate any provisions of Code or amendments
Section 17.1.130	*F. All land use permits, with the exception of a subdivision or a planned development, shall expire two years from the date of issuance unless: 1. Substantial construction or operation of the development has begun within that time and has continued toward final completion; 2. Development is proceeding in accordance with an approved phasing plan; or 3. A written extension is granted by the Director under the Type I review process.*					
Beaverton	2 years	Two	2 years	4 years	Construction or establishment of use within the specified time period	Not practicable to commence development; & no change in circumstances or applicable regulations or Statutes likely to necessitate modification

Section 50.90.1	*Except as otherwise specifically provided in a specific decision or in this Code, a final decision made pursuant to this Chapter shall expire automatically on the following schedule unless the approval is enacted either through construction or establishment of use within the specified time period. .* *Two (2) years from the effective date of decision: Conditional Use (Section 40.15.15.4.)*					
Hillsboro	2 years	Two	2 years	4 years	Substantial construction	Not practicable to commence development; & no change in circumstances or applicable regulations or Statutes likely to necessitate modification
Section 12.70.140	***A.*** *Unless a different period of time is established within the Decision, or under subsection* ***D*** *below, a land use action or permit granted pursuant to this subchapter expires and becomes void automatically as provided under Table 12.70.140-1 unless one of the following circumstances has occurred:* *1. With the exception of a land use decision that includes a preliminary plat, substantial construction has begun in compliance with the land use action, permit approval, or Zoning Review approval; or* *2. The approved land use has begun and is continuing operation in compliance with any applicable conditions of approval; or* *4. A first or second extension application has been filed pursuant to Section 12.70.150; or*					

Exhibit D
Code Maintenance Standard Operating Procedures

Community Development Department

Code Maintenance Standard Operating Procedures

Updated 07/30/2024

Introduction

High-functioning local government planning departments perform routine maintenance of the codes, standards, and procedures they are responsible for administering. "Code Maintenance" should be proactive, strategic, and appropriately resourced to implement the comprehensive plan and carry out the policy priorities of the governing body. This work must also be balanced with existing workloads.

Codes need not be overhauled or replaced frequently, nor should they be. But they do need to be maintained; like computer hard drives, automobiles, and other systems, codes break down without routine maintenance. Think about what would happen if you did not update your computer operating system from time to time, or if you waited too long to replace your car's oil or battery.

The Why's

Local governments must address changes in legal, policy, and customer service requirements. For planning departments, this includes changes in state statutes, administrative rules and case law, as well as constitutional issues. Planning must also ensure that codes are consistent with local policies while guiding community planning efforts that often result in new policies. Additionally, planning must respond to changes in the construction industry and best practices in local government.

Code Maintenance corrects and clarifies existing standards and procedures, ensures compliance with new mandates, makes regulations more readable, and in general results in a more efficient permit process while supporting quality control. From a Community Development perspective, Code Maintenance considers the interconnections between different functional areas of local government with a focus on positive community outcomes. For example, by reconciling conflicts between the Development Code, Building Code, Engineering standards (streets, sidewalks, utilities, surface water, etc.), Community Development can help streamline the permit process and improve customer service.

Types of Code Maintenance

For purposes of this guide, there are generally five types of code maintenance amendments: Corrections, Clarifications, Restructuring, Compliance, and "Minor Policy" changes, as outlined below. By using the following rubric and the table with examples, below, staff can discern the type of code maintenance that is needed, or whether an amendment is a major policy change.

1. **Corrections**
    - Scrivener's errors
    - Typographical errors
    - Syntax
    - Cross references, ordinance citations, etc.

2. **Clarifications**
   - Codification (when ordinances are not already codified)
   - Interpretations (these are policy-neutral)
   - Other clarifications
   - Definitions
3. **Restructuring/Streamlining**
   - New code drafting conventions (e.g., replacing state law boilerplate with cross references)
   - Unification/Relocation (e.g., consolidation of procedures, standards, or definitions, etc.)

4. **Compliance (Legal Sufficiency)**
   - Federal
     - First Amendment (Speech, Fair Housing, etc.)
     - Fifth and Fourteenth Amendments (Takings)
     - Code of Federal Regulations, Agency Rules, etc. (including FCC, FEMA, EPA)
   - State
     - ORS and OAR
     - LUBA
     - Opt-in programs, may or may not require code maintenance (SHPO CLG, Enterprise Zone, etc.)

5. **Minor Policy** *(Code follows Policy).* Minor code amendments implementing specific direction may be considered Maintenance, provided the changes are solidly grounded in the:
   - Comprehensive Plan or TSP
   - Other Adopted City Plan
   - City Council Goal or Objective, with explicit direction on the need for code change
   - Ad Hoc Committee recommendation, with clear City Council direction

Where do we draw the line between Maintenance and Major Policy Changes?

Major policy changes are not "maintenance". However, maintenance may include minor policy changes, as discussed above. These are typically narrow in scope and easily addressed with existing staff resources. Minor policy amendments require minimal investment of stakeholders' time; they do not require standing up a new Ad Hoc committee, for example. They are also typically guided by existing adopted city plans, state or federal mandates, City Council goals, or Ad Hoc Committee recommendations, as directed by City Council.

See Table 1 for examples of each of the above types of code maintenance amendments.

A Comment on Project Management

As with other planning projects, effective code maintenance requires good project management. This includes establishing the project team (project manager, task leads, reviewers, etc.) and a clear scope of work that is linked to specific goals and outcomes. This may include alignment with certain policy

objectives, mandates, or operational needs, among other outcomes. The full scope should consist of a work plan, schedule, and budget, including assigned personnel, funding, and procurement of any outside services, as applicable. There are many types of project management tools that can be used. The most important are those that facilitate communication among team members, and with stakeholders; tracking of project tasks and deliverables with timelines; quality control; and financial controls.

Table 1. Code Maintenance Examples							
Model	**Examples**	**Staff Resources**	**Internal Stakeholders Engagement**	**External Stakeholders Engagement**	**Project Duration[1]**	**Resources**	**Risks**
Corrections	Title 15 – Typographical corrections	Low	Legal, as needed	As needed	4-6 months	Low	**Low**, so long as corrections are fact-based
Clarifications	Design Applicability-How to determine existing value basis	Medium	Legal, as needed	County Assessor	4-6 months	Low-Medium	**Medium**, due to potential for scope creep
Streamlining or Restructuring	Move Use Table footnotes to standards	Medium	Building, Engineering, Legal, as needed	Chamber, Home Builders, NDC, others, as needed	6-10 months, depending on policy issues and conflicts	Medium-High	**Medium**, due to potential for scope creep
Legal Sufficiency	35-day DLCD Notice (NMC 15.100.250, OAR 660-018-0020); Childcare in M-1, M-2	Low	Legal, as needed	DLCD	4-6 months	Low	**Low**, good models exist
Policy-Minor[2]	Title 15 amendments for Childcare – Parking	Medium	Engineering, as needed	Chamber, major employers, owners, Yamhill County, COG, caregivers, and other partners	6-10 months	Medium	**Medium-Low**, City Council direction; risk of scope creep

[1] Duration assumes staff capacity to complete work. Do not assign, or provide contingency staffing plan, when capacity is lacking or uncertain.
[2] Major Policy changes are not Maintenance.

MEMORANDUM

TO: Newberg Planning Commission
FROM: Clay Downing, AICP, Planning Manager
SUBJECT: Anticipated Schedule of Planning Commission Activities
DATE: January 2, 2024

To assist the Planning Commission in gauging activities for FY 25/26, below is a preliminary schedule of activities.

January 9, 2025
- CUP24-0004/DR224-006/MISC124-0018 West Branch Apartments
- CUP24-0007 Vacation Rental Home at 315 W Lindgren Drive
- CUP24-0008 Vacation Rental Home at 510 N School Street
- DCA24-0002 Code Maintenance Package (Legislative Hearing)

February 13, 2025
- PUD24-0009 Nagomi at Springbrook 100-Unit Planned Unit Development at 3809 NE Springbrook Road
- SUB224-0001 for 10-Lot Subdivision at 1929 E Orchard Drive *(Tentative)*

March 11, 2025
- DCA24-0003 Vacation Rental Home Regulations Update (Work Session #1)

March 25, 2025 (Special Meeting)
- DCA24-0003 Vacation Rental Home Regulations Update (Work Session #2)

April 10, 2025
- DCA24-0003 Vacation Rental Home Regulations Update (Hearing)
- GEN24-0014 Code Amendments Needed to Address Floodplain and FEMA National Insurance Program Issues (Work Session)

May 8, 2025
- GEN24-0014 Code Amendments Needed to Address Floodplain and FEMA National Insurance Program Issues (Hearing)

June 12, 2025
- No items scheduled at this time.

There are additional activities the Community Development Department may bring forward to the Planning Commission for consideration for land use cases. Staff is also looking at various updates and cleanup actions to the Development Code and other projects such as:

1. Development Code Amendment – Small Cell Site Facilities – Legislative Hearing
2. Development Code Amendment – Institutional Zone & Overlay Regulations – Legislative Hearing (Tentative)
3. Other Items from the Planning Division's Work Program, which is available at newbergoregon.gov/planning, include:
    a. Items related to the Newberg Urban Growth Boundary Project
    b. Update requirements related to HOA's and stormwater facilities management
    c. Code updates for compliance with statewide regulations including HB3395 (2023) and Commercial Conversions to Residential (HB2984)
    d. Street Tree and Planter Strips Update
4. Other Items from Prior Discussion with the Planning Commission
    a. Appendix A revisions roadway cross-sections
    b. Tentative – Military Banner Sign Regulations – Legislative
    c. Annexation criteria
    d. Stream Corridor Adjustment process
    e. Urban Forestry program
    f. Fences in Industrial zones
    g. C-3 zone – reduce front yard landscaping from 10 feet to 5 feet
    h. Industrial outdoor storage
    i. Downtown sign point system
    j. Roof top mechanical unit screening
    k. Historic review process
    l. Zoning Use Table
    m. Undergrounding utilities
    n. Driveway width
    o. Home occupations
    p. 15.405.030(B) – "The creation" ~~development~~ of lots under 15,000 sf……
    q. 15.302.010 – add R-4 to the list

r. Replace parking diagrams in 15.440.070 for readability
s. Replace airport overlay diagrams in back of Dev. Code for readability
t. Temporary Merchant standards
u. Food Carts
v. ADUs in industrial zones