

PLANNING COMMISSION

Meeting Agenda

Monday, December 10, 2018

7:00 PM

City Council Chambers – 222 NE 2nd Avenue

Commissioner John Savory (Chair)

Commissioner Larry Boatright (Vice Chair)

Commissioner John Serlet

Commissioner Derrick Mottern

Commissioner Tyler Hall

Commissioner Shawn Varwig

Commissioner Andrey Chernishov

1. **CALL TO ORDER**

a. Invocation and Pledge of Allegiance

2. **CITIZEN INPUT ON NON-AGENDA ITEMS**

(This is an opportunity for audience members to address the Planning Commission on items not on the agenda. Each person will be given 3 minutes to speak. You are first required to fill out a testimony/comment card prior to speaking and hand it to the Recording Secretary. These forms are available by the sign-in podium. Staff and the Planning Commission will make every effort to respond to questions raised during citizen input before tonight's meeting ends or as quickly as possible thereafter.)

3. **MINUTES**

a. Approval of Planning Commission Minutes for November 26, 2018.

4. **NEW BUSINESS**

5. **PUBLIC HEARINGS**

(To testify, please fill out a testimony/comment card and give to the Recording Secretary.)

a. Consider a request for a Site and Design Review (Type III) for a proposed 10,500 SF two-story building for research, development, and manufacture of pest management products at 360 S Sequoia Blvd. (**DR 18-09 ENTO PARK/ALPHA SCENTS**).

b. Consider a request for approval of the proposed N Holly Development Concept Plan, and an Annexation and Zone Map Amendment (Type VI) for properties located in an unincorporated area of Clackamas County, north of Territorial Road between N Holly and N Locust Streets. (**ANN 18-05/ZC 18-06 N HOLLY ANNEXATION & ZONE CHANGE**).

6. **FINAL DECISIONS - None**

(Note: These are final, written versions of previous oral decisions. No public testimony.)

a. Final Findings (**DR 18-09 ENTO PARK/ALPHA SCENTS**).

b. Final Findings (**ANN 18-05/ZC 18-06 N HOLLY ANNEXATION & ZONE CHANGE**).

7. **ITEMS OF INTEREST/REPORT FROM PLANNING STAFF**

a. Next regularly scheduled Planning Commission meeting for Monday, December 24, 2018 will be cancelled due to Christmas Eve being a City Holiday.

b. First meeting in the new year will be held on Monday, January 14, 2019 with a scheduled review of Project Shakespeare on SE 1st Avenue between Walnut St and Mulino Rd.

8. **ITEMS OF INTEREST/GUIDANCE FROM PLANNING COMMISSION**

9. **ADJOURNMENT**

The meeting location is accessible to persons with disabilities. A request for an interpreter for the hearing impaired or for other accommodations for person with disabilities should be made at least 48 hours before the meeting at 503-266-7001. A copy of this agenda can be found on the City's web page at www.canbyoregon.gov. City Council and Planning Commission Meetings are broadcast live and can be viewed on OCTS Channel 5. For a schedule of the playback times, please call 503-263-6287.

PUBLIC HEARING FORMAT

The public hearing will be conducted as follows:

- **STAFF REPORT**
 - **QUESTIONS** (If any, by the Planning Commission or staff)
 - **OPEN PUBLIC HEARING FOR TESTIMONY:**
 - APPLICANT** (Not more than 15 minutes)
 - PROPONENTS** (Persons in favor of application) (Not more than 5 minutes per person)
 - OPPONENTS** (Persons opposed to application) (Not more than 5 minutes per person)
 - NEUTRAL** (Persons with no opinion) (Not more than 5 minutes per person)
 - REBUTTAL** (By applicant, not more than 10 minutes)
 - **CLOSE PUBLIC HEARING** (No further public testimony allowed)
 - **QUESTIONS** (If any by the Planning Commission)
 - **DISCUSSION** (By the Planning Commission)
 - **DECISION** (By the Planning Commission)
- All interested persons in attendance shall be heard on the matter. If you wish to testify on this matter, please be sure to complete a Testimony Card and hand it to the Recording Secretary. When the Chair calls for Proponents, if you favor the application; or Opponents if you are opposed to the application please come forward and take a seat, speak into the microphone so the viewing public may hear you, and state your name, address, and interest in the matter. You may be limited by time for your statement, depending upon how many people wish to testify.

EVERYONE PRESENT IS ENCOURAGED TO TESTIFY, EVEN IF IT IS ONLY TO CONCUR WITH PREVIOUS TESTIMONY. All questions must be directed through the Chair. Any evidence to be considered must be submitted to the hearing body for public access.

Testimony and evidence must be directed toward the applicable review criteria contained in the staff report, the Comprehensive Plan, or other land use regulations which the person believes to apply to the decision.

Failure to raise an issue accompanied by statements or evidence sufficient to afford the decision-maker and interested parties an opportunity to respond to the issue, may preclude appeal to the City Council and the Land Use Board of Appeals based on that issue.

Failure of the applicant to raise constitutional or other issues relating to proposed conditions of approval with sufficient specificity to allow the local government to respond to the issue may preclude an action for damages in circuit court.

Before the conclusion of the initial evidentiary hearing, any participant may ask the hearings body for an opportunity to present additional relevant evidence or testimony that is within the scope of the hearing. The Planning Commission shall grant such requests by continuing the public hearing or leaving the record open for additional written evidence or testimony. Any such continuance or extension shall be subject to the limitations of the 120-day rule, unless the continuance or extension is requested or agreed to by the applicant.

If additional documents or evidence are provided by any party, the Planning Commission may, if requested, allow a continuance or leave the record open to allow the parties a reasonable opportunity to respond. Any such continuance or extension of the record requested by an applicant shall result in a corresponding extension of the 120-day time period.



City of Canby

SITE AND DESIGN REVIEW STAFF REPORT

FILE #: DR 18-09

Prepared for the December 10, 2018 Planning Commission Hearing

LOCATION: 360 S. Sequoia Parkway

TAX LOT: 31E34 01801 (Bordered in map below)

LOT SIZE: 1.0 acres

ZONING: M-1 Light Industrial Zone/IO Canby Industrial Area Overlay Zone

OWNER: Darek Czokajlo – Alpha Scents



APPLICANT: Wilson Architects, PLLC

REPRESENTATIVE: Jan Klimas

APPLICATION TYPE: Site & Design Review (Type III)

CITY FILE NUMBER: DR 18- 09

APPLICANT'S REQUEST:

The subject parcel is located on the north side of S. Sequoia Parkway approximately 1100 feet north SE 4th Avenue. The applicant is seeking site and design approval to construct a 10,500 square foot building for use as a manufacture, warehouse, research, development, and office space for Alpha Scents that produces insect attractants and traps. The applicant states that the business will employ 13-15 employees. The building will be constructed in a single phase and designed as a two-story building, and the applicant is proposing CMU metal panel and fiber cement panel exterior walls. The applicant proposes one shared driveway access to the public street onto S. Sequoia Parkway located at the southeast corner of the property. The subject parcel is zoned M-1, Light Industrial, and is correspondingly designated Light Industrial in the Canby Comprehensive Plan. The property is bordered on the east, south, and north by the M-1 zone that is vacant or in industrial developed land and on the north by the M-2 zone. The subject property is vacant land.

SECTION I APPLICABLE REVIEW CRITERIA:

City of Canby Land Development and Planning Ordinance Chapters:

- 16.08 General Provisions**
- 16.10 Off-Street Parking and Loading**
- 16.32 M-1 Light Industrial Zone**
- 16.35 I-O Canby Industrial Overlay Zone**
- 16.42 Signs**
- 16.43 Outdoor Lighting Standards**
- 16.46 Access Limitations**
- 16.49 Site and Design Review**
- 16.89 Application and Review Procedures**
- 16.120 Parks, Open Space, and Recreational Land**

Canby Comprehensive Plan

SECTION II REVIEW FOR CONFORMANCE WITH APPLICABLE APPROVAL CRITERIA:

- 16.08 General Provisions:**
- 16.08.070 Illegally Created Lots**

In no case shall a lot which has been created in violation of state statute or city ordinance be considered as a lot of record for development purposes, until such violation has been legally remedied. (Ord. 740 section 10.3.05(G), 1984)

Findings: The subject property was created as Lot 1, Struble Estates Subdivision, and can be considered a legal lot for land use purposes.

16.08.090 Sidewalks Requirements

A. In all commercially zoned areas, the construction of sidewalks and curbs (with appropriate ramps for the handicapped on each corner lot) shall be required as a condition of the issuance of a building permit for new construction or substantial remodeling, where such work is estimated to exceed a valuation of twenty thousand dollars, as determined by the building code. Where multiple permits are issued for construction on the same site, this requirement shall be imposed when the total valuation exceeds twenty thousand dollars in any calendar year.

B. The Planning Commission may impose appropriate sidewalk and curbing requirements as a condition of approving any discretionary application it reviews. (Ord. 740 section 10.3.05(I), 1984)

Findings: The project is a development of a vacant lot. Sidewalks and curbs on the street frontage along S. Sequoia Park Way shall be improved to Canby Public Works standards. All sidewalks within the development area must meet required standards. The sidewalk on S. Sequoia Parkway shall be the standard 6 foot width separated from the street curb with a 5 foot planter strip.

16.08.150 Traffic Impact Study (TIS)

A. Purpose. The purpose of this section of the code is to implement Section 660-012-0045(2)(b) of the State Transportation Planning Rule, which requires the city to adopt a process to apply conditions to development proposals in order to minimize adverse impacts to and protect transportation facilities. This section establishes the standards to determine when a proposal must be reviewed for potential traffic impacts; when a Traffic Impact Study must be submitted with a development application in order to determine whether conditions are needed to minimize impacts to and protect transportation facilities: what information must be included in a Traffic Impact Study; and who is qualified to prepare the Study.

B. Initial Scoping. During the pre-application conference, the city will review existing transportation data to determine whether a proposed development will have impacts on the transportation system. It is the responsibility of the applicant to provide enough detailed information for the city to make a determination. If the city cannot properly evaluate a proposed development's impacts without a more detailed study, a transportation impact study (TIS) will be required to evaluate the adequacy of the transportation system to serve the proposed development and determine proportionate

mitigation of impacts. If a TIS is required, the city will provide the applicant with a “scoping checklist” to be used when preparing the TIS.

C. Determination. Based on information provided by the applicant about the proposed development, the city will determine when a TIS is required and will consider the following when making that determination.

1. Changes in land use designation, zoning designation, or development standard.
2. Changes in use or intensity of use.
3. Projected increase in trip generation.
4. Potential impacts to residential areas and local streets.
5. Potential impacts to priority pedestrian and bicycle routes, including, but not limited to school routes and multimodal street improvements identified in the TSP.
6. Potential impacts to intersection level of service (LOS).

Findings: Based on criteria listed in *16.08.150 (C)* above, staff determined that a TIS was required for this particular development proposal. Subsequently, a TIS was performed by DKS, and their study concluded that the proposal would generate an additional 26 net new trips in the morning peak hour and 29 new trips in the evening peak hour. The study also stated that the proposed site access driveway meets access spacing requirements along the roadways and from the street intersection, and preliminary evaluation indicated proper sight distance will be provided for roadway access. Sight distance needs to be verified, documented, and stamped by a registered professional engineer.

16.10 Off Street Parking

16.10.030 General requirements

A. Should the owner or occupant of a structure change the use to which the building is put, thereby increasing parking or loading requirements, the increased parking/loading area shall be provided prior to commencement of the new use.

C. In the event several uses occupy a single structure, the total requirements for off-street parking shall be the sum of the requirements of the several uses computed separately. If the applicant can demonstrate that the uses do not have overlapping parking needs (based on days and hours of operation) and can share parking, the total requirement for combined uses may be reduced by up to 60 percent.

Findings: In this particular case, the proposed lot is vacant land. All uses that will occupy the structures in the future must be consistent with uses permitted in the M-1 zone and meet appropriate development standards in the M-1 and I-O zones.

16.10.050 Parking standards designated

Parking for the proposed building can be calculated with the standard for industrial buildings listed in *Table 16.10.050*. This standard states the following:

Warehousing and Manufacturing: 2.00 spaces per 1,000 gross square feet of office space, plus 1.00 space per 1,000 gross square feet of non-office warehousing space. Minimum of 5 parking spaces overall.

Findings: The applicant referred to the table in 16.10.050. The square footage of the building as indicated in the 16.10.050 table establishes the number of proposed parking spaces based on a formula of 2 spaces for every 1000 square foot of floor space for office use, and 1 space for every 1000 square foot of non-office sales floor area or manufacture/warehousing space. The applicant stated a total square footage of 10,500 square feet with 3000 square foot of office space that results in a calculation of 6 parking spaces for the office and 7,500 square foot of warehouse/manufacturing area that results in 8 spaces. The applicant indicated on the site plan that a total of 14 spaces would be provided for the project. Staff concurs with these numbers.

16.10.060 Off-street loading facilities

A. The minimum number of off-street loading berths for commercial and industrial uses is calculated using the table listed in 16.10.060(A).

Findings: Based on the table and total square footage of the proposed buildings, one loading berth is required and as shown on the submitted site plan the proposal includes two loading areas for the building. It appears that the proposal meets this standard as well as size and screening requirements.

16.10.070 Parking lots and access

16.10.100 Bicycle Parking

Findings: Staff finds that applicant's response adequately addresses this criterion. The submitted plans and narrative indicate that the provisions for bicycle parking listed in 16.10.100 can be met. The information provided addressed provisions for parking space size, number, and type listed in 16.10.070 and other requirements for parking lot and access standards. Site accesses will be developed during the construction process. The proposal must meet the driveway and intersection spacing distance of 100 feet for a collector street and 50 feet for an intersection and 10 feet from a driveway for a local street as listed in the Public Works Design Standards.

16.32 M-1 (Light Industrial Zone)

Findings: The underlying zoning of the property is M-1. The property is not located within the DCO (Downtown Canby Overlay Zone) or the (OHC) Outer Highway Commercial sub-area, but is situated in the I-O Canby Industrial Area Overlay zone (Pioneer Industrial Park) which permits uses in the underlying M-1 zone. The M-1 zone states in 16.32.010 that uses permitted outright in the zone include manufacturing, warehouse, and office use when related and incidental to the primary use. Staff concludes that the proposal meets the uses permitted outright in the M-1 zone. Additionally, because the site is within the

Industrial Overlay (I-O) zone, the development standards of 16.35 supersede 16.30.030, and the standards in 16.35 must be addressed.

16.35 Canby Industrial Overlay Zone (I-O) - Applicable Criteria:

16.35.25 Pre-application review and conditions of approval

Findings: A pre-application meeting was held and the meeting notes are included with this application.

16.35.30 Uses Permitted Outright

Findings: The proposed use is permitted outright in the M-1 zone and subsequently in the I-O zone as allowed under Section 16.35.30.

16.35.50 Development Standards

Findings: The standards listed in this section focus mostly on the orientation of the building to the roadway and property lines and covers access, right-of-way plantings, lighting, and the type of buildings. The applicant submitted a detailed site plan, landscape plan, grading plan, and lighting plan and, thereby, adequately addressed conformance with all criteria in this section.

16.35.60 Design Guidelines

16.35.70 I-O Design Review Matrix

Findings: Criteria for the buildings, such as building setbacks, placement of new parking spaces, building materials and architectural detail was discussed in the applicant's narrative, drawings, and design matrix, and staff concludes that the new development meets design criteria.

16.42.040 Signs

Findings: The applicant is not proposing new signs at this time. Any signs will be reviewed with submittal of a Sign Permit Application at the time of construction and must meet sign review size criteria.

16.43 Outdoor Lighting Standards

Findings: The applicant states that outdoor site lighting for this project will be constructed to meet requirements listed in this section and will submit material as part of the building

permit package. Staff requested additional information, and a lighting fixture schedule was provided on page EO.3 of the submitted material. The “S” pole light fixture indicates a lumen output of 25,061 which exceeds the maximum of 7,800 indicated in Table 16.43.070. By condition of approval, confirmation that outdoor pole and exterior wall mounted lighting fixtures shall comply with the shielding requirements to prevent light trespass defined in Figure 16.43.1 and will not exceed the maximum permitted lumen output.

16.46 Access Limitations on Project Density

Findings: As previously mentioned, ingress and egress for the project is from S. Sequoia Parkway. Based on available information, the proposed driveway will meet spacing standards listed in the section but must be reviewed with the filing of a driveway opening permit with Canby Public Works.

16.49.040 Site and Design Review - Criteria and Standards

- B. In review of a Type III Site and Design Review Application, the Board shall, in exercising or performing its powers, duties or functions, determine whether there is compliance with the following:
 - 1. The proposed site development, including the site plan, architecture, landscaping and graphic design, is in conformance with the standards of this and other applicable city ordinances insofar as the location, height and appearance of the proposed development are involved; and
 - 2. The proposed design of the development is compatible with the design of other developments in the same general vicinity; and
 - 3. The location, design, size, color and materials of the exterior of all structures and signs are compatible with the proposed development and appropriate to the design character of other structures in the same vicinity.
 - 4. The proposed development incorporates the use of LID best management practices whenever feasible based on site and soil conditions. LID best management practices include, but are not limited to, minimizing impervious surfaces, designing on-site LID storm water management facilities, and retaining native vegetation.
 - 5. The Board shall, in making its determination of compliance with this Ordinances, shall use the matrix in Table 16.49.040 to determine compatibility unless this matrix is superseded by another matrix applicable to a specific zone or zones under this title. An application is considered to be compatible with the standards of Table 16.49.040 if the following conditions are met:
 - a. The development accumulates a minimum of 60 percent of the total possible number of points from the list of design criteria in Table 16.49.040; and

b. At least 10 percent of the points used to comply with (a) above must be from the list of LID Elements in Table 16.49.040. (Ord. 1338, 2010).

D. In review of a Type III Site and Design Review Application, the Board shall, in exercising or performing its powers, duties or functions, determine whether there is compliance with the INTENT of the design review standards set forth in this ordinance.

Findings: The applicant filed a Type III application, and provided a response to Table 16.35.040 in the I-O zone to demonstrate compliance with the total point menu in that applicable Table. The table in 16.49.040 is superseded by the I-O zone, so Table 16.35.040 matrix applies. Information provided to the file established that the proposal meets the criterion for Table 16.35.040.

16.49.065 Bicycle and pedestrian facilities

Developments coming under design review shall meet standards listed in this section.

Findings: Staff concludes that the applicant adequately addressed this criterion, and 2 bike parking spaces are provided at the southeast corner of the building.

16.49.070 Landscaping provisions, Authority and intent

The purpose of this section is to establish standards for landscaping within the City of Canby in order to enhance the environmental and aesthetic quality of the city

16.49.080 General provisions for landscaping

Findings: The applicant provided scaled landscape plans and detailed comments to address planting and landscape provisions listed in this section. The information contained specifics on LID storm water management, controls during construction, specification of tree and plant materials, irrigation, and other information required in this section and contained in the landscape calculation form provided with the application. After a review of all information provided, staff concluded that the project meets these standards.

16.89 Application and Review Procedures

16.89.020 Description and Summary of Processes

All land use and development applications shall be decided by using the procedures contained in this Chapter. Specific procedures for each type of permit are contained in Sections 16.89.030 through 16.89.060. The procedure type assigned to each permit governs the decision-making process for that permit. Additional requirements may be found in the individual chapters governing each permit type. The four types of procedure are described below. Table 16.89.020 lists the City's land use and development applications and their required procedures.

C. Type III Procedure (Quasi-Judicial/Legislative). Type III decisions are made by the Planning Commission after a public hearing, with appeals reviewed by the City Council. Type III procedures generally use discretionary approval criteria.

Finding: The proposed project is subject to a Type III Site and Design Review procedure. The required land use application process has been followed. Both a pre-application meeting and a neighborhood meeting were held prior to formal public hearing application. Meeting notes for both meetings were included with the applicant submittal. The proposed project is subject to a Type III Site and Design Review procedure as set forth in Chapter 16.89 and subject to criteria and standards in the appropriate Sections of the CMC. Therefore, this proposal is subject to Planning Commission review and decision.

16.89.050 Type III Decision

Findings: Requirements under this section are included in the application materials. The Pre-application was held on May 22, 2018. The neighborhood meeting was held November 7, 2018.

16.120 Parks, Open Space, and Recreation Land

Findings: The applicant accepts the application of a parks SDC fee prior to issuance of a building permit in lieu of park land dedication with this development project. This standard is met.

Public Comments:

No public comments were received at the time this staff report was written.

Agency Comments:

The City Engineer stated comments in a memo dated November 19, 2018 that are include in the file.

No other agencies commented concerning the beyond input from the pre-application meeting.

SECTION III STAFF CONCLUSION/RECOMMENDATION:

Staff concludes that the use is in conformance with the City's Comprehensive Plan and the Zoning Ordinance. Additionally, the relevant site and design standards and minimum acceptable compatibility scores are met, and the site can accommodate the proposed use. The public service and utility provision to the site is available or can be made available through future improvements. Staff recommends **approval** of DR 18-09 subject to meeting the conditions of approval listed below.

Approval of this application is based on submitted application materials. Approval is strictly limited to the submitted proposal and is not extended to any other development of the property. Any modification of development plans not in conformance with the approval of application DR 18-09, including all conditions of approval, shall first require an approved modification in conformance with the relevant sections of the Canby Municipal Code.

SECTION IV CONDITIONS OF APPROVAL:

Conditions Unique to this Proposal

1. The applicant shall file a sign permit for any future signs that shall be limited to the size and height standards applicable to the I-O (Canby Industrial Area Overlay Zone) as indicated in Section 16.42.050, Table 7, of the sign ordinance. Proposed signs, after been found to conform to the sign ordinance, must secure a building permit from Clackamas County Building Inspection prior to their installation.
2. **The project must be in conformance with the applicable findings and suggestions outlined by the City Engineer in his memorandum dated November 19, 2018.**

Procedural Conditions

Prior to Issuance of a Building Permit the following must be completed:

- 3 **Prior to the issuance of building permits**, the applicant shall provide confirmation that outdoor pole and exterior wall mounted lighting fixtures shall comply with the shielding requirements to prevent light trespass defined in Figure 16.43.1 and will not exceed the maximum permitted lumen output.
4. The design engineer shall submit to the City of Canby for review and approval at the time of final construction plan approval a storm drainage analysis and report applicable to the defined development area detailing how storm water disposal from both the building and the parking areas is being handled. Any drainage plan shall conform to an acceptable methodology for meeting adopted storm drainage design standards as indicated in the Public Works design standards.
5. A Sediment and Erosion Control Permit will be required from the City prior to commencing site work.
6. Prior to the issuance of a building permit, the installation of public or private utilities, or any other site work other than rough site grading, construction plans must be approved and signed by the City and all other utility/service providers. A Pre-Construction Conference with sign-off on all final construction plans is required. The design, location, and planned installation of all roadway improvements and utilities including but not limited to water, electric, sanitary sewer, natural gas, telephone, storm water, cable television, and emergency service provisions is subject to approval by the appropriate utility/service provider. The City of Canby's preconstruction process procedures shall be followed.

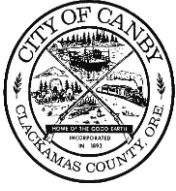
7. Construction plans shall be designed and stamped by a Professional Engineer registered in the State of Oregon.
8. Clackamas County will provide structural, mechanical, grading, and review of Fire & Life Safety, Plumbing, and Electrical permits for this project.

Prior to Occupancy of the Facility:

9. Prior to occupancy of the facility, all landscaping plant material indicated on the submitted landscape plan shall either be installed and irrigated with a fully automatic design/build irrigation system as proposed, or with sufficient security (bonding, escrow, etc.) pursuant to the provisions of CMC 16.49.100 (B). The applicant should be aware that the City street tree fee is now \$250 per tree if planted by the City.

Section V Attachments/Exhibits:

1. Application
2. Applicant narrative
3. Proposed Site Plan
4. Combined Plan Set – including schedule Eo.3 Lighting fixture schedule
5. Neighborhood Meeting Comments
6. Pre-application Conference Summary
7. Traffic Impact Analysis
8. Agency/Public Comments
9. Struble Estates Plat of Record



City of Canby
 Planning Department
 222 NE 2nd Avenue
 PO Box 930
 Canby, OR 97013
 (503) 266-7001

LAND USE APPLICATION

SITE AND DESIGN REVIEW General Type III

APPLICANT INFORMATION: *(Check ONE box below for designated contact person regarding this application)*

Applicant Name: _____ Phone: _____
 Address: _____ Email: _____
 City/State: _____ Zip: _____

Representative Name: _____ Phone: _____
 Address: _____ Email: _____
 City/State: _____ Zip: _____

Property Owner Name: _____ Phone: _____
 Signature: _____
 Address: _____ Email: _____
 City/State: _____ Zip: _____

Property Owner Name: _____ Phone: _____
 Signature: _____
 Address: _____ Email: _____
 City/State: _____ Zip: _____

NOTE: Property owners or contract purchasers are required to authorize the filing of this application and must sign above

- ❶ All property owners represent they have full legal capacity to and hereby do authorize the filing of this application and certify that the information and exhibits herewith submitted are true and correct.
- ❷ All property owners understand that they must meet all applicable Canby Municipal Code (CMC) regulations, including but not limited to CMC Chapter 16.49 Site and Design Review standards.
- ❸ All property owners hereby grant consent to the City of Canby and its officers, agents, employees, and/or independent contractors to enter the property identified herein to conduct any and all inspections that are considered appropriate by the City to process this application.

PROPERTY & PROJECT INFORMATION:

 Street Address or Location of Subject Property Total Size of Property Assessor Tax Lot Numbers

 Existing Use, Structures, Other Improvements on Site Zoning Comp Plan Designation

Describe the Proposed Development or Use of Subject Property

STAFF USE ONLY				
FILE #	DATE RECEIVED	RECEIVED BY	RECEIPT #	DATE APP COMPLETE

SITE AND DESIGN REVIEW APPLICATION – TYPE III–INSTRUCTIONS

All required application submittals detailed below must also be submitted in electronic format on a CD, flash drive or via email. Required application submittals include the following:

Applicant	City
Check	Check

- | | | |
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| <input type="checkbox"/> | <input type="checkbox"/> | One (1) copy of this application packet. The City may request further information at any time before deeming the application complete. |
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| <input type="checkbox"/> | <input type="checkbox"/> | Payment of appropriate fees – cash or check only. Refer to the city’s Master Fee Schedule for current fees. Checks should be made out to the <i>City of Canby</i> . |
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| <input type="checkbox"/> | <input type="checkbox"/> | Please submit one (1) electronic copy of mailing addresses in either an EXCEL SPREADSHEET or WORD DOCUMENT for all property owners and all residents within 500 feet of the subject property. If the address of a property owner is different from the address of a site, an address for each unit on the site must also be included and addressed to “Occupant.” A list of property owners may be obtained from a title insurance company or from the County Assessor’s office. |
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| <input type="checkbox"/> | <input type="checkbox"/> | One (1) copy of a written, narrative statement describing the proposed development and detailing how it conforms with the Municipal Code and to the approval criteria, including the applicable Design Review Matrix, and availability and adequacy of public facilities and services. <u>Ask staff for applicable Municipal Code chapters and approval criteria.</u>
Applicable Code Criteria for this application includes:

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| <input type="checkbox"/> | <input type="checkbox"/> | Three (3) copies of a Traffic Impact Study (TIS), conducted or reviewed by a traffic engineer that is contracted by the City and paid for by the applicant (<u>payment must be received by the City before the traffic engineer will conduct or review a traffic impact study.</u>
Ask staff to determine if a TIS is required. |
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| <input type="checkbox"/> | <input type="checkbox"/> | One (1) copy in written format of the minutes of the neighborhood meeting as required by Municipal Code 16.89.020 and 16.89.070. The minutes shall include the date of the meeting and a list of attendees. |
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| <input type="checkbox"/> | <input type="checkbox"/> | One (1) copy in written format of the minutes of the pre-application meeting |
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| <input type="checkbox"/> | <input type="checkbox"/> | One copy of either the recorded plat or the recorded deeds or land sales contracts that demonstrates how and when legal property lines were established and where the boundaries of the legal lot(s) of record are located. If the property is a lot or parcel created by plat, a copy of the recorded plat may be obtained from the Clackamas County Surveyor’s office. If the property is a legal lot of record created by recorded deed or land sales contract at a time when it was legal to configure property lines by deed or contract, then those recorded deeds may be obtained from the Clackamas County Office of the Clerk, or a Title Company can also assist you in researching and obtaining deeds. |
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| <input type="checkbox"/> | <input type="checkbox"/> | If the development is located in a Hazard (“H”) Overlay Zone, submit one (1) copy of an affidavit signed by a licensed professional engineer that the proposed development will not result in |
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significant impacts to fish, wildlife and open space resources of the community. If major site grading is proposed, or removal of any trees having trunks greater than six inches in diameter is proposed, then submit one (1) copy of a grading plan and/or tree-cutting plan.

Applicant City
Check Check

Two (2) 11" x 17" paper copies of the proposed plans, printed to scale no smaller than 1"=50'. The plans shall include the following information:

- Vicinity Map. Vicinity map at a scale of 1"=400' showing the relationship of the project site to the existing street or road pattern.
- Site Plan-the following general information shall be included on the site plan:
 - Date, north arrow, and scale of drawing;
 - Name and address of the developer, engineer, architect, or other individual(s) who prepared the site plan;
 - Property lines (legal lot of record boundaries);
 - Location, width, and names of all existing or planned streets, other public ways, and easements within or adjacent to the property, and other important features;
 - Location of all jurisdictional wetlands or watercourses on or abutting the property;
 - Finished grading contour lines of site and abutting public ways;
 - Location of all existing structures, and whether or not they are to be retained with the proposed development;
 - Layout of all proposed structures, such as buildings, fences, signs, solid waste collection containers, mailboxes, exterior storage areas, and exterior mechanical and utility equipment;
 - Location of all proposed hardscape, including driveways, parking lots, compact cars and handicapped spaces, loading areas, bicycle paths, bicycle parking, sidewalks, and pedestrian ways;
 - Callouts to identify dimensions and distances between structures and other significant features, including property lines, yards and setbacks, building area, building height, lot area, impervious surface area, lot densities and parking areas;
 - Location of vision clearance areas at all proposed driveways and streets.
- Landscape Plan, with the following general information:
 - Layout and dimensions of all proposed areas of landscaping;
 - Proposed irrigation system;
 - Types, sizes, and location of all plants to be used in the landscaping (can be a "palette" of possible plants to be used in specific areas for landscaping);
 - Identification of any non-vegetative ground cover proposed, and dimensions of non-vegetative landscaped areas;
 - Location and description of all existing trees on-site, and identification of each tree proposed for preservation and each tree proposed for removal;
 - Location and description of all existing street trees in the street right-of-way abutting the property, and identification of each street tree proposed for preservation and each tree proposed for removal.
- Elevations Plan
The following general information shall be included on the elevations plan:
 - Profile elevations of all buildings and other proposed structures;
 - Profile of proposed screening for garbage containers and exterior storage areas;
 - Profile of proposed fencing.

- Sign Plan.
 - Location and profile drawings of all proposed exterior signage.
 - Color and Materials Plan.
 - Colors and materials proposed for all buildings and other significant structures.
- One (1) copy of a completed landscaping calculation form (see page 5)
- One (1) copy of a completed Design Review Matrix (see page 6)

SITE AND DESIGN REVIEW APPLICATION: LANDSCAPING CALCULATION FORM

Site Areas

1. Building area		- Square footage of building footprints
2. Parking/hardscape		- Square footage of all sidewalks, parking, & maneuvering areas
3. Landscaped area		- Square footage of all landscaped areas
4. Total developed area		- Add lines 1, 2 and 3
5. Undeveloped area		- Square footage of any part of the site to be left undeveloped.
6. Total site area		- Total square footage of site

Required Site Landscaping (Code 16.49.080)

7. Percent of landscaping required in Zoning District		- Fill in the Appropriate Percentage: R-1, R-1.5, R-2 Zones: 30%; C-2, C-M, C-R, M-1, M-2 Zones: 15%; C-1 Zone: 7.5%
8. Required minimum square footage of landscaping		- Multiply line 4 and line 7
9. Proposed square footage of landscaping		- Fill in value from line 3

Required Landscaping within a Parking Lot (Code 16.49.120(4))

Note: This section and the next apply only to projects with more than 10 parking spaces or 3,500 square feet of parking area

10. Zone		- Fill in the Appropriate Zone and Percentage: C-1 Zone: 5%; Core Commercial sub-area of the Downtown Canby Overlay: 10%, except for parking lots with 10 or more spaces and two or more drive aisles: 50 square feet per parking space; All other zones: 15%.
11. Percent of required landscaping		
12. Area of parking lot & hardscape		- Fill in area of parking and maneuvering areas plus all paved surface within ten (10) feet of those areas.
13. Number of vehicle parking spaces		- For Core Commercial sub-area in the Downtown Canby Overlay only, fill in the total # of parking spaces on-site.
14. Required square footage of landscaping within 10 feet of parking lot		- Multiply area of parking lot (line 12) by percent of required landscaping (line 11) -OR- for the CC sub-area in the Downtown Canby Overlay multiply line 13 by 50 square feet.
15. Proposed square footage of Landscaping within 10 feet of parking lot		- Calculate the amount of landscaping proposed within 10 feet of all parking and maneuvering areas.

Parking Lot Tree Calculation

16. Number of parking spaces		- Total number of vehicle parking spaces
17. Area of parking lot & hardscape		- Area from line 12
18. Number of parking spaces (line 16) divided by 8		- Round up to the nearest whole number
19. Area of parking lot area (line 17) divided by 2,800		- Round up to the nearest whole number
20. Number of required trees in parking lot		- Fill in the larger of row 18 and row 19
21. Number of trees provided within 10 feet of parking lot		- Fill in the number of proposed trees within 10 feet of parking and maneuvering areas.

SITE AND DESIGN REVIEW APPLICATION: DESIGN REVIEW MATRIX

Applicants: Please circle the applicable point column to your project and compute the total and percentages at the end of the table.

Table 16.49.040 Site Design Review Menu

As part of Site and Design Review, the following menu shall be used as part of the review. In order to “pass” this table 60% of total possible points shall be earned, 10% of the total possible points must be from LID elements

Design Criteria	Possible Points				
Parking	0	1	2	3	4
Screening of parking and/or loading facilities from public right-of-way	Not screened	Partially screened	Fully screened	-	-
Parking lot lighting provided	No	Yes	-	-	-
Parking location (behind building is best)	Front	Side	Behind	-	-
Number of parking spaces provided (% of minimum required)	>120%	101-120%	100%	-	-
Screening of Storage Areas and Utility Boxes	0	1	2	3	4
Trash storage is screened from view by solid wood fence, masonry wall or landscaping.	No	Yes	-	-	-
Trash storage is located away from adjacent property lines.	0 - 10 feet from adjacent property	11 - 25 feet from adjacent property	>25 feet from adjacent property	-	-
Utility equipment, including rooftop equipment, is screened from view.	Not screened	Partially screened	Fully screened	-	-
Access	0	1	2	3	4
Distance of access to nearest intersection.	≤70 feet	71 - 100 feet	>100 feet	-	-
Pedestrian walkways from public street/sidewalks to building entrances.	One entrance connected.	-	Walkways connecting all public streets/sidewalks to building entrances.	-	-
Pedestrian walkways from parking lot to building entrance.	No walkways	Walkway next to building only	Walkways connecting all parking areas to building entrances	-	-

Tree Retention	0	1	2	3	4
Design Criteria	Possible Points				
Percentage of trees retained	<10%	10-50%	51-75%	>75%	-
Replacement of trees removed	<50%	≥50%	-	-	-
Signs	0	1	2	3	4
Dimensional size of sign (% of maximum permitted)	>75%	50-75%	<50%	-	-
Similarity of sign color to building color	Not similar	Somewhat similar	Similar	-	-
Pole sign used	Yes	No	-	-	-
Building Appearance	0	1	2	3	4
Style (similar to surroundings)	Not similar	Somewhat similar (1 or 2 points possible depending on level of similarity)		-	-
Color (subdued and similar to surroundings is better)	Neither	Similar or subdued	Both	-	-
Material (concrete, wood and brick are best)	Either 1 or 2 points may assigned at the discretion of the Site and Design Review Board				
Size of building (smaller is better)	>20,000 square feet	≤20,000 square feet	-	-	-
Provision of public art (i.e. murals, statues, fountains, decorative bike racks, etc.)	No	-	-	-	Yes
Landscaping	0	1	2	3	4
Number of non-required trees provided	-	At least one tree per 500 square feet of landscaping.	-	-	-
Amount of grass (less grass is better) (% of total landscaped area)	>50%	25-50%	<25%	-	-
Low Impact Development (LID)	0	1	2	3	4
Use of pervious paving materials (% of total paved area)	<10%	-	10-50%	51-75%	>75%
Provision of park or open space area	None	-	Open space (Generally not for public use)	-	Park (public or privately owned for public use)

Design Criteria	Possible Points				
Use of drought tolerant species in landscaping (% of total plants)	<25% drought tolerant	-	25-50% drought tolerant	51-75% drought tolerant	>75% drought tolerant
Provision of additional interior parking lot landscaping (% of minimum required)	100%	101-110%	111-120%	>120%	-
Provision of an eco-roof or rooftop garden (% of total roof area)	<10%	-	-	10-50%	>50%
Parking integrated within building footprint (below-grade, structured parking, or tuck-under parking) (% of total on-site parking)	<10%	-	-	10-50%	>50%
Disconnecting downspouts from city stormwater facilities	None	Some downspouts disconnected	All downspouts disconnected	-	-
Shared parking with adjacent uses or public parking structure (% of total required parking spaces)	None	<50%	≥50%	-	-
Provision of rain gardens/bioretention areas for stormwater runoff (% of total landscaped area)	None	-	10-50%	51-75%	>75%
Total Possible Points = 71, 60%=42.6 points, 10%=7.1 points					

Total Points Earned: _____ (42.6 points required for 60%)

Total LID Points Earned: _____ (7.1 required for 10%)

SITE AND DESIGN REVIEW – TYPE III: APPLICATION PROCESS

1. Prior to submitting an application, all applicants are encouraged to request a pre-application meeting with the City -or- the Planning Director may determine that a pre-application meeting is required prior to submitting an application. To schedule a pre-application meeting, an applicant must submit a completed pre-application form and set of preliminary plans to the City Planner, and after receiving the Planner's initials, must then make and take (3) copies of the pre-application materials to the Canby Public Works Department to schedule the pre-application meeting. The amount of the fee for a pre-application meeting is based on whether the application involves a public hearing or not.
2. Prior to submitting an application, applicants may be required to hold a neighborhood meeting with surrounding property owners and any recognized neighborhood association representative, pursuant to the procedures described in Canby Municipal Code Section 16.89.070. In certain situations, the Planning Director may waive the neighborhood meeting requirement.
3. At the time an application is submitted to the City, payment of all required application processing fees is required. An application will not be accepted without payment of fees. City Staff can provide you with information concerning application fees.
4. Staff will check the application, making sure that it is complete and all fees are paid. Copies of the application materials are routed to various City/State/County departments, as applicable, for their comments. The application is reviewed for completeness; the City Planner will accept or return the application with a written list of omissions within thirty (30) calendar days of the submittal.
5. Staff investigates the application, writes a staff report, issues public notice, notifies surrounding property owners, and makes all facts relating to the request available to the Planning Commission and all interested parties.
6. Prior to the public hearing, the City will prepare notice materials for posting on the subject property. Staff will post this material at least ten (10) days before the public hearing.
7. The staff report will be available to all interested parties seven (7) days prior to the hearing.
8. The Planning Commission holds a public hearing. The staff report is presented to the Commission. Testimony is presented by the applicant, proponents and opponents, followed by rebuttal from the applicant.
9. The Commission then issues findings of fact which support approval, modification, or denial of the application. A decision may be appealed to the City Council.
10. If an approval or a denial is appealed, City Council holds a public hearing. The staff report is presented and testimony taken, as at the original hearing(s). Unless the City Council decides to hear the appeal de novo, only testimony regarding items already in the record is permitted, and no new information may be entered. In the case of an appeal, the Council may affirm, revise or reverse the action of the Planning Commission in all or in part. The Council may also remand the matter back to the hearing body for further consideration.
11. Prior to construction of the project, a preconstruction meeting is held with the City and all applicable utility and service providers. If required, this meeting must be held and approval of Plan set by all agencies, and payment of Canby System Development Charge (SDC) and construction excise tax to the City before issuance of any building permits for the project(s) by Clackamas County.

SITE AND DESIGN REVIEW – TYPE III: REVIEW CRITERIA (*Code 16.49.040*)

1. The Planning Commission shall, in exercising or performing its powers, duties or functions, determine whether there is compliance with the following A through D, and with Criteria 4, 5, and 6 below:
 - A. The proposed site development, including the site plan, architecture, landscaping and graphic design, is in conformance with the standards of this and other applicable City ordinances insofar as the location, height and appearance of the proposed development are involved; and
 - B. The proposed design of the development is compatible with the design of other developments in the same general vicinity; and
 - C. The location, design, size, color and materials of the exterior of all structures and signs are compatible with the proposed development and appropriate to the design character of other structures in the same vicinity; and
 - D. The Planning Commission shall, in making its determination of compliance with subsections B and C above, use the applicable matrix [*pages 8-12*] to determine “compatibility”.
2. The Planning Commission shall, in making its determination of compliance with the above requirements, be guided by the objectives and standards set forth in this section. It must be demonstrated that all required public facilities and services are available, or will become available through the development, to adequately meet the needs of the proposed development. If the site and design review plan includes utility facilities or public utility facility, then the City Planner shall determine whether those aspects of the proposed plan comply with applicable standards.
3. The Planning Commission shall, in making its determination of compliance with the requirements set forth, consider the effect of its action on the availability and cost of needed housing. The Planning Commission shall not use the requirements of this section to exclude needed housing types. However, consideration of these factors shall not prevent the Planning Commission from imposing conditions of approval necessary to meet the requirements of this section. The costs of such conditions shall not unduly increase the cost of housing beyond the minimum necessary to achieve the purposes of this ordinance.
4. As part of the site and design review, the property owner may apply for approval to cut trees in addition to those allowed in Chapter 12.32, the City Tree Ordinance. The granting or denial of said application will be based on the criteria in Chapter 12.32. The cutting of trees does not in and of itself constitute change in the appearance of the property which would necessitate application for site and design review.

**Industrial Overlay Design Review Matrix
Table 16.35.040**

CRITERIA	Possible Scores
<u>Parking</u>	
Parking areas located to the side or rear of buildings as viewed from public right-of-way: <50% of parking spaces=0; 50%-75%=1; 75%-100%=2.	0 1 2
Increase minimum interior parking lot landscape over the base 15%: 15%-18%=0; 18%-22%=1; >22%=2.	0 1 2
Increase the base number of trees required by 16.49.120 (all landscape islands must contain 1 tree, 1 tree for every 40' along the required setback): 100%-105% of base requirement=0; 105%-110% of base requirement=1; >110%=2; (# of trees proposed/# of trees required x100=% of base requirement)	0 1 2
Number of parking spaces provided: (% of required minimum): >110%=0; 110%-105%=1; 105%-100%=2. See Table 16.10.050 for required parking. (# of spaces proposed/# of spaces required x100=% of required minimum)	0 1 2
Minimum Acceptable Score	4 points

<u>Transportation/Circulation</u>	
Design private, on-site pedestrian pathways: 6' painted ways=0; 6' brick/paver ways=1; 6' brick/paver & raised concrete ways=2	0 1 2
Number of pedestrian connections between the street sidewalk and internal circulation system: One connection = 0 Two or more connections = 1	0 1 2
Minimum Acceptable Score (some provisions may not apply)	2points

<u>Landscaping</u>	
Trees installed at 3 inch caliper: <25% of trees=0; 25%-50%=1; 50%-	

100%=2.	0 1 2
Usable outdoor amenity provided with development (e.g., water features, plazas, seating areas, and similar features): no=0; yes=1; yes and for public use =2.	0 1 2
Amount of grass (less grass is better) (% of total landscaped area)>50%=0; 25%-50%=1; <25%=2	0 1 2
Minimum Acceptable Score	3 points

<u>Building Appearance and Orientation</u>	
Building orientation at or near the street: parking or drive separates building from street=0; at least 20% of elevation within 5 feet of minimum setback=1; at least 20% of elevation is at minimum setback=2.	0 1 2
Building entrances visible from the street: no=0; yes=1.	0 1
Buildings use quality materials: concrete, wood, or wood siding=0; concrete masonry, stucco, or similar material=1; brick or stone=2.	0 1 2
Articulation and/or detailing to break up large building surfaces and accentuate the building entrance(s): no=0; yes=2.	0 2
Minimum Acceptable Score	4 points

11/5/2018

Site/Design- Type III SUBMITTAL

NARRATIVE - ENTO PARK

The current proposal will be a new corporate headquarters for research, development and manufacturing of Alpha Scents, a company that produces insect attractants and traps. The proposed light industrial building is approximately 7,500 sf with a total main floor area, with offices and research areas on the second floor of 3,000 sf, for a total area of 10,500 sf. The proposed project provides parking, paving, pedestrian walkway, bike parking, landscape and trash enclosure (100 sf). The building will be constructed with CMU, metal panel and fiber cement panel exterior wall on slab on grade.

The building's specific uses will be for manufacture, warehouse, research and development, and offices. The proposed project will employ approximately 13-15 employees or more as demand increases.

The project will provide common access driveway on the east side of the property that will allow access and circulation to the building. It will also provide maneuvering for larger delivery vehicles as well as emergency vehicles without requiring them to back up.

Sec. 16.08- General Provisions:

The proposed project development is in 360 South Sequoia Parkway, Canby, OR. 97013 on parcel no 31E34-01801 with a land area of 43,570 SF (1.00 Acre). The property is located in the I-O - Canby Industrial Overlay Zone per the Zoning Map of the City of Canby. (See attached zoning map exhibit) There are no area or yard reductions requested. The maximum building height allowed is 45'0", the proposed building height is 26'-4". The project is not proposing the use of fences for the building. No temporary vendors will be allowed.

This project requires a traffic study be completed. An initial scoping was requested for the project, during the time a Pre-Application was submitted, and it was determined that a traffic study would need to be completed for the Site/Design review process. The safety and functionality standards have been reviewed and addressed by the Civil Engineer for compliance.

Sec. 16.10 – Off-Street Parking/Loading:

The project will provide 14 parking stalls, two of which are ADA compliant per table 16.10.050, meeting the parking standards requirements for the proposed project. Stall sizing and aisle width complies with Table 16.10.070 for vehicular parking requirements.

Off-Street Loading is provided with two 13'-0" x 35'-0" loading stalls per Section 16.10.060.

Sec. 16.10 – Off-Street Parking/Loading: cont.

The parking lot complies per Section 16.10.070 for employee and guest parking, with access provided directly from So. Sequoia with 60” wide concrete sidewalks and 48” wide circulation sidewalk along the North Side of the building for building access. Parking is provided at a ratio of approximately 1 vehicle per 500 square foot of the total floor area. Two (2) loading bays will be provided for the warehouse which will allow sufficient flexibility for a variety of potential uses on the site.

The driveway access in and out of the site is minimum 24’-0” wide with 6” concrete curbs throughout per Sec.16.10.070(b)(10).

A tree plan is provided, that addresses the use of Street Trees per Sec. 16.10.080. Refer to the project landscape plan for additional information.

The project provides and addresses the requirement for bicycle parking per Sec. 16.10.100. Two bike stalls are provided per Table 16.10.100 – bicycle parking standards.

Sec. 16.32 - M-1 Light Industrial:

The project is in an M-1 Light Industrial Zone, which allows outright the uses for manufacturing per Sec. 16.32.010(a). The parcel meets the minimum 5000 sf lot area required in said zone, with a size of the parcel being 43,570sf. The minimum width and frontage is met with the lot being 207’-11” of frontage and 209’-6” of lot width/depth.

It also complies with the maximum height requirement of 45’-0”, with an actual building height of 26’-4” for this zone designator.

Sec. 16.35 – I-O Canby Industrial Zone:

This project is in the Canby Industrial Overlay (I-O) Zone. A pre-application was submitted for the review and conditions of approval. A pre-application meeting was attended on May 22, 2018. The uses are consistent with the use requirements stated in the uses for the M-1 zone. The development standards are consistent and comply to the requirements stated for an I-O zone. The building requires a setback of 35’-0” from the edge foundation to the ROW per Sec. 16.35.050(C.1) for a building over 25’-0” in height.

The building orientation standard is met, by providing a direct pedestrian access to the front of the building along So. Sequoia with a public sidewalk. Right-of -way planting is provided with the use of street trees and groundcover. Refer to the project landscape plan for additional information. The site landscaping will be provided with proper irrigation and with the use of drought tolerant planting materials.

Landscaping meeting the 15% requirement of the zone will be provided along the site perimeter as well as interior landscape islands around the parking areas and stormwater planter.

The project provides for the use of lighting for street, sidewalks and pedestrians, both in front of and around the building.

Sec. 16.35 – I-O Canby Industrial Zone: cont.

The design guidelines for have been reviewed, the requirements of planting larger trees, use of groundcover, the placement of the building at or near the setback, direct or visible access for pedestrian connections, the use of quality and robust building materials, and architectural details to break up large surfaces, accentuating building entries.

The requirements addressed in the I-O Design Review matrix per Table 16.35.040, with a total criterion score of 19, minimum acceptable score is 13. See attached Table 16.35.040 review matrix in the submittal package.

Sec. 16.42 - Signs:

Building signage has not been designed at this time but will be provided by the signage designer per Sec. 42, Table 2, consistent with the design guidelines provided.

Sec. 16.43 – Outdoor Lighting Standards

The project has been reviewed for site lighting conforming to the requirements of this section. See attached site lighting design. Site lighting will be apart of the building submittal package.

Sec. 16.46 – Access Limitations:

Access limitations have been addressed per the civil drawings attached – Sec 16.46. The project is accessed off So. Sequoia by a 30’-0” private drive easement, with a 24’-0” wide access driveway directly into the project from that easement. No direct drive access off So. Sequoia into the project site.

Sec. 16.49 – Site/Design Review:

The project has been submitted for Site and Design Review, addressing the requirements for submittal and providing the required documents and drawing needed.

The Site Design Review Menu (Table 16.49.060) does not apply since the project is in the Canby Industrial Overlay (I-O) Zone.

Sec. 16.89 – Application and Review Procedures:

Per Sec. 16.89, a Site and Design Review III is required, with a notification of all property owners within 500 ft of the project site. The owner/representative shall hold a neighborhood meeting for the review of the proposed project for comment and provide information of those attending and minutes taken during the meeting. The owner’s representative shall provide written notes or minutes taken of the scheduled meeting to the City of Canby Planning Dept.

Sec. 16.120 – Parks, Open Space and Recreational Land

This section would not be applicable to this project, located in an (I-O) Industrial Zone.

Respectfully;

A handwritten signature in blue ink that reads "Ryan Wilson". The signature is stylized with a large, sweeping initial "R" and a cursive "Wilson".

Ryan Wilson,
Principal
Wilson Architects, PLLC

SITE INFO

PROPERTY OWNER: DAREK CZOKAJLO 1089 ULLAMETTE FALLS DR WEST Linn, OR 97146	APPLICANT: WILSON ARCHITECTS, PLLC ATTN: JAN KLIMAS 404 EAST 15th STREET - SUITE 1 VANCOUVER, WA 98663 P: (360) 696-0382 jan@wilsonarchitects.com
PROPERTY ADDRESS: 360 So. SEQUOIA PKWY. CANBY, OR 97103	
MAP NO.: 3E34 PARCEL NO.: 3E34-0180 ACCOUNT NO.: 2019-01458 LOT AREA: 43,510.05 (1.00 ac) OVERLAY: CANBY I-O ZONING: MI	

TYPE OF CONSTRUCTION: TYPE III-B OCCUPANCY GROUP: F-1 / S-1 / B	
TYPE OF CONSTRUCTION (2014 OSEC 503): TYPE III-B MAX. FLOOR AREA (TABLE 503):	
OCCUPANCY: F-1 / S-1 / B MAX. ALLOWED AREA PER FLOOR: 12,000 SF ACTUAL FLOOR AREA: FLOOR 1: 15,000 SF FLOOR 2: 3,000 SF	
ALLOWABLE BUILDING MAX. HEIGHT: 55'-0" ACTUAL HEIGHT: 55'-0" MAX. STORIES ALLOWED: 2 ACTUAL NUMBER OF STORIES: 2 BASEMENT: NONE	
REQUIRED SEPARATION: NO SEPARATION REQUIREMENT (TABLE 506.4)	

PROJECT DESCRIPTION

TWO STORY COMMERCIAL BUILDING WITH THE TOTAL FLOOR AREA OF 18,000 SF. THE MAIN FLOOR IS TO BE 15,000 SF OF OFFICE AND MANUFACTURING AND THE UPPER FLOOR WITH 3,000 SF IS OFFICE SPACE AND RESEARCH AND DEVELOPMENT FUNCTIONS.

GOVERNING CODES

LAND USE: CITY OF CANBY	
BUILDING: 2014 OSEC	
ELECTRICAL: 2017 OSEC w/ OREGON AMENDMENTS	
MECHANICAL: 2014 OSEC	
PLUMBING: 2014 OSEC	
ENERGY: 2014 OSEC	
FIRE: 2014 OSEC	
FIRE SPRINKLERS: NFPA 13	
ADA: ICC A117.1 / ANSI 2008	

SITE DATA

BUILDING FOOTPRINT: 15,000 SF	
PROPOSED BUILDING: 15,000 SF	
BUILDING LOT COVERAGE: 15,000 SF / 43,510 SF = 34.5%	
FLOOR 1: 15,000 SF	
FLOOR 2: 3,000 SF	
TOTAL FLOOR AREA: 18,000 SF	
PROPOSED PARKING: (CITY OF CANBY - TITLE 16 / TABLE 16.0050) STANDARD PARKING (9'x18'): 14 SPACES REQUIRED PARKING: 2.0 SPACES PER 1,000 SF OF OFFICE SPACE; 3,000 SF OFFICE / 1,000 = 3 x 2 = 6 PARKING STALLS	
REQUIRED PARKING: 10 SPACES PER 1,000 SF OF MANUFACTURING SPACE; 15,000 SF / 1,000 = 15 x 1 = 15 PARKING SPACES	
LOADING ZONE SPACE: 1 REQUIRED (13'x35' SPACE)	
ACCESSIBLE PARKING REQUIRED: 1 ACCESSIBLE SPACE / 1 VAN ACCESSIBLE SPACE ORS 441233	
STANDARD PARKING STALLS: 12 SPACES	
ADA PARKING: 2 SPACE	
TOTAL PARKING PROVIDED: 14 PARKING SPACES REQUIRED	
LANDSCAPE DATA: 20,039.0 SF	
LANDSCAPE AREA: 20,039.0 / 43,510 SF = 45.99 %	
HARDSCAPE/SIDEWALK INFO: 1,218.0 SF	
SLOPE SITE AREA: THERE ARE NO SLOPES OVER 2% ON THE SITE	

OCCUPANT LOAD FACTORS

NOTE: SEE A2.0-A2.2 FOR OCCUPANT LOAD VALUES. (TABLE 1004.1.2)

OCCUPANCY	USE	FUNCTION	OCCUPANT LOAD FACTORS
PROPOSED BUILDING:	INDUSTRIAL		
OCCUPANCY FUNCTION:	INDUSTRIAL	(1,100 GROSS)	25 OCCUPANTS
OCCUPANCY FUNCTION:	BUSINESS	(1,100 GROSS)	20 OCCUPANTS
OCCUPANCY FUNCTION:	ASSEMBLY	(1,100 GROSS)	33 OCCUPANTS
OCCUPANCY FUNCTION:	ACCESSORY	(1,300 GROSS)	2 OCCUPANTS
OCCUPANCY FUNCTION:	STORAGE	(1,300 GROSS)	1 OCCUPANT
OCCUPANCY FUNCTION:	WAREHOUSES	(1,500 GROSS)	8 OCCUPANTS
			50 OCCUPANTS

OCCUPANTS BY FLOOR 1:	INDUSTRIAL + BUSINESS + ASSEMBLY + WAREHOUSES + STORAGE + ACCESSORY :	13 OCCUPANTS 8 OCCUPANTS 25 OCCUPANTS 8 OCCUPANTS 1 OCCUPANT 2 OCCUPANT	57 OCCUPANTS
OCCUPANTS BY FLOOR 2:	BUSINESS + ASSEMBLY + INDUSTRIAL :	2 OCCUPANTS 13 OCCUPANTS 20 OCCUPANTS	35 OCCUPANTS
OCCUPANTS BY FLOOR 2:	BUSINESS + INDUSTRIAL :	8 OCCUPANTS 14 OCCUPANTS	22 OCCUPANTS
TOTAL OCCUPANTS, FLOOR 2 (WEST AND EAST SECTIONS):			35 TOTAL OCCUPANTS

FIRE RESISTANCE

RATED ASSEMBLIES - TYPE III-B	
PRIMARY STRUCTURE	NON RATED
EXTERIOR WALLS (BEARING)	2 HOUR FIRE RATED
INTERIOR WALLS (BEARING)	NON RATED
INTERIOR WALLS	NON RATED
FLOOR / CEILING	NON RATED
ROOF CONSTRUCTION	NON RATED

FIRE DETECTION

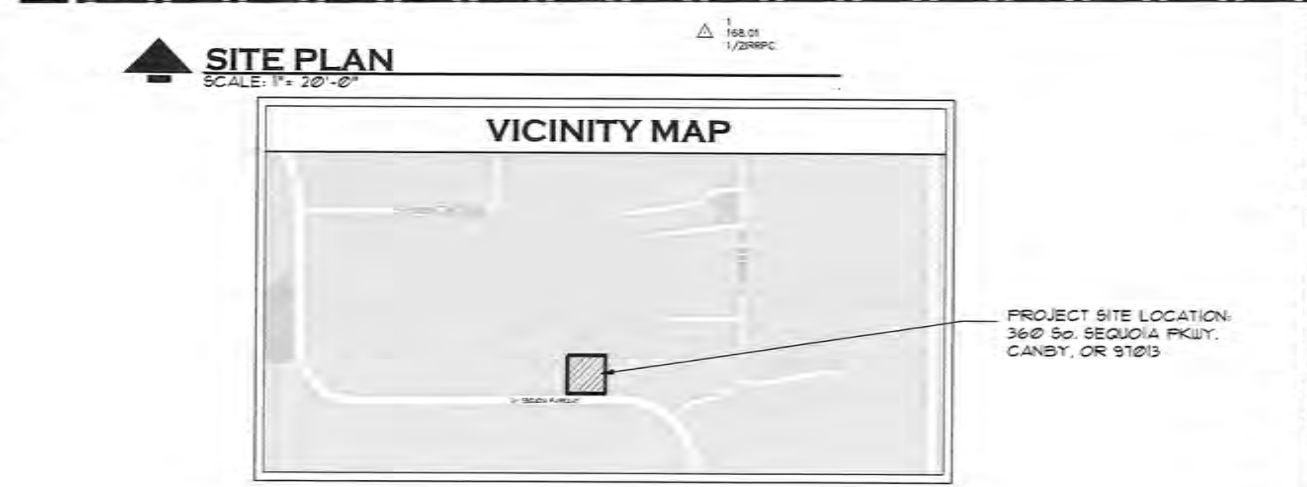
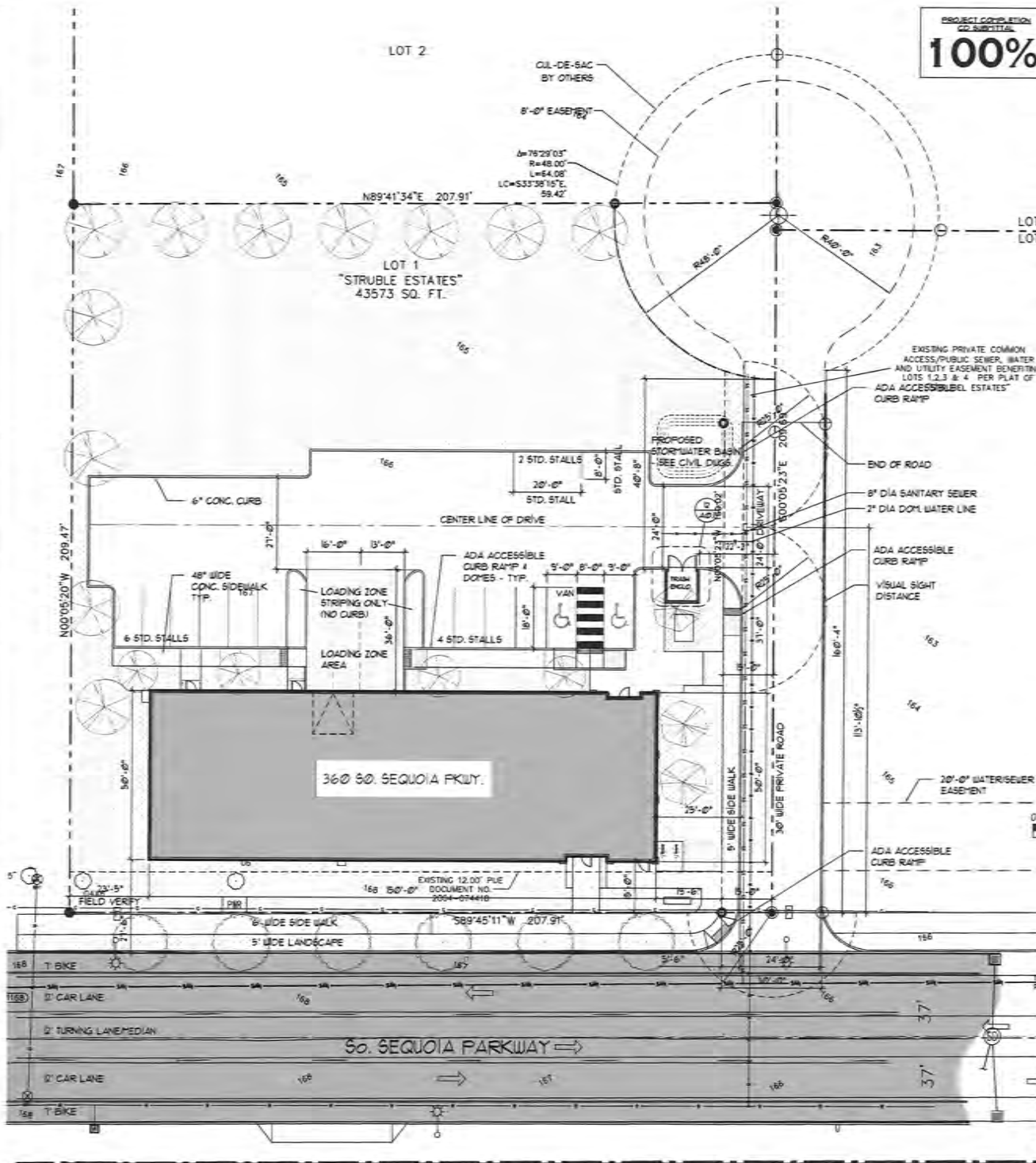
SMOKE/FIRE DETECTION REQUIRED (501.2, 901.2.5, 901.5):	YES
SMOKE/FIRE DETECTION PROVIDED:	YES
TYPE OF SMOKE/FIRE DETECTION PROVIDED:	NFPA 13
SPRINKLER SYSTEM REQUIRED:	YES
TYPE OF SPRINKLER SYSTEM PROVIDED:	NFPA 13
FIRE DEPT. VEHICULAR ACCESS PROVIDED:	YES
FIRE EXTINGUISHERS (75FT) (Sec. 506.1):	AS REQ'D BY FIRE MARSHALL or by FIRE CODE

EXITING

EXITS REQUIRED: 1 PER STORY (TABLE 1009)	
EXITS PROVIDED BY FLOOR: FLOOR 1: 2 EXITS REQUIRED (4 PROVIDED) FLOOR 2: 2	
EXIT COMMON PATH OF TRAVEL DIST. (TABLE 1004.3): 75 FT. (SPRINKLED)	
EXIT MAX. TRAVEL DIST. (TABLE 1004.3): 250 FT. (SPRINKLED)	

NOTES

- THERE ARE EXISTING TRANSIT FACILITIES WITHIN 1/4 MILE AT VAN MALL DR + 11TH AVE OF THE SITE. PEDESTRIAN ACCESS FACILITIES ARE AS SHOWN ON THE PLANS.
- THERE ARE NO STREAM, STEEP BANK BUFFER AREAS/PROTECTED AREAS ON SITE. THERE ARE NO WETLANDS ON SITE.
- DIMENSIONS AND LOCATIONS OF EXISTING AND PROPOSED ROW DEDICATION ARE AS SHOWN ON THE PLAN.
- THE SITE WILL CONNECT TO EXISTING PUBLIC SANITARY AND WATER SYSTEMS.
- PROPOSED LIGHTING SHALL BE SHIELDED DOWN TO REDUCE THE AMOUNT OF LIGHT AND GLARE PERCEIVED BEYOND THE AREA OF WORK.
- OUTDOOR STORAGE IS NOT PROPOSED.
- OPERATION OF THE SITE SHALL CONTINUALLY MEET THE PERFORMANCE STANDARDS IN 40230.0895 INCLUDING NOISE STANDARDS IN CHAPTER 113-60 WAC.
- IF ANY CULTURAL RESOURCES AND/OR HUMAN REMAINS ARE DISCOVERED IN THE COURSE OF UNDERTAKING THE DEVELOPMENT ACTIVITY, THE DEPARTMENT OF ARCHAEOLOGY AND HISTORIC PRESERVATION IN OLYMPIA SHALL BE NOTIFIED. FAILURE TO COMPLY WITH THESE STATE REQUIREMENTS MAY CONSTITUTE A CLASS C FELONY, SUBJECT TO IMPRISONMENT AND/OR FINES.



PROJECT COMPLETION OF SUBMITTAL
100%

WILSON ARCHITECTS, PLLC
404 E 15TH ST. #7
VANCOUVER, WA 98663
(360) 696-4722

REGISTERED ARCHITECT
STATE OF OREGON

SITE / DESIGN REVIEW (TYPE III SUBMITTAL)

ALPHASCENTS SEQUOIA PARKWAY CANBY, OREGON

DATE: 1/18/18	SCALE: SEE PLAN
JOB NO.: 3018	DRAWN BY: JTK
DESIGN DEVELOPMENT APPROVAL - 1/18/18	
SET ISSUED/ PLAN REVISIONS:	
10% - PROGRESS SET - 8/20/18	
30% - PROGRESS SET - 5/14/18	
50% - DESIGN REVIEW - 10/18/18	

A0.0

SITE PLAN PROJECT DATA



PROJECT COMPLETION
OR SUBMITTAL
100%

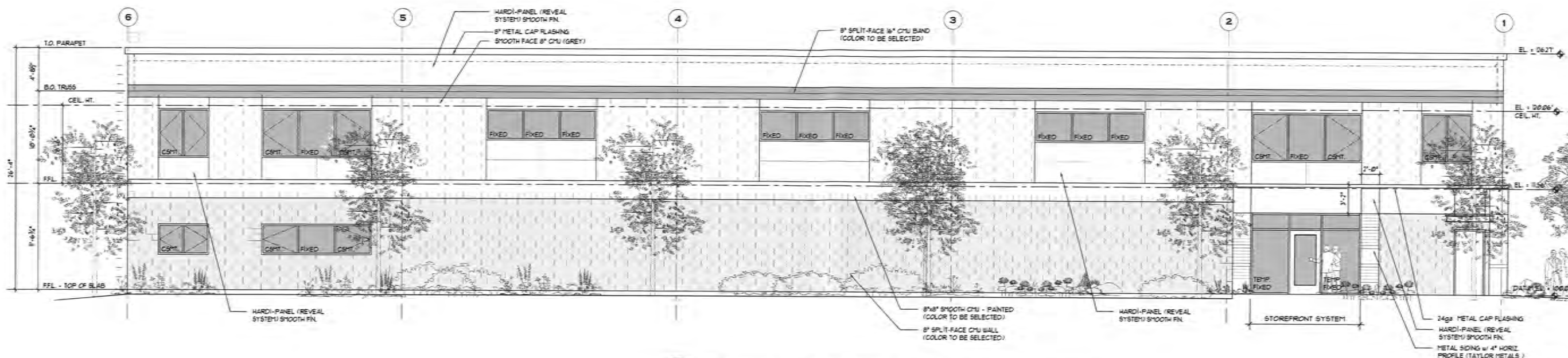


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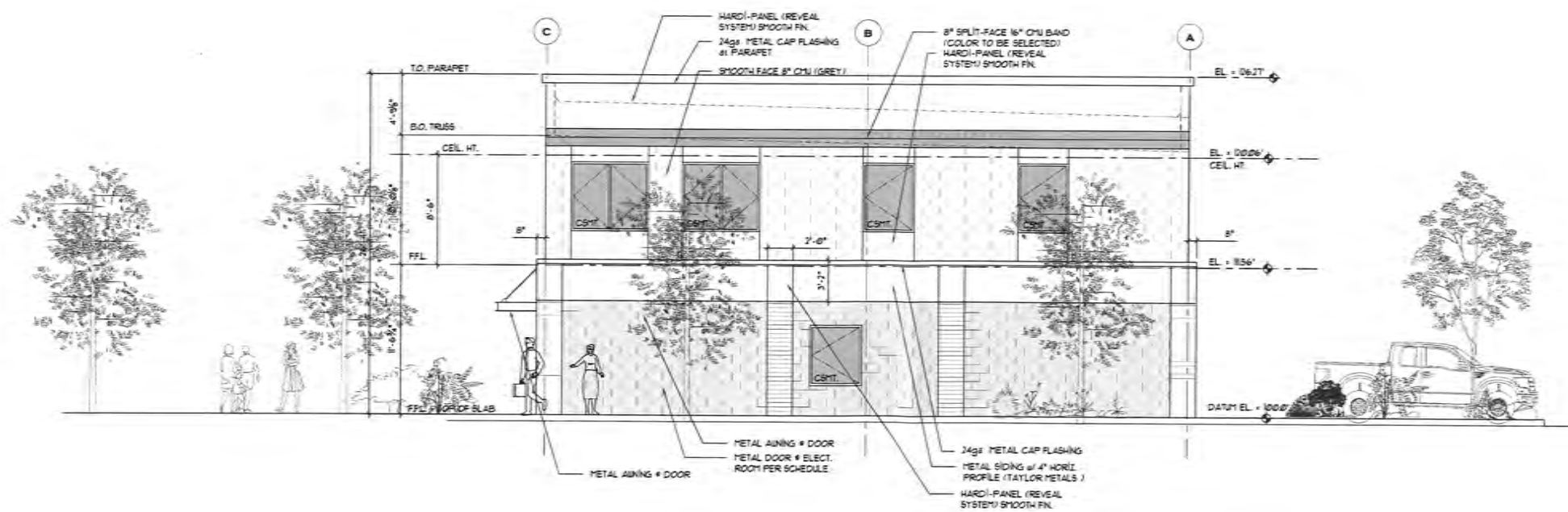


SITE / DESIGN REVIEW
(TYPE III SUBMITTAL)

ALPHASCENTS
SEQUOIA PARKWAY
CANBY, OREGON



2 EXTERIOR ELEVATION (SOUTH VIEW)
SCALE: 3/16" = 1'-0"



1 EXTERIOR ELEVATION (EAST VIEW)
SCALE: 3/16" = 1'-0"

DATE	SCALE
7/15/18	SEE PLAN
JOB NO. 3018	DRAWN BY JTK
SET ISSUED/ PLAN REVISIONS:	
DESIGN DEVELOPMENT APPROVAL - 7/18/18	
30% - PROGRESS SET - 8/2/18	
50% - PROGRESS SET - 9/14/18	
80% - DESIGN REVIEW - 10/15/18	

A3.0
BUILDING
ELEVATIONS &
DETAILS



PROJECT COMPLETION OF SUBMITTAL
100%

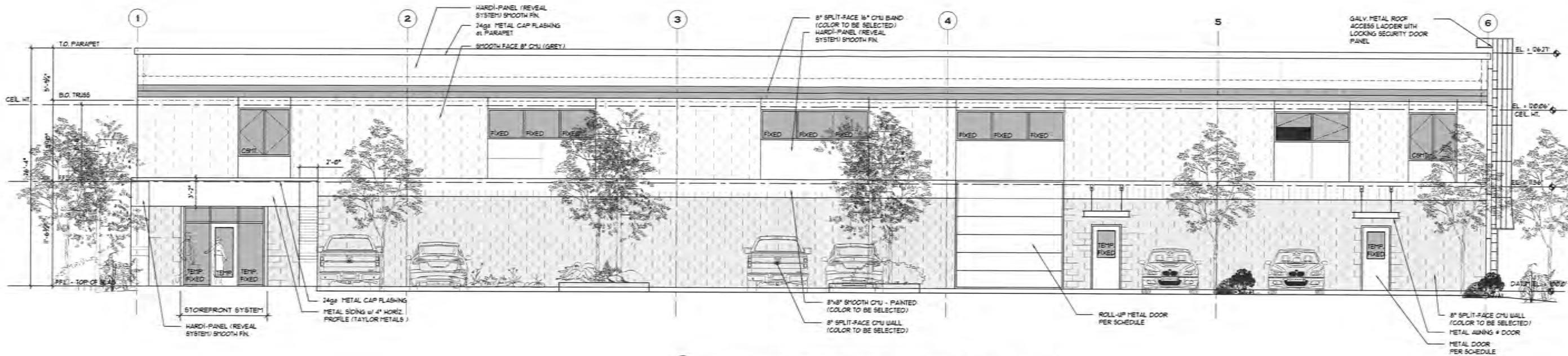


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VANCOUVER, WA 98663
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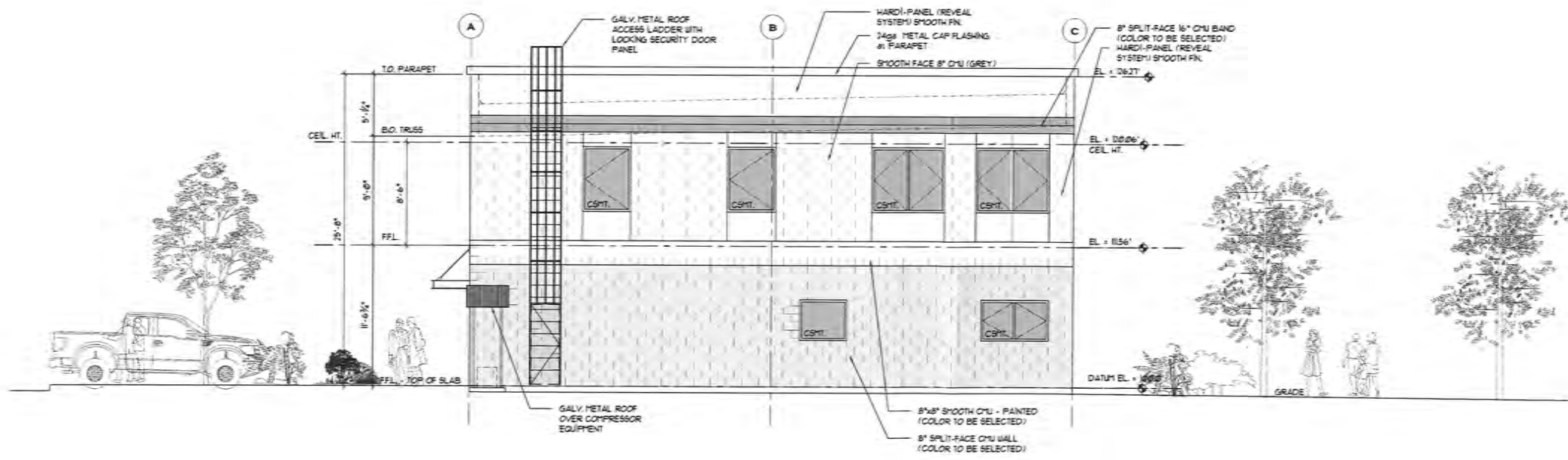


SITE / DESIGN REVIEW
(TYPE III SUBMITTAL)

ALPHASCENTS
SEQUOIA PARKWAY
CANBY, OREGON



3 EXTERIOR ELEVATION (NORTH VIEW)
SCALE: 3/16" = 1'-0"



4 EXTERIOR ELEVATION (WEST VIEW)
SCALE: 3/16" = 1'-0"

DATE	SCALE
7/25/18	SEE PLAN
JOB NO. 3018	DRAWN BY JPK
SET ISSUED/ PLAN REVISIONS:	
DESIGN DEVELOPMENT APPROVAL - 7/18/18	
50% - PROGRESS SET - 8/2/18	
55% - PROGRESS SET - 5/14/18	
50% - DESIGN REVIEW - 8/15/18	

A3.1
BUILDING ELEVATIONS & DETAILS



PROJECT COMPLETION
100%
22 SUBMITTALS



WILSON
ARCHITECTS, PLLC
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VANCOUVER, WA.
98663
(360) 696-4722



Black Color (BAND)
DF-11
SPLIT FACE CMU

Black Color
SF-23
SMOOTH FACE CMU

Black Color (BAND)
DF-11
SPLIT FACE CMU

Black Color
DF-23
SPLIT FACE CMU

NORTH ELEVATION - MATERIAL COLORS
SCALE:

SITE / DESIGN REVIEW
(TYPE III SUBMITTAL)



Black Color (BAND)
DF-11
SPLIT FACE CMU

Black Color
SF-23
SMOOTH FACE CMU

Black Color (BAND)
DF-11
SPLIT FACE CMU

Black Color
DF-23
SPLIT FACE CMU

WEST ELEVATION - MATERIAL COLORS
SCALE:

EXTERIOR ELEVATIONS - MATERIAL COLORS
SCALE: 3/16" = 1'-0"

ALPHASCENTS
SEQUOIA PARKWAY
CANBY, OREGON

DATE	SCALE
1/8/18	SEE PLAN
JOB NO. 3018	DRAWN BY JTK
SET ISSUED/ PLAN REVISIONS:	
DESIGN DEVELOPMENT APPROVAL - 1/8/18	
30% - PROGRESS SET - 8/21/18	
50% - PROGRESS SET - 5/15/18	
100% - DESIGN REVIEW - 10/15/18	

MATERIAL
COLORS



PROJECT COMPLETION
100% SUBMITTAL



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VANCOUVER, WA
98663
(360) 696-4722



SITE / DESIGN REVIEW
(TYPE III SUBMITTAL)



SOUTH ELEVATION (ALONG SO. SEQUOIA) - MATERIAL COLORS
SCALE:

Block Color (BAND)
DF-11
SPLIT FACE CMU

HARD-SMOOTH
PANEL - GREY

Block Color (BAND)
DF-11
SPLIT FACE CMU

Block Color
SF-23
SMOOTH FACE CMU

METAL SIDING

Block Color
DF-23
SPLIT FACE CMU



EAST ELEVATION - MATERIAL COLORS
SCALE:

HARD-SMOOTH
PANEL - GREY

Block Color (BAND)
DF-11
SPLIT FACE CMU

Block Color
SF-23
SMOOTH FACE CMU

Block Color (BAND)
DF-11
SPLIT FACE CMU

Block Color
DF-23
SPLIT FACE CMU

METAL SIDING -
GREY



EXTERIOR ELEVATIONS - MATERIAL COLORS
SCALE: 3/16" = 1'-0"

ALPHASCENTS
SEQUOIA PARKWAY
CANBY, OREGON

DATE	SCALE
T/8/18	SEE PLAN
JOB NO.	DRAWN BY
3018	LJK
SET ISSUED/ PLAN REVISIONS:	
DESIGN DEVELOPMENT APPROVAL - 1/8/18	
10% - PROGRESS SET - 8/21/18	
15% - PROGRESS SET - 9/18/18	
100% - DESIGN REVIEW - 10/15/18	
▲	
▲	
▲	
▲	
▲	

MATERIAL
COLORS



TaxAcctNum	OwnerNmFirst	OwnerNmLast	Sign-In	SiteAddr	SiteCity	SiteState	SiteZIP	OwnerAddr	OwnerCityNm	OwnerState
31E34 01900	Stanley & Pamela	Hildreth		267 S Walnut St	Canby	OR	97013	267 S Walnut St	Canby	OR
31E34 02000	Palmer Family Properties LLC			211 S Walnut St	Canby	OR	97013	30300 S Candlelight Ct	Canby	OR
31E34 01702	Canbydone LLC			321 S Sequoia Pkwy	Canby	OR	97013	12020 SE 32nd St Ste 2	Bellevue	WA
31E34 01707	Pgw Properties LLC			387 S Sequoia Pkwy	Canby	OR	97013	851 SW Sixth Ave Ste 1500	Portland	OR
31E34 04400	Jorken Oregon LLC			165 S Hazel Dell Way	Canby	OR	97013	1960 Kellogg Ave	Carlsbad	CA
31E34 04700	Gardeners & Ranchers Association				Canby	OR	97013	PO Box 1685	Clackamas	OR
31E34 01802	Airfiltech LLC			368 S Sequoia Pkwy	Canby	OR	97013	2150 Fircrest Dr	West Linn	OR
31E34 01803	Airfiltech LLC			372 S Sequoia Pkwy	Canby	OR	97013	2150 Fircrest Dr	West Linn	OR
31E34 01804	Airfiltech LLC			380 S Sequoia Pkwy	Canby	OR	97013	2150 Fircrest Dr	West Linn	OR
31E34 01805	Dragonberry Real Estate LLC			386 S Sequoia Pkwy	Canby	OR	97013	386 S Sequoia Pkwy	Canby	OR
31E34 01711	Trend Business Center LLC		<i>Scott McDormack</i>	341 S Sequoia Pkwy	Canby	OR	97013	7190 SW Sandburg St	Tigard	OR
31E34 01712	Be Nn Lp			1940 SE 4th Ave	Canby	OR	97013	PO Box 721	Sumas	WA
31E34 01713	Be Nn Lp			1980 SE 4th Ave	Canby	OR	97013	PO Box 721	Sumas	WA
31E34 01714	Trend Business Center LLC		<i>Scott McDormack</i>	361 S Sequoia Pkwy	Canby	OR	97013	7190 SW Sandburg St	Tigard	OR
31E34 04400MA1	Kendal Floral Supply LLC			165 S Hazel Dell Way	Canby	OR	97013	165 S Hazel Dell Way	Canby	OR
31E34 01715	Kathleen Polley &	Robert Licking			Canby	OR	97013	12678 S New Era Rd	Oregon City	OR
31E34 01714MA2	Cascade Engineering Technologies Inc			361 S Sequoia Pkwy	Canby	OR	97013	14707 SE River Rd	Milwaukie	OR



Ento Park Industrial Project

Owner: Darek Czokajlo
360 South Sequoia
Canby, OR 97013

Ento Park Neighborhood Meeting Minutes – 11/7/18 City of Canby Planning – Site/Design Type III Review

Location: Canby Adult Care Center
Date: 11/7/2018
Time: 5:00 PM

Attendees: Darek Czokajlo – Owner
Alex Simpson – HHPR Engineering
Jan Klimas – Wilson Architects

Seventeen neighboring properties owners or interested parties were notified or invited to attend.

Neighboring Owners Attending: Scott McCormack – Trend Business Center, LLC

The Neighborhood Meeting started at 5:00pm with introductions.

Darek Czokajlo explained how his business operates, and the procedures of how his product is manufactured, distributed, the marketing and how its used worldwide. Darek stated that this new building will greatly increase his ability for production, and further support his other lab operation the Syracuse, New York.

The project is needed to expand his staff with the hiring of additional full-time employees.

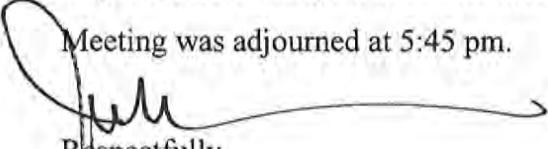
Jan Klimas (Wilson Architects) and Alex Simpson (HHPR Engineering) were on hand to answer questions from the neighboring property owners regarding the project, related to the Architectural or Civil Design.

One neighbor attended the meeting, Scott McCormack (Trend Business Center, LLC) reviewed the drawings provided. He commented that he liked the design and visual appearance of the project, he was excited that Mr. Czokajlo was going to be a business neighbor in the area and provide a benefit to the City of Canby. Scott favored the project, with no objections.

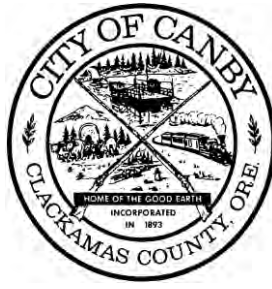
No other neighboring property owners or interested parties were in attendance. No written comments were provided.

After the initial discussion, Jan Klimas waited 45 minutes, to allow ample time for anyone that may have been delayed. No other individuals or interested parties arrived.

Meeting was adjourned at 5:45 pm.



Respectfully,
Jan Klimas
Wilson Architects, PLLC
Vancouver, WA



Pre-Construction Meeting

Alpha Scents
May 22, 2018
10:30 am

Attended by:

Jerry Nelzen, Public Works Department, 971-253-9173
Hassan Ibrahim, Curran-McLeod Engineers, 503-684-3478
Ryan Wilson, Wilson Architects, 360-696-4722
Jim Stuart, Canby Utility, 503-263-4322
Daryll Hughes, Waste Water Treatment Plant, 503-266-1248
Darek Czokajlo, Alpha Scents, 971-998-8248

Todd Gary, Canby Fire Dept, 503-969-7459
Jess Sawyer, Sawyer & Sons, 360-518-8081
Jennifer Cline, Public Works, 503-266-0780
Dennis Kviz, Tech Group Realty, 503-318-1988
Bryan Brown, Planning Department, 503-066-0702
Gary Stockwell, Canby Utility Electric, 503-263-4307

This document is for preliminary use only and is not a contractual document.

ALPHA SCENTS, Darek Czokailo

- We produce traps and lures for monitoring and we ship globally. We have been working out of a small facility in West Linn and we want to expand. We have another facility in Syracuse, New York and plan on keep this facility open. We have seven employees and are planning on hiring three to four people.

WASTE WATER TREATMENT PLANT, Daryll Hughes

- Will you be discharging any kind of processed waste water and Darek said all of his products are water soluble and the only thing we will utilize is the bathroom facilities and drinking water.
- On the plans, it showed floor drains in the building and we try to stay away from them as possible. Darek said we do not need any floor drains.
- On another note, you showed the garbage over the sewer easement and again we dissuade any discharges to the sanitary from dumpsters. Darek said we will remove it.
- Daryll handed Darek a waste water treatment survey and asked when it is completed to send it back to him.

CURRAN-MCLEOD ENGINEERING, Hassan Ibrahim

- Typically on industrial site, we require a monitoring manhole before it enters the public system and do you need it for this site. Daryll said no, not at this point based on what they are doing, but if another company comes in at a later date I will work with them and have them put in a monitoring manhole. Jerry said they do not have a sanitary sewer service to this site and when they subdivided the lot this lot does not have a stub to it. I looked at it this morning and verified it does not have water or sewer to this particular lot. Jerry and Hassan left the meeting to verify the utilities and found there are no stubs to this site, but the water and sewer are stubbed to the adjacent lot to the east. Hassan said when they develop they

will need to go into Sequoia Parkway for the water. You can put a manhole over the 8-inch line here and extend it and place a cleanout at the end and when the other lots develop they would extend it at a minimum grade. We also want the water and sewer as close as possible to avoid two cuts in the road.

- A representative asked if they need to extend the sewer to the back lots and Hassan said there is a utility easement established and he did not think they would, but we will discuss it amongst ourselves.
- Bryan said there are a total of (4) lots and (2) without frontage onto a public street and the developer of this parcel bonded \$100,000 for the last 10 years or so and never put in the improvements and finally sold the land as-is without the necessary improvements. I thought there would be a private street leading up to the (2) back lots and Hassan said the recorded document reads it is a private street and a 30 ft private common/public sewer, water and utility easement benefitting lots 1 through 4. The question is who is going to build it and the representative said their proposal was to build it to the edge of our driveway and Bryan said it would be the ideal scenario. The representative stated if the two lots get built in the future they will have to dig up the road to put in a sanitary line and water and Hassan said when they subdivided the lot they should have been required to put in the utilities at that time and Bryan said they were waiting for a potential development before they tried to do the improvements and it was 10 years ago and we had to give back the bond. Discussion ensued on who would build the private road. A representative asked about a late-comers agreement and Bryan said as far as I know about that terminology it means it would be analogous to the city's advanced financing district (AFD) and could be initiated by a developer and it would have to go through the city council. To my knowledge we have not done a developer initiated an AFD, they have all been city initiated and it would be something new for the city. There is no absolute guarantee they will agree to it and I do not think they would not and you would have a 10-year time frame with the possibility of (2) five-year extensions. Jennifer said they are required by the easement and if they only did a base lift and a late-comer came and they had to put in the sewer, they are required by the easement to participate in the full paving the rest of the road and regardless, even if they did not want to they would still have to participate by recorded easements. Hassan said you are thinking for them to place a manhole here over the 8-inch sewer stub and Jennifer said yes. A representative said if we do the 20 ft paved leaving the rest unfinished and then they can put in whatever they need and finish the rest when they build. Hassan said it is a private street from our perspective and it will be up to all (4) owners and the representative said the challenge would be if the bottom right-hand lot develops next.
- We have a 74 ft right-of-way (ROW) with 37 ft on each side of the centerline and you will be required to do a 6 ft sidewalk a 1/2 ft inside the ROW from the north-side of the ROW with a 5 ft planter strip landscaped with street trees and irrigation. Bryan said the street tree spacing is usually 30 to 40 ft and we have a street tree list to pick from on our city's website.
- Are you planning on doing the driveway with returns and the representative said they would like to keep it flat if they can. Hassan said we are sloping it from the front of the walk to the curb and the sidewalk grade stays level. We require an industrial driveway approach with 8-inches of concrete with reinforcement and it has to be ADA compliant. Jennifer asked if they need to provide a sidewalk back to the other lots on the private road. Bryan said they will

have to do it when they develop the back lots, just like the water and sewer. The representative asked if the city had a private road standard and the answer was no. Hassan asked if the easement would be wide enough to put sidewalks in and Jennifer said it is private property anyway and it does not matter to me if it sits in the easement or not and could be curb tight. Hassan said you would build it out from your property line to Sequoia Parkway. Jennifer said on your plans you show a sidewalk from the front of the building to Sequoia Parkway and it should stop at the frontage sidewalk because it will trigger ADA ramps.

CITY OF CANBY, PUBLIC WORKS DEPARTMENT, Jennifer Cline

- I saw you had a swale on your drawings and is it an overflow or are you doing drywells and the representative said we planned on doing swales because we do not know what the soils are like on this site. Jennifer said you will have to do an infiltration test to see if you can use drywells or not and it will be all private and contained on site. The private road's stormwater will also have to be contained on site and it cannot drain into our public system. Gary said there is an active well on lot 3 and Jennifer said there is a limited radius 267 ft you need to be away from the water well for all drywells.

CANBY FIRE DEPARTMENT, Todd Gary

- I see you will be doing a sprinkler building and we require a fire hydrant within 50 ft of the FDC and I will work with the contractor on the placement of the FDC. The representative asked if they could put the FDC in the building and Todd said they like them as a stand-alone better than up against the building. The representative asked if he had concerns if the backflow device was in the building and Todd said the question is better asked with Canby Utility Water Department. Jim stated it would be just beyond the PUE on your private property.
- Access looks good.

CANBY UTILITY, Jim Stuart

- You are just going to have a domestic water service and the answer was there will be fire as well and what is the water pressure in this area. Jim stated close to 80 psi and I need to know what size of fire protection you will require.
- If the water is not stubbed to the property, we will have to cut the street and tap the service and you stated you only want domestic water service. I am expecting a 1 to 1-1/2 inch service and depending on your fire needs will determine what size we will need to tap for your fire suppression system. You will be required to have backflow protection on it. As I said before our meter set will be in the PUE and your backflow will be on the other side of the PUE on your private property. The representative asked if the FDC needed a backflow device and Jim said yes.
- If you are planning on irrigation you can take it off of your domestic service behind the meter and backflow.
- The representative said in Vancouver they let us bring in a 12-inch water main line into the building and stub off of that for the fire and then come off of that with a 2-inch for the domestic water. Jim said our separation has to be at the point of contact, which is at the PUE.

CANBY UTILITY, ELECTRIC DEPARTMENT, Gary Stockwell

- Gary handed Darek a scope of work and said we do things a little different than the surrounding utilities. I will provide you a quote and we will provide and install all pads, vaults and conduits to within 5 ft of the building. You will supply the trench, grading, staking and backfill for our equipment.
- Your point of contact is a vault on lot 4 and as drawn your proposed transformer location is acceptable and we would simply do an extension crossing the driveway and into the transformer. At that point, we would extend conduits to the north to the property line and I would probably do a road crossing out of the transformer as well.
- My concern is the way the easement was drawn up it is great for pipe lines, cars and fire trucks, but transformers do not go in the roadway and we will need some additional easement for the transformer and possible line. The representative asked if they could put the transformer underground and Gary said we do not put transformers underground here in Canby. We will be requiring additional easements and I would not require it as a PUE, you can do the easement to Canby Utility and we have very specific forms for you to complete with all signatures and notarization and we will record the document with the county. I will create a drawing showing you where I will need additional easement and once again you can do it on our standard utility easement form we have, it does not have to be a PUE.
- I do not know your power requirements will be and the representative asked if there could be 3-phase and Gary said he would extend 3-phase. Darek said he would need it and Gary assumed it would be 122/08. Darek said he had three machines one running 110, another is running 2-phase 220 and the last one is 3-phase 240. Gary said he will not give them 240 3-phase it is a delta wound voltage and we do not supply delta. I only supply y-connection voltage at 122/08 or 480. Darek said what do I do with my machine which is 3-phase and Gary said most 3-phase machines that are 240 will run adequately on 122/08. Darek said this machine is European made and Gary said you may want to get your own dry transformers. Gary said when we get closer to building and we will find out what your power demands will be and it is not a big building and I do not expect it to be high.

CITY OF CANBY, PUBLIC WORKS DEPARTMENT, Bryan Brown

- The question you asked is if you could use hardscape for your landscape requirements and we allow up to 5 percent of your total landscaping for your site, which is 15 percent. It could potentially be rock, decorative pavement, and potential private sidewalks can be included.
- In the industrial overlay zone is a prohibition of metal siding for the exterior buildings, it does not say anything about other materials. Mostly all the buildings in the industrial park are tilt-up concrete and people tend to think it is required, but it is not, it is just we do not allow the metal siding. We just recently approved an insulated panel construction siding with metal and a stucco siding and we also have Hardie board in the industrial park. I do not know if there is any wood, but there is nothing that prohibits, nor is concrete blocks.
- There is no real color scheme, but we ask for you to look around at the adjacent buildings and follow what is in tune with the area, but there are no standards.
- There are no floor area ratios in the industrial park or the M-1 zone and there is no maximum lot coverage other than the fact 15% of the site has to have landscaping.

- Our environmental review is pretty much limited to the drainage analysis and as long as you satisfy the drainage requirement and do the best management practices. If you use some onsite bio-retention area they can count as your landscaped area, but it will have to be landscaped with the right type of plants.
- We do not have any window glazing requirements. If that is a sidewalk, is that a door facing Sequoia Parkway because we do have a requirement to have a public entrance facing the public streets and it looks like you managed it with the direct access to the public sidewalk. Otherwise, we do not dictate windows, glazing requirements and such.
- We have been talking about public easements and it is around this private access easement, which has a potential for a PUE and thinking about the two lots behind you and my thoughts are to have a PUE on one side and Gary said he agreed. The existing easement reads a private common access, public sewer, water and utility easement and then we are questioning whether those service lines can actually be within the 30 ft. The representative asked if there was gas available and Bryan said he did not know if it was in the immediate vicinity, but I am sure it is across the street.
- You discussed the extending of the private street, whether it is a half-street or not, the other public improvement mentioned was the sidewalk.
- We do collect for street trees and our fees are going up on July 1st. The new fee is \$500.00 per street tree and the city actually installs them through a contractor. Jennifer said you can choose a tree from our street tree plan and we ask you to submit a landscaping plan for the street trees, not private landscaping. We maintain the trees for two-years after that point they become yours.
- You will need to do a traffic study and it may not be expensive for this particular use, but we have a traffic consultant on call for the city to provide a scope of work for any needed traffic studies. If you choose to have your own traffic engineer we still determine what needs to be studied and in this case, at the minimum, there will be a traffic generation letter needed. To start this process you will need to give us a \$500.00 deposit and if we do not use it all we will refund you.
- This will be a Site and Design Review Type 3 Application, which goes through the planning commission and we can very easily send you an email with the typical Site and Design review sections of the code that are related to it. You will need to prepare a narrative for your land use application submittal. The representative asked how long does the process take and Bryan said it takes two months from when you submit your completed application. The representative said after that point do we do a final civil plan submittal and Bryan said we require a pre-construction conference and we have all the providers here today sign off on them. You should also submit the final civil drawing to the county as well. Hassan said if you do any UIC's you will need to have them rule-authorized by DEQ and we would like all copies.
- I will do an analysis of your system development charges (SDC) and send them to you.



720 SW Washington St.
 Suite 500
 Portland, OR 97205
 503.243.3500
 www.dksassociates.com

MEMORANDUM

DATE: October 18, 2018

TO: Bryan Brown, City of Canby

FROM: Chris Maciejewski, PE, PTOE
 Kevin Chewuk, PTP
 Amanda Deering, EIT

SUBJECT: Canby Alpha Scents Traffic Study



P#11010-105

This memorandum describes the evaluation of the transportation impacts associated with the proposed Alpha Scents development located at 360 S. Sequoia Parkway in Canby, Oregon. The proposed site is currently vacant and will consist of a 7,500 square foot building¹ for corporate headquarter offices and a warehouse/shipping area.

Access to the site will be provided by a new private shared access with a cul-de-sac. This new private access will connect to S. Sequoia Parkway (classified as a collector roadway). The proposed development was determined during study scoping to not likely generate enough traffic to warrant an off-site transportation impact analysis. Therefore, the following sections describe the limited transportation impact analysis focused on documenting estimated project trip generation and traffic volumes along S. Sequoia Parkway and reviewing the proposed site access and circulation.

Project Trip Generation

The amount of new vehicle trips generated by the proposed land use was estimated using trip generation estimates published in the ITE Trip Generation Manual for the proposed 7,500 square foot building². Trip generation estimates for the proposed development are provided for daily, morning, and evening peak hours, and are summarized in Table 1. The estimated trip generation of the proposed project would not result in an increase in site trip generation significant enough to warrant an on off-site impact evaluation.

¹ Canby Alpha Scents site plan, Wilson Architects, April 30, 2018.

² Trip Generation Manual, Institute of Transportation Engineers, 10th Edition.

Table 1: Vehicle Trip Generation Estimate

Land Use (ITE Code)	Units (KSF)	Total Daily Trips	AM Peak Hour Trips			PM Peak Hour Trips				
			Equation	In	Out	Total	Equation	In	Out	Total
Warehousing (150)	7.5	57	$0.12(X) + 25.32$	20	6	26	$0.12(X) + 27.82$	8	21	29

Site Access and Circulation

Access to the site will be provided by a new private shared access with a cul-de-sac. This new private access will connect to S. Sequoia Parkway (classified as a collector roadway). S. Sequoia Parkway currently meets the city’s cross-section requirements for standard collector streets (34-50 feet paved with 50-80 feet of ROW). The existing roadway should safely accommodate additional vehicle, and bicycle traffic. However, the proposed site frontage lacks a sidewalk for pedestrian travel. The site plan includes frontage improvements on S. Sequoia Parkway, including six-foot sidewalks and a planter strip buffering the sidewalk from the roadway. These improvements are expected to safely accommodate pedestrians.

Vehicles will enter the proposed parking lot through an access off the cul-de-sac. There is a loading and unloading area in the middle of the parking lot connected to the site building, large enough for two vehicles to fit side by side. The site plan provides for a total of 20 off-street parking spaces, including one ADA parking space.

The proposed development also includes sidewalk connections from S. Sequoia Parkway to the building, and sidewalks connecting the parking lot to the building. Until parcels surrounding this site develop, the frontage improvements along S. Sequoia Parkway will not connect to other nearby sidewalk facilities. The proposed on-site pedestrian facilities and their connection to facilities along S. Sequoia Parkway appear to be adequate.

Sight Distance Evaluation

The sight triangle at the site driveways should be clear of objects (large signs, landscaping, parked cars, etc.) that could potentially limit vehicle sight distance. In addition, all proposed site driveways and access points should meet AASHTO sight distance requirements as measured from 15 feet back from the edge of pavement³.

The proposed roadway connection to S. Sequoia Parkway requires a minimum of 390 feet of sight distance based on a 35 mph posted speed. Preliminary sight distance evaluation indicated that the proposed roadway connection to S. Sequoia Parkway would provide adequate sight distance looking to the east and west,

³ AASHTO – *Geometric Design of Highways and Streets*, 6th edition, 2011. Table 9-6. Design Intersection Sight Distance – Case B1 – Left Turn from Stop, and Table 9-8. Design Intersection Sight Distance – Case B2 – Right Turn from Stop and Case B3 – Crossing Maneuver.

exceeding the 390-foot requirement. Prior to occupancy, sight distance at all access points and driveways will need to be verified, documented, and stamped by a registered professional Civil or Traffic Engineer licensed in the State of Oregon.

Access Spacing

The minimum spacing between a street and driveway on the same side of a collector in the Industrial Overlay Zone is 200 feet⁴. The distance between the proposed private access and the nearest street to the east (S. Walnut Street) is approximately 400 feet, which meets the access spacing standard. The distance between the proposed private access and the closest driveway to the west is about 1,000 feet, which meets the spacing standard.

The proposed parking lot driveway off the cul-de-sac will be located approximately 110 feet north of S. Sequoia Parkway. This proposed driveway will comply with the spacing standard along local streets (50 feet).

Transportation System Context

The traffic volumes resulting from the proposed project on S. Sequoia Parkway were compared to existing traffic volumes, as well as the projected volumes from the City's Transportation System Plan (TSP) to provide an evaluation of growth on the roadway compared to planned conditions. A 24-hour weekday traffic volume and vehicle classification count was collected on S. Sequoia Parkway near the proposed site⁵. A comparison of the traffic volumes along this segment can be seen in Table 2. As shown, the annual growth that has occurred on S. Sequoia Parkway between 2009 and 2018 is roughly equivalent to the annual growth that was projected in the City's TSP through 2030.

S. Sequoia Parkway currently meets the city's cross-section requirements for standard collector streets and should safely accommodate additional vehicle traffic consistent with the TSP forecast. Planned projects along key corridors in the area will also help serve growth. These projects include:

- Extending Hazel Dell Way between SE 1st Avenue and OR 99E
- Upgrading SE 1st Avenue between Hazel Dell Way and S Mulino Road
- Constructing a roundabout at the S Mulino Road/SE 1st Avenue/S Bremer Road/S Haines Road intersection
- Extending SE 4th Avenue between S. Sequoia Parkway and S Mulino Road

⁴ Canby Municipal Code 16.35.050.F

⁵ Count data collected on October 10, 2018 along S. Sequoia Parkway near the proposed site.

Table 2: Volume Growth Comparison along S. Sequoia Parkway

Period	Estimated Site Trips	Current Volume (2018)	TSP Volume (2009) ^a	TSP Estimated Future Volume (2030) ^a	TSP Forecasted Annual Growth Rate (2030-2009)	Realized Annual Growth Rate (2018-2009)
Daily	57	4,183	--	--	--	--
AM Peak Hour	26	223	--	--	--	--
PM Peak Hour	29	406	138	800	22%	23%

^a Year 2009 and 2030 volumes are from 2010 City of Canby Transportation System Plan

FINDINGS

The proposed Alpha Scents is estimated to generate an additional 26 net new trips in the morning peak period, 29 net new trips in the evening peak period and 57 daily trips.

Traffic volumes along S. Sequoia Parkway near the proposed project have been growing at a rate consistent with the TSP forecast. The annual growth that has occurred on S. Sequoia Parkway between 2009 and 2018 is roughly equivalent to the annual growth that was projected in the City’s TSP through 2030. Planned projects along key corridors in the area will also help serve growth.

S. Sequoia Parkway currently meets the city’s cross-section requirements for standard collector streets and should safely accommodate additional vehicle traffic consistent with the TSP forecast. The proposed development should include a sidewalk for pedestrian travel along the frontage of S. Sequoia Parkway and the cul-de-sac, and connecting the building to these roadways and the parking lot.

Access spacing standards are met for the new private access. Preliminary sight distance evaluation indicated that adequate sight lines will be provided for the proposed roadway access. However, prior to occupancy, sight distance at any existing access points will need to be verified, documented, and stamped by a registered professional Civil or Traffic Engineer licensed in the State of Oregon.

If you have any questions, please feel free to call or email.

CURRAN-McLEOD, INC.
CONSULTING ENGINEERS

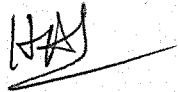
6655 S.W. HAMPTON STREET, SUITE 210
PORTLAND, OREGON 97223

November 19, 2018

MEMORANDUM

TO: Public Comments
City of Canby

FROM: Hassan Ibrahim, P.E.
Curran-McLeod, Inc.



**RE: CITY OF CANBY
ENTO PARK/ALPHA SCENTS (DR 18-09)**

We have reviewed the submitted preliminary plans on the above noted project and have the following comments:

1. Sequoia Parkway is fully improved with 50-foot paved width curb to curb except for the sidewalks and planter strip/street trees. The developer will be required to provide a 5.5 feet of planter/ landscape strip measured from the face of the curb and construct a 6-foot wide concrete sidewalk within the 37-foot half street right of way.
2. The access driveway access at Sequoia Parkway shall have an Industrial Driveway Approach consisting of 8" reinforced concrete thickness or mesh welded wire fabric over 4" thickness of crushed rock.
3. The proposed access point on Sequoia Parkway meets the minimum of 200 feet from any other driveway on the same side of the street as per the Industrial Area Master Plan, dated October 1998.
4. As per DKS Traffic Study, dated October 18, 2018 and at the access point on Sequoia parkway, the study requires prior to occupancy that sight distance certification is documented and stamped by a registered professional civil or traffic engineer licensed in the state of Oregon.
5. The paved driveway width to the site shall be a minimum of 20 feet with a sidewalk along the entire frontage providing pedestrian access to the parking lot/cul de sac and the building.

6. Street trees shall be selected from the City approved tree list. The street tree ordinance requires the developer to pay the City \$500 per tree for installation and two (2) year period maintenance, the property owners will take over all of the responsibilities after that date.
7. A 12” sanitary sewer line exists on Sequoia Parkway to serve this site. However, an 8-inch public sanitary sewer line shall be extended to serve this site and future lots. A minimum of 15-foot wide sanitary sewer easement shall be provided to maintain this system.
8. A monitoring manhole will be required at the property line to periodically monitor the flow leaving the site.
9. The storm drainage analysis submitted conform with the City requirements as stated in Chapter 4 of the City of Canby Public Works Design Standards dated June 2012. However, the infiltration rates used in the report don’t meet the actual field rates as per the Geotech Solutions, Inc report, dated July 16, 2018. The report used an assumed rate of 30 in/hr vs. the measured rate of 4 in/hr or 2 in/hr. Drywells (UIC) are used as a means to discharge storm runoff from the private streets/ parking lot, they must meet the following criteria: The UIC structures location shall meet at least one of the two conditions: (1) the vertical separation distance between the UIC and seasonal high groundwater is more than 2.5 feet or (2) the horizontal separation distance between the UIC and any water well is a minimum of 267 feet in accordance of the City of Canby Stormwater Master Plan, Appendix “C”, Groundwater Protectiveness Demonstration and Risk Prioritization for Underground Injection Control (UIC) Devices. The drywells must be Rule Authorized by DEQ and a copy of the Rule Authorization submitted to the City.
10. The existing domestic or irrigation well shall be abandoned in conformance with OAR 690-220-0030. A copy of Oregon Water Rights Department (OWRD) abandonment certificate shall be submitted to the City.
11. Water Services/ Fire Protection shall also be constructed in conformance with Canby Utility and Canby Fire Department requirements.

Should you have any questions or need additional information, please let me know.



City of Canby

PUBLIC HEARING NOTICE & REQUEST FOR COMMENTS

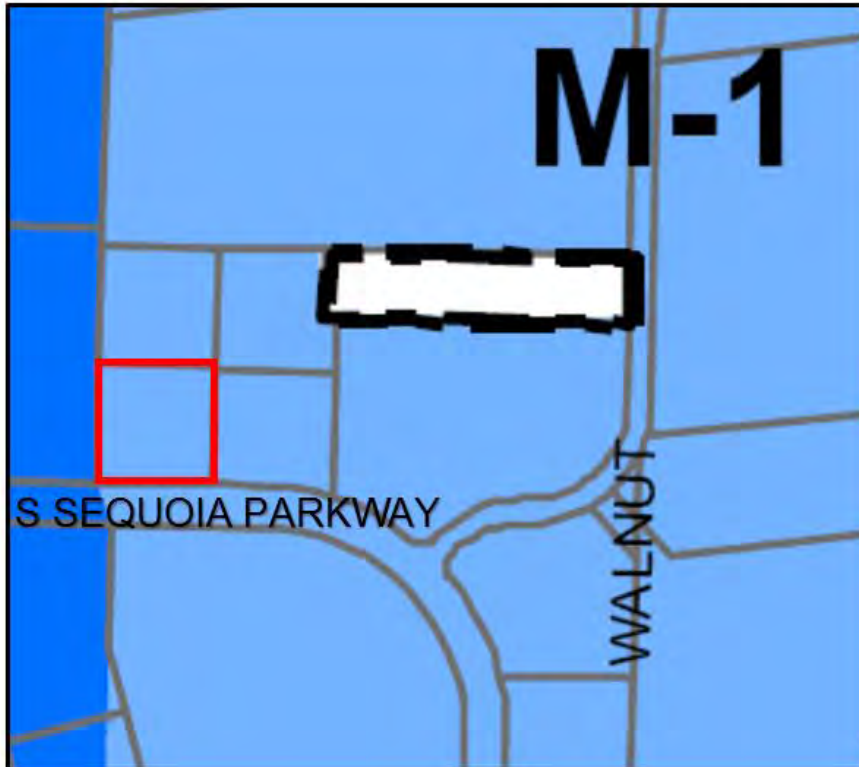
City File No.: DR 18-09 ENTO PARK/ALPHA SCENTS

PLANNING COMMISSION PUBLIC HEARING DATE:

MONDAY, DECEMBER 10, 2018

7 PM, CITY COUNCIL CHAMBERS

The purpose of this Notice is to invite you to a Planning Commission Public Hearing and to request your written comments regarding a Site & Design Review (Type III) application (**DR 18-09 Ento Park/Alpha Scents**). Applicant proposes to develop a 10,500 sf two-story building for research, development, and manufacture of pest management products.



Location: 360 S Sequoia Parkway (See property outlined in red on map at left).

Tax Map & Lot#: 31E34 01801

Lot Size & Zoning: 43,570 SF, M-1 Light Industrial, and I-O - Canby Industrial Overlay Zone

Property Owners: Ento Park

Applicant: Ento Park

Application Type: Site & Design Review (Type III)

City File Number: DR 18-09

Contact: David Epling, Associate Planner at 503-266-0686 or

eplingd@canbyoregon.gov

Comments due – If you would like your comments to be incorporated into the City’s Staff Report, please return the Comment Form by Wednesday, November 28, 2018. Written and oral comments can also be submitted up to the time of the Public Hearing or be delivered in person during the Public Hearing.

What is the Decision Process? The Planning Commission will make a decision after the Public Hearing. The Planning Commission’s decision may be appealed to the City Council.

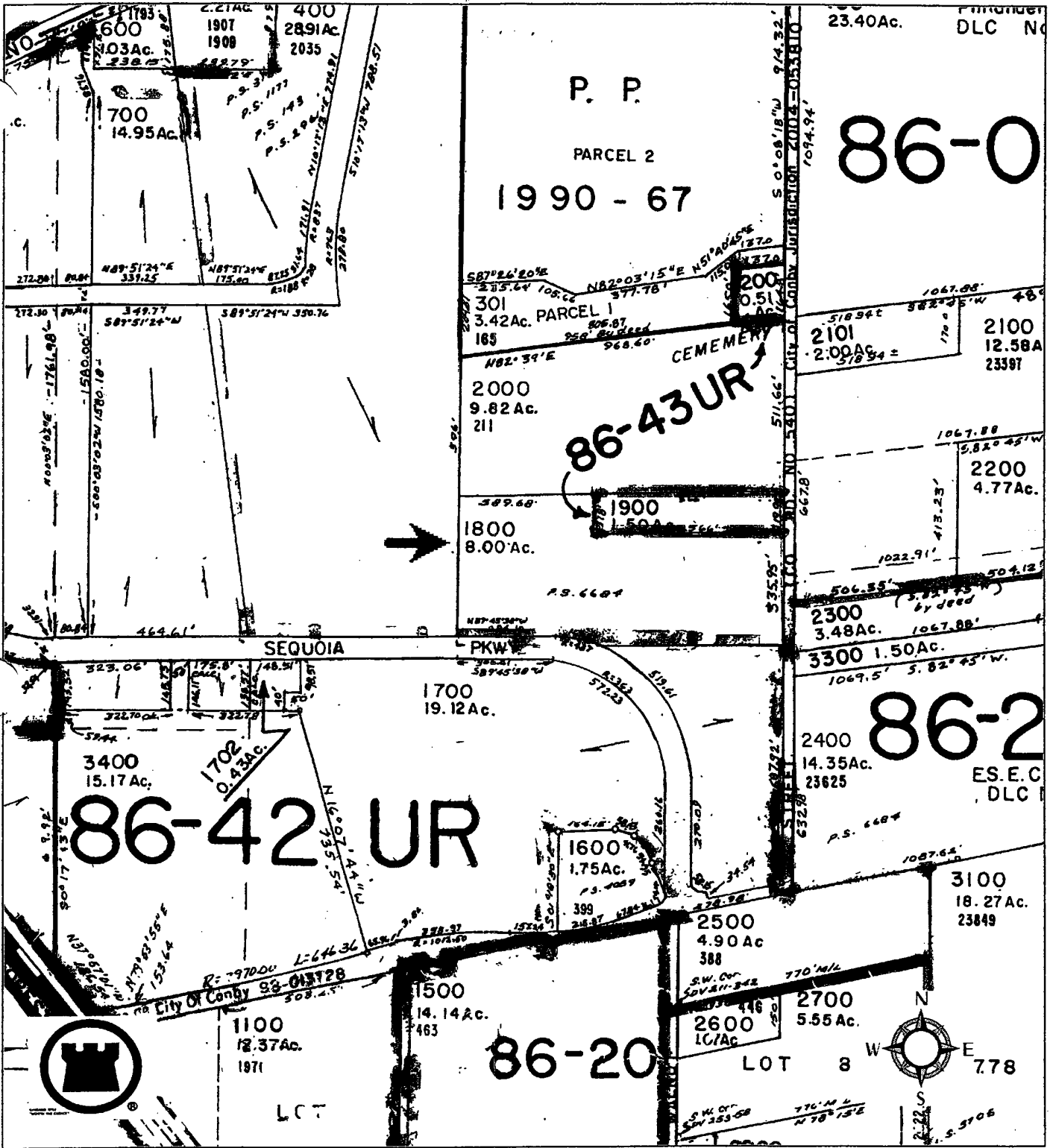
Where can I send my comments? Written may be mailed to the Canby Planning Department, P O Box 930, Canby, OR 97013; delivered in person to 222 NE 2nd Ave; or emailed to PublicComments@canbyoregon.gov.

How can I review the documents and staff report? Weekdays from 8 AM to 5 PM at the Canby Planning Department. The staff report will be available for inspection starting Friday, November 30, 2018, and can be viewed on the City’s website: www.canbyoregon.gov. Copies are available at \$0.25 per page or can be emailed to you upon request.

Applicable Canby Municipal Code Chapters:

- 16.08 General Provisions
- 16.10 Off Street Parking
- 16.32 M-1 Light Industrial Zone
- 16.35 I-O Canby Industrial Overlay Zone
- 16.42 Signs
- 16.43 Outdoor Lighting Standards
- 16.46 Access Limitations on Project Density
- 16.49 Site & Design Review
- 16.89 Application & Review Procedures

Please Note: Failure of an issue to be raised in a 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 board based on that issue.



CHICAGO TITLE

"This plat is for your aid in locating your land with reference to streets and other parcels.

While this plat is believed to be correct, the company assumes no liability for any loss occurring by reason of reliance thereon."

Map No. 31E34 01800
 CHICAGO TITLE INSURANCE COMPANY
 10135 S.E. SUNNYSIDE ROAD Suite 200
 CLACKAMAS, OREGON 97015



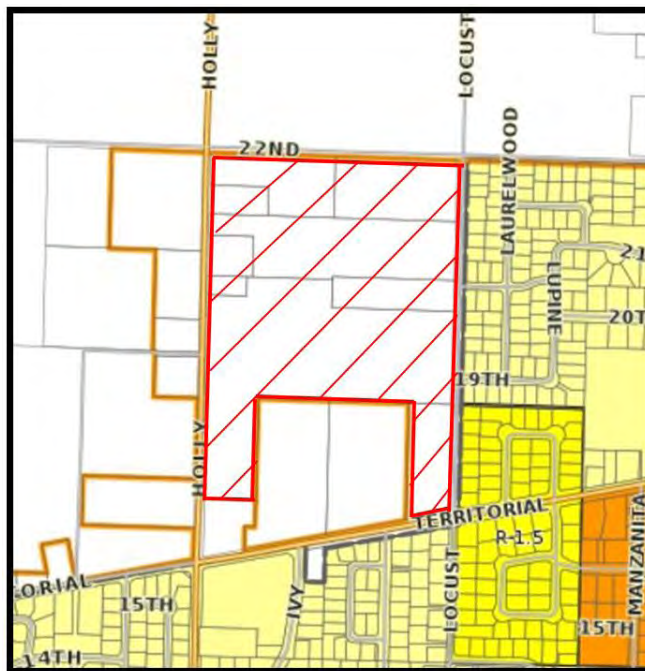
City of Canby

ANNEXATION AND ZONE CHANGE STAFF REPORT

FILE #: ANN 18-05/ZC 18-06

Prepared for the December 10, 2018 Planning Commission Meeting

LOCATION: The properties are situated on the east side of N. Holly Street and extend east to border on N. Locust Street and north to NE 22nd Avenue and south to the corner of N. Locust Street and NE Territorial Road and addressed as 1882, 2030, 2058, and 2146 N. Holly Street, 2041 N. Locust Street, and 102 NE Territorial Road. The subject area is located at the northern border of the City of Canby Urban Growth Boundary (UGB).



ANNEXATION PROPERTY SIZE: The site is 43.79 gross acres, and 41.5 net acres (net acres are the subject property minus N. Holly Street, NE Territorial Road, N. Locust Street, and NE 22nd Avenue R.O.W.).

TAX LOTS: Tax Lots 31E28C00400, 31E28C00500, 31E28C00601, 31E28C00600, 31E28C00700, 31E28C00800, 31E28C00100, 31E28C00200, and 31E28C00401

COMPREHENSIVE PLAN DESIGNATION: Low Density Residential (LDR)

CURRENT ZONING DESIGNATION: Clackamas County: Rural Residential Farm Forest-5 (RRFF-5)

PROPOSED ZONING: Low Density Residential (R-1)

OWNER: Thomas Dodds, Montecucco Rentals, LLC, Susan Burkert, David and Susan Gordon, Hemmerling Nursery, LLC, City of Canby

APPLICANT: STAFFORD DEVELOPMENT COMPANY

APPLICATION TYPE: Annexation/Zone Change (Type IV)

CITY FILE NUMBER: ANN 18-05/ZC 18-06

I. PROJECT OVERVIEW & EXISTING CONDITIONS

The property owners of nine parcels of land located in the northern portion of the City of Canby's Urban Growth Boundary (UGB) propose annexation into the city limits. The property owners also proposes a zone change application to change the current zoning from the Clackamas County RRF5-5 (Rural Residential Farm Forest-5) designation to City of Canby's R-1 (Low Density Residential Zone). The subject parcels are contiguous properties, and include parcels that are within the N. Holly Development Concept Plan. The subject parcels surround two tax lots on three sides that are not within the City UGB and also a tax lot fronting on NE Territorial Road that is not included in the annexation. The properties are currently in open space, residential, and agriculture use.

The City of Canby's annexation ordinance requires a Concept Development Plan for properties that are a part of an annexation request when located in a Development Concept Area as indicated on the City of Canby Annex Development Map. The N. Holly Development Concept Plan (NHDCP) for properties in the area was developed by Stafford Land Development with input from the property owners within the NHDCP. However, the plan has yet to be adopted by the Canby City Council and must be adopted in conjunction with approval to annex any properties within the DCP area. The DCP and attachments are included in this file.

The existing annexation area is located within the City of Canby's Urban Growth Boundary. The City of Canby Comprehensive Plan has envisioned the ultimate urbanization of this area and its intended land use, and the Comprehensive Plan Map for these particular lots indicates a Low Density Residential use. The designation correspond to the zone changes requested by the applicants. The area is currently within Clackamas County's jurisdiction and is presently zoned as RRF5-5. This zone change is to rezone the properties involved to the City zoning of R-1 zone in accordance with the corresponding City Comprehensive Plan Map land use designation. The zone designation will take effect when the properties are annexed as indicated in this application.

The applicant also requests approval of the N. Holly Development Concept Plan (NHDCP) that is intended to address City of Canby infrastructure requirements for this portion of the northern Canby area. The request is to annex 43.79 acres of the 58.79 acre DCP area. The NHDCP is not a specific development proposal, but a design concept that provides an understanding and framework of how the properties should be developed prior to annexation into the City.

II. ATTACHMENTS

- A.** Application Forms
- B.** Submitted Written Narrative and materials
- C.** Needs Analysis
- D.** Neighborhood Meeting Notes/Attendance List/Notification Letter
- E.** Pre-Annexation application Meeting Minutes
- F.** Consent to Annexation Petition
- G.** Survey of Property to Be Annexed and Legal Description of Private Property and adjacent N. Holly St., N. Locust St., NE 22nd Ave., and NE Territorial Rd. Right-of-Way to be annexed
- H.** Tax Lot Ownership Survey
- I.** Maps: Aerial Vicinity Map, Assessor Map, Canby Comprehensive Plan Map, Proposed

- Annexation Area Map
- J. Development Concept Plan Submittal Packet
- K. Traffic Analysis - By Lancaster Engineering/Peer Review By DKS Associates – revised TA to be submitted prior to PC Hearing
- L. Agency/Citizen Comments

III. APPLICABLE REVIEW CRITERIA & FINDINGS

Major approval criteria used in evaluating this application include the following Chapters from the *City of Canby’s Municipal Code including the Land Development and Planning Ordinance* (Title 16):

- 16-08 General Provisions
- 16.54 Amendments to Zoning Map
- 16.84 Annexations
- 16.89 Application and Review Procedures
- 16.16 R-1 Low Density Residential Zone

City of Canby Comprehensive Plan Policies and Implementation Measures
Clackamas County/City of Canby Urban Growth Management Agreement (UGMA)
State Statutes- ORS 195.065 and 222

Chapter 16.08 General Provisions

16.08.070 Illegally Created Lots

In no case shall a lot which has been created in violation of state statute or city ordinance be considered as a lot of record for development purposes, until such violation has been legally remedied. (Ord. 740 section 10.3.05(G), 1984)

Findings: The subject parcels were apparently reconfigured at different times from the original Pruneland Subdivision recorded on July 3, 1930. Property identified as Tax Lot 100 was created by recorded survey on June 28, 1956 (1918), Tax Lot 200 is shown in its current configuration on a survey filed in 1954(PS 1263), Tax Lot 400 is delineated on a survey dated February 26, 1999 but appears to be a residual parcel resulting from division of surrounding parcels, Tax Lot 401 is configured by a survey dated June, 1964 (PS 5050), Tax Lot 500 was created in its current configuration by Clackamas County Planning File#ZO543-04-PLA, Tax Lot 700 and 800 were created by a survey filed in 1961, there is no information available that establishes that Tax Lot 601 was legally separated from Tax Lot 600. However, the two tax lots are under the same ownership and one of the tax lots could have been created for tax purposes only which leaves the two tax lots as a single parcel. Based on available information, all the tax lots, with the exception of Tax Lot 601 were created prior to September 1976 when Oregon State Statues required all land divisions go through a land use process. Tax Lot 601 cannot be considered a separate parcel at this time, but because Tax Lot 600 and 601 are under the same ownership, they can be combined at any time and do not effect this annexation application.

16.08.150 Traffic Impact Study (TIS)

- A. *Determination based on information provided by the applicant about the proposed development, the city will determine when a TIS is required and will consider the following when making that determination.*
1. *Changes in land use designation, zoning designation, or development standard.*
 2. *Changes in use or intensity of use.*
 3. *Projected increase in trip generation.*
 4. *Potential impacts to residential areas and local streets.*
 5. *Potential impacts to priority pedestrian and bicycle routes, including, but not limited to school routes and multimodal street improvements identified in the TSP.*
 6. *Potential impacts to intersection level of service (LOS).*

Findings: The Transportation Planning Rule within State Statute (OAR 660-12-0060-9) requires that there be a record of traffic generation findings which are consistent with the City's Transportation System Plan with any Comprehensive Plan Map Amendment or Zoning Map Amendment. The applicant engaged Lancaster Engineering to provide a Transportation Impact Study (TIS), subject the City's and our consulting engineer (DKS) scope of work. The TIS was reviewed by DKS Engineering, and as a result of the review, DKS determined that some aspects of the study's scope of work were missing. The applicant is in the process of providing a revised TIS that will meet the scoping requirements. The TIS is included as a section of the NHDCP that confirmed the proposed annexation met provisions of the TPR. Additionally, a Traffic Analysis was incorporated into the NHDCP to discuss any future traffic impacts when development occurred with future zone change proposals. The findings of the analysis determined that the zone change contemplated and the resulting traffic was assumed for trip modeling in the 2010 Canby Transportation System Plan, if developed as allowed, and therefore, the Transportation Planning Rule requirements are met. The zone change from the proposed annexation would not have a significant effect on the surrounding transportation network, and no mitigation measures would be required to satisfy TPR requirements. This review criterion can be met if the applicant fulfills all provisions of the TIS for the DCP area, such as a left turn bay on Territorial Road at the intersection with N. Locust Street.

Chapter 16.84 Annexation Compliance

16.84.040 (A)(1)(b) Annexation Development Map.

A. The following criteria shall apply to all annexation requests.

1. *The City of Canby Annexation Development Map shall determine which properties are required to submit either (See Figure 16.84.040):*
 - a. *A Development Agreement (DA) binding for all properties located within the boundaries of a designated DA area as shown on the City of Canby Annexation Development Map. The terms of the Development Agreement may include, but are not limited to:*
 1. *Timing of the submittal of an application for zoning*
 2. *Dedication of land for future public facilities including park and open space land*
 3. *Construction of public improvements*

4. Waiver of compensation claims
5. Waiver of nexus or rough proportionality objections to future exactions
6. Other commitments deemed valuable to the City of Canby

For newly annexed properties that are within the boundaries of a DA area as designated on the City of Canby Annexation Development Map: A Development Agreement shall be recorded as a covenant running with the land, binding on the landowner's successors in interest prior to the City Council granting a change in zoning classification.

b. A Development Concept Plan (DCP) binding for all properties located within the boundaries of a designated DCP area as shown on the City of Canby Annexation Development Map. A Development Concept Plan shall address City of Canby infrastructure requirements including:

1. Water
2. Sewer
3. Storm water
4. Access
5. Internal Circulation
6. Street Standards
7. Fire Department requirements
8. Parks and open space

For newly annexed properties that are within the boundaries of a DCP area as designated on the City of Canby Annexation Development Map: A Development Concept Plan shall be adopted by the Canby City Council prior to granting a change in zoning classification. (Ord. 1294, 2008)

Findings: A copy of the N. Holly Development Concept Plan (NHDCP) is included in the file. The NHDCP provided an extensive packet of information to address City of Canby future infrastructure requirements for the area, and engineering level work has gone into planning for how the concept plan defined area would best be developed and served by all necessary infrastructure.

A traffic analysis of the entire subject area was incorporated into the plan to address traffic impacts associated with anticipated full development of the properties in accordance with the applicable zoning designation. Lancaster Engineering provided a TIS, dated September 13, 2018 that summarized how the requirements of Oregon Administrative Rule (OAR) 660-012-0060, the Transportation Planning Rule (TPR), are met for the subject properties as well as the NHDCP area. The surrounding roadways and intersections were found to have sufficient capacity to accommodate the proposed annexation, zone change, and for the development concept plan. The Transportation Planning Rule requirements of State Statute were determined to have been met as documented in the TIS.

All necessary utility services are generally available or can be made available through service line extensions to the annexation area. The Concept Plan maps, along with the Concept Plan & Infrastructure narrative, indicate the options for necessary infrastructure to serve this area. Stormwater was discussed in the NHDCP, and stormwater management for

street runoff will be handled with the installation of new public underground injection wells and the associated catch basins and pollution control manholes for water quality treatment. Private property runoff will be handled on-site with infiltration facilities on each lot within the individual yard areas.

The City as not indicated a necessity for an addition park in the NHDCP because tax lot 200 is designated for a City park and is included in the annexation area. The applicant is aware that parks SDC charges will be collected during the building permit process. This criterion can be met.

***Criteria 16.84.040(A)(2)** Analysis of the need for additional property within the city limits shall be provided. The analysis shall include the amount of developable land (within the same class of zoning – low density residential, light industrial, etc.) Currently within the city limits; the approximate rate of development of those lands; and how the proposed annexation will affect the supply of developable land within the city limits. A supply of developable residential land to provide for the anticipated population growth over the following three years is considered to be sufficient.*

Findings: A land needs analysis is required with all annexations to assess the current amount of developable land within the same zone designation of that requested in the application. A 3-year supply of developable R-1 and R-1.5 zoned land is to be considered sufficient. The City Council previously provided a defined policy direction to staff that stated, analysis of actual number of platted lots based on a reasonable assessment of expected consumption rate moving forward, is the appropriate metric to utilize in determining the adequacy of the developable land supply. The applicant included in the file an analysis indicating the deficiency of Canby's 3-year supply of developable land based on population data and existing available platted lots. The study determined that currently 84 available lots in subdivisions and 7 lots in platted partitions for a total of 91 platted lots in the R-1 and R-1.5 zone that remain as inventory within the city limits. Of the ninety-one lots only 17 are within the R-1 zone. The city has had an average absorption rate of nearly 45 lots per year for the last 10 years. The information stated that, based on a three year average, a total of 342 single-family platted lots are needed through 2021 with 91 currently available which leaves a deficiency of 251 lots. This indicates the supply of readily available platted lots with all necessary infrastructures is below a three-year supply. The applicant also provided an additional analysis that included subdivisions that are preliminarily approved and have yet to record platted lots and a projected absorption rate. If annexed, this property would add to the buildable land supply. It will likely take 2 to 3 years for this land to be fully platted and the lots made available. Staff concludes that information indicates this criterion is met.

Staff would like to add that under Oregon Administrative Rule Chapter 660-024-0040, Land Need, the UGB is based on a 20-year land need and a 20-year population forecast. The 3-year supply introduced into the CMC above "is considered to be sufficient" within the City limits and indicates a minimum number of available lots for the land supply and not a maximum number. It appears that a "sufficient" number of lots does not necessarily intend to establish that the number of lots cannot exceed the 3-year supply if the need increases when a strong housing demand exists. Staff also submits that, based on the increasing number of applications for new dwellings, the consumption rate is possibly approaching a 100% consumption rate average as new homes are constructed and occupied by new home

owners. The quick sale and occupancy of new homes continues to rapidly reduce the number of available lots

Criteria 16.84.040 (A)(3) *Statement of potential physical, aesthetic and related social effects of the proposed development on the community as a whole and on the neighborhood of which it will become a part; and proposed actions to mitigate identified concerns, if any. A neighborhood meeting is required as per Table 16.89.020 of the City of Canby Land Development and Planning Ordinance.*

Findings: Future development is anticipated to develop the site at a higher net density per acre. However, potential traffic generation has been shown to be within the capabilities of the surrounding road system with no mitigation necessary. The addition of a future neighborhood park located within the NHDCP will add to the social and aesthetic effects of development on the subject properties and the future development of the neighborhood livability. Staff does not foresee any significant impacts from the proposal that are not common to growth inside the UGB or need to mitigate any identified concerns. Staff agrees the annexation and future development of the subject parcels is consistent with development indicated by the Development Concept Plan and appropriate in this area of Canby. This criterion is satisfied.

Criteria 16.84.040 (A)(4) *Statement of availability, capacity and status of existing water, sewer, drainage, transportation, park and school facilities*

Findings: The N. Holly Development Concept Plan provides maps that demonstrate how utility infrastructure will be made available, and unmanageable capacity issues were not identified by City departments and agencies during the NHDCP review process. The proposed public park will be beneficial in serving this area of Canby. It appears that there are significant tree resources available for the park area and the conceptual plan provides easy direct access from the subject properties to future park facilities. It appears that public schools are within a reasonable proximity to the concept area. This criterion can be met at the time of development.

Criteria 16.84.040 (A)(5) *Statement of increased demand for such facilities to be generated by the proposed development, if any, at this time*

Findings: Staff finds that the information contained in the NHDCP infrastructure section is sufficient, and the applicable criteria can be met.

Criteria 16.84.040 (A)(6) *Statement of additional facilities, if any, required to meet the increased demand and any proposed phasing of such facilities in accordance with projected demand.*

Findings: This staff report incorporates the infrastructure sections of the NHDCP as findings. All necessary utility extensions are available to serve this area when development occurs after annexation. The infrastructure section of the NHDCP indicates that connections to existing facilities are available and preferred depending on the development project. Staff finds that with appropriate conditions of approval, the NHDCP information is sufficient and this criterion is or can be met.

Criteria 16.84.040 (A)(7) *Statement outlining method and source of financing required to provide additional facilities, if any.*

Findings: The applicant will pay the necessary costs of their own development. Information in the NHDCP indicated that most infrastructure facilities in the north Canby area are expected to be built by individual developers. The exception is any proposed park facilities that will be funded with City capital improvements project funds from SDC fees. Staff finds that information in the NHDCP is sufficient for this case, and the applicable criteria can be met.

Criteria 16.84.040 (A)(8) *Statement indicating the type and nature of any comprehensive plan text or map amendments or zoning text or map amendments that may be required to complete the proposed development.*

Findings: The applicant intends to follow the low density residential zoning designation of the Comprehensive Plan. The only change is a zoning map amendment to change the zone from RRF-5 to R-1 and the Zone Map Change Application that accompanies this annexation request will satisfy the Development Concept Plan designations. Staff finds that the criterion in **16.84.040(A)(8)** can be met.

Criteria 16.84.040 (A)(9) *Compliance with other applicable city ordinances or policies*

Findings: Based on available information, staff concludes that the proposal complies with all other city ordinances and policies.

Criteria 16.84.040 (A)(10) *Compliance of the application with the applicable sections of Oregon Revised Statutes Chapter 222*

Findings: Oregon Revised Statutes (ORS) Chapter 222 provides regulation of city boundary changes and other development requirements. Staff concludes that this proposal complies with all applicable provisions in the Oregon Revised Statutes. The applicable criteria can be met.

Chapter 16.54 Amendments to the Zoning Map Analysis

The assignment of an appropriate zoning district is a part of any annexation application within the City of Canby. The approval criteria are similar to that for approval of an annexation.

16.54.010, 0.20, 0.30 Amendments to the Zoning Map

Findings: 16.54.010 – Authorization to initiate amendments: **The property owners have authorized initiation of the proposed annexation and map amendment by signing an application form and Consent to Annex Form. This criterion has been met.**

16.54.020 – Application and Fee: **The map amendment application and associated fee were received from the applicant. This criterion has been met.**

16.54.030 – Public Hearing on Amendment: **This criterion will be met when the Planning Commission holds a public hearing and makes a recommendation to the City Council and when the City Council conducts its own hearing and issues a decision.**

16.54.040 Standards and criteria

In judging whether or not the zoning map should be amended or changed, the Planning Commission and City Council shall consider:

A. *The Comprehensive Plan of the city, giving special attention to Policy 6 of the land use element and implementation measures therefore, and the plans and policies of the county, state and local districts in order to preserve functions and local aspects of land conservation and development;*

Findings: The subject properties and the NHDCP are not identified as being in an “Area of Special Concern” that is delineated in Policy 6 of the Comprehensive Plan. Additionally, the proposed zone for the properties is consistent with the land use designation on the Comprehensive Plan Map. Staff concludes that the request meets provisions in Policy 6 and applicable elements of the Comprehensive Plan.

B. *Whether all required public facilities and services exist or will be provided concurrent with development to adequately meet the needs of any use or development which would be permitted by the new zoning designation. (Ord. 749 section 1(B), 1984; Ord.740 section 10.3.85(D), 1984)*

Findings: Problems or issues in the extension of utility services have not been raised by City service providers that would prevent services at the time of development. It appears that future development of the properties can meet standards for adequate public facilities.

Chapter 16.89.060 Process Compliance

16.89.060 Type IV Decision

For certain applications, the City Council makes a final decision after a recommendation by the Planning Commission. These application types are referred to as Type IV decisions.

- A. Pre-application conference.** A pre-application conference may be required by the Planning Director for Type IV applications.
- B. Neighborhood meetings.** The applicant may be required to present their development proposal at a neighborhood meeting (see Section 16.89.070). Table 16.89.020 sets the minimum guidelines for neighborhood review but the Planning Director may require other applications to go through neighborhood review as well.
- C. Application requirements.** Type IV applications shall be made on forms provided by the Planning Director. The application shall be accompanied by all required information and fees.
- D. Public notice and hearings.** The public notice and hearings process for the Planning Commission’s review of Type IV applications shall follow that for Type III applications, as provided in subsections 16.89.050.D and 16.89.050.E.
- E. Decision process.**
 - 1.** Approval or denial of a Type IV decision shall be based on the standards and criteria located in the code.
 - 2.** The hearings body shall issue a final written order containing findings and conclusions recommending that the City Council approve, approve with conditions, or deny the application.

3. The written decision shall explain the relevant criteria and standards, state the facts relied upon in rendering the decision, and justify the decision according to the criteria, standards, and facts.
4. In cases involving attorneys, the prevailing attorney shall prepare the findings, conclusions, and final order. Staff shall review and, if necessary, revise, these materials prior to submittal to the hearings body.

F. City Council proceedings:

1. Upon receipt of the record of the Planning Commission proceedings, and the recommendation of the Commission, the City Council shall conduct a review of that record and shall vote to approve, approve with conditions, or deny the recommendation of the Planning Commission.
2. The City Council may question those individuals who were a party to the public hearing conducted by the Planning Commission if the Commission's record appears to be lacking sufficient information to allow for a decision by the Council. The Council shall hear arguments based solely on the record of the Commission.
3. The City Council may choose to conduct public hearings on Comprehensive Plan amendments, amendments to the text of this title, zone map amendments, and annexations. If the Council elects to conduct such hearings, it may do so in joint session with the Planning Commission or after receiving the written record of the Commission. (Ord. 1080, 2001)

Findings: Annexations are processed as a Type IV “quasi-judicial” process which is considered through a public hearing at the Planning Commission that forwards a recommendation to the City Council. The City Council also holds a public hearing and issues a final decision. The notice requirements are the same as for Type III applications.

In this particular case, the annexation request will not be scheduled for a public vote. On March 15, 2016, the Governor signed Senate Bill SB1573 that mandates some properties, meeting certain criteria, to file for annexation without going through a public vote process that might otherwise currently be in effect through local City Charter provisions and adopted code. This application meets the criteria stated in SB1573, and a public vote will not be held for this annexation application.

Notice of this application and the Planning Commission and Council Hearing dates was made to surrounding property owners on November 14, 2018, at least 20-days prior to the hearing. Prior notification and neighborhood meetings were completed during the N. Holly Development Concept Plan process. The site was posted with a Public Hearing Notice sign by November 30, 2018. A notice meeting ordinance requirements of the public hearings was published in the Canby Herald on December 5, 2018. A pre-application meeting was held July 18, 2018. These findings indicate that all processing requirements have been satisfied with this application to date.

Public/Agency Testimony Received

Notice of this application and opportunity to provide comment was mailed to owners of lots within 500 feet of the subject properties and to all applicable public agencies and City

departments on November 14, 2018. Complete comments are documented in the file. As of the date of this Staff Report, the following comments were received by City of Canby from the following persons/agencies:

The City Engineer stated that requested conditions in a memo dated November 20, 2018.

Staff received comments from two nearby property owners that are included in the file.

Conclusion Regarding Consistency with the Standards of the Canby Municipal Code

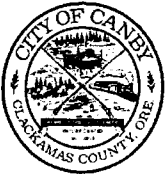
Staff concludes, as detailed in the submittal from the applicant and as indicated in this staff report, including all attachments hereto, that:

1. The applications and proposed use is in conformance with applicable sections of the City's Comprehensive Plan and Land Development and Planning Ordinance when the determinations contained in this staff report are applied.
2. The N. Holly Development Concept Plan and explanatory narrative has been submitted for adoption detailing how all necessary infrastructures will serve the area as required by the annexation ordinance.
3. The proposed annexation can meet the approval criteria set forth in CMC 16.84.040(A).
4. The zoning of the property, if annexed, should be R-1 as indicated in the application and pursuant to the approval criteria set forth for map amendments in CMC 16.54.040.
5. The proposed annexation's requested zoning district of R-1 is in conformance with the Comprehensive Plan Land Use Plan Map.
6. The application complies with all applicable Oregon Revised Statutes.
7. There are sufficient public and private agency utility and service capacity to serve the site at the anticipated development intensity.
8. In accordance with the UGMA with Clackamas County, this proposed annexation application will include a description of a half-width of adjacent NE Territorial Road, N. Locust Street, N. Holly Street and NE 22nd Avenue right-of-ways with the properties proposed for annexation.
9. It has been determined that existing land available is below a three-year supply of developed R-1 zoned lots within the City limits. Therefore, the supply does not exceed a three-year supply and there is a "need" for low density residential zoned land for development at this time and will maintain an adequate 3 year supply.

16.89 Recommendation

Based on the application submitted and the facts, findings and conclusions of this report, but without benefit of a public hearing, staff recommends that the Planning Commission recommend to the City Council that:

1. ANN 18-05/ZC 18-06 be approved and,
2. Upon annexation, the zoning of the subject properties shall be designated as R-1 as indicated by the N. Holly Development Concept Plan Map and the Canby Comprehensive Plan Map.



City of Canby
 Planning Department
 222 NE 2nd Avenue
 PO Box 930
 Canby, OR 97013
 (503) 266-7001

LAND USE APPLICATION

ANNEXATION Process Type IV

APPLICANT INFORMATION: (Check ONE box below for designated contact person regarding this application)

Applicant Name: Stafford Development Company Phone: 503-305-7647
 Address: 485 S State St Email: _____
 City/State: Lake Oswego, OR Zip: 97034

Representative Name: Levi Levasa Phone: 503-250-3651
 Address: 485 S State St Email: levi@staffordlandcompany.com
 City/State: Lake Oswego, OR Zip: 97034

Property Owner Name: Thomas Dodds Phone: _____
 Signature: _____
 Address: 2030 N Holly St Email: _____
 City/State: Canby, OR Zip: 97013

Property Owner Name: Stafford Development Company Phone: 503-305-7647
 Signature: _____
 Address: 485 S State St Email: levi@staffordlandcompany.com
 City/State: Canby, OR Zip: 97013

NOTE: Property owners or contract purchasers are required to authorize the filing of this application and must sign above

- 1 All property owners represent they have full legal capacity to and hereby do authorize the filing of this application and certify that the information and exhibits herewith submitted are true and correct.
- 2 All property owners understand that they must meet all applicable Canby Municipal Code (CMC) regulations.
- 3 All property owners hereby grant consent to the City of Canby and its officers, agents, employees, and/or independent contractors to enter the property identified herein to conduct any and all inspections that are considered appropriate by the City to process this application.

PROPERTY & PROJECT INFORMATION:

<u>1882 N Holly St. & Others</u>	<u>43.79 acres</u>	<u>31E28C00400 & Others</u>
Street Address or Location of Subject Property	Total Size of Property	Assessor Tax Lot Numbers
<u>Agricultural</u>	<u>RRFF-5</u>	<u>LDR</u>
Existing Use, Structures, Other Improvements on Site	Zoning	Comp Plan Designation

Annexation is proposed. Future residential uses will be proposed in a separate application

Describe the Proposed Development or Use of Subject Property

STAFF USE ONLY				
<u>4NN18-05</u>	<u>10/18/18</u>	<u>[Signature]</u>	<u>#1739</u>	
FILE #	DATE RECEIVED	RECEIVED BY	RECEIPT #	DATE APP COMPLETE

2C 18-06



City of Canby
 Planning Department
 222 NE 2nd Avenue
 PO Box 930
 Canby, OR 97013
 (503) 266-7001

LAND USE APPLICATION

Zone Map Change Application

APPLICANT INFORMATION: (Check ONE box below for designated contact person regarding this application)

Applicant Name: Stafford Development Company Phone: 503-305-7647
 Address: 485 S State St Email: _____
 City/State: Lake Oswego, OR Zip: 97034

Representative Name: Levi Levasa Phone: 503-250-3651
 Address: 485 S State St Email: levi@staffordlandcompany.com
 City/State: Lake Oswego, OR Zip: 97034

Property Owner Name(s)*: Thomas Dodds Phone: _____
 Signature: _____
 Address: 2030 N Holly St Email: _____
 City/State: Canby, OR Zip: 97013

NOTE: Property owners or contract purchasers are required to authorize the filing of this application and must sign above

* All property owners represent they have full legal capacity to and hereby do authorize the filing of this application and certify that the information and exhibits herewith submitted are true and correct.

PROPERTY & PROJECT INFORMATION:

<u>1820 N Holly St. & Others</u>	<u>43.79</u>	<u>31E28C00400 & Others</u>
Street Address or Location of Subject Property	Total Size of Property	Assessor Tax Lot Numbers
<u>Agricultural</u>	<u>RRFF-5</u>	<u>LDR</u>
Existing Use, Structures, Other Improvements on Site	Zoning	Comp Plan Designation

Brief description of proposed development or use
Zone Change in conjunction with Annexation to change the zone from County to City
zoning consistent with the Comprehensive Plan Map which will be R-1 and Park land on
this property. See attached Narrative and Exhibits.

STAFF USE ONLY				
<u>2018-06</u>	<u>10/18/18</u>	<u>JH</u>	<u>#1739</u>	
FILE #	DATE RECEIVED	RECEIVED BY	RECEIPT #	DATE APP COMPLETE

ANN 18-05
 Visit our website at: www.canbyoregon.gov
 Email Application to: PlanningApps@canbyoregon.gov

HOLLY ANNEXATION & ZONING MAP AMENDMENT APPLICATION

Submitted: October 18, 2018



APPLICANT:

Stafford Development Company, LLC
485 S State Street, Lake Oswego, OR 97034
Levi Levasa, Project Manager
levi@staffordlandcompany.com
(971) 206-8614

CONSULTANT:

Planning & Land Design, LLC
1862 NE Estate Drive, Hillsboro, OR 97214
Ryan O'Brien, Planner
ryanobrien1@frontier.com
(503) 780-4061

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LIST OF EXHIBITS

- Exhibit 1: Vicinity Map
- Exhibit 2: Canby Annexation Development Map
- Exhibit 3: Annexation, Zone Change & Ownership Map
- Exhibit 4: Holly DCP Plan Set
 - Exhibit 4.1: Site Aerial
 - Exhibit 4.2: Perspective Aerial
 - Exhibit 4.3: Ownership, Acreage & Future Zoning
 - Exhibit 4.4: Existing Conditions and Topography
 - Exhibit 4.5: Street Pattern Master Plan
 - Exhibit 4.6: Street Pattern with Aerial Overlay
 - Exhibit 4.7: Sanitary Sewer Master Plan
 - Exhibit 4.8: Water Line Master Plan
- Exhibit 5: Pre-Application Meeting Materials
 - Exhibit 5.1: Pre-Application Meeting Minutes
 - Exhibit 5.2: Pre-Application Submittal Narrative
 - Exhibit 5.3: Pre-Application Submittal Exhibits
- Exhibit 6: Neighborhood Meeting Materials
 - Exhibit 6.1: Neighborhood Meeting Minutes
 - Exhibit 6.2: Neighborhood Meeting Invite Letter
 - Exhibit 6.3: Neighborhood Meeting Exhibits
 - Exhibit 6.4: Neighborhood Meeting Attendance Roster
 - Exhibit 6.5: Mailing Labels
 - Exhibit 6.6: Notification Area Map
 - Exhibit 6.7: Neighborhood Association Map
- Exhibit 7: DCP Owner Meeting Materials
 - Exhibit 7.1: Owner Meeting Invite Letter
 - Exhibit 7.2: Owner Meeting Attendance Roster
- Exhibit 8: Needs Analysis
- Exhibit 9: City Planning Maps
 - Exhibit 9.1: Canby Comprehensive Plan Map
 - Exhibit 9.2: Canby Zoning Map
- Exhibit 10: Legal Description & Map
- Exhibit 11: Holly DCP Traffic Impact Study
- Exhibit 12: Owner Consent Forms

ANNEXATION & ZONING MAP AMENDMENT NARRATIVE

I. Introduction

The purpose of this application is to request approval for the Annexation of the subject properties and relevant adjacent rights-of-way from unincorporated Clackamas County into the City of Canby and apply local zoning designations, consistent with the Comprehensive Plan, through the process of a Zoning Map Amendment.

TABLE 1: SUBJECT PROPERTIES (Excluding R-O-W)

Property Owner	APN	Tax Map	Tax Lot	Acres	Current Zoning	Comp Plan Designation	Proposed Zoning
Dodds	0776262	3S 1E 28C	00400	19.32	RRFF-5	LDR	R-1
Dodds	0776280	3S 1E 28C	00500	0.46	RRFF-5	LDR	R-1
Montecucco Rentals, LLC	0776217	3S 1E 28C	00100	4.61	RRFF-5	LDR	R-1
Montecucco Rentals, LLC	0776315	3S 1E 28C	00800	3.67	RRFF-5	LDR	R-1
Burkert	0776299	3S 1E 28C	00600	8.43	RRFF-5	LDR	R-1
Burkert	1374989	3S 1E 28C	00601	1.10	RRFF-5	LDR	R-1
Gordon	0776306	3S 1E 28C	00700	1.03	RRFF-5	LDR	R-1
Hemmerling Nursery, LLC	0776271	3S 1E 28C	00401	2.86	RRFF-5	LDR	R-1
Residential Annexation Area Subtotal				41.48		LDR	R-1
City of Canby	0776226	3S 1E 28C	00200	2.31		Park	Park
TOTAL PROPERTY AREA				43.79			

As seen in the Vicinity Map attached as Exhibit 1, the subject properties are located in the north Canby UGB area. More specifically the properties are located north of NE/NW Territorial Road, south of NE/NW 22nd Avenue, and between N Locust Street and N Holly Street. The properties make up the majority of the Holly Development Concept Plan (DCP) area as identified on the City of Canby Annexation Development Map which is attached as Exhibit 2. The Holly DCP area has been identified as a Priority “A” growth area in the Canby Comprehensive Plan since 1984 (Canby Comp Plan, pg. 32). The Applicant and property owners have determined that annexation of the subject properties is prudent, and some will address the need for low density residential land in the City of Canby as suggested by the evidence presented later in this application. Subject to approval of annexation, the subject properties are proposed to be rezoned from the Clackamas County designation of Rural Residential Farm Forest 5-Acre (RRFF-5) to existing City of Canby zoning designations that are consistent with the Comprehensive Plan as shown in the table above.

As explained in more detail later in this application, the Dodds property could provide an additional 81 new R-1 lots when developed, the Hemmerling Nursery property could provide an additional 15 lots, and the Burkert and Montecucco properties together could provide an additional 81 lots. Altogether the annexation properties could accommodate an eventual 177 units, but only some are anticipated to develop in the next few years.

With the intent to subdivide and develop only the Dodds properties, the Applicant engaged the surrounding property owners in the Holly DCP area to determine who would like to have their property included in this application as is customary in the City of Canby. Although some property owners have decided to defer

annexation, they were involved in the planning efforts to meet the requirements of the DCP. The creation of the Development Concept Plan for this area is a requirement of annexation and is addressed in greater detail in the Holly DCP Narrative later in this application. The following narrative and exhibits are a result of a collaborative effort between the Applicant and property owners included in this annexation and zone change application and/or within the Holly DCP area.

This application will provide explanatory material and address the relevant sections of the Canby Municipal Code (CMC) and the subsequent provisions of the Canby Comprehensive Plan. The relevant sections of these controlling documents will be quoted or summarized throughout the application in *italics* and followed by a **COMMENT** from the Applicant to exemplify the compliance of this application and proposal with the applicable approval criteria. To be concise, text from certain sections and subsections have been omitted as they are either explanatory in nature or not applicable.

II. Site Description

The subject properties are identified in the Annexation, Zone Change & Ownership Map (Exhibit 3) and are located within the Holly DCP area (Exhibit 4.1 and 4.2). The boundary of the annexation properties follows the Urban Growth Boundary (UGB) on the north, N Holly St. to the west, and the existing city limits on the south and east. The annexation area includes nine tax lots that total approximately 43.79 acres. The subject properties are accessed and bounded by NE/NW Territorial Rd., N Holly St., NE/NW 22nd Ave., and N Locust St.; portions of these street rights-of-way will also be included in the annexation, as indicated in the Table 2 below and in Exhibit 3.

TABLE 2: RIGHT-OF-WAY ANNEXATION

Right-of-Way Name	Acres
N Holly Street	0.83
NW Territorial Road	0.18
N Locust Street	0.83
NW 22nd Avenue	0.46
TOTAL R-O-W AREA	2.29

The subject properties are very flat. Existing conditions can be seen in Exhibit 4.4. The subject properties include three single family residences and land used for agricultural purposes. Adjacent properties to the north and west are rural with a few single-family residences surrounded by active farming operations. The subject properties surround two parcels, tax lots 00300 and 00390, that are outside of the UGB and have a County Exclusive Farm Use (EFU) zoning. The properties on the south side of Territorial Rd. and east side of N Locust St are within the City limits and have existing urban subdivisions with Canby R-1 zoning designations.

III. Facilities and Services

Annexation of the subject properties is a reasonable expansion of the City of Canby based on the level of development in the surrounding area and the existing facilities and services that are available to serve the annexation and DCP area. The City of Canby staff indicated at a pre-application meeting that all utility service providers and utilities are available in the DCP area or can be made available through development of the site. Pre-application meeting materials and minutes can be found in Exhibit 5. Public water and sanitary sewer are available to the annexation and DCP area in Territorial Road and Locust Street. A more detailed description of the public, private, and franchise utility services can be found in the Holly DCP Narrative later in this application with additional commentary pertaining to schools, parks, police protection, and fire protection.

IV. Neighborhood Involvement

One of the requirements of submitting for annexation is holding an informative neighborhood meeting. The purpose of the meeting is to inform neighbors of the Applicant's intent to propose an Annexation and a Zoning

Map Amendment along with a Development Concept Plan. The notice/invite letter sent to the neighbors included a draft road layout for the Holly DCP area. The mailing list was prepared by a title company and was based on Clackamas County Assessor's records.

The Applicant held a neighborhood meeting in compliance with the requirements of CMC 16.89.070 on Tuesday, July 31, 2018 at the Canby United Methodist Church. The notice was sent to all property owners and occupants within 500 feet of the Holly DCP area and the representatives of the Riverside and NE Canby Neighborhood Associations a minimum of two weeks prior to the date of the meeting. Approximately 80 people attended, but not everyone signed in. The Applicant gave a presentation and explained the proposed Annexations, Zoning Map Amendment, and Development Concept Plan and answered questions from attendees. Neighborhood meeting materials and a summary of the discussion are included as Exhibit 6. The requirement to host a neighborhood meeting has been satisfied by the Applicant.

In addition to the required neighborhood meeting, the Applicant invited all the property owners within the DCP boundaries to a meeting to have a more focused discussion with those who are most affected by the proposed DCP. The meeting was held on Monday, August 27, 2018 at the Canby United Methodist Church. There were approximately 20 attendees, but not everyone signed in. the DCP owner's meeting materials are attached as Exhibit 7.

V. Approval Criteria

This section will address the applicable standards and criteria for approval of annexation into the City of Canby and a Zoning Map Amendment and the subsequent criteria of the Comprehensive Plan, Urban Growth Management Agreement between Clackamas County and the City of Canby, and the Oregon Revised Statutes. Code sections will be quoted in italic, followed by a comment from the applicant evidencing the compliance of this request and proposal. Text from certain sections of the quoted codes have been omitted because they are explanatory in nature, are not the responsibility of the Applicant, or do not apply to this application.

Canby Municipal Code

ANNEXATION: DIVISION VI. – CHAPTER 16.84 – ANNEXATIONS

16.84.005 Background [omitted]

16.84.010 Purpose [omitted]

16.84.020 State regulations

The regulations and requirements of Oregon Revised Statutes Chapter 222 are adopted by reference and made a part of this division. (Ord. 740 section 10.6.20, 1984)

COMMENT:

The Applicant will meet all state requirements they are responsible for and expects that the City will do the same. This criterion can be met.

16.84.040 Standards and criteria.

A. The following criteria shall apply to all annexation requests.

1. The City of Canby Annexation Development Map shall determine which properties are required to submit either (See Figure 16.84.040):

a. A Development Agreement (DA) binding for all properties located within the boundaries of a designated DA area as shown on the City of Canby Annexation Development Map. The terms of the Development Agreement may include, but are not limited to: [portions of this subsection omitted for brevity]

COMMENT:

The subject properties are not within a Development Agreement area as identified on the City of Canby Annexation Development Map. This criterion is not applicable.

b. A Development Concept Plan (DCP) binding for all properties located within the boundaries of a designated DCP area as shown on the City of Canby Annexation Development Map. A Development Concept Plan shall address City of Canby infrastructure requirements including:

1. Water
2. Sewer
3. Stormwater
4. Access
5. Internal Circulation
6. Street Standards
7. Fire Department requirements
8. Parks and open space

For newly annexed properties that are within the boundaries of a DCP area as designated on the City of Canby Annexation Development Map: A Development Concept Plan shall be adopted by the Canby City Council prior to granting a change in zoning classification. (Ord 1294, 2008)

COMMENT:

The subject properties are part of a Development Concept Plan (DCP) area as identified on the City of Canby Annexation Development Map (Exhibit 2). The Applicant has prepared a DCP for the Holly DCP area and included a narrative and exhibits addressing the infrastructure requirements, including a Traffic Study attached as Exhibit 9. The Holly DCP Narrative begins in the next portion of the application and the Holly DCP Plans are attached as Exhibit 4. A review of the Holly DCP will show that these criteria have been met.

2. Analysis of the need for additional property within the city limits shall be provided. The analysis shall include the amount of developable land (within the same class of zoning - low density residential, light industrial, etc.) Currently within the city limits; the approximate rate of development of those lands; and how the proposed annexation will affect the supply of

developable land within the city limits. A supply of developable residential land to provide for the anticipated population growth over the following three years is considered to be sufficient;

COMMENT:

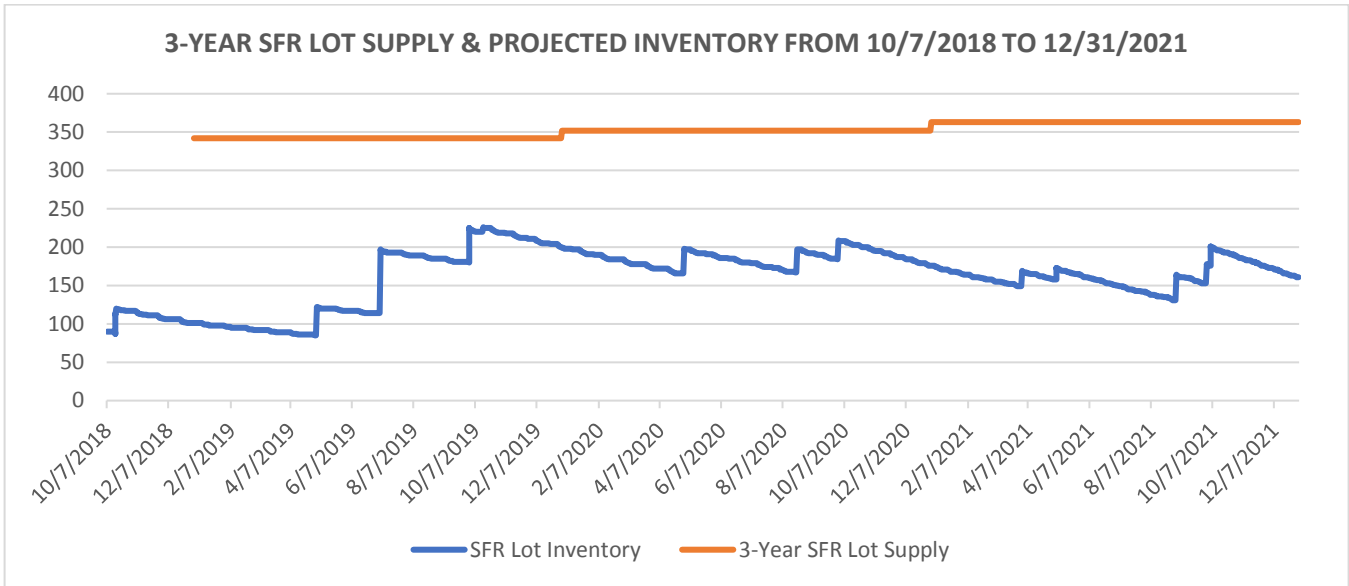
The applicant has reviewed available data as of October 6, 2018 and determined that the City of Canby has an insufficient supply of platted lots in the same class of zoning that would be applied to the subject properties upon Annexation and approval of a Zoning Map Amendment. Based on the detailed Needs Analysis attached as Exhibit 8, the City of Canby has an inventory of 91 SFR platted lots, 84 of which were created through a subdivision and 7 of which were created through a partition, which is insufficient to meet the need for an additional 342 single family detached residences through 2021 as necessitated by the anticipated population growth over the same period. A more detailed analysis of the population growth can be found in Exhibit 8. Table 3 below summarizes the Needs Analysis.

TABLE 8-7: ANALYSIS SUMMARY

Description	Count
SFR Housing Needed Through 2021	342
Available Platted SFR Lots	91
Current Deficiency of SFR Lots	251

Based on the analysis, there is currently a deficiency of 251 SFR platted lots in the City of Canby. Furthermore, only 17 of the available SFR lots are in the R-1 zone which is the class of zoning proposed for the subject properties. This criterion is met.

Annexation of the subject properties will not add to the inventory, but future subdivisions would. The subject properties can accommodate approximately 177 new SFR lots but would not develop simultaneously. The Applicant only has plans to develop approximately 81 new SFR lots on the Dodds properties over time. A more detailed schedule of when these properties might develop and contribute to the needed inventory is discussed in Exhibit 8 with an analysis of the absorption of current and future projects through 2021. The figure below summarizes this analysis and compares the projected lot inventory with the 3-year lot supply needed at any given time.



Based on the analysis in Exhibit 8 and the tables and graph above, the 3-year SFR lot supply will not be eclipsed by future development of the subject properties and other currently approved or future projects. The graph above further exemplifies that the requirements of this section have been satisfied.

3. *Statement of potential physical, aesthetic and related social effects of the proposed development on the community as a whole and on the neighborhood of which it will become a part; and proposed actions to mitigate identified concerns, if any. A neighborhood meeting is required as per Table 16.89.020 of the City of Canby Land Development and Planning Ordinance.*

COMMENT:

The Applicant has identified and recognizes the physical and aesthetic changes that may result from future development of the subject properties. The most significant change will be the obvious shift from rural housing and agricultural uses to urban density housing. While the current agricultural uses provide a benefit of their own outside the Canby city limits, the Applicant believes that eventual development and the associated changes will have an overall positive social and economic effect on the City of Canby by providing an area for growth that can happen in a well-planned and efficient manner regardless of timing. Future development of the properties included in this annexation and in the DCP area will be consistent with the existing character of properties inside the north Canby City Limits. Future development on any of the subject properties will substantially conform to the Holly Development Concept Plan which has been submitted as a part of this application.

It should also be noted that the Applicant only has plans to propose a subdivision for tax lot 400 in a future application. Despite other properties joining the annexation, they may elect to continue agricultural use of the property indefinitely.

The additional needs coincident to any development regarding transportation, park space, and other utility and city services is addressed in detail in other parts of this application and in the Holly DCP Narrative.

The Applicant held a neighborhood meeting in compliance with the requirements of CMC 16.89.070 on Tuesday, July 31, 2018. Additional information about neighborhood involvement is available in Section IV of this application and Exhibits 6 and 7.

The subject properties are within the City of Canby UGB and identified as an area of priority growth in the Comprehensive Plan. As such, the physical, aesthetic and social impacts of annexation and potential future development of the subject properties is consistent with the growth planned for this area.

4. Statement of availability, capacity and status of existing water, sewer, drainage, transportation, park and school facilities;

COMMENT:

The availability of water, sanitary sewer, storm sewer and drainage, transportation, parks, schools, and other necessary facilities is covered in greater detail in the Holly DCP Narrative. In summary, there are no known capacity issues, and the necessary services, utilities, and facilities can be made available to the subject properties and DCP area and will not inhibit future expansion. Plans indicating the location of existing and proposed facilities are included in the DCP Plans in Exhibit 4.

5. Statement of increased demand for such facilities to be generated by the proposed development, if any, at this time;

COMMENT:

Annexation of the subject properties will not increase demand on existing facilities. However, future subdivision of the property will increase the demand on all facilities and services. Increased demand can be met by reasonable extension of facilities and services as there are no capacity issues with the existing facilities. Extension or expansion of such facilities is depicted in the DCP plans.

6. Statement of additional facilities, if any, required to meet the increased demand and any proposed phasing of such facilities in accordance with projected demand;

COMMENT:

Annexation of the subject properties will not require additional facilities. Additional facilities and services will be required to serve the subject properties if and when subdivided in the future. Proposed locations for additions that would serve the entire Holly DCP can be seen on the DCP Plans in Exhibit 4. Sanitary sewer, water service, storm drainage management, and street improvements will be constructed by the developers. These improvements will occur when the site is developed, not with the annexation.

7. Statement outlining method and source of financing required to provide additional facilities, if any;

COMMENT:

Developers will pay for the improvement costs for their own projects.

8. Statement indicating the type and nature of any comprehensive Plan text or map amendments or Zoning text or map amendments that may be required to complete the proposed development. (Ord 1292, 2008)

COMMENT:

No Comprehensive Plan text or map amendment is requested. Subject to annexation approval, the Applicant is proposing a Zoning Map Amendment to rezone the subject properties to Canby zoning designations in accordance with the Comprehensive Plan. The proposed Zoning Map Amendment is addressed later in this application.

9. Compliance with other applicable city ordinances or policies;

COMMENT:

Other official documents that are applicable to the requested annexation include portions of the Comprehensive Plan and the Urban Growth Management Agreement (UGMA) between Clackamas County and the City of Canby. The applicant will comply with the relevant sections of the UGMA and expects that the City will do the same. This criterion can and will be met.

10. Compliance of the application with the applicable sections of Oregon Revised Statutes Chapter 222. (Ord. 740 section 10.6.40, 1984; Ord. 981 section 37, 1997; Ord. 1294, 2008)

COMMENT:

The Applicant will comply with the applicable sections of the Oregon Revised Statutes Chapter 222 that they are responsible for and expects that the City will do the same. This criterion can and will be met.

16.84.050 - 16.84.090

[omitted]

ZONING MAP AMENDMENT: DIVISION III. – CHAPTER 16.54 – AMENDMENTS TO ZONING MAP

16.54.010 Authorization to initiate amendments.

An amendment to the zoning map may be initiated by the City Council, by the Planning Commission, or by application of the property owner or his authorized agent. The Planning Commission shall, within forty days after closing the hearing, recommend to the City Council, approval, disapproval or modification of the proposed amendment. (Ord. 740 section 10.3.45 (A), 1984)

COMMENT:

The Applicant requesting an amendment to the zoning map is an authorized agent of the owners of the subject properties. Property owner consent forms are signed and included as Exhibit 12. This criterion is met.

16.54.020 Application and fee.

Application procedures shall be as described in Chapter 16.89. (Ord. 740 section 10.3.85(B), 1984; Ord. 981 section 7, 1997; Ord. 1019 section 13, 1999; Ord. 1080, 2001)

COMMENT:

The application for an amendment to the zoning map to apply the R-1 zoning designation to the subject properties is submitted to the City as a part of this application along with the required fee. The City will follow the procedures set forth in CMC 16.89. This criterion is satisfied.

16.54.030 Public hearing on amendment

Before taking final action on a proposed amendment, the Planning Commission shall hold a public hearing on the amendment following the requirements for advertising and conduct of hearing prescribed in Division VIII. (Ord. 740 section 10.3.85(C), 1984)

COMMENT:

The Planning Commission will schedule a public hearing once the application is deemed complete. Following the Planning Commission's public hearing and recommendation, the City Council will hold its own public hearing to make a final decision. By holding these public hearings, this criterion will be met.

16.54.040 Standards and criteria.

In judging whether or not the zoning map should be amended or changed, the Planning Commission and City Council shall consider:

- A. The Comprehensive Plan of the city, giving special attention to Policy 6 of the land use element and implementation measures therefore, and the plans and policies of the county, state and local districts in order to preserve functions and local aspects of land conservation and development;*

COMMENT:

This zone change would allow the subject properties to be developed with single family detached houses. Policy 6 is addressed in the Comprehensive Plan section below. Future development of the subject properties is consistent with plans, goals and policies of the city, county, state and local districts. The subject properties

are identified in the Comprehensive Plan as an area of priority growth. The proposed DCP will allow and encourage efficient and compact development in compliance with function and land conservation goals.

- B. *Whether all required public facilities and services exist or will be provided concurrent with development to adequately meet the needs of any use or development which would be permitted by the new zoning designation. (Ord. 749 section 1(B), 1984; Ord.740 section 10.3.85(D), 1984)*

COMMENT:

The Holly DCP demonstrates that all required public facilities and services can be made available to serve the subject properties.

16.54.050 (Ord. 740 section 10.3.85(E), 1984 [omitted]

16.54.060 Improvement conditions.

A. *In acting on an application for a zone change, the Planning Commission may recommend and the City Council may impose conditions to be met by the proponents of the change before the proposed change takes effect. Such conditions shall be limited to improvements or physical changes to the property which are directly related to the health, safety or general welfare of those in the area. Further, such conditions shall be limited to improvements which clearly relate to and benefit the area of the proposed zone change. Allowable conditions of approval may include, but are not necessarily limited to:*

1. *Street and sidewalk construction or improvements;*
2. *Extension of water, sewer, or other forms of utility lines;*
3. *Installation of fire hydrants.*

B. *The city will not use the imposition of improvement conditions as a means of preventing planned development, and will consider the potential impact of the costs or required improvements on needed housing. The Planning Commission and City Council will assure that the required improvements will not reduce housing densities below those anticipated in the Comprehensive Plan. (Ord. 749 section 1(C), 1984; Ord. 740 section 10.3.85 (F). 1984)*

COMMENT:

The developers will provide reasonable improvement of public and private facilities and services for the subject properties if and when a development is approved by the City. The developers will pay for those improvements if required. When oversizing or “reimbursement districts” are appropriate, the developers will request a pay back of some funds expended for expansion of facilities and services when the improvements are more than required for the development of the subject property. The requirements of this subsection will be satisfied when Conditions of Approval are imposed by the City with approval of a more detailed development application. No improvements are required or necessary as a result of this zone change application. Future improvements will not cause a reduction of the housing densities anticipated by the Comprehensive Plan. These criteria can be met.

16.54.070 Record of amendments. [omitted]

Canby Comprehensive Plan

URBAN GROWTH ELEMENT

GOAL 1: To preserve and maintain designated agricultural and forest lands by protecting them from urbanization.

GOAL 2: To provide adequate urbanizable area for the growth of the city, within the framework of an efficient system for the transition from rural to urban land use.

Policy 1: Canby shall coordinate its growth and development plans with Clackamas County.

Policy 2: Canby shall provide the opportunity for amendments to the Urban Growth Boundary....where warranted by unforeseen changes in circumstances.

Policy 3: Canby shall discourage the urban development of properties until they have been annexed to the city and provided with all necessary urban services.

COMMENT:

The Goals and Policies of the Urban Growth Element as they relate to this application are satisfied by the City as it has maintained a Comprehensive Plan and Comp Plan Map with a designated Urban Growth Boundary that identifies areas of growth within the UGB and dictates the types of uses anticipated for the properties within the UGB, but outside of the City. Furthermore, urban development is not permitted outside the UGB by Clackamas County, which protects agricultural and forest uses. The City does not permit urban development until properties already within the UGB are annexed to the City and reviewed/approved per the Canby Municipal Code which ensures that urban services are made available to the subject properties. The Goals and Policies of the Urban Growth Element are met.

LAND USE ELEMENT

GOAL: To guide the development and uses of land so that they are orderly, efficient, aesthetically pleasing, and suitably related to one another.

Policy 1: Canby shall guide the course of growth and development so as to separate conflicting or incompatible uses while grouping compatible uses.

Policy 2: Canby shall encourage a general increase in the intensity and density of permitted development as a means of minimizing urban sprawl.

Policy 3: Canby shall discourage any development which will result in overburdening any of the community's public facilities and services.

Policy 4: Canby shall limit development in areas identified as having an unacceptable level of risk because of natural hazards.

Policy 5: Canby shall utilize the land use map as the basis of zoning and other planning or public facility decisions.

Policy 6: Canby shall recognize the unique character of certain areas and will utilize the following special requirements, in conjunction with the requirements of the land development and planning ordinance, in guiding the use and development of these unique areas.

COMMENT:

The Goal and Policies of the Land Use Element are satisfied by the City as the Canby Municipal Code (CMC), Comprehensive Plan Map, and Zoning Map implement these goals and policies with detailed requirements. This annexation and zone change application is evidence of that fact. The creation of the Holly DCP, which is a requirement of the CMC, helps accomplish the goal of the land use element by ensuring that a master plan for the DCP area is created that is well planned. The adoption of a DCP concurrent with the annexation and zone change results in a more efficient layout that allows for a higher density than would otherwise occur if planning occurred in a piecemeal manner. Additionally, the DCP ensures feasible and logical extensions of urban transportation and services. The proposed zoning of the subject properties is consistent with the Canby Comprehensive Plan Map and Zoning Map and will match the designation of adjacent properties already developed within the City. The Goal and Policies of the Land Use Element are satisfied by the proposed annexation, zone change, and DCP.

ENVIRONMENTAL CONCERNS ELEMENT

GOAL 1: To protect identified natural and historical resources.

GOAL 2: To prevent air, water, land, and noise pollution.

GOAL 3: To protect lives and property from natural hazards.

Policy 1-R-A: Canby shall direct urban growth such that viable agricultural uses within the urban growth boundary can continue as long as it is economically feasible for them to do so.

Implementation Measures:

- A) Maintain zoning provisions which allow agricultural operation within the City limits.*
- B) Conduct development reviews such that agricultural operations are regarded as part of the accepted pattern of local land use rather than a nuisance to residents.*

Policy 1-R-B: Canby shall encourage the urbanization of the least productive agricultural area within the urban growth boundary as a first priority.

Implementation Measures:

- A) Coordinate water and sewerage planning to facilitate this Policy.*
- B) Coordinate street and road improvements with this Policy.*
- C) Encourage growth into areas where land is fragmented into small parcels which are not conducive to productive agricultural use.*
- D) Review annexation proposals in light of the growth phasing strategies of the Urban Growth Element.*

COMMENT:

The subject properties do not have any natural or historical resources or hazards on site. Like much of the remaining developable land within the UGB that is designated LDR, the subject properties are currently used for agricultural purposes. Upon annexation, some of the subject properties could continue with agricultural uses indefinitely, consistent with Implementation Measure A of Policy 1-R-A. The subject properties have Class II soils per the Agricultural Soil Capabilities Map on page 89 of the Comprehensive Plan. This is the lowest classification that any of the remaining LDR land has within the UGB. Other developable LDR or R-1 properties within the UGB and/or City limits that have higher Class I soil capabilities include the Clackamas County Fairgrounds, parts of the Redwood area, the undeveloped properties on N Pine (Holmes & Hollar properties), the Tofte Farms properties, the Cutsforth properties, and portions of the Willamette Valley Country Club. The only other area within the UGB that is almost entirely identified as Class II soils includes the DCP area to the west of the subject properties, on either side of N Birch St. The only other area inside the UGB that permits residential development is the property designated as Mixed Density Residential located southeast of 99E and north of SE 1st Ave. However, the soils on these properties are also identified as Class I. With few alternatives for expansion of the City boundaries, annexation of the subject properties is consistent with the Goals and Policies of the Environmental Concerns Element.

Policy 2-R through Policy 6-R: [generally related to industrial uses and historic sites]

Policy 7-R and 10-R: [scenic/aesthetic qualities, open space, fish and wildlife, & natural resources]

Policy 1-H through 3-H [Hazards]

COMMENT:

There are no known hazards or natural resources located on the subject properties. Annexation of the subject properties will not change the current use of the properties and will not have an immediate impact on any of the issues discussed in Policies 2-R through 10-R. Future development will underground utilities and provide or enhance open space within future developments as permitted or required by the City. The Holly DCP shows no additional open space beyond the existing City property per the direction of City Staff. The Applicant would, however, in anticipation of a future subdivision application, would like to construct improvements on the City Property to enhance the open space for current and future residents when the Dodds property is developed. The policies of the Environmental Concerns Element above can be satisfied at the time of development.

TRANSPORTATION ELEMENT

GOAL: To develop and maintain a transportation system which is safe, convenient and economical.

Policy 1-12: [Improve all transportation infrastructure for all modes of travel]

COMMENT:

Annexation of the subject properties will not have an impact on the transportation facilities. However, future development will help the City accomplish its goals of creating a safe, convenient and economical

transportation system for multimodal travel as road frontage improvements and warranted traffic safety measures will be paid for by the developer where warranted and possibly facilitated by the developer where they are able. The Goals and Policies of the Transportation Element can be satisfied by future development. A traffic study for the Holly DCP is included as Exhibit 11. Future developments will be required to provide additional traffic studies for their specific project to ensure the goals of the Transportation Element are satisfied.

PUBLIC FACILITIES AND SERVICES ELEMENT

GOAL: To assure the provision of a full range of public facilities and services to meet the needs of the residents and property owners of Canby

COMMENT:

Public facilities and services are addressed in more detail throughout this application. All public facilities and services are available or can be expanded to serve future developments on the Annexation properties.

HOUSING ELEMENT

GOAL: To provide for the housing needs of the Citizens of Canby.

COMMENT:

The subject properties are within the Urban Growth Boundary and identified as an area of priority growth in the Comprehensive Plan. There is currently a deficiency of platted lots available in the City of Canby to accommodate the population growth over the next three years as discussed earlier in this narrative. Future development of the subject properties will provide for the future housing needs of Canby citizens. The proposed annexation satisfies the Goal of the Housing Element.

Urban Growth Management Agreement (UGMA)

The UGMA between Canby and Clackamas County is codified as part of Resolution 519, dated Sept. 23, 1992, and requires certain actions and procedures for a variety of actions relative to lands within the Urban Growth Management Boundary area. The UGMA contains seven specific issues on which the City of Canby and Clackamas County agree. Rather than quote each of the seven issues, they will be identified by title and addressed:

1. *Boundary*

COMMENT:

The subject site is within the Urban Growth Boundary of Canby, thus satisfying this criterion.

2. *Comprehensive Planning, Plan Amendments and Public Facilities Planning for Lands in Unincorporated UGMB;*

COMMENT:

The subject site is within the UGB, and has been included in long range planning for land use, traffic, services and facilities, utilities, and all similar and appropriate elements. The planning designation proposed for this site is consistent with the designations on the Canby Comprehensive Plan map (Low Density Residential). Proposed zoning (R-1) is consistent with the Comprehensive Plan. Upon annexation, the city will assume all planning responsibilities for the subject property. Once the site is annexed to the city by final legislative action, Clackamas County will have no further jurisdiction over or interest in the subject property. Therefore, this criterion is fulfilled.

3. *Development Proposals for Unincorporated UGMB Areas;*

COMMENT:

This criterion does not apply because the property will already be annexed to the city before development applications are submitted to the city for review.

4. *County Notice to and Coordination with the City;*

COMMENT:

This criterion is not applicable because any development action will occur within the City of Canby and not in the jurisdiction of Clackamas County.

5. *City Notice to and Coordination with the County;*

COMMENT:

Because this is a proposed annexation and zone change, the City is required under Subsection A to notify Clackamas County of the impending action.

6. *City Annexation and Sewer, Water and Road Service;*

COMMENT:

Subsection A: The City agrees to undertake any annexations in accordance with process and procedures agreed to by the County. The adjacent right-of-way is required to be included in the annexation and the county will not oppose such annexations.

Subsection B: The City is required to accept jurisdiction of adjacent rights-of-way. The developer will be required to construct “half street improvements” along the frontage of these streets to current City of Canby standards when development is proposed.

Subsection E: Public water and sanitary sewer are not currently available to the site for use in site development, but can be made available upon approval of the annexation application. This subject site is not, however, a health hazard.

7. *Terms of Agreement*

COMMENT:

This UGMA is between the City of Canby and Clackamas County. However, no part or measure of the proposed annexation of the subject site, nor the future development violates or otherwise circumvents the measures required under this UGMA. Therefore, the requirements of this UGMA have been satisfied and/or fulfilled.

HOLLY DEVELOPMENT CONCEPT PLAN NARRATIVE

I. Purpose

The subject properties are identified on the Canby Annexation Development Map (CMC Figure 16.8 4.040) as being within a Development Concept Plan (DCP) area. The purpose of this Holly DCP is to address the specific requirements of the City of Canby Municipal Code (CMC) Section 16.84.040 (1)(b).

b. A Development Concept Plan (DCP) binding for all properties located within the boundaries of a designated DCP area as shown on the City of Canby Annexation Development Map. A Development Concept Plan shall address City of Canby infrastructure requirements including:

- 1. Water*
- 2. Sewer*
- 3. Stormwater*
- 4. Access*
- 5. Internal Circulation*
- 6. Street Standards*
- 7. Fire Department requirements*
- 8. Parks and open space*

For newly annexed properties that are within the boundaries of a DCP area as designated on the City of Canby Annexation Development Map: A Development Concept Plan shall be adopted by the Canby City Council prior to granting a change in zoning classification. (Ord 1294, 2008)

The above requirements will be addressed throughout this narrative. Sixteen (16) tax lots are included within the Holly DCP boundaries totaling approximately 58.79 acres which could accommodate between 230 and 240 future single family detached homes. The property owners and acreage are shown by Exhibit 4.3. When the UGB was determined in this area, only properties zoned RRFF-5 were included within the boundary. Tax Lots 300 and 390 which have a Clackamas County EFU zoning designation are excluded from UGB and DCP and are surrounded by the DCP properties and Territorial Road. Property west of the Holly DCP is also zoned EFU and outside the UGB. Inclusion of these properties in the UGB would require a new land use analysis approved by DLCD and would require a separate review.

Street stubs are provided to the surrounding property outside of the UGB in the event these properties are included in the Canby UGB in the future. The street stubs are shown by Exhibit 4.5. A street pattern was designed for the properties outside the UGB to ensure that the street stubs allow for continued logical extension, but are not shown on the exhibits to avoid confusion.

II. Existing Conditions

The DCP site is very flat with an 8-foot difference in topography from the southwest corner of the site to the northeast corner as shown by Exhibit 4.4. The elevation of the DCP area ranges from approximately 146 feet at the southwest corner to 138 feet at the northwest corner of the site. The land is primarily used for agriculture

with eight existing houses which are shown on the plans. The street pattern was designed to allow these houses to remain if the property is developed in the future.

The site is similar in character to surrounding property in north Canby. Surrounding property to the north and west are rural in nature and contain large lot single-family houses and agricultural uses. Urban uses and residential subdivisions are located to the south and east. Annexation of this DCP area is a logical extension of urban development and a reasonable transition from rural to urban uses. Most of the property in this DCP is included in the annexation application. The street pattern was designed so most of the property owners can develop independently in the future. Property included in the annexation area can develop independently of property outside the annexation area.

A total of 4 public streets provide access to the site; Holly Street, 22nd Avenue, Locust Street and Territorial Road. Holly and Territorial are designated collector streets with no direct access from future subdivision lots. The future right-of-way is 70 feet.

Urban infrastructure is available south and east of the DCP area and can be extended. Water lines and gravity sanitary sewer lines are available in Territorial Road, Locust Street and 22nd Avenue. None of these utility lines are located in Holly Street. Electrical lines, storm sewer line and other dry utilities will be extended into the DCP area as identified in Section "V" of this report.

III. Opportunities and Constraints

The DCP area is similar to the character of surrounding development areas prior to urban development. This DCP area is one of the best opportunities for future development in Canby because of the number of property owners that could develop independently. This property has no constraints. Stafford Development Company is planning to develop the Dodds properties which contain approximately 19.78 acres, or 34% of the Holly DCP. No other properties are identified for development in the near future. The city owns 2.31 acres for a city park but does not currently have a plan for development of this park. However, the Applicant would like to propose improvements during the future development of the Dodds property.

Schools - Schools are available to the Holly DCP area. A representative from the Canby School District indicated adequate capacity is available to accommodate students generated from development the Holly DCP area. The schools have athletic fields which provide active recreational opportunities on weekends, during summers, and when school is not in session. The students would attend the following schools:

Eccles Elementary located off 5th Avenue and south of Knights Bridge Road

Baker Prairie Middle School is located on Teakwood Street, south of SE Township Road

Canby High School is located at the southeast corner of Highway 99E and 4th Avenue.

Bike and Walking Trails - A bicycle and walking trail will be provided to the City Park. The DCP Master plan (Exhibit 4.5) shows pedestrian access tracts in all direction into the park. Bike paths will be provided along Holly Street and Territorial Road.

Holly Street and Territorial - Both of these streets are designated collector streets on the City Transportation System Plan.

East-West Connection - Exhibit 4.5 shows 2 east-west street connections between Holly and Locust Streets. These streets were designed to reduced speeding in the subdivision with offset roads rather than straight roads between Holly and Locust Streets, as the. The intent is to encourage residents to use Territorial Road and Holly Streets rather than interior streets in the DCP area. The Lancaster Engineering Traffic Report shows no major traffic confits with the develop of this DCP property.

Fire Department Requirements - The Master Plan has been designed to provide adequate fire truck access to all dwelling units. All streets are through streets except the 2 cul-de-sacs south of the city park. Water lines will be designed to provide adequate fire hydrant flows and pressure. All water lines are looped to existing 8, 10 and 12-inch diameter water lines except the 2 cul-de-sacs (See Exhibit 4.8).

IV. Concept Plan

Zoning: The DCP land use designation is the same as the City of Canby Comprehensive Plan. The Comprehensive Plan identifies all the property as **LDR** - Low Density Residential with **R-1** Low Density Residential Zoning. Since the proposed Zoning designations are the same as the Comprehensive Plan, no Comprehensive Plan Amendment is required with this application.

Canby Municipal Code (CMC) Chapter 16.16 (R-1 Low Density Residential Zone) permits one single family dwelling per lot in addition to other Conditional Uses. Lots in the R-1 zone are required to be 7,000 sf in area unless a PUD or lot averaging is proposed.

Streets: The proposed street pattern (Exhibit 4.5) shows connections to 4 existing streets. All interior and exterior local streets will be developed with the Standard Local Street Section; 34 feet of pavement, 50 feet of right-of-way and parking on both sides of the street. This local street section is consistent with Figure 7-6 of the Canby TSP. Holly Street and Territorial Road will develop in accordance with the Collector Street Section (Figure 7-5 in the TSP). The collector streets will have 70 feet of right-of-way and 46 feet of pavement. Sidewalks will be 6 feet, landscape planters 5 feet, bike lane 6 feet on both side of the street, travel lanes 11 feet and the center turn lane 12 feet.

Parks: City staff indicated that the city does not want a new park to be developed in this DCP area since there is the existing City Property is designated for use as a park. As a result, Park SDCs will be paid to the city when house construction permits are issued. City, County and State Parks located in and nearby the Holly DCP boundary are as follows:

1. **Locust Street Park** in located in the Holly DCP boundary and currently undeveloped. The city does not have a time line for development of this park.
2. **Molalla River State Park** is located to the northwest. This park features hiking, picnicking, fishing, boating and wildlife viewing and located at the confluence of the Willamette, Molalla and Pudding Rivers.
3. **Community River Park** is located at 1348 S. Berg Parkway southwest of Canby High School. This is a nature park with picnic facilities, barbecue pits, playground equipment, ball fields and a fishing pond for youth age 17 and under.
4. **Community Swim Center** is located at 1150 S. Ivy Street just north of 13th Avenue.
5. **Adult Center** is located at 1250 S. Ivy Street at the northeast intersection of 13th Avenue and Ivy Street.

6. **Ecco Park** is located on the north side of Territorial Road just east of Willamette Valley Country Club Golf Course.
7. **Logging Road Trail** extends from southeastern Canby up to the Willamette River between Ecco Park and the Willamette Golf Course. The trail is 3.5 miles long.
8. **Willow Creek Park** is located on the south side of Territorial Road east of Redwood Street.
9. **Willamette Wayside Park** is located on the north side of Territorial Road, east of Ecco Park. This park generally contains trails. Future improvements are in the planning phase.
10. **Maple Street Park** is located at 1300 North Maple Street, south of Territorial Road and west of Pine Street. This park features multiple ball fields, tennis courts, covered picnic tables and playgrounds.
11. **Clackamas County Fairgrounds** is available for many community events. It is located just northeast of downtown Canby.
12. **Wait Park** is located in downtown Canby at the corner of Grant Street and 3rd Avenue. This park features a gazebo and playground equipment.

See Section VI (Park Dedication), for additional information about parks.

V. Utility Service

Annexation of the subject properties is a reasonable expansion of the City of Canby based on the level of development in the surrounding area and existing facilities and services available to serve the Holly DCP area. At a pre-application meeting, the City of Canby staff indicated all utility services and utilities are available in this DCP area or will be available when the property is developed.

Water: Water is provided by the Canby Utility's Water Department. An 8-inch water line is available in Locust Street and a 12-inch water line in Territorial Road. The city Water Department requested extension of a 12-inch water line along Holly Street and 10-inch water lines in the center of the DCP area and along 22nd Avenue. All the interior streets will have 8-inch water lines. All the water lines will be looped except the 2 cul-de-sacs south of the park (See Exhibit 4.8).

Sanitary Sewer: Sanitary sewer is provided by the City of Canby. Three existing sanitary sewer line connections are available to this DCP area (See Exhibit 4.7). All property in the Holly DCP area can be served with either the existing sanitary sewer lines or extension of new sanitary sewer lines.

The **first existing sewer** line is 10-inches in diameter and located at the intersection of Territorial Road and Holly Street. A 10-inch sewer line can be extended north in Holly Street to 22nd Avenue. A second 10-sewer line can extend into the DCP area to provide a flatter grade as shown by Exhibit 4.7.

The **second existing sewer line** is 8-inches in diameter and located at the intersection of Locust Street and 19th and extends south to Territorial Road.

The **third existing sewer line** is 8-inches in diameter and located in Locust Street between 19th Avenue and 22nd Avenue.

Storm Drainage: Roof drains from homes will flow to privately owned and maintained infiltration facilities on each individual lot. Street drainage will flow to shallow roadside swales where feasible and sumped catch basins and pollution control manholes for water quality treatment elsewhere. After treatment, stormwater will then flow to dry wells for disposal through underground injection. All street storm drainage facilities are proposed to be public facilities designed in compliance with the adopted City of Canby Stormwater Master Plan and the Canby Public Works Design Standards. When development proposals are submitted, storm water management plans and drywell locations will be provided.

Private Utilities: Private utility service such as telephone, natural gas, cable, garbage, recycling collection are all available. These utilities generally operate on a franchise basis. Electrical power is provided through Canby Utility. Extension of these utility lines will occur with each development phase.

VI. Park Dedication

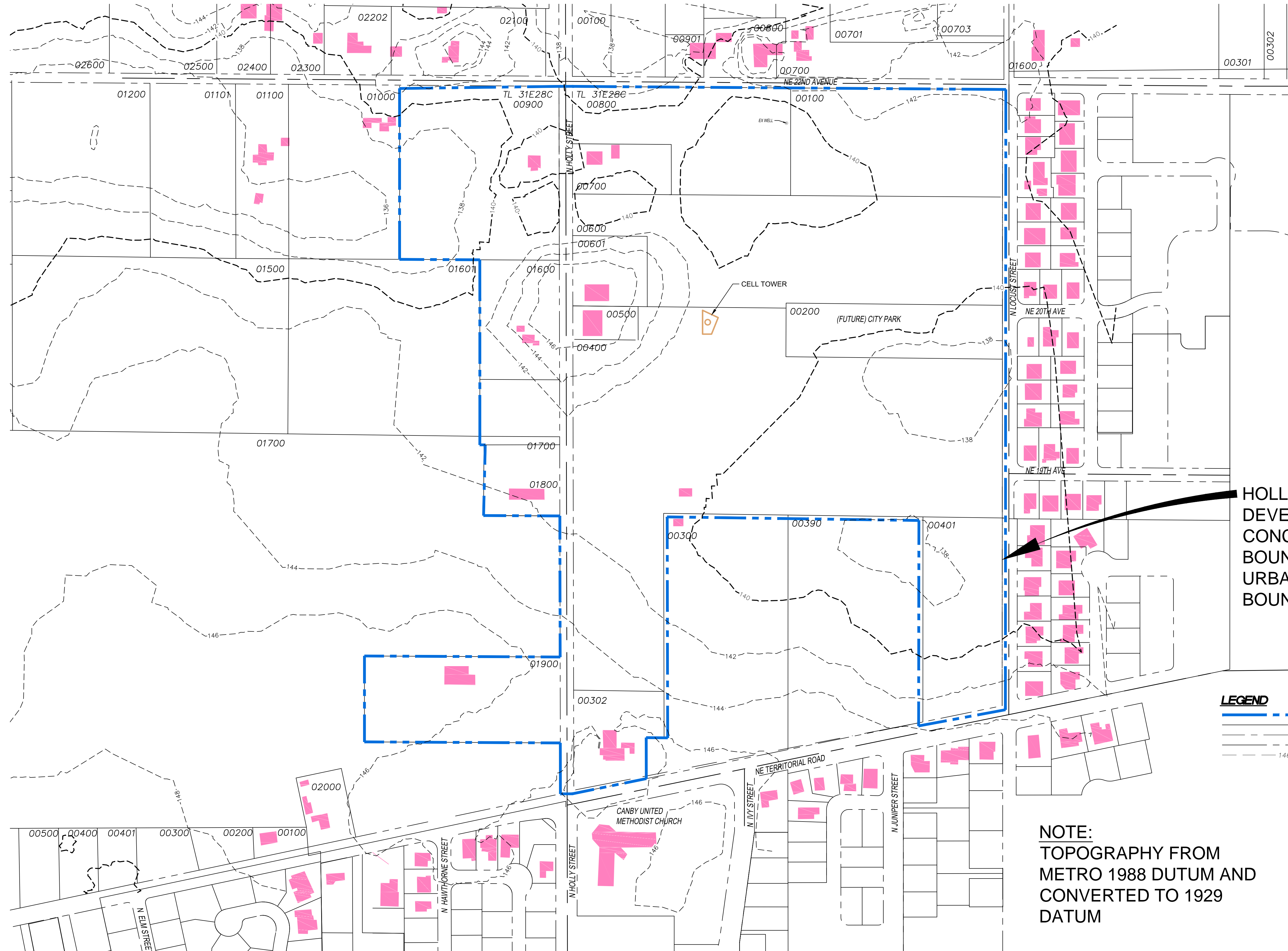
Park SDC Obligation: Per the City of Canby’s park dedication formula, a park dedication of 6.24 acres is required to satisfy the Park SDC obligations for 231 lots (expected number of future lots). The city will collect SDCs with the house building permits and determine in the future where to spend the collected fees. However, during the neighborhood meeting, it was clear that surrounding property owners and community members would like to see future developments improve the existing park area within the DCP.

Anticipated Amenities: Construction of park amenities in the existing city park off Locust Street will require approval by the City Parks Board or City Parks Staff prior to construction. These amenities may include walkways, playground equipment, picnic tables, benches and a restroom facility. The list of these facilities could be modified based on the desires of the City at the time of park development. Landscaping and informational signage would be provided to create an aesthetically pleasing park entrance along the public streets.

CONCLUSION

This narrative has addressed the relevant requirements of the Canby Municipal Code, Canby Comprehensive Plan, Urban Growth Management Agreement, and Oregon Revised Statutes; demonstrating that the proposed Annexation and Zoning Map Amendment have met or can meet each of those requirements. The Holly DCP narrative and exhibits address the City of Canby infrastructure requirements and satisfies the requirements of CMC 16.84.040(1)(b). As such the Holly DCP should be adopted in conjunction with the proposed Annexation and Zoning Map Amendment to ensure that future development generally conforms to the Holly DCP to take advantage of the efficiencies created by the master planning efforts considered during this process and incorporated into the DCP plans which are attached as Exhibit 4.

EXISTING CONDITIONS AND TOPOGRAPHY



HOLLY
DEVELOP
CONCENTR
BOUNDAR
URBAN
BOUNDAR

LEGEND

- Blue dashed line
- Solid line
- Dotted line

NOTE:
TOPOGRAPHY FROM
METRO 1988 DATUM AND
CONVERTED TO 1929
DATUM

Holly
Development Concept Plan



*HOLLY DEVELOPMENT
CONCEPT PLAN
BOUNDARY AND
URBAN GROWTH
BOUNDARY*

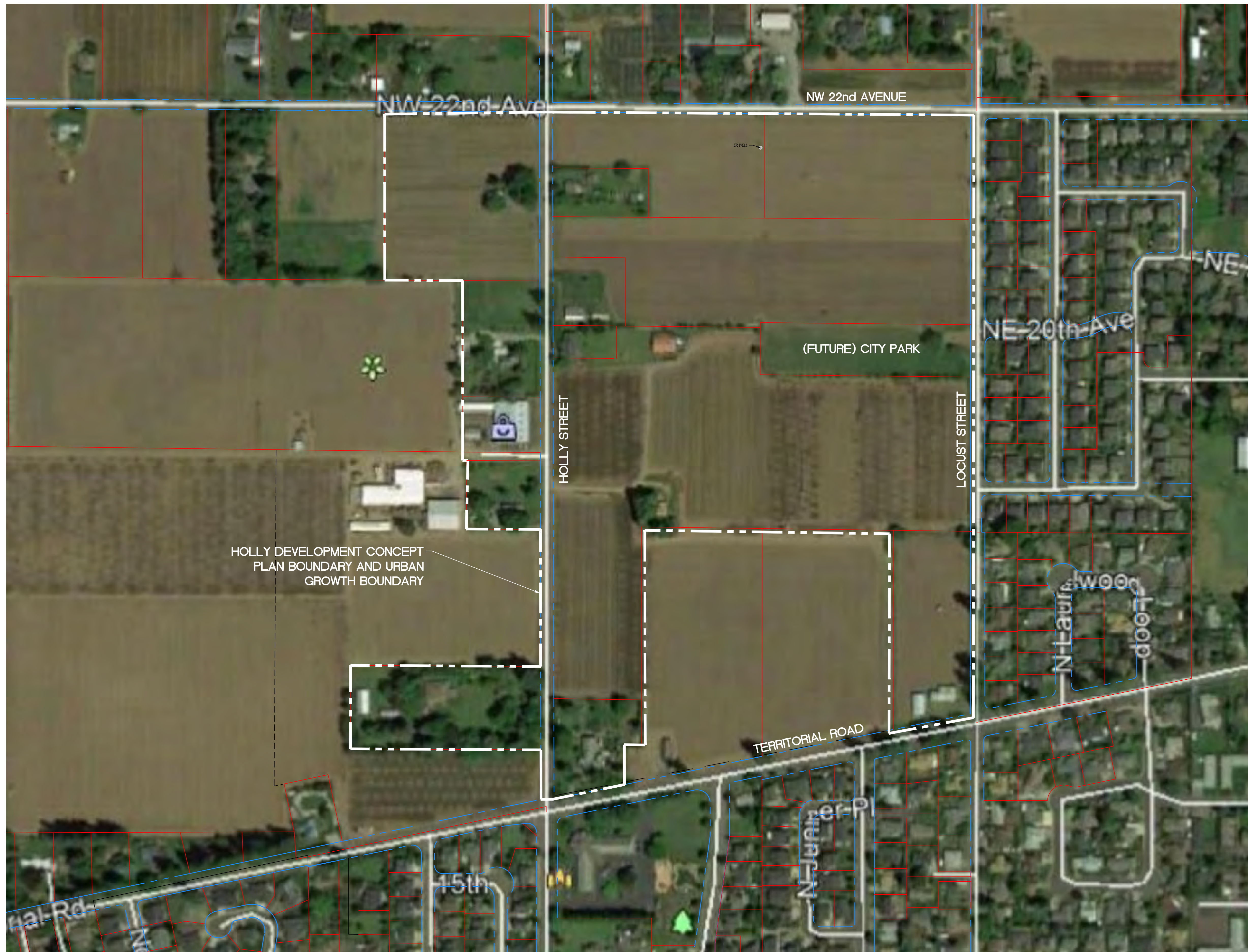
NW 22nd AVENUE

HOLLY STREET

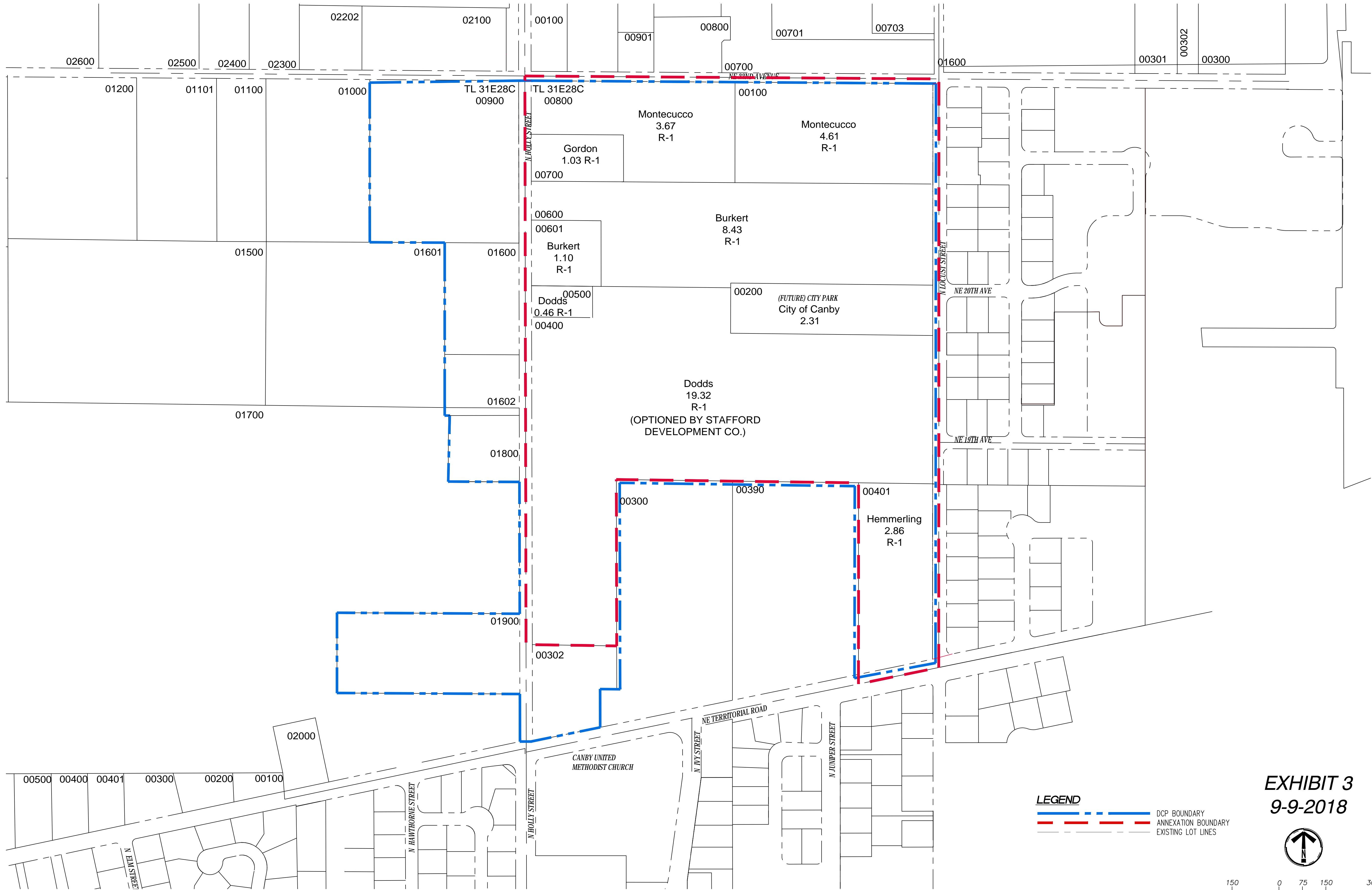
TERRITORIAL ROAD

Google Earth

© 2018 Google

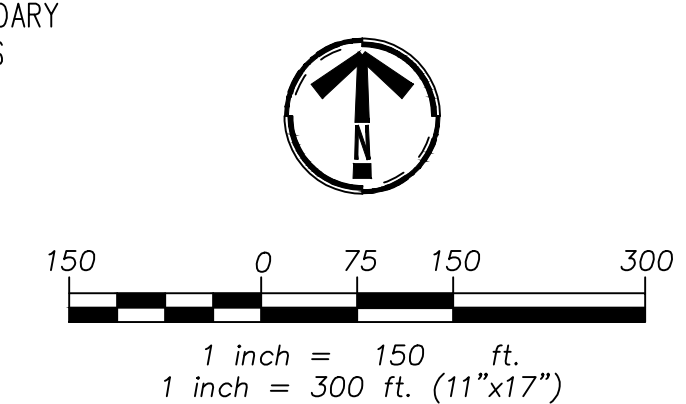


ANNEXATION, ZONE CHANGE & OWNERSHIP MAP



LEGEND
 - - - - - DCP BOUNDARY
 - - - - - ANNEXATION BOUNDARY
 - - - - - EXISTING LOT LINES

EXHIBIT 3
9-9-2018



ANNEXATION BOUNDARY
 FOR SW 1/4, T3S, R1E, W.M.
 TAX LOTS 400 AND 401, OF
 TAX MAP 3-1E-28C

STAFFORD
 DEVELOPMENT COMPANY, LLC
 485 SOUTH STATE STREET
 LAKE OSWEGO, OREGON 97034

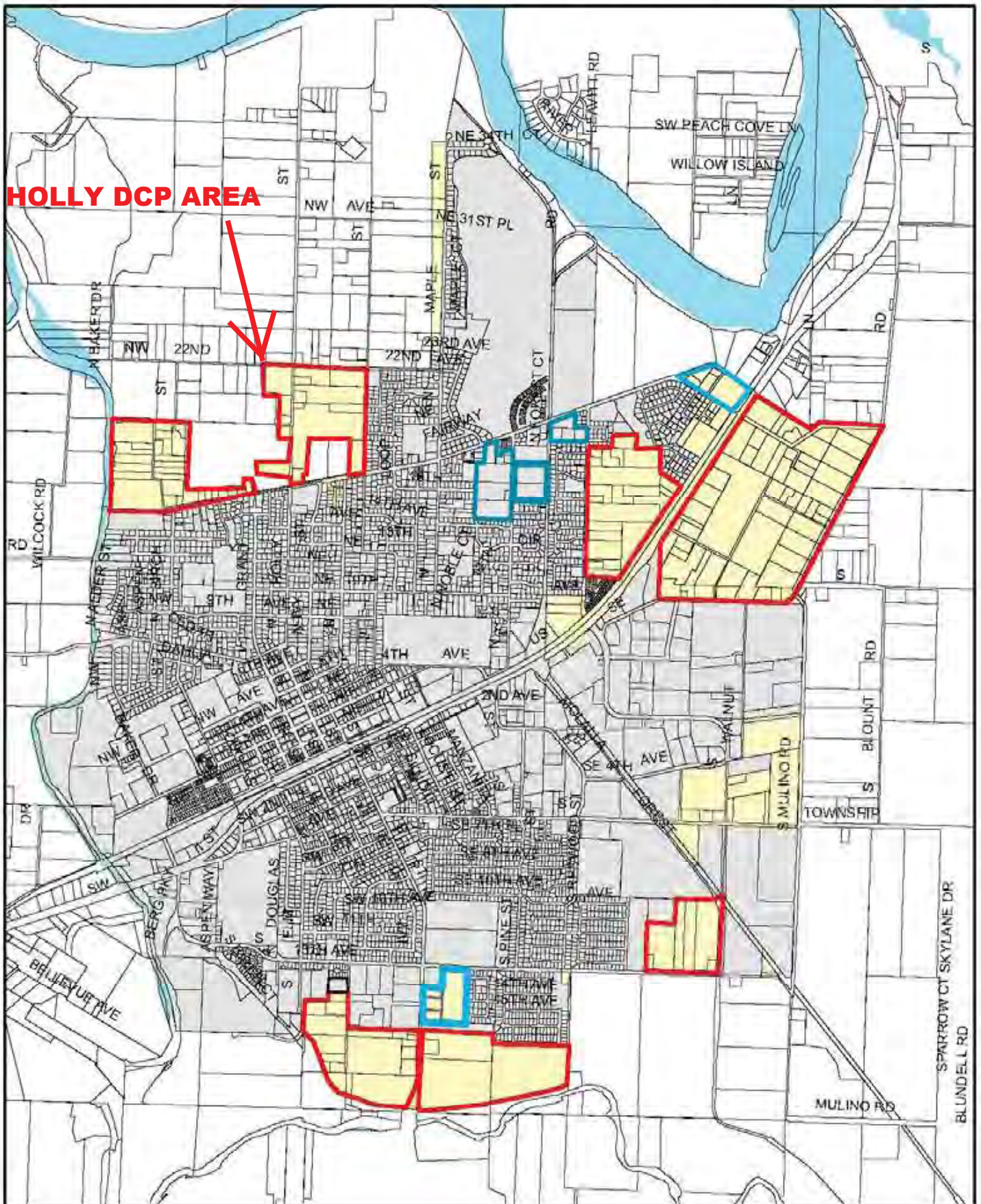
HOLLY
 ANNEXATION, ZONE
 CHANGE, AND
 OWNERSHIP MAP

NO.	DATE	DESCRIPTION

PLANNING & LAND DESIGN
 1862 NE ESTATE DRIVE
 HILLSBORO, OREGON 97124
 RYAN O'BRIEN
 (503) 780-4061

SHEET
 OF

City of Canby Annexation Development Map

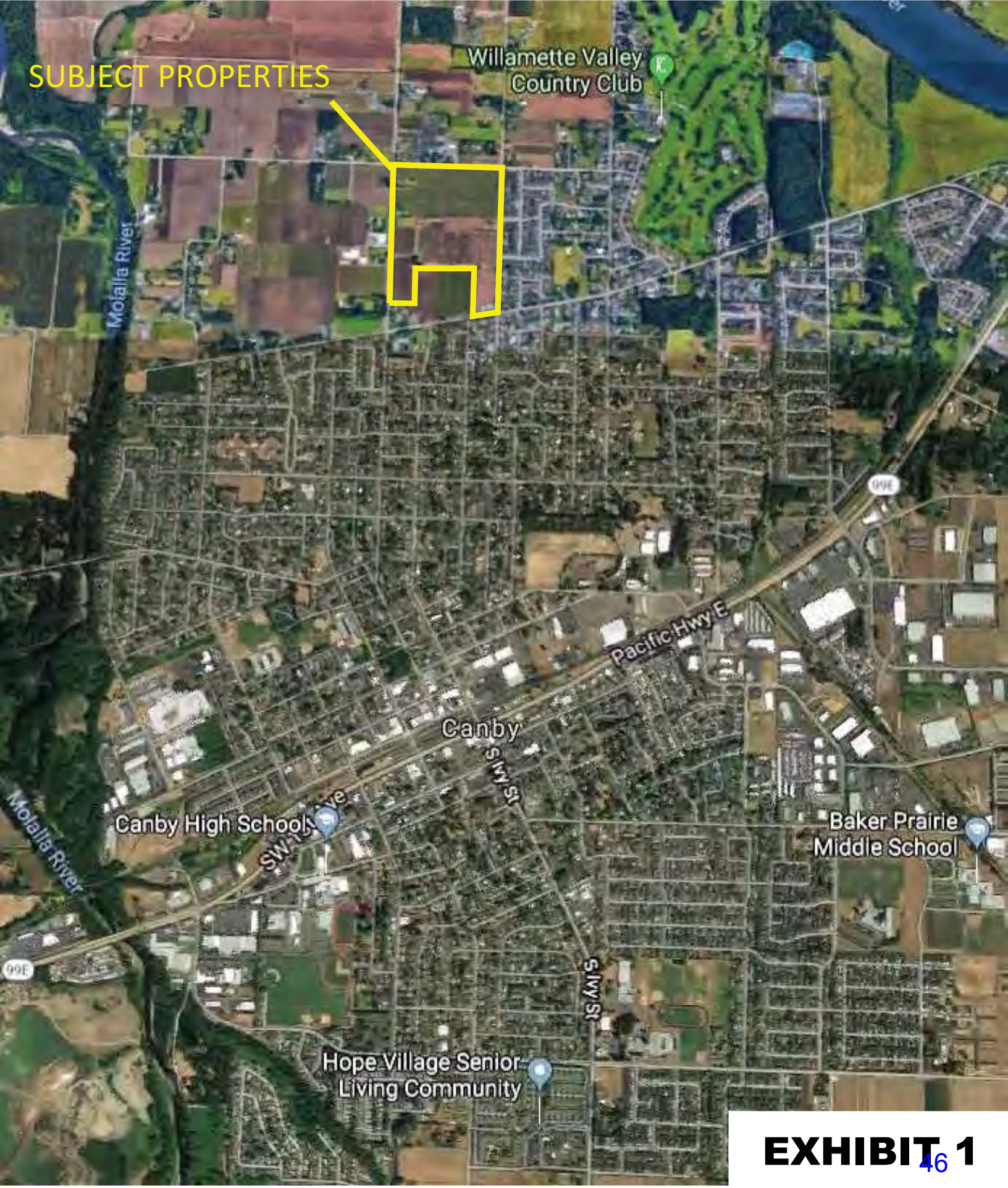


Development Concept Area



Development Agreement Area

Vicinity Map



SUBJECT PROPERTIES

Willamette Valley
Country Club

Molalla River

Pacific Hwy E

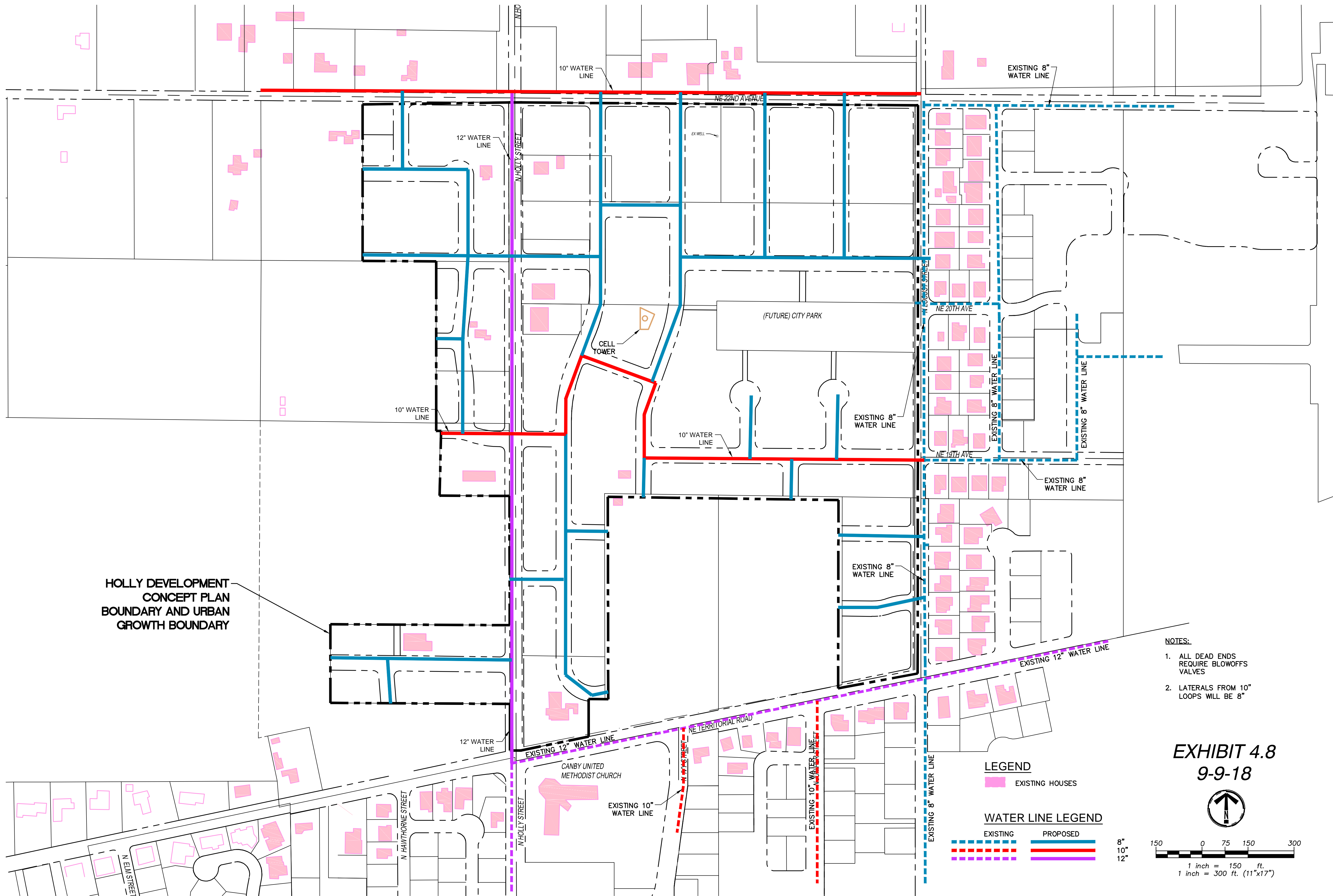
Canby

Canby High School

Baker Prairie
Middle School

Hope Village Senior
Living Community

WATER LINE MASTER PLAN



HOLLY DEVELOPMENT
CONCEPT PLAN
BOUNDARY AND URBAN
GROWTH BOUNDARY

NOTES:

1. ALL DEAD ENDS REQUIRE BLOWOFFS VALVES
2. LATERALS FROM 10" LOOPS WILL BE 8"

LEGEND

EXISTING HOUSES

WATER LINE LEGEND

EXISTING	PROPOSED

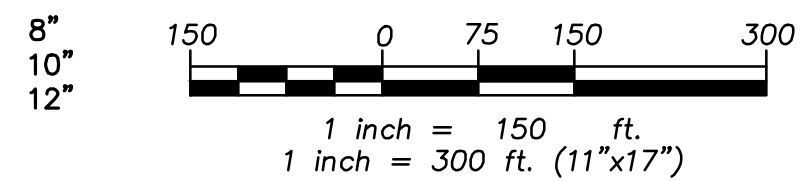


EXHIBIT 4.8
9-9-18

DEVELOPMENT CONCEPT PLAN
FOR SW 1/4, T3S, R1E, W.M.
TAX LOTS 400 AND 401, OF
TAX MAP 3-1E-28C

STAFFORD
DEVELOPMENT COMPANY, LLC
485 SOUTH STATE STREET
LAKE OSWEGO, OREGON 97034

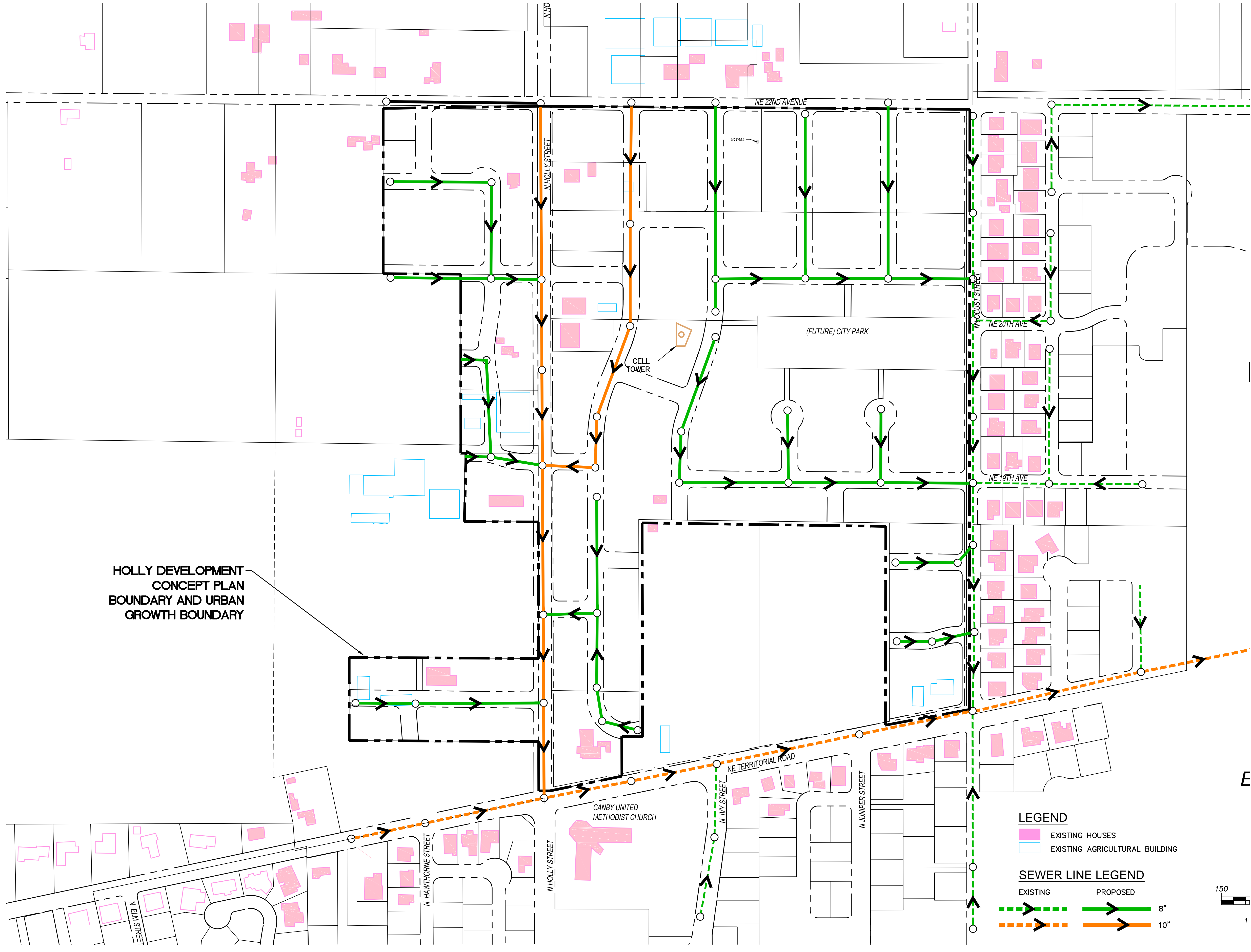
HOLLY DCP
WATER LINE
MASTER PLAN

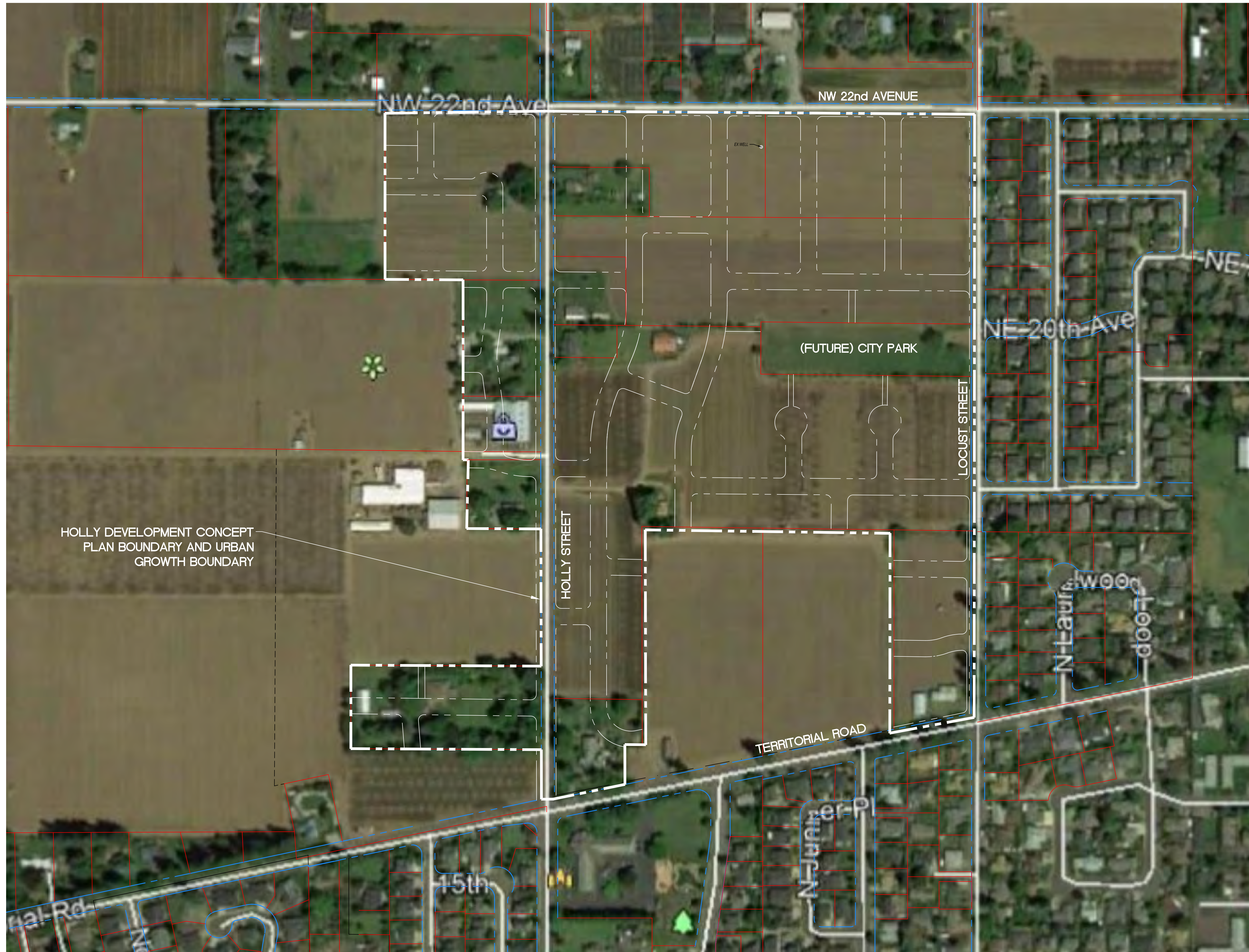
NO.	DATE	REVISIONS

PLANNING & LAND DESIGN
1862 NE ESTATE DRIVE
HILLSBORO, OREGON 97124
RYAN O'BRIEN
(503) 780-4061

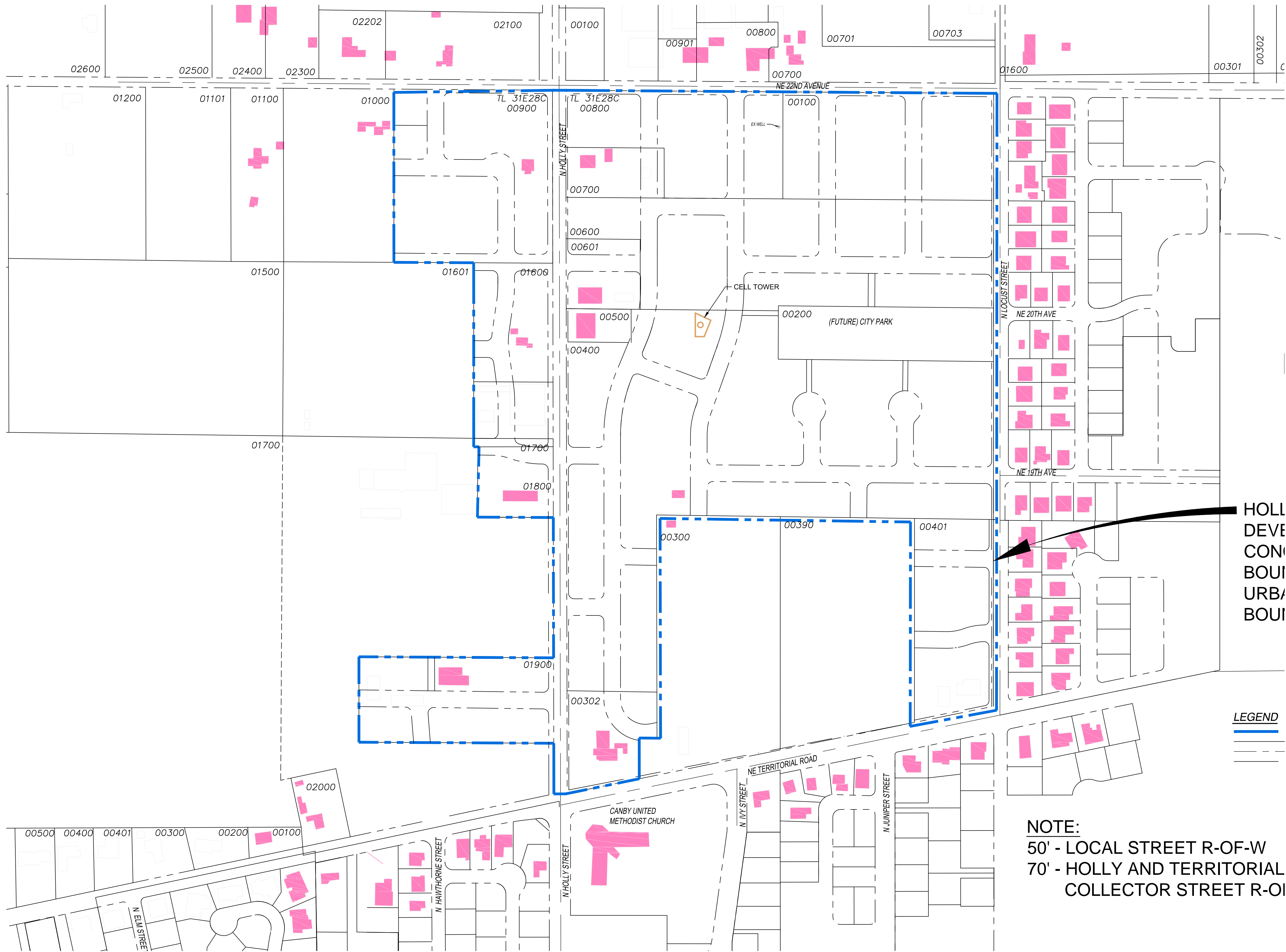
SHEET
8
9
8

SANITARY SEWER MASTER PLAN





DEVELOPMENT CONCEPT PLAN AND STREET PATTERN



HOLLY DEVELOPMENT CONCEPT PLAN

LEGEND

NOTE:
 50' - LOCAL STREET R-OF-W
 70' - HOLLY AND TERRITORIAL COLLECTOR STREET R-OI

NEEDS ANALYSIS: SINGLE FAMILY RESIDENTIAL LOTS

INTRODUCTION

To determine whether there is currently a sufficient supply of SFR (R-1 and R-1.5) platted lots available to provide for the anticipated population growth through the end of 2021, the Applicant compared available population estimates with the existing supply of platted lots in the City of Canby as of October 6, 2018. Additionally, the past and recent absorption rates of platted subdivision lots will be determined and applied to potential future plats through 2021.

POPULATION

Data from Portland State University's Population Research Center (PRC) and the METRO Regional Population and Employment Range Forecasts (METRO Forecast) is compared to determine the anticipated population growth in Canby through the end of the year 2021. The METRO Forecast was used in the 2017 Canby Storm Sewer Master Plan.

Table 8-1 below shows the population estimates from the METRO Forecast for the City of Canby.

TABLE 8-1: CITY OF CANBY POPULATION FORECAST

Year	Projected Population	
	Low Range	High Range
2010	15,829	15,829
2015	17,998	18,520
2020	20,464	21,668
2025	23,268	25,352
2030	26,456	29,662
2035	30,080	34,705
2040	34,201	40,605

Source: METRO Regional Population and Employment Range Forecasts, 2009 (City of Canby Storm Sewer Master Plan, 2017)

Table 8-2 below shows the population estimates from the PRC for the past 3 years.

TABLE 8-2: CANBY POPULATION ESTIMATE - PRC

Year	PRC Population Est.
2015	16,010
2016	16,420
2017	16,660

The PRC estimates are a result of data collected directly from the City of Canby staff, and as such are being considered as the most accurate source for population estimates over the last 3 years. However, the PRC has not completed projections for the future population. To come up with a more accurate projection, data from the PRC will be compared to the METRO Forecast. Table 8-3 below shows the method of determining the anticipate population growth in the City of Canby.

TABLE 8-3: ANTICIPATED POPULATION GROWTH

Year	PRC Population Est.	Metro Low Estimate	PRC % of Metro Est.
2015	16,010	17,998	89%
2016	16,420	18,491**	89%
2017	16,660	18,984**	88%
2018	17,175*	19,478**	88%
2020	18,008*	20,464	88%
2025	20,476*	23,268	88%

*Calculated based on the ratio of the PRC to Metro Est. in 2017 (PRC Est. = 88% of Metro Est.)

**Average annual increase calculated based on 2020 & 2025 Metro Low Estimates

The PRC population estimate for 2015 is 89% of the Metro low estimate and in 2017 is calculated at 88% of the metro low estimate. Using the 88% ratio of PRC to Metro estimates, the projected population for 2020 and 2025 are adjusted down to 18,008 and 20,476 respectively. Based on these lower estimates and calculations in Table 8-3, the population will increase by an average of 449 residents per year from 2017 to 2020 and 494 residents per year from 2020 to 2025. Table 8-4 below indicates the additional housing needed based on an average household size of 2.8 residents per housing unit, which is the same number used by the PRC in their analyses.

TABLE 8-4: PROJECTED HOUSING NEEDED BASED ON POPULATION FORECAST (LOW)

Year	Population	Population Increase*	Average Household Size	New Housing Needed	SFR Housing Needed (R-1&R-1.5)	SFR Housing as % of Needed Housing
2017	16,660					
2018	17,109	449				
2019	17,559	449	2.8	161	110	68.7%
2020	18,008	449	2.8	161	110	68.7%
2021	18,502	494	2.8	176	121	68.7%
2022	18,995	494				
2023	19,489	494				
2024	19,982	494				
2025	20,476	494				
Housing Supply Needed Through 2021				497	342	68.7%

* Population Increase is based on Table 2 population estimate for 2020 & 2025

Based on the data above an additional 497 new housing units will be needed through 2021 to accommodate the projected increase in population over the same period. Clackamas County data shows that, of the countywide provided housing, 68.7% of the housing units are single family detached residences. In Canby, single family detached housing is allowed on land designated SFR on the Canby Comprehensive Plan and in the R-1 and R-1.5 zones. The City of Canby's ratio of SFR housing to total housing is higher than what is identified countywide but will likely trend towards the county's ratio over time. Conservatively using the countywide ratio, it can be determined that 342 of the 497 needed housing units through 2021 will need to be single family detached residences.

CURRENT INVENTORY

The inventory of platted SFR lots is a dynamic number that fluctuates as pending developments progress and homes are constructed. The tables below show the current inventory of platted SFR lots based on subdivision and partition plats recorded in the City of Canby after 2007 and 2010 respectively. Table 8-5 below identifies the recorded SFR subdivision plats and the lots that remain available in each.

TABLE 8-5: AVAILABLE SFR SUBDIVISIONS LOTS

This data only includes property zoned R-1 and R-1.5 and excludes subdivisions that recorded prior to 2007

Date Recorded	Subdivision Name	Total Lots	Issued Permits	**Restricted Lots	Available Lots	Pending Permits
12/2/2014	Northwood Estates No. 2	33	31	0	2	0
3/20/2015	Dinsmore Estates - 2	41	41	0	0	0
6/26/2015	Pine Meadow	19	19	0	0	0
10/26/2015	Faist Addition No. 6	30	27	1	3	1
11/17/2015	*Dinsmore Estates - 3	10	10	0	0	0
6/9/2016	Franz Meadow	18	18	0	0	0
10/1/2016	Faist Addition No. 7	6	5	0	1	1
3/31/2017	Caitlyns Place	6	5	0	1	0
9/26/2017	Northwood Estates No. 3	21	17	0	4	1
12/12/2017	*Timber Park	105	32	5	73	23
Total SFR Platted Lots		289	205	6	84	26

* Subdivision is zoned R-1.5

** Lots are restricted from building for temporary fire turnarounds

Table 8-6 below identifies the available SFR lots created by partition. Issued and Pending permits are based on Clackamas County building records and the compiled data for each lot can be found at the end of this analysis

TABLE 8-6: AVAILABLE SFR PARTITION LOTS

Data includes lots platted after 2010

Date Recorded	Partition Plat	Tax Lot
5/5/2017	PP2017-035	41E04AA 04302
6/13/2017	PP2017-044	*31E33BC 06301
2/20/2018	PP2018-015	41E03BB 00511
2/20/2018	PP2018-015	41E03BB 00512
2/27/2018	PP2018-018	31E33BD 02302
3/14/2018	PP2018-024	31E28AA 03905
7/16/2018	PP2018-074	41E04AB 03220
Available Partition Plat Lots		7

* Tax Lot zoned R-1.5

Based on the tables above there are 91 platted lots available in the R-1 and R-1.5 zones. Of the 91 lots currently available, 74 of them are in the R-1.5 zone, leaving only 17 available R-1 lots.

CURRENT INVENTORY CONCLUSION

Table 8-7 below summarizes the information from the above analysis.

TABLE 8-7: ANALYSIS SUMMARY

Description	Count
SFR Housing Needed Through 2021	342
Available Platted SFR Lots	91
Current Deficiency of SFR Lots	251

Based on the above analysis, the City of Canby is deficient by 251 SFR platted lots and the Applicant’s request for annexation of the subject properties should be approved to meet the need for single family detached housing within the city limits. Furthermore, it should be noted that this analysis includes lots within the R-1 and R-1.5 zones as they each allow the single family detached housing type; the City of Canby’s R-1 zone, which is the proposed zoning for the subject properties, has historically provided a much larger portion of the single family detached residences than the R-1.5 zone.

FUTURE INVENTORY

While it is not a requirement to analyze the future developments within the City, the Applicant has elected to do so to further demonstrate the need for additional single family detached housing in the City of Canby to accommodate the projected population growth. This portion of the analysis is for illustration purposes only to help further exemplify that there is a low likelihood that the 3-year lot supply will be eclipsed by available

inventory any time soon. Table 8-8 below shows a list of potential subdivisions that could record prior to the end of 2021. Table 8-8 includes subdivisions that have received preliminary approval and potential future subdivisions on land recently annexed or proposed for annexation as a part of this application. Each “project” is listed with an estimated recording date. Some of the approved projects have been appealed and may never record, and others could record sooner or later than estimated. Additionally, the potential future projects sit on land that could stay vacant or in farm use indefinitely. In any case, they will be included as potential future projects with estimated recording dates for illustration.

TABLE 8-8: APPROVED & POTENTIAL FUTURE SUBDIVISIONS

Project Name	Recording Date	# of Lots
Faist Addition No.8	10/15/2018	26
Tanoak	10/16/2018	8
Beck Pond Phase 1	5/3/2019	37
Redwood Landing	7/5/2019	83
Cougar Run	10/1/2019	23
Seven Acres	10/1/2019	22
Faist Addition No. 9	10/15/2019	6
Beck Pond Phase 2	5/1/2020	32
McMartin Phase 1	8/21/2020	30
Dodds Phase 1*	10/1/2020	25
Cutsforth*	4/1/2021	20
Hemmerling*	5/5/2021	15
McMartin Phase 2 & 3	9/1/2021	33
Dodds Phase 2*	10/1/2021	25
Burkert/Montecucco Ph. 1*	10/5/2021	25
Potential Additional Lots Through 2021		410

* Potential Future Subdivisions

Based on the table above, there could be an additional 410 single family lots platted through the year 2021. The estimated recording schedule is aggressive but will help illustrate the inventory over time in the event that such an aggressive schedule could be accomplished. The following sections will address absorption rates and compare them to the existing and estimated lot supply through 2021.

LOT ABSORPTION

The rate at which platted lots are issued building permits is dependent on several different variables and the available data over the last three or four years does not give a clear indication of what the most relevant variable is. However, the Applicants experience as a developer and home builder in the Portland Metro area and Canby specifically points to the capacity of the builder (time and money) and the supply of labor as the driving factor behind how quickly lots are both platted and absorbed in the City of Canby. Since it is difficult to predict the who and the how of future developments, the applicant believes it is most appropriate to treat the absorption of each plat independently to determine a geometric average that is representative of a typical project in Canby.

Reviewing the data for each subdivision plat independently shows that there is a significant difference in the rate of absorption from one plat to the next. Table 8-9 below lists the plats recorded in Canby with 10 or more

lots and shows the average number of days between the issuance of a permit in each subdivision as of October 6th, 2018.

TABLE 8-9: SUBDIVISION LOT ABSORPTION

Plat Name	Plat #	Recording Date	Total Lots	Issued Permits	Average Days Between Permits
Northwood Estates No. 2	4396	12/2/2014	33	31	45
Dinsmore Estates - 2	4409	3/20/2015	41	41	11
Pine Meadow	4422	6/26/2015	19	19	18
Faist Addition No. 6	4433	10/26/2015	30	26	36
Dinsmore Estates - 3	4436	11/17/2015	10	10	20
Franz Meadow	4457	6/9/2016	18	18	15
Northwood Estates No. 3	4509	9/26/2017	21	17	20
Timber Park	4517	12/12/2017	105	27	11
Subdivision (Geometric) Avg Days Between Permits					22

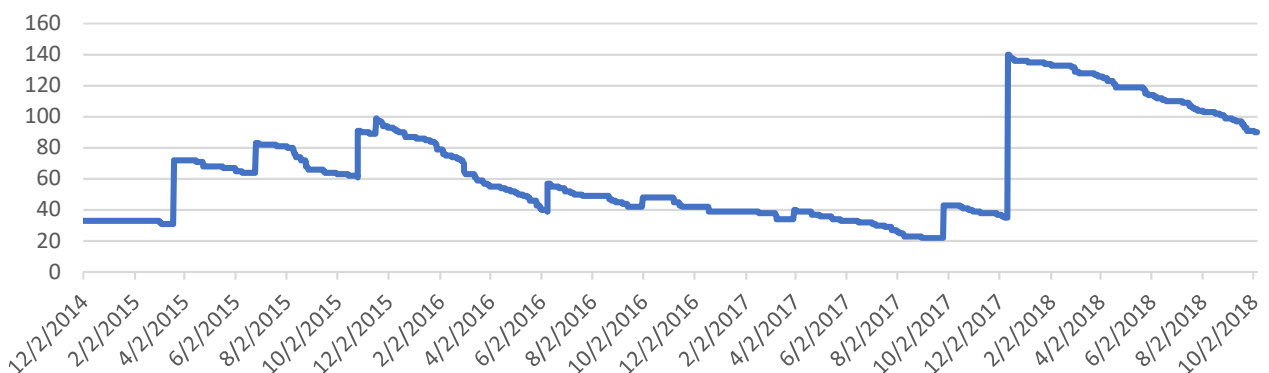
Based on the data above, in any given subdivision 1 new building permit is issued every 22 days on average from the date the plat records. To determine the inventory of lots through 2021, existing data through October 6, 2018 and projections through 2021 will be compared in the next section.

FUTURE INVENTORY CONCLUSION

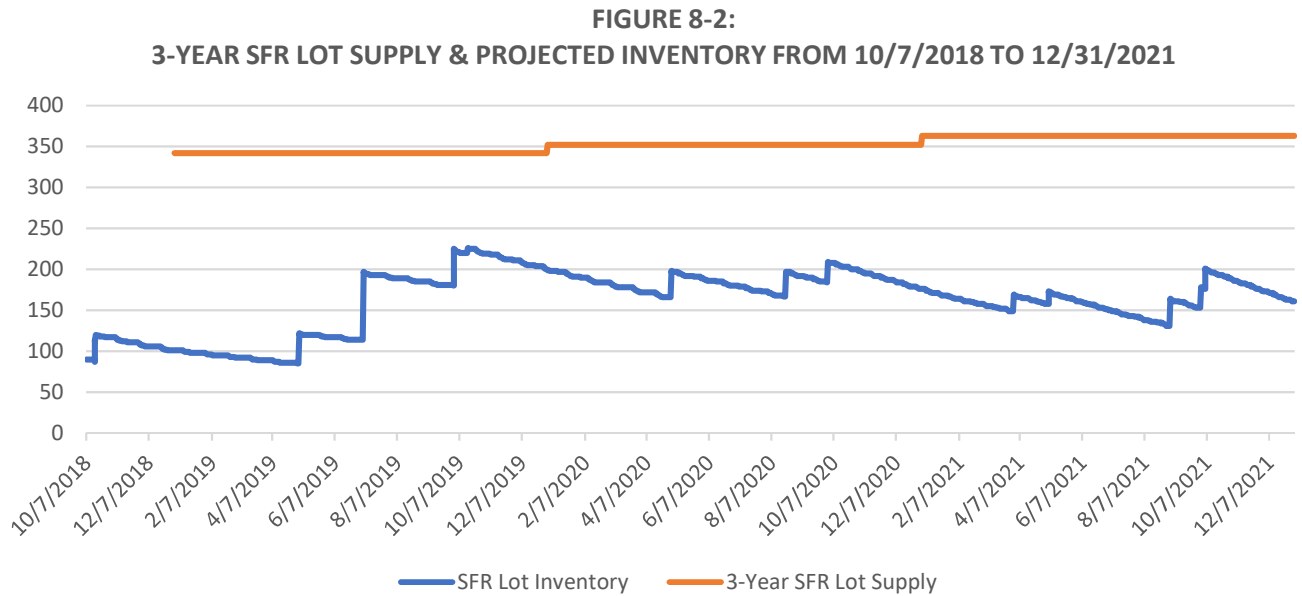
Based on the available data through October 6, 2018 and the above analysis and estimates, the future inventory of platted lots through the end of 2021 will not surpass the 3-year supply needed based on the projected population growth. Restricted lots in Timber Park and Faist Addition No. 6 are represented as available in the figures below.

Figure 8-1 below depicts the actual change in inventory of SFR subdivision lots from the date Northwood Estates No. 2 recorded in December 2014 through October 6, 2018.

**FIGURE 8-1:
SUBDIVISION LOT INVENTORY FROM 12/2/2014 - 10/6/2018**



In Figure 8-2 below, the approved and potential future subdivision lots from Table 8-8 and their estimated recording dates are added to the current inventory over time. The average absorption rate from Table 8-9 is used for the current inventory lots and future projects.



Based on the projected population growth, estimated recording dates, and absorption rates of future projects depicted above, the inventory of platted SFR lots will not eclipse the 3-year SFR lot supply at any given time through 2021. Even based on the aggressive recording schedule depicted above, the inventory caps out at 226 lots in mid-October 2019 when the 3-year SFR Lot Supply is equal to 342. This minimum gap of 116 lots still leaves room for slower absorption rates, a more aggressive recording timeline, and recordation of unaccounted for future projects, while maintaining a low chance of approaching the 3-year supply line.

This portion of the analysis further demonstrates the need for SFR detached housing types in the City of Canby to accommodate the projected population growth over the next 3 years and beyond.

STAFFORD LAND COMPANY INC

August 10, 2018

RE: Holly Development Concept Plan Area Property Owner Meeting

Dear Neighbor,

I would like to invite you to another meeting to discuss our proposed Holly Development Concept Plan (DCP). The purpose of this meeting is to provide you with additional information and receive more detailed feedback from you regarding our proposal and your property. In order to focus our discussion on more specific issues, we are only inviting those who own property within the DCP boundary. In addition to discussing the details of our proposal, we will go over the process of joining our annexation application. If you want to annex your property as a part of our application, we will need to know by the end of August. We hope you can join us for this meeting.

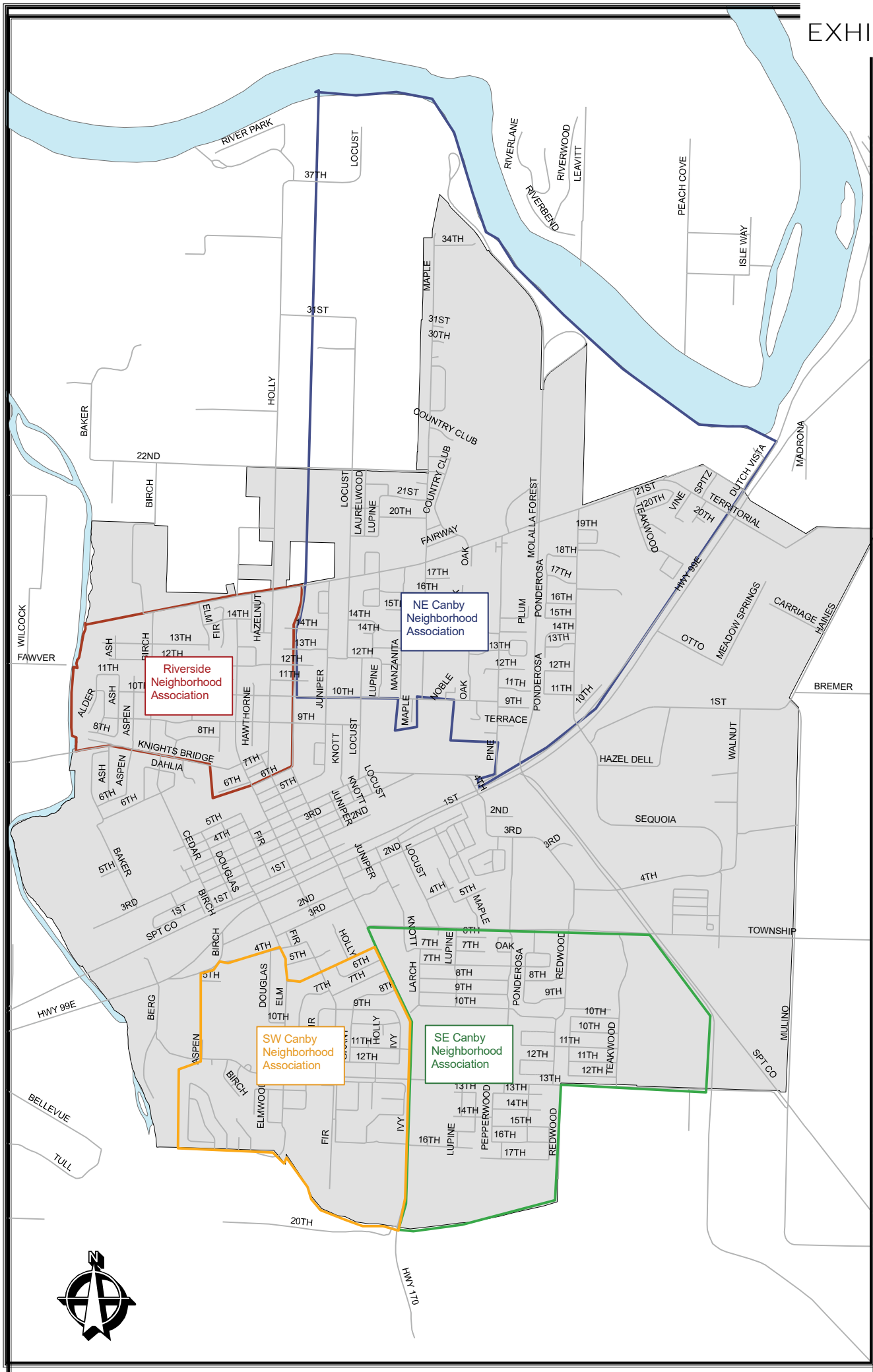
Meeting Location: Canby United Methodist Church
1520 N Holly Street
Canby, OR 97013

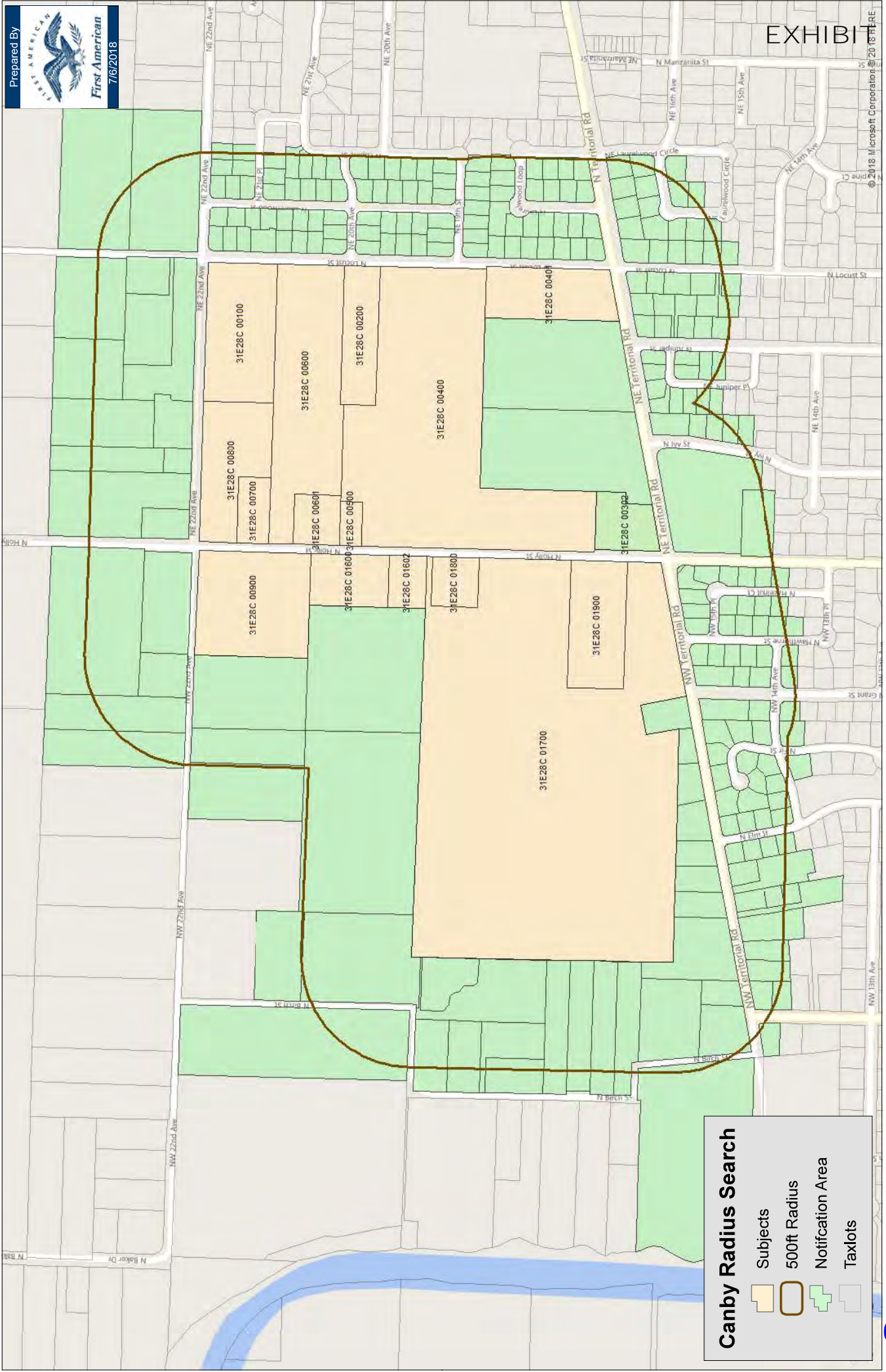
Meeting Date & Time: Monday, August 27, 2018 from 6:30pm – 8:00pm

Please feel free to call or email me with any questions or comments if you are unable to attend this meeting.





Sincerely,

Levi Levasa - Project Manager
Email: Levi@staffordlandcompany.com
Phone: 971.206.8614





Canby Radius Search

-  Subjects
-  500ft Radius
-  Notification Area
-  Taxlots

NEIGHBORHOOD MEETING ATTENDANCE ROSTER

Neighborhood Meeting Sign-in Sheet

Project Name: Holly Annexation, Zone Change & DCP		Subject Properties: North Holly Development Concept Plan Area	
Meeting Location: Canby United Methodist Church, 1520 N Holly St, Canby, OR 97013		Meeting Date & Time: July 31, 2018 at 6:30 PM PST	
PUBLIC RECORDS LAW DISCLOSURE: This sign-in sheet is a public record of the City of Canby and is subject to public disclosure under Oregon Public Records Law.			
NAME	MAILING ADDRESS	E-MAIL ADDRESS	PHONE NUMBER
Bob Zimmer	1434 N Fir St.	bobzimmer@msn.com	
Rob Wakefield	1930 N Locust	wakefieldrbe@msn.com	
Tom ARENA	PO Box 907, Canby, OR	Tom ARENA@gmail.com	
Rich & Stephanie Isberg	480 NW Sand Ave Canby	stephanie.isberg@yahoo.com	503-263-81674
Laurel Shufest	1505 N. Locust St Canby	laurel_sparkle@yahoo.com	971-221-6465
DARREY & KERRY WRSLEY	1978 N. LOCUST ST	DarrylWrsley@gmail.com	
CHRIS & SHELLEY BOLEY	2168 N. LOCUST	shelley.bole@yahoo.com	503-266-7767
Shavlene Blasnik	19167 N Laurelwood St.	Shavlene K @ Juno.com	503 720 4086
JACKIE & PEB COLEMAN	2048 N LOCUST ST	Sculemanclare@gmail.com	503-266-0168
JERRY & JANICE SIMSITT	138 NE 22 ND AVE Canby	jsimsitt@canby.com	503-266-2904
Jonathan & Debra Doty	164 NW Territorial Rd. Canby	doty@canby.com	971-219-2883
Jeff & Pam Barrow	1578 N. Juniper St. Canby.	jbarrow73@gmail.com	503-266-2161
Sam & Katmy Hauck	2495 N Holly	Hauckfamily@canby.com	
Sub Help	2201 N Baker Dr. Canby	subhelp@gmail.com	503 915 3873
Larry & Paivi Vargas	2005 N Lupine St. Canby	larry.vargas@gmail.com	503 899 3889
Richard Montecarso	1335 S. Larch St. Canby, OR	rmontecarso08@gmail.com	(503) 980-8244
Jason Montecarso	334 SE 13 TH Place Canby, OR	jasonmontecarso@canby.com	503-453-5214

NEIGHBORHOOD MEETING ATTENDANCE ROSTER

Neighborhood Meeting Sign-in Sheet

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PUBLIC RECORDS LAW DISCLOSURE: This sign-in sheet is a public record of the City of Canby and is subject to public disclosure under Oregon Public Records Law.			
NAME	MAILING ADDRESS	E-MAIL ADDRESS	PHONE NUMBER
Ram Pulior	2116 N Locust	ppulior@canby.com	503 878-5379
Archie Zuerlein	2256 N Locust	Archie	503-265-7582
Suzanne Karmel			503.720.7500
Susan Barkant	2058 N. Holly St Canby	Kanby1@Canby.com	
Richard Dauter	1485 N Ivy St Canby		
Louis Kauffman	1747 Sisters or NW Salem OR 97304	lkauffman@Centurylink.net	(503) 551-8337
Steve Wintermantel	1535 N. Juniper St. Canby, OR	WINSTEL47@comcast.com	503-266-7451
AMANDA ZUBER	2087 N Holly Canby, OR 97013	akzuber@canby.com	503-449-6930
Traci Heintz	2037 N. Laurelhurst St Canby	traciheintz@canby.com	503-708-7485
Kari Oslachar	2136 N Locust Canby	Kmharbour@gmail.com	503 332 8289
Redad/Patti Buss	1610 N Locust St Canby	redadpatti@canby.com	541-261-8001
Ed + Marilyn Montecano	5808 N Holly Canby	emontecano11@comcast.com	503-266-4246
Nicholas G. G. Jr	466 NW 22nd Ave Canby	ng1745@canby.com	503-266-4944
Jana Clark	2115 N Laurelhurst St Canby	janasee@canby.com	503-789-8689
Dena Tyler	680 NE 20th Ave	clawson@canby.com	503-768-7169

NEIGHBORHOOD MEETING ATTENDANCE ROSTER

Neighborhood Meeting Sign-in Sheet

Project Name: Holly Annexation, Zone Change & DCP		Subject Properties: North Holly Development Concept Plan Area	
Meeting Location: Canby United Methodist Church, 1520 N Holly St, Canby, OR 97013		Meeting Date & Time: July 31, 2018 at 6:30 PM PST	
PUBLIC RECORDS LAW DISCLOSURE: This sign-in sheet is a public record of the City of Canby and is subject to public disclosure under Oregon Public Records Law.			
NAME	MAILING ADDRESS	E-MAIL ADDRESS	PHONE NUMBER
MARK HAGGE	493 NE 22nd	mehaggl65@gmail.com	503-330-1096
Collins Garbarne	1965 N Birch, POB 263682	gishornedhg@metescape.net	
Jerry Simmitt Jr	168 NE 22nd Ave Canby	jerry.simmitt@gmail.com	503-572-4667
Bob Backstrom	1375 N Birch Canby	bback@canby.com	503 266 5771
JAMES TYLER	680 N.E. 20TH CANBY	DAWAT@CANBY.COM	503-266-3279
Barb McVicker	1485 N. Locust Canby	Sean@canby.com	503 263-6406
JEAN McVICKER	1485 N. Locust Canby OR	sean@canby.com	503-263-6404
JACK FENDLETON	685 NW 13TH AVE CANBY OR	jackpf@canby.com	503-266-5151
KEA + JESSIE GOOSE	2141 N. LAURELWOOD ST. CANBY	1908n7@gmail.com	971 337 4419
Traci Hensley	PO Box 723 Canby 97013	nensley@canbyoregon.gov	
Lynn Hemmerling	2157 N. Hampden Ct #202, Chicago IL 60614	LHemm@ATT.NET	

NEIGHBORHOOD MEETING ATTENDANCE ROSTER

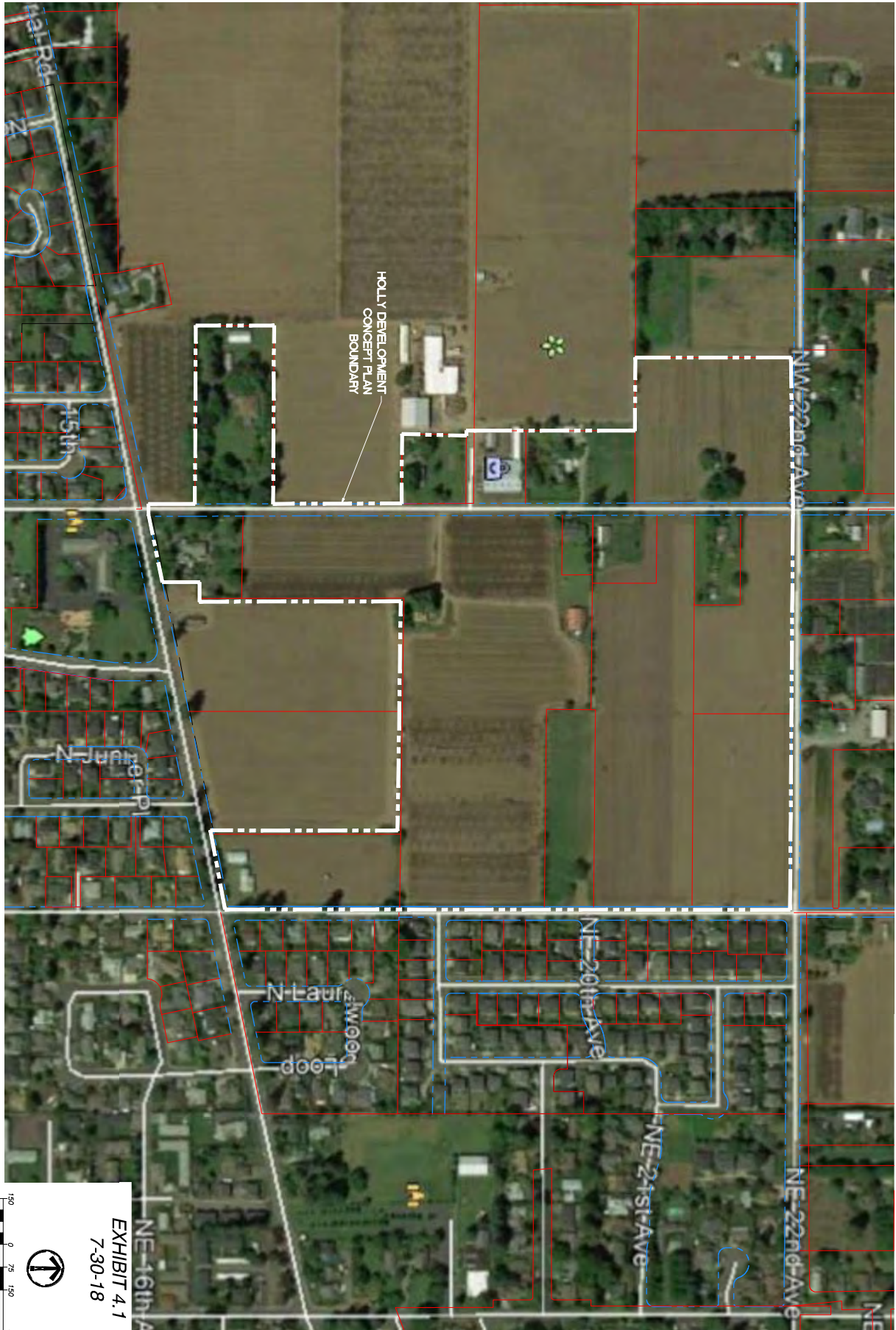
Neighborhood Meeting Sign-in Sheet


Project Name: Holly Annexation, Zone Change & DCP		Subject Properties: North Holly Development Concept Plan Area	
Meeting Location: Canby United Methodist Church, 1520 N Holly St, Canby, OR 97013		Meeting Date & Time: July 31, 2018 at 6:30 PM PST	
PUBLIC RECORDS LAW DISCLOSURE: This sign-in sheet is a public record of the City of Canby and is subject to public disclosure under Oregon Public Records Law.			
NAME	MAILING ADDRESS	E-MAIL ADDRESS	PHONE NUMBER
Tom & Joan Daudistel	469 NE 19th Ave Canby 97013	tdaudist@hotmail.com	503.651.5154
Chris & Tyneke Natelborg	1606 N Juniper St. Canby	ChrisandTyneka@gmail.com	769-303-7638
Susan Myers	1590 N. Ponderosa St. Canby	Susan.M.Myers@icloud.com	503-701-4257
Allan Coleman	2114 N Vine St Canby	tandc@abcable.net	503-381-3083
John Heideman	439 NE 19th	theidema@live.com	971-269-4969
Mike Floyd	1998 N Laurelwood St	microfro@gmail.com	503-710-5436
Jose Gamboa	1986 N Laurelwood st	mostro503@hotmail.com	503)553-9978

patti@bisp.net

HOLLY DCP LAND OWNER MEETING ATTENDANCE ROSTER

Project Name: Holly Annexation, Zone Change & DCP		Subject Properties: North Holly Development Concept Plan Area	
Meeting Location: Canby United Methodist Church, 1520 N Holly St, Canby, OR 97013		Meeting Date & Time: August 27, 2018 at 6:30 PM PST	
PUBLIC RECORDS LAW DISCLOSURE: This sign-in sheet is a public record of the City of Canby and is subject to public disclosure under Oregon Public Records Law.			
NAME	MAILING ADDRESS	E-MAIL ADDRESS	PHONE NUMBER
Susan Myers	1590 N. Ponderosa, Canby	SusanMyers@iCloud.com	503-701-4254
Ed Montecucco	3468 N. Holly Canby	edmontecucco@juno.com	503-810-3065
^{SUSAN} KATH BURKERT	2058 N. Holly St. Canby	Kanby1@Canby.com	503-266-7891
Janis Kauffman	1747 Sisters Ct. NW Salem, OR 97304	gjkauffman@centurylink.net (503) 551-8339	
David Susi Gordon	2146 N. Holly St. - Canby	thegordas@canby.com	503-319-9735
Lynn Hemmerling	2754 W. Hampden Ct. #1002, Chicago, IL	lhemmm@ATT.NET	—
Lori Hemmerling	1500 Cooper St. Seaside, OR 97138	rrparrot@yahoo.com	—
Jonathan Doty	164 NW Territorial Rd	doty@canby.com	
Ada Stout	1977 N. Holly	ams68@canby.com	
Margaret Peterson	1733 N. Holly St.	peterson@webster.com	




EXHIBIT 4.1
7-30-18
 1 inch = 150 ft. (11" x 17")
 1 inch = 300 ft. (11" x 17")

SHEET 1 OF 8	PLANNING & LAND DESIGN 1862 NE ESTATE DRIVE HILLSBORO, OREGON 97124 RYAN O'BRIEN (503)780-4061	REVISIONS		HOLLY DCP AERIAL PHOTO	STAFFORD DEVELOPMENT COMPANY, LLC 485 SOUTH STATE STREET LAKE OSWEGO, OREGON 97034	DEVELOPMENT CONCEPT PLAN FOR SW 1/4, T3S. R1E. W.M. TAX LOTS 400 AND 401, OF TAX MAP 3-1E-28C
		NO.	DATE			



Holly
Development Concept Plan

EXHIBIT 4.2
7-30-18

SHEET
2
OF
8

PLANNING & LAND DESIGN
1862 NE ESTATE DRIVE
HILLSBORO, OREGON 97124
RYAN O'BRIEN
(503)780-4061

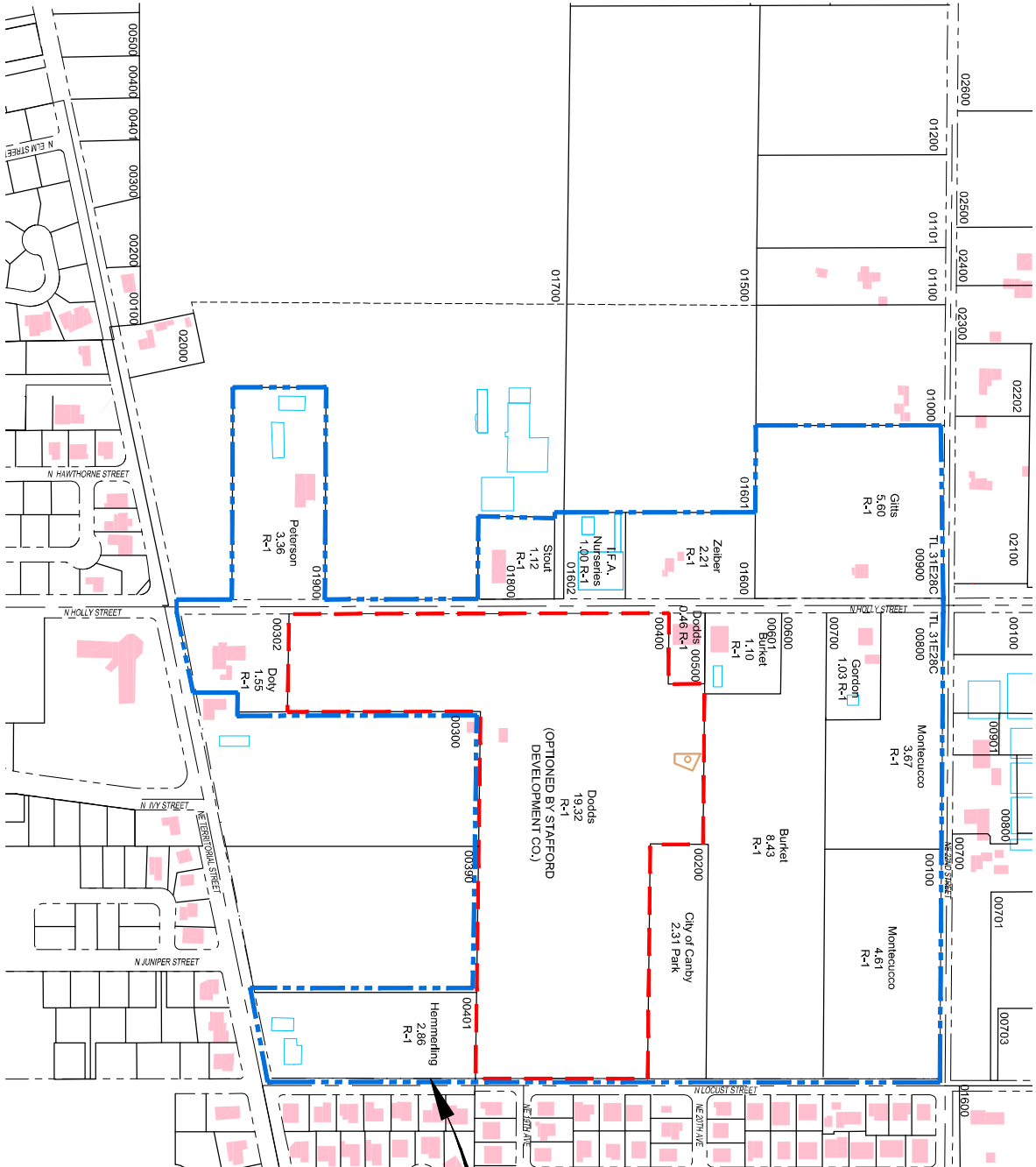
REVISIONS		
NO.	DATE	DESCRIPTION

HOLLY DCP
AERIAL PERSPECTIVE

STAFFORD
DEVELOPMENT COMPANY, LLC
485 SOUTH STATE STREET
LAKE OSWEGO, OREGON 97034

DEVELOPMENT CONCEPT PLAN
FOR SW ¼, T3S. R1E. W.M.
TAX LOTS 400 AND 401, OF
TAX MAP 3-1E-28C

DEVELOPMENT SITES AND 58.785 ACRES NET IN UGB



Property Owner	APN	Tax Map	Tax lot	Acre	Comp Plan Designation	Future City Zoning
Thomas Dodds	0776262	35 IE 28C	00500	19.32	UDR	R-1
Thomas Dodds	0776260	35 IE 28C	00500	0.46	UDR	R-1
Montecucco Benale	0776212	35 IE 28C	00100	4.61	UDR	R-1
Montecucco Benale	0776315	35 IE 28C	00800	3.67	UDR	R-1
Montecucco Benale	0776299	35 IE 28C	00600	8.42	UDR	R-1
Susan Burkert	1374569	35 IE 28C	00601	1.10	UDR	R-1
City of Canby	0776276	35 IE 28C	00200	2.31	Park	791R
TH Nurseries*	0776431	35 IE 28C	01602	1.00	UDR	R-1
TH Nurseries*	0776440	35 IE 28C	01700*	0.16	UDR	R-1
Nicholas & Linda Ghis	0776324	35 IE 28C	00900	5.60	UDR	R-1
David & Susan Gordon	0776300	35 IE 28C	00700	1.03	UDR	R-1
Lori Hemmerling	0776271	35 IE 28C	00401	2.86	UDR	R-1
Margaret Peterson	0776468	35 IE 28C	01900	3.36	UDR	R-1
Jonathan Day	0776244	35 IE 28C	00302	1.55	UDR	R-1
Amelia Zehner	0776413	35 IE 28C	01600	2.21	UDR	R-1
Ada Stoll	0776459	35 IE 28C	01800	1.32	UDR	R-1

* indicates that only a portion of the property is included within the DCP area

LEGEND

- DCP BOUNDARY
- HOLLY DEVELOPMENT BOUNDARY
- EXISTING LOT LINES
- 003900 ASSESSOR PARCEL NUMBER
- AGRICULTURAL BUILDINGS
- HOUSES

EXHIBIT 4.3
7-30-2018

1 inch = 150 ft.
1 inch = 300 ft. (11/17)

PLANNING & LAND DESIGN
1862 NE ESTATE DRIVE
HILLSBORO, OREGON 97124
RYAN O'BRIEN
(503) 780-4061

REVISIONS

NO.	DATE	DESCRIPTION

HOLLY DCP
DEVELOPMENT SITES
AND NET ACREAGE IN
UGB

STAFFORD
DEVELOPMENT COMPANY, LLC
485 SOUTH STATE STREET
LAKE OSWEGO, OREGON 97034

DEVELOPMENT CONCEPT PLAN
FOR SW 1/4, T3S. R1E. W.M.
TAX LOTS 400 AND 401, OF
TAX MAP 3-1E-28C

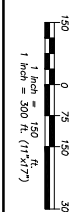
DEVELOPMENT AND CONCEPT PLAN



HOLLY DEVELOPMENT CONCEPT PLAN BOUNDARY

LEGEND
 DCP BOUNDARY
 DCP BOUNDARY
 ROWING CONTRIBUTIONS
 EMINENT DOMAIN
 00390 ASSESSOR PARCEL NUMBER

EXHIBIT 4.5
 7-30-18



8
 5
 8

PLANNING & LAND DESIGN
 1862 NE ESTATE DRIVE
 HILLSBORO, OREGON 97124
 RYAN O'BRIEN
 (503)780-4061

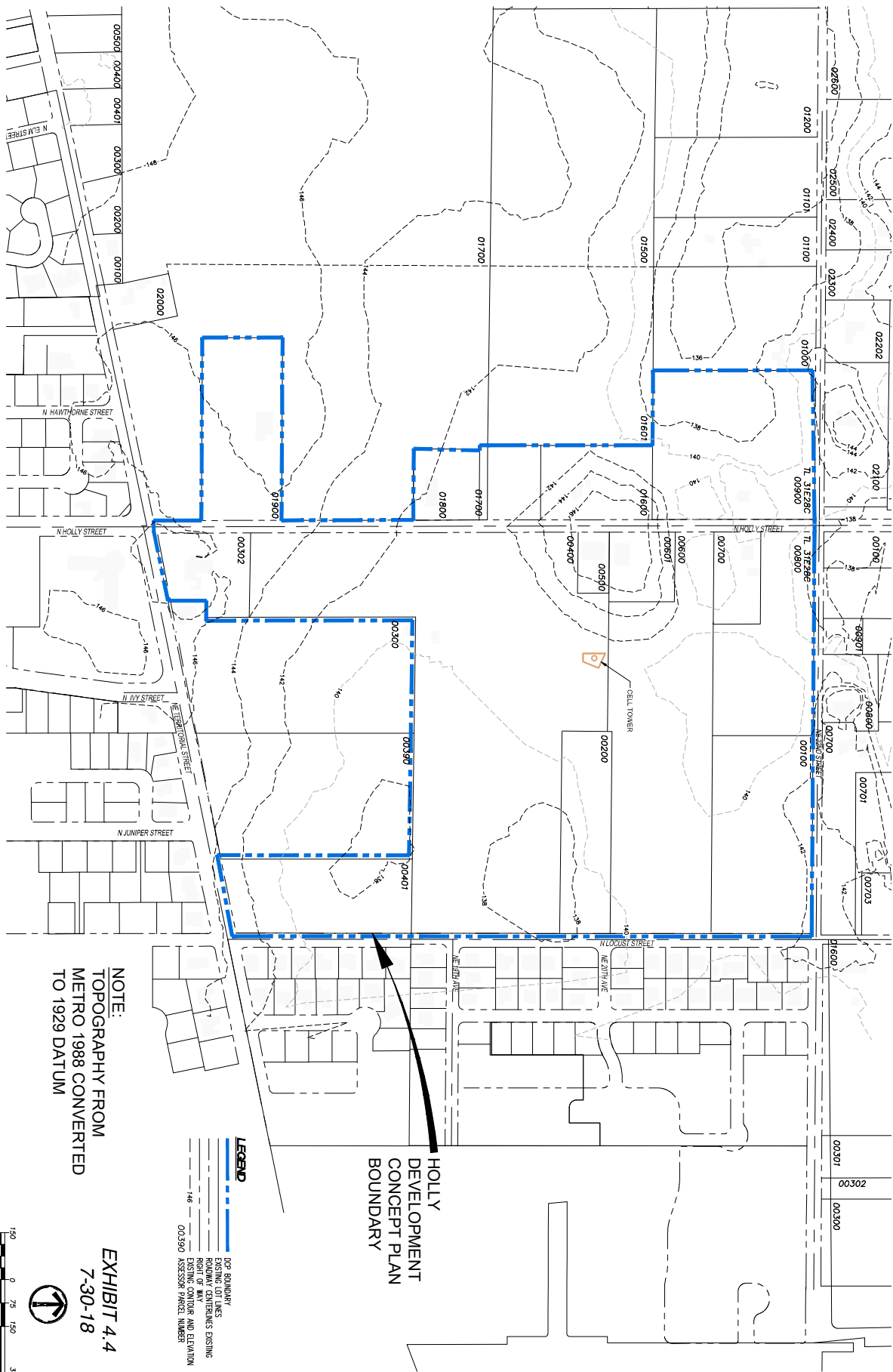
REVISIONS		
NO.	DATE	DESCRIPTION

HOLLY DCP
 HOLLY DEVELOPMENT AND CONCEPT PLAN

STAFFORD
 DEVELOPMENT COMPANY, LLC
 485 SOUTH STATE STREET
 LAKE OSWEGO, OREGON 97034

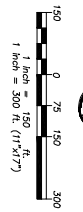
DEVELOPMENT CONCEPT PLAN
 FOR SW 1/4, T3S, R1E, W.M.
 TAX LOTS 400 AND 401, OF
 TAX MAP 3-1E-28C

EXISTING CONDITIONS AND TOPOGRAPHY



HOLLY
DEVELOPMENT
CONCEPT PLAN
BOUNDARY

NOTE:
TOPOGRAPHY FROM
METRO 1988 CONVERTED
TO 1929 DATUM



- LEGEND**
- 600' BOUNDARY
 - EXISTING LOT LINES
 - ROADWAY CENTERLINES EXISTING
 - RIGHT OF WAY AND EASEMENT
 - EXISTING CONTOUR AND ELEVATION
 - 00390 ASSASSIN PANEL NUMBER

EXHIBIT 4.4
7-30-18

8
4
8

PLANNING & LAND DESIGN
1862 NE ESTATE DRIVE
HILLSBORO, OREGON 97124
RYAN O'BRIEN
(503)780-4061

REVISIONS		
NO.	DATE	DESCRIPTION

HOLLY DCP
EXISTING CONDITIONS
AND TOPOGRAPHY

STAFFORD
DEVELOPMENT COMPANY, LLC
485 SOUTH STATE STREET
LAKE OSWEGO, OREGON 97034

DEVELOPMENT CONCEPT PLAN
FOR SW 1/4, T3S, R1E, W.M.
TAX LOTS 400 AND 401, OF
TAX MAP 3-1E-28C



150
 0 75 150 300
 1 inch = 300 ft. (1"=317')
 NORTH
EXHIBIT 4.6
7-30-18
 NE-16th Ave

SHEET
6
 OF

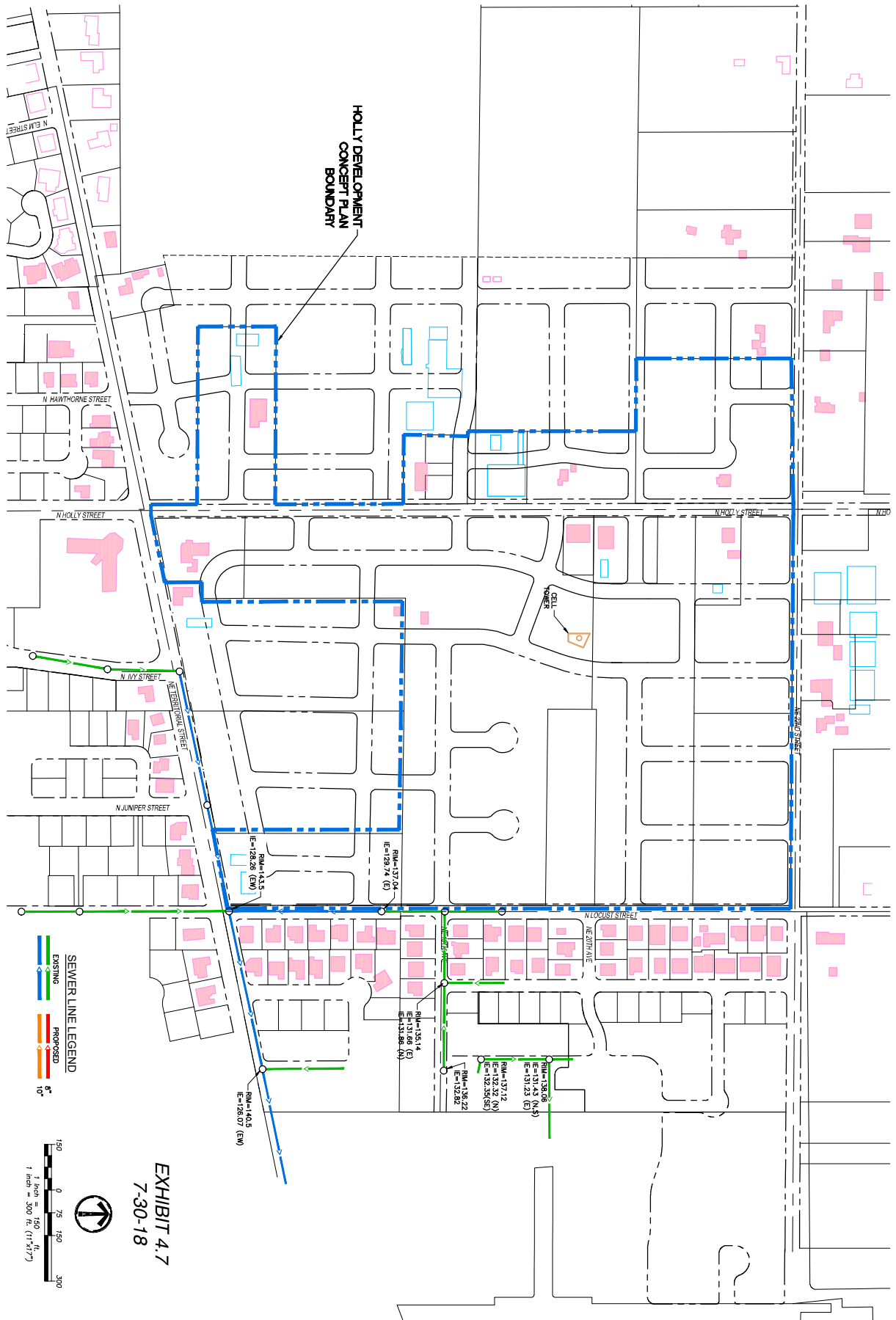
PLANNING & LAND DESIGN
 1862 NE ESTATE DRIVE
 HILLSBORO, OREGON 97124
 RYAN O'BRIEN
 (503)780-4061

REVISIONS	
NO.	DATE

HOLLY DCP
AERIAL PHOTO

STAFFORD
 DEVELOPMENT COMPANY, LLC
 485 SOUTH STATE STREET
 LAKE OSWEGO, OREGON 97034

DEVELOPMENT CONCEPT PLAN
 FOR SW 1/4, T3S, R1E, W.M.
 TAX LOTS 400 AND 401, OF
 TAX MAP 3-1E-28C



SEWER LINE LEGEND
 EXISTING
 PROPOSED

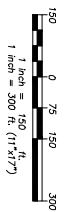


EXHIBIT 4.7
7-30-18

SHEET 7 OF 8	PLANNING & LAND DESIGN 1862 NE ESTATE DRIVE HILLSBORO, OREGON 97124 RYAN O'BRIEN (503)780-4061	REVISIONS		HOLLY DCP UTILITY EXHIBIT	STAFFORD DEVELOPMENT COMPANY, LLC 485 SOUTH STATE STREET LAKE OSWEGO, OREGON 97034	DEVELOPMENT CONCEPT PLAN FOR SW 1/4, T3S, R1E, W.M. TAX LOTS 400 AND 401, OF TAX MAP 3-1E-28C
		NO.	DATE			

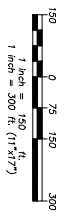
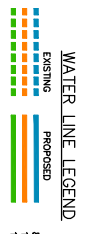
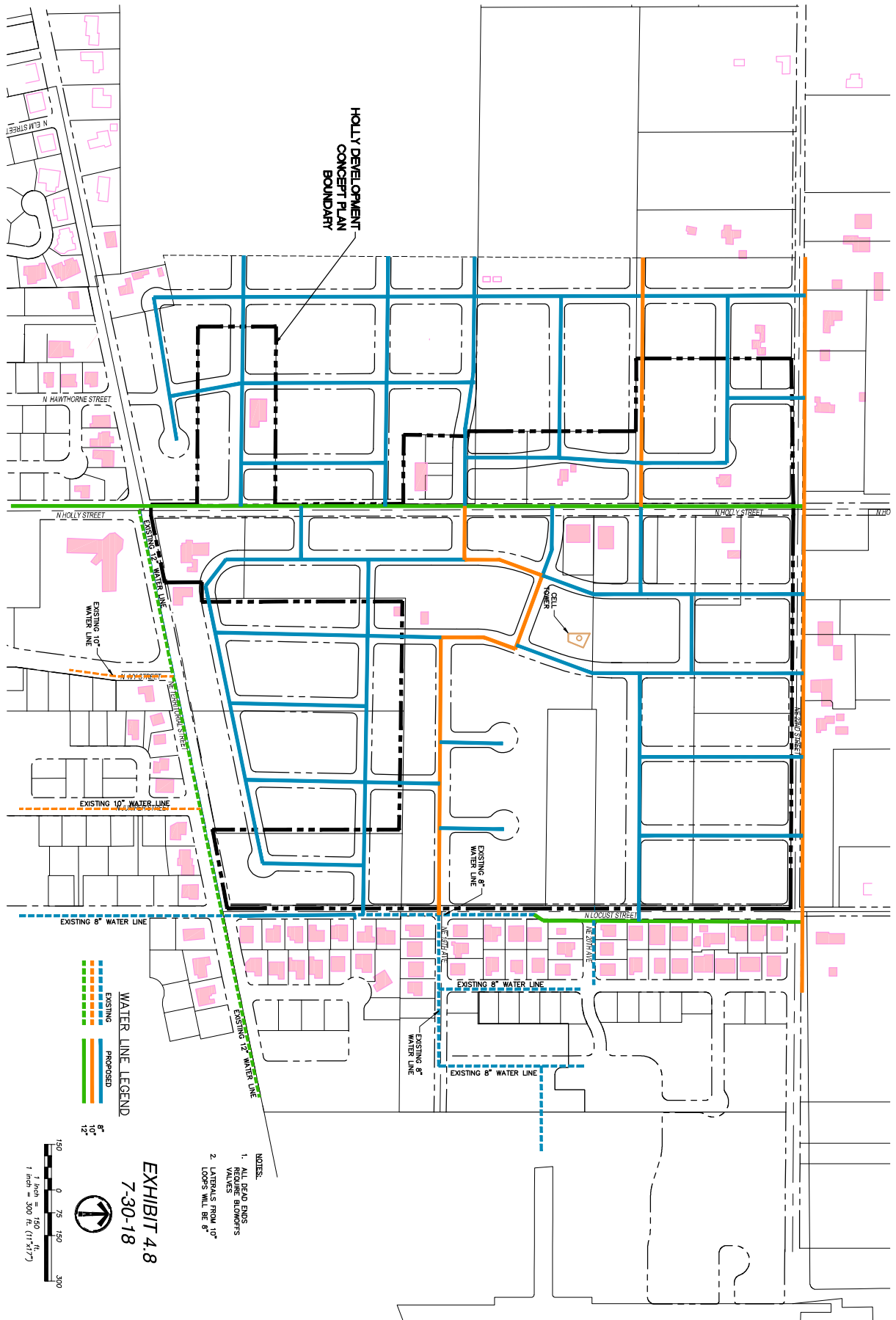


EXHIBIT 4.8
7-30-18

- NOTES:**
1. ALL DEAD ENDS AND VALVES EXCEPTED
 2. LATERALS FROM 10" LOOPS WILL BE 8"

8 SHEET 8	PLANNING & LAND DESIGN 1862 NE ESTATE DRIVE HILLSBORO, OREGON 97124 RYAN O'BRIEN (503)780-4061	REVISIONS		HOLLY DCP WATER LINE MASTER PLAN	STAFFORD DEVELOPMENT COMPANY, LLC 485 SOUTH STATE STREET LAKE OSWEGO, OREGON 97034	DEVELOPMENT CONCEPT PLAN FOR SW 1/4, T3S. R1E. W.M. TAX LOTS 400 AND 401, OF TAX MAP 3-1E-28C
		NO.	DATE			

July 13, 2018

RE: Neighborhood Meeting – Annexation, Zone Change and Holly Development Concept Plan

Dear Neighbor,

We would like to invite you to a neighborhood meeting to discuss our proposed Annexation, Zone Change and Development Concept Plan (DCP) applications for property located north of NW Territorial Rd. and near N Holly St. and N Locust Street. The properties the City of Canby has included in the DCP area are identified on the map on the reverse side of this letter. Before any property in this area can be annexed into the City of Canby and rezoned in accordance with the Canby Comprehensive Plan Map, A DCP must be approved by the Canby City Council. It is our goal to annex specific properties that we have an interest in within the DCP area. Our application for annexation is also an opportunity for other property owners to join our annexation application if they so desire. Only the property owners that request annexation into the city will be included in our Annexation and Zone Change applications. Property owners that do not want to annex their property will be included in the DCP, but are not required to annex.

While this Neighborhood Meeting is a requirement for submitting our applications, we think it is a valuable opportunity for us to provide clarity to the process and our intentions as the applicant and also receive feedback and answer questions from community members. The focus of the meeting will be the Holly DCP application and associated Annexation and Zone Change applications. The attached draft of the DCP shows a concept road layout depicting a potential development pattern for the near or distant future depending on owner preferences. Future subdivision of properties within the DCP area will have to go through a separate and more detailed design and review process. We hope you will be able to join us for this meeting.

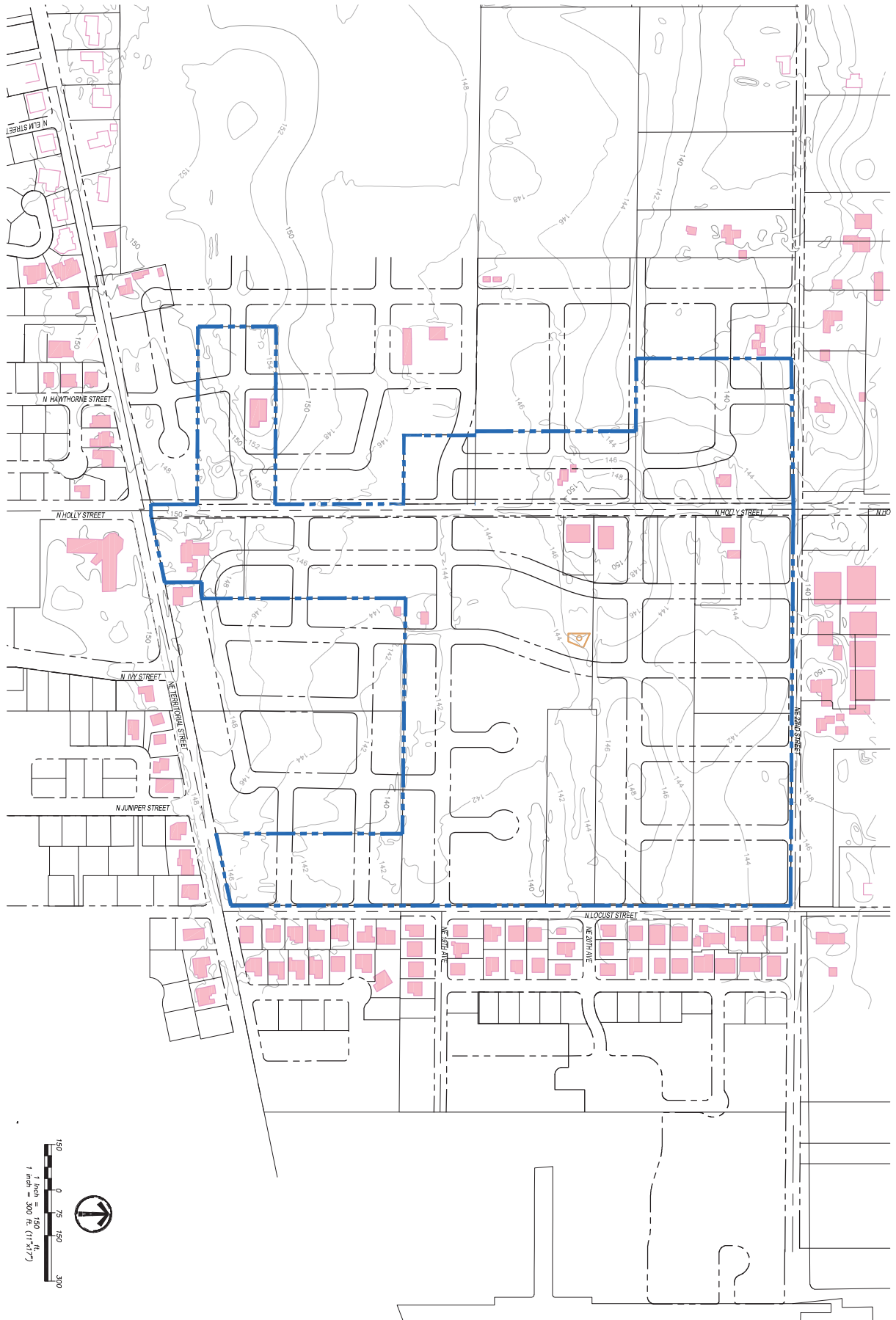
Meeting Location: **Canby United Methodist Church**
1520 N Holly Street
Canby, OR 97013

Meeting Date & Time: **Tuesday, July 31, 2018 from 6:30pm – 7:30pm**

Please feel free to call or email me with any questions or comments if you are unable to attend this meeting.

Sincerely,

Levi Levasa - Project Manager
Email: Levi@staffordlandcompany.com
Phone: 971.206.8614



12367

PLANNING & LAND DESIGN
 1862 NE ESTATE DRIVE
 HILLSBORO, OREGON 97124
 RYAN O'BRIEN

REVISIONS		
NO.	DATE	DESCRIPTION

HOLLY DCP

STAFFORD
 DEVELOPMENT COMPANY, LLC
 485 SOUTH STATE STREET
 LAKE OSWEGO, OREGON 97034

DEVELOPMENT CONCEPT PLAN
 FOR SW 1/4, T3S, R1E, W.M.
 TAX MAP 3-1E-28C

HOLLY ANNEXATION, ZONE CHANGE, & DEVELOPMENT CONCEPT PLAN MEETING MINUTES

Stafford Development Company held a neighborhood meeting on July 31, 2018 for the proposed Annexation and Zoning Map Amendment and the associated Development Concept Plan (DCP) for property within the Holly DCP area as identified on the Canby Annexation and Development Map. The meeting was scheduled, noticed, and held in compliance with the requirements of CMC 16.89.070. The meeting was held at the Canby United Methodist Church located at 1520 N Holly St, Canby, OR 97013, which is across the street from the Holly DCP area. Notice of the meeting was sent out via an invite letter on July 13, 2018 to owners and occupants/tenants of properties located within 500 feet of the Holly DCP boundaries. Notice was also sent to the representatives of the Riverside and NE Canby Neighborhood Associations. The meeting started at 6:35pm and ended at around 8pm. Approximately 80 people attended the meeting. The most up to date iteration of the plan set was presented at the meeting. Levi Levasa, the Project Manager for Stafford Development Company led the meeting. A summary of the presentation is below:

- Levi opened the meeting by explaining that the meeting was being held to meet the requirements associated with submitting an Annexation, Zoning Map Amendment, and Development Concept Plan application that would be explained in more detail throughout the meeting. He explained that despite this meeting being a requirement, he considers it a valuable opportunity to, not only inform, but also receive feedback and answer questions about the proposal from the surrounding community. He stated the opening presentation would be brief and that he wanted the majority of the time to be dedicated to an discussion and time for questions.
- He gave a brief introduction and overview of Stafford Development Company and its associated home building department, Stafford Homes and Land, and the projects they have done in the past and have underway.
- Levi began the presentation of the subject proposals by explaining that it is Stafford's intent to build a residential subdivision on tax lot 400 that includes approximately 19 acres. He said that in order for a subdivision to be possible, the property would have to be annexed into the City first; further explaining that annexation of this particular property requires that a Development Concept Plan be adopted for the entire DCP area prior to any of the properties in the DCP area being annexed. He went on to explain that a Zoning Map Amendment (Zone Change) is also required concurrent with the annexation as the current Clackamas County zoning of RRFF-5 would need to be changed to a City zoning consistent with the Canby Comprehensive Plan Designations, which, in the case of every property in the Holly DCP, is Low Density Residential (LDR) that translates to an R-1 zoning designation that has minimum and maximum lot size requirements of 7,000 and 10,000 square feet respectively.
- He said that the current annexation, zone change, and DCP applications are not applications for a subdivision; explaining that a more detailed subdivision application will need to be submitted separately if the proposed application and DCP are adopted.

- Levi went on to give a brief description of the proposed street plan, sanitary sewer plan, and water line plan; emphasizing that a lot of effort went into designing the street pattern in such a way that properties could more easily develop independently and improvements and future streets are set to split property lines.
- He pointed out that there is a piece of property owned by the City that is designated as a future park, and that the City did not want Stafford to improve the park as a part of any future applications at this time. However, the City did indicate that they would want the property included in the annexation application.
- Levi emphasized that the intent of the DCP is to create a plan that shows a reasonable and logical development pattern for properties within the DCP boundary for roads and services so there is a guiding document for future development in the area that helps provide certainty that future development can be done efficiently. He explained that while a DCP will guide future development, there is an opportunity to propose variations or make amendments to parts of the plan during the subdivision application process, however, the applicant will need to prove that it still meets the intent of the DCP and doesn't adversely impact other properties.
- Levi explained that, while all the properties within the DCP boundary were included in the DCP plans, only those properties that elect to annex their property will be brought into the City. Levi then invited other owners within the DCP boundary that wanted to annex their property to join the annexation and zone change application. He indicated that they would need to contact him soon so they could be included in the applications and have the appropriate paper work signed.
- Levi concluded his presentation and asked if there were any questions, a summary of which is below.

A significant number of questions and discussion ensued, many of which were related or repetitive, the issues have been clustered for clarity below.

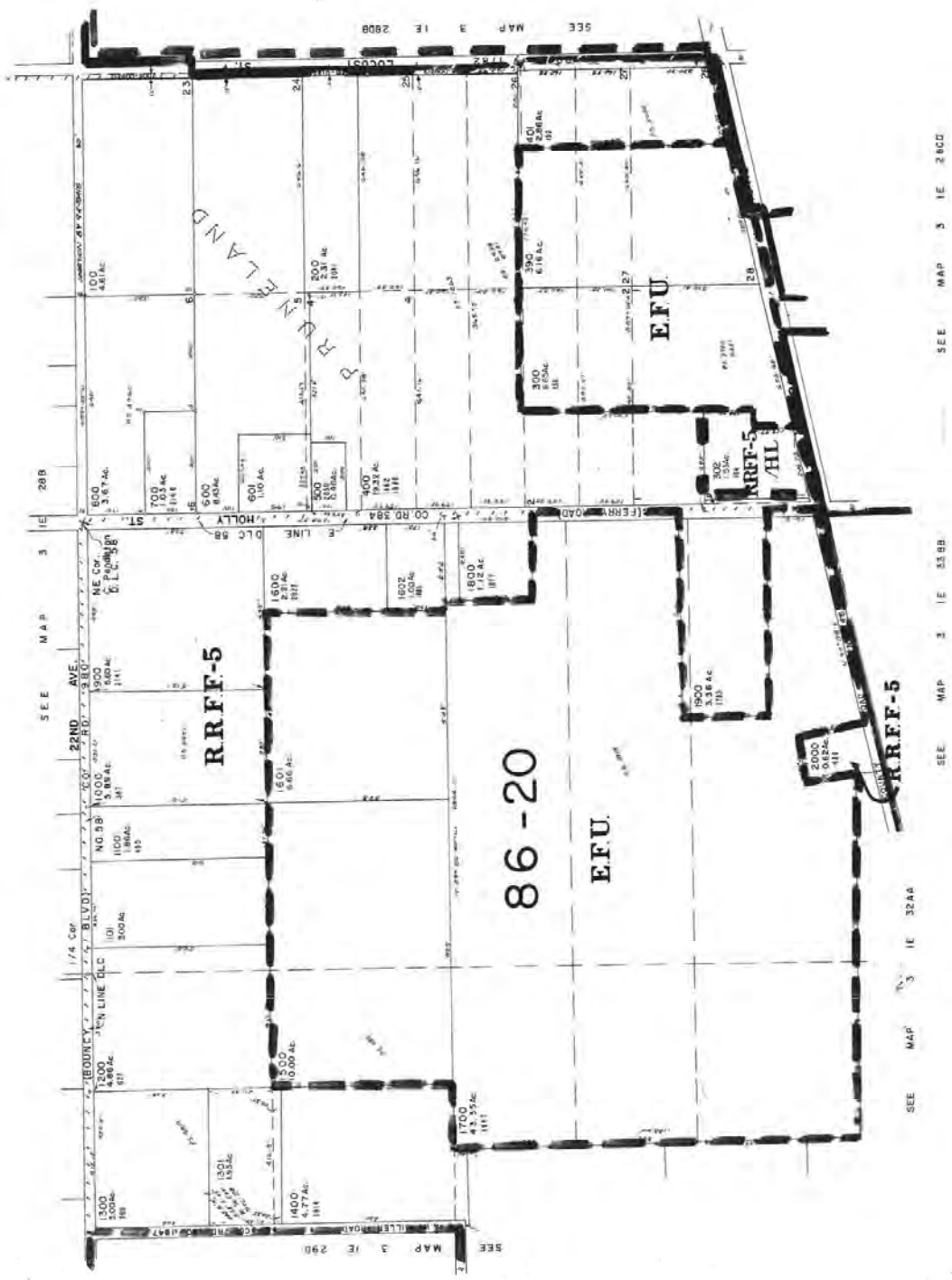
1. How many houses can you fit on the property that you are annexing (TL 400) and what size will the lots be? How many lots can fit in the whole DCP area?
 - A. Levi reiterated that there are no lots being proposed as a part of these applications; indicating that a future subdivision proposal would contain much more detail than the DCP and would be subject to another review and neighborhood meeting, so they will have another opportunity to ask more detailed questions about subdivision details at future meetings. He did indicate, however, that he expects TL 400 to fit between 75 and 80 lots once a final plan is drawn up; further explaining that a large property like TL 400 would likely be developed in 3 or 4 phases. Furthermore, he indicated that he expects the entire DCP can fit between 220 and 240 lots depending on future subdivision designs.
2. Is the Park that was promised to us years ago going to be built on the City property? Are you going to be proposing any additional parks since you will be adding so many homes? Is there a requirement for park dedication? Does money from this development go to building this park?

- A. Levi reiterated that a lot of these things will be clarified and looked at in more detail during more detailed subdivision applications in the future. He indicated that Stafford had offered to develop the park, but that the City preferred to collect the SDCs. He explained that there is a required amount of park, but the City can collect a fee in lieu of park dedication instead, which the City indicated was the preferred option. He explained that any money collected for parks from this development could go to developing the City property into a public park, but that was a decision up to the City. He further detailed the difficulties that Canby and many other cities have with maintaining existing parks on a tight budget, indicating that it is possible that the funds collected from developments in this area could be used at the discretion of the City. He encouraged the neighbors to attend the public hearings and meetings now and in the future to make their voices heard so the decision makers know what the community wants.
- 3. What is the price point for new houses going to be?
 - A. Prices will be dependent on

SW 1/4 SEC 28 T3S.R.1E. W.M. D. L.C. C. PENDLETON NO. 58 3 IE 28C

This map was prepared for assessment purpose only.

CANCELLED TAX LOTS 202

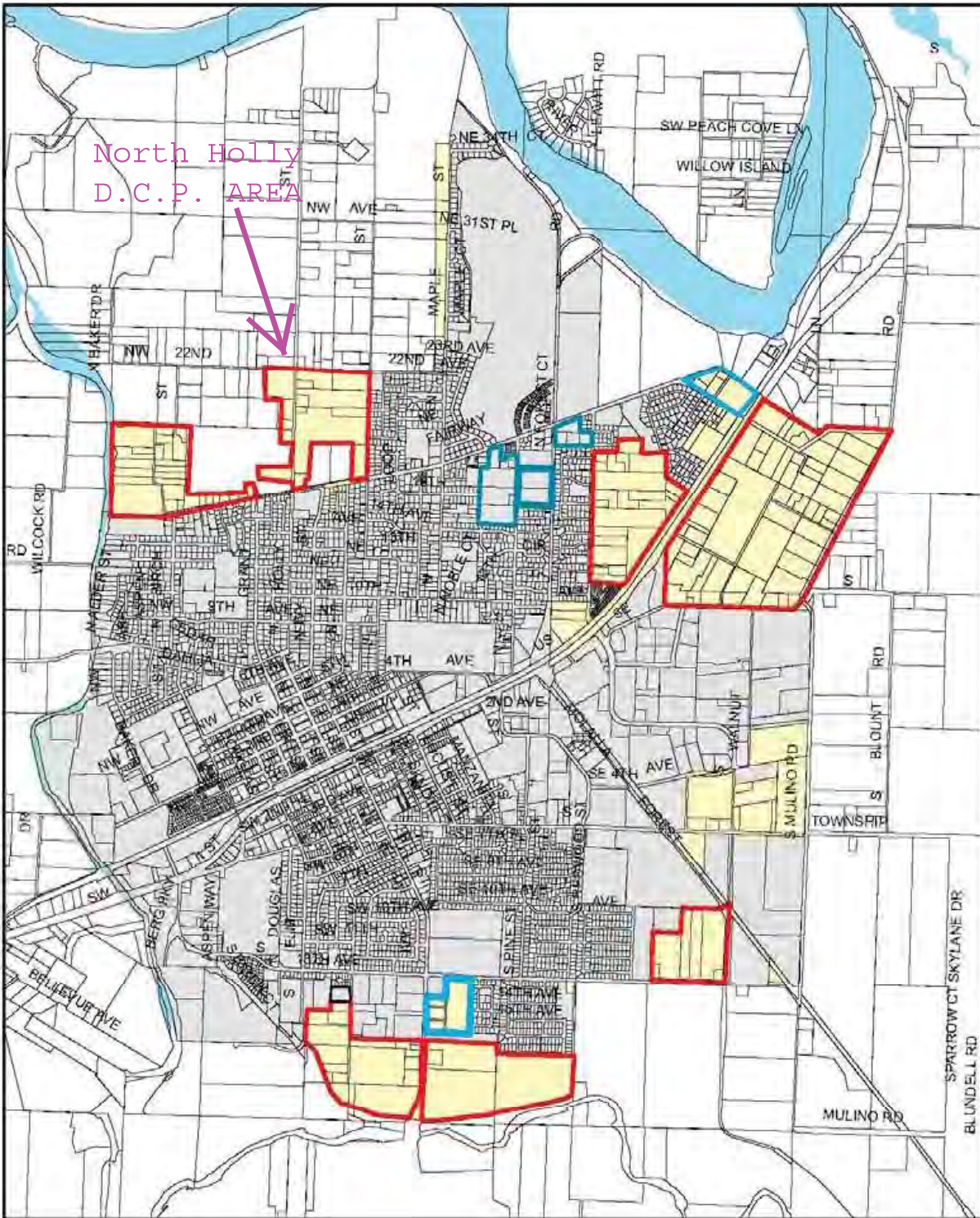


29	28
32	33

EXHIBIT 1

3 IE 28C
BOOK 28

City of Canby Annexation Development Map

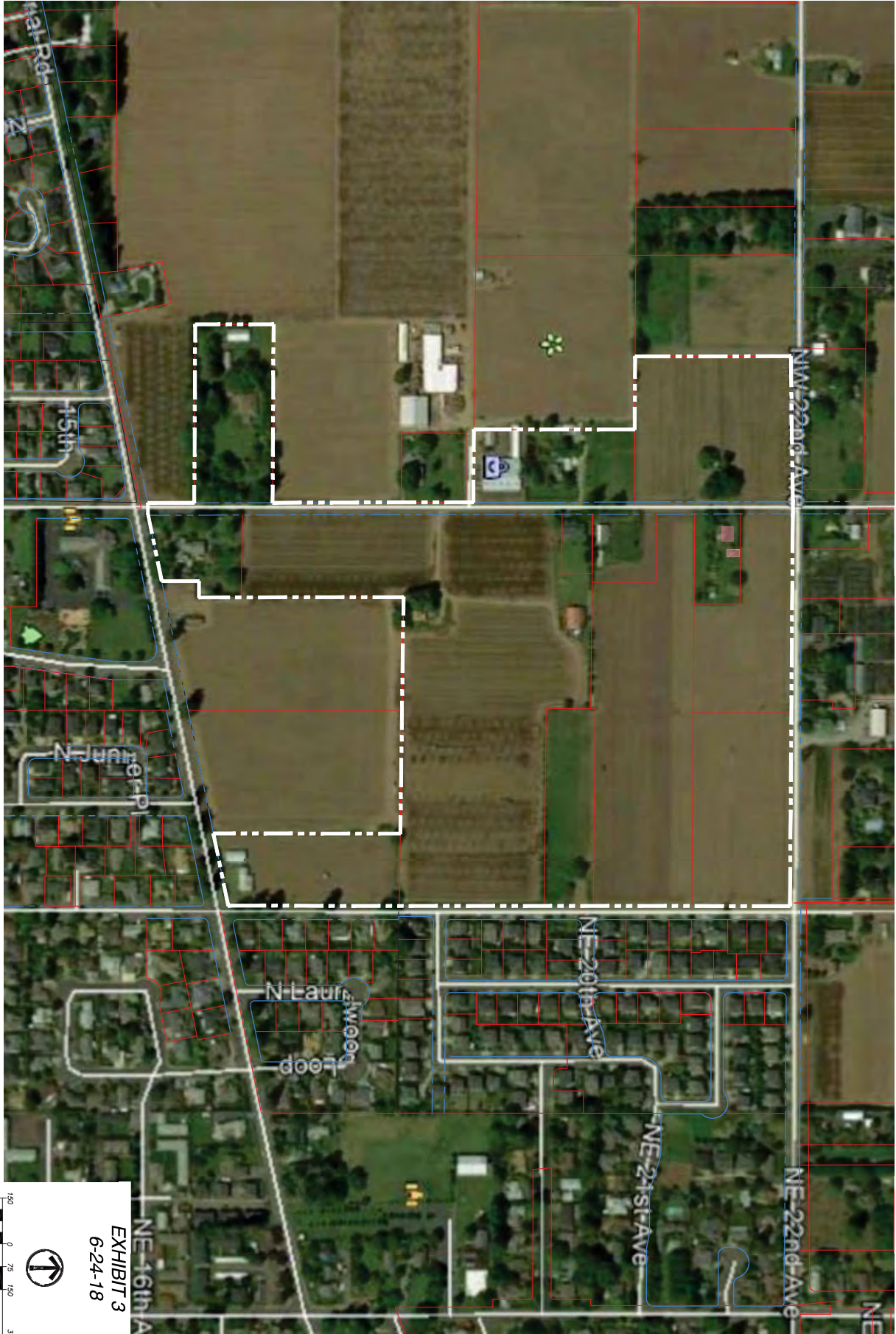


Development Concept Area



Development Agreement Area

EXHIBIT 2



1 inch = 150 ft.
 1 inch = 300 ft. (11'x17')



EXHIBIT 3
 6-24-18

SHEET
 OF

PLANNING & LAND DESIGN
 1862 NE ESTATE DRIVE
 HILLSBORO, OREGON 97124
 RYAN O'BRIEN
 (503)780-4061

REVISIONS	
NO.	DESCRIPTION

HOLLY DCP
 AERIAL PHOTO

STAFFORD
 DEVELOPMENT COMPANY, LLC
 485 SOUTH STATE STREET
 LAKE OSWEGO, OREGON 97034

DEVELOPMENT CONCEPT PLAN
 FOR SW 1/4, T3S. R1E. W.M.
 TAX LOTS 400 AND 401, OF
 TAX MAP 3-1E-28C



Holly
Development Concept Plan

EXHIBIT 4
6-24-18

1" = 300' (11" x 17")

0 75 150 300

North Arrow

PLANNING & LAND DESIGN
1862 NE ESTATE DRIVE
HILLSBORO, OREGON 97124
RYAN O'BRIEN
(503)780-4061

REVISIONS		
NO.	DATE	DESCRIPTION

HOLLY DCP
AERIAL PERSPECTIVE

STAFFORD
DEVELOPMENT COMPANY, LLC
485 SOUTH STATE STREET
LAKE OSWEGO, OREGON 97034

DEVELOPMENT CONCEPT PLAN
FOR SW 1/4, T3S. R1E. W.M.
TAX LOTS 400 AND 401, OF
TAX MAP 3-1E-28C

DEVELOPMENT SITES AND 57.51 ACRES NET IN UGB

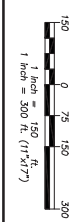
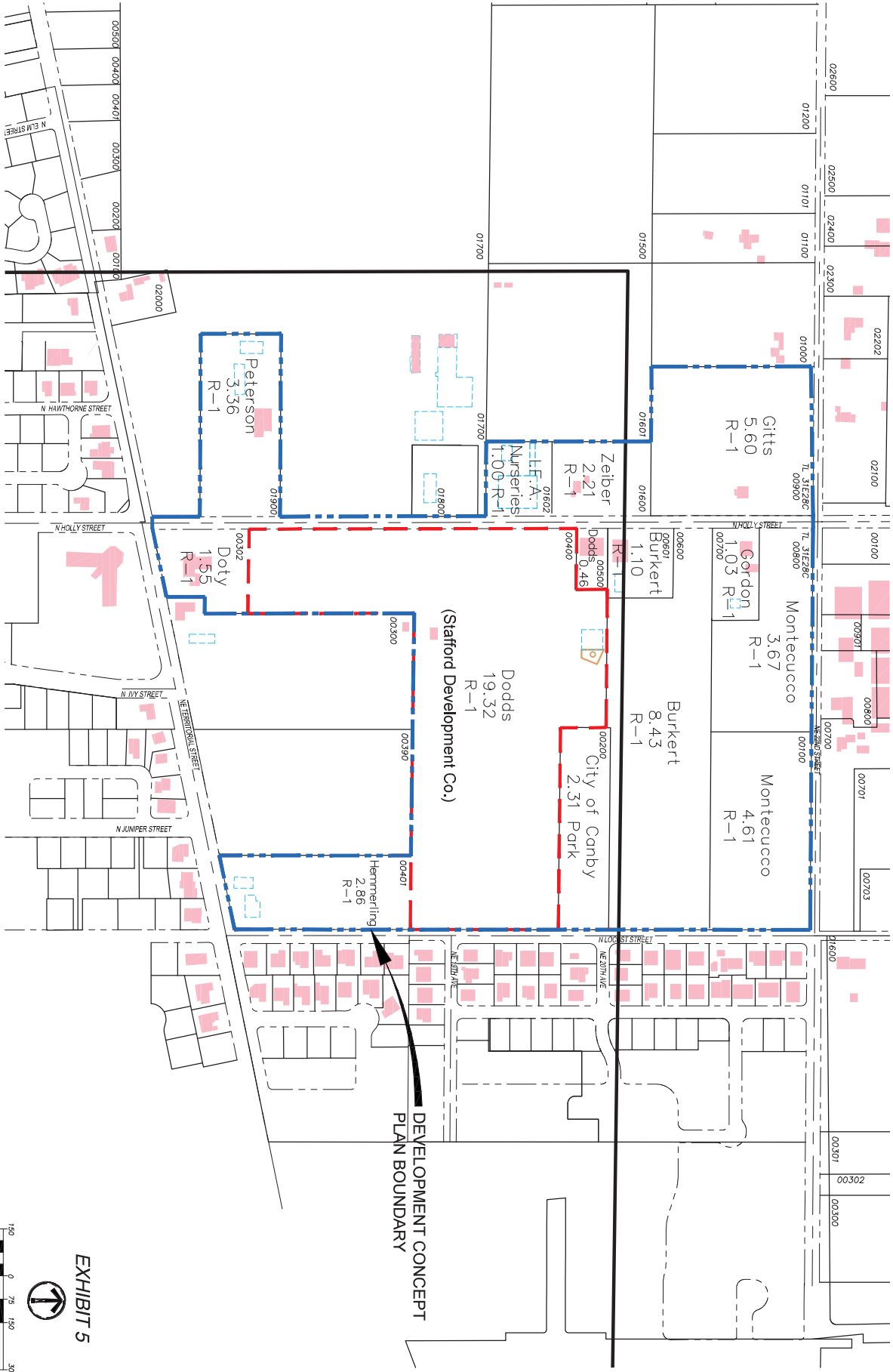


EXHIBIT 5

DEVELOPMENT CONCEPT
PLAN BOUNDARY

<p>SHEET</p> <p style="font-size: 2em;">X</p>	<p>PLANNING & LAND DESIGN 1862 NE ESTATE DRIVE HILLSBORO, OREGON 97124 RYAN O'BRIEN (503)780-4061</p>		<p>REVISIONS</p> <table border="1"> <thead> <tr> <th>NO.</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>		NO.	DATE	DESCRIPTION				<p>HOLLY DCP DEVELOPMENT SITES AND NET ACREAGE IN UGB</p>		<p>STAFFORD DEVELOPMENT COMPANY, LLC 485 SOUTH STATE STREET LAKE OSWEGO, OREGON 97034</p>		<p>DEVELOPMENT CONCEPT PLAN FOR SW 1/4, T3S. R1E. W.M. TAX LOTS 400 AND 401, OF TAX MAP 3-1E-28C</p>	
	NO.	DATE	DESCRIPTION													
<p>83</p>																

EXISTING CONDITIONS AND TOPOGRAPHY

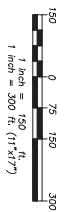
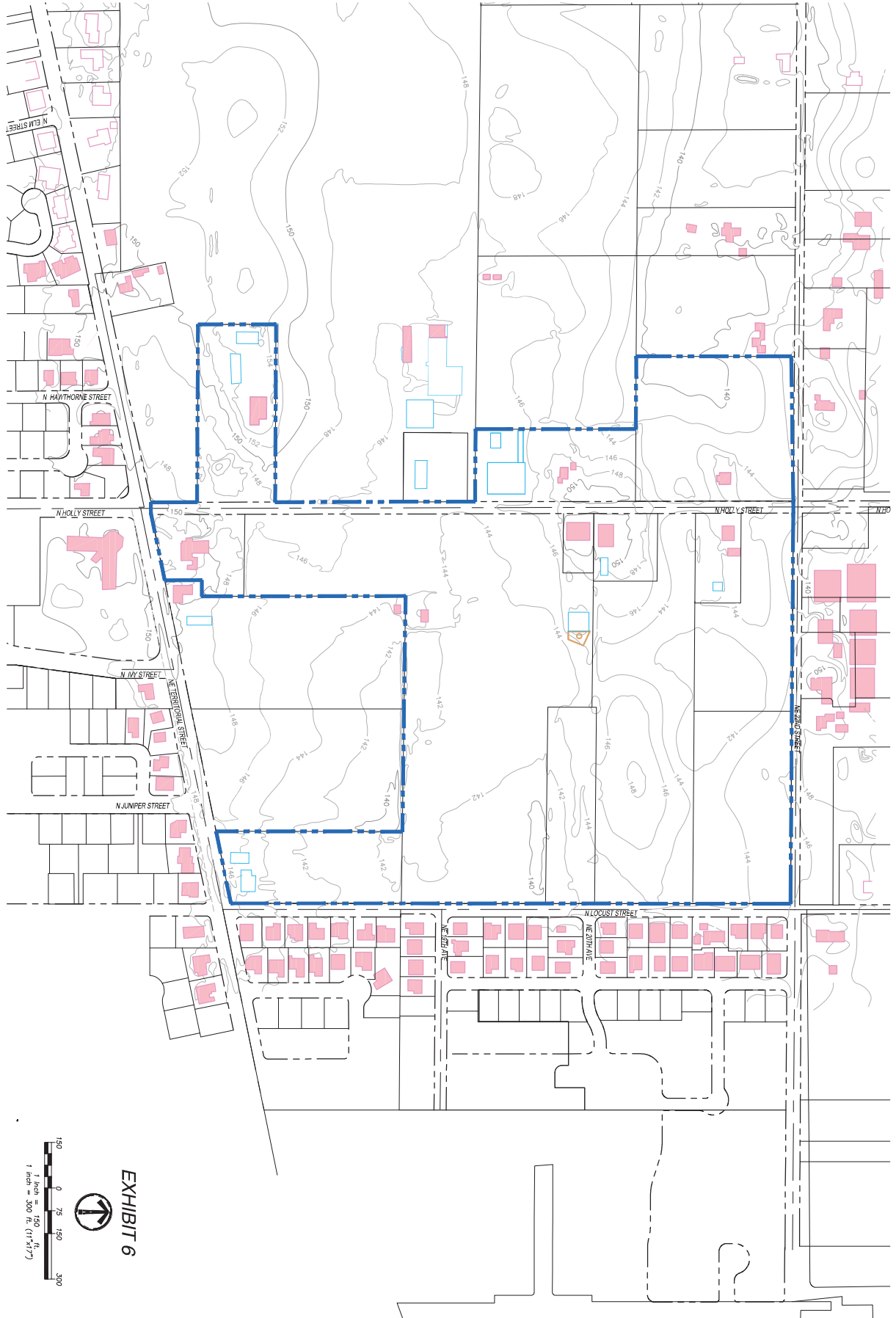


EXHIBIT 6

<p>1367</p> <p>X</p>	<p>PLANNING & LAND DESIGN 1862 NE ESTATE DRIVE HILLSBORO, OREGON 97124 RYAN O'BRIEN (503)780-4061</p>	<p>REVISIONS</p>		<p>HOLLY DCP</p>	<p>STAFFORD DEVELOPMENT COMPANY, LLC 485 SOUTH STATE STREET LAKE OSWEGO, OREGON 97034</p>	<p>DEVELOPMENT CONCEPT PLAN FOR SW 1/4, T3S. R1E. W.M. TAX LOTS 400 AND 401, OF TAX MAP 3-1E-28C</p>
		<p>NO.</p>	<p>DATE</p>			

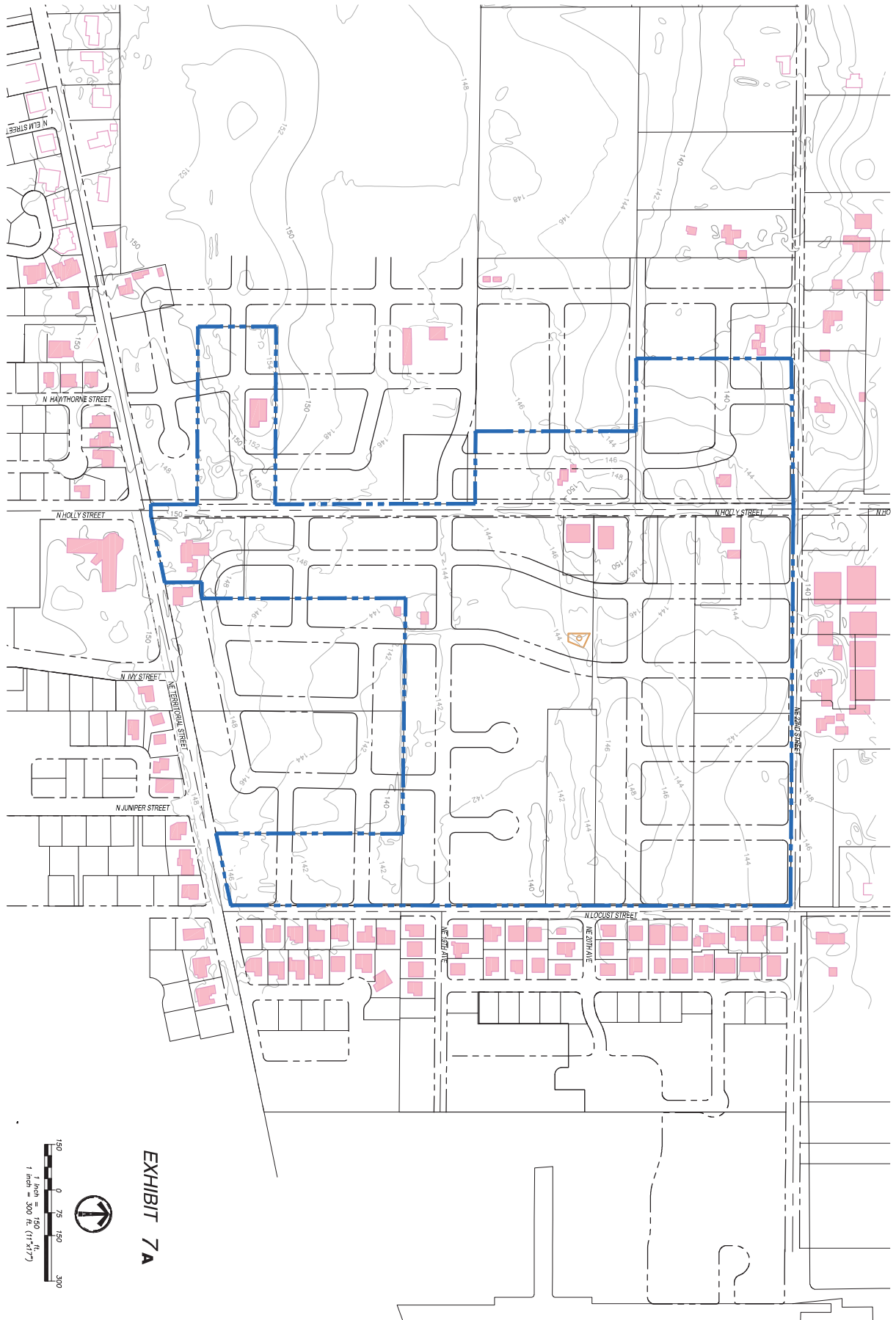
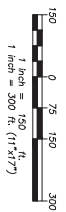


EXHIBIT 7A



 1232 X	PLANNING & LAND DESIGN 1862 NE ESTATE DRIVE HILLSBORO, OREGON 97124 RYAN O'BRIEN (503)780-4061	REVISIONS <table border="1"> <thead> <tr> <th>NO.</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	NO.	DATE	DESCRIPTION				HOLLY DCP	STAFFORD DEVELOPMENT COMPANY, LLC 485 SOUTH STATE STREET LAKE OSWEGO, OREGON 97034	DEVELOPMENT CONCEPT PLAN FOR SW 1/4, T3S. R1E. W.M. TAX LOTS 400 AND 401, OF TAX MAP 3-1E-28C
	NO.	DATE	DESCRIPTION								
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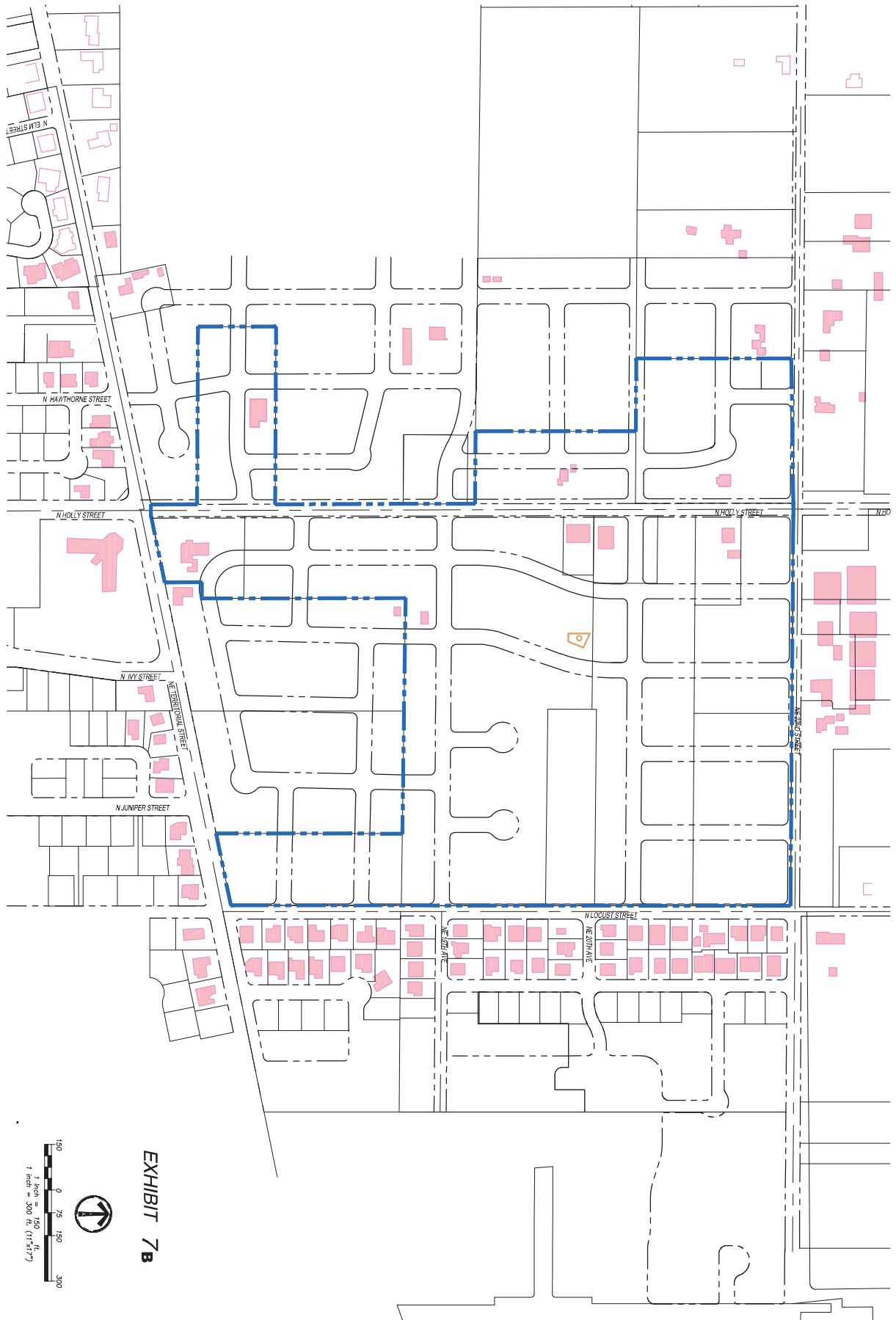
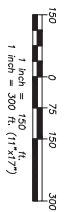


EXHIBIT 7B



 X	1382 PLANNING & LAND DESIGN 1862 NE ESTATE DRIVE HILLSBORO, OREGON 97124 RYAN O'BRIEN (503)780-4061	REVISIONS <table border="1"> <thead> <tr> <th>NO.</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	NO.	DATE	DESCRIPTION				HOLLY DCP	STAFFORD DEVELOPMENT COMPANY, LLC 485 SOUTH STATE STREET LAKE OSWEGO, OREGON 97034	DEVELOPMENT CONCEPT PLAN FOR SW 1/4, T3S, R1E, W.M. TAX LOTS 400 AND 401, OF TAX MAP 3-1E-28C
	NO.	DATE	DESCRIPTION								
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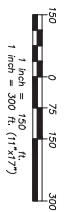
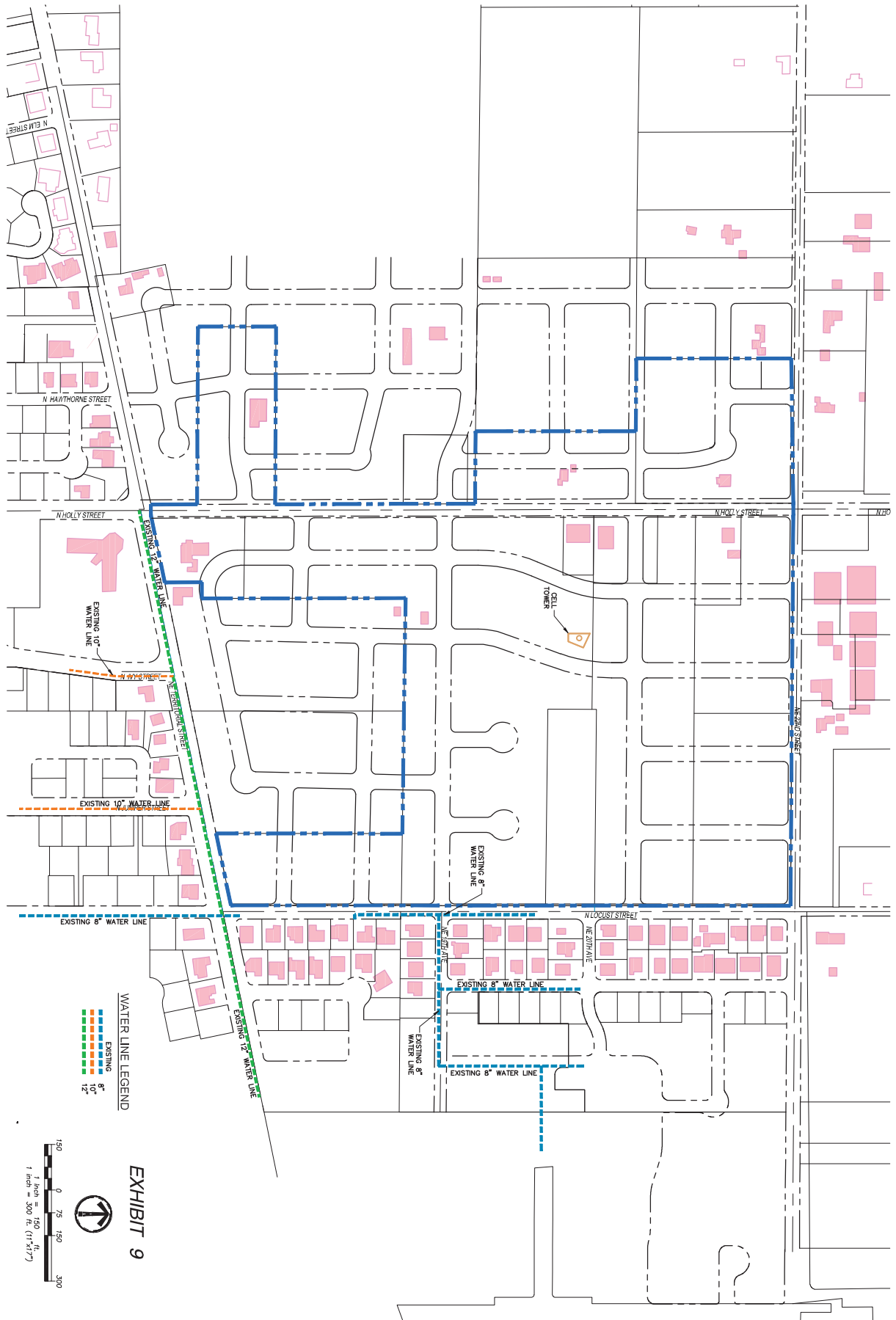


EXHIBIT 9

	1862 PLANNING & LAND DESIGN 1862 NE ESTATE DRIVE HILLSBORO, OREGON 97124 RYAN O'BRIEN (503) 780-4061	REVISIONS <table border="1"> <thead> <tr> <th>NO.</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	NO.	DATE	DESCRIPTION				HOLLY DCP	STAFFORD DEVELOPMENT COMPANY, LLC 485 SOUTH STATE STREET LAKE OSWEGO, OREGON 97034	DEVELOPMENT CONCEPT PLAN FOR SW 1/4, T3S. R1E. W.M. TAX LOTS 400 AND 401, OF TAX MAP 3-1E-28C
	NO.	DATE	DESCRIPTION								
8 X											

**STORM DRAINAGE SYSTEM
U.I.C. INVENTORY**

CITY OF CANBY
Clackamas County, Oregon

LEGEND



SCALE: 1" = 500'

- CITY LIMITS
- URBAN GROWTH
BOUNDARY
- STORM DRAINAGE PIPELINE & SIZE
- DRY WELL & INVENTORY NUMBER
- TRENCH DRAINS
- INEFFECTIVE DRY WELL AREA
- DRY WELL LOSS AVAILABLE AVE DEPTH
- AGRICULTURE, COMMERCIAL, RESIDENTIAL
(NON-POTABLE) GROUND WATER WELL #
- MUNICIPAL GROUND WATER WELL / 500' R
- DOMESTIC GROUND WATER WELL - 500' R

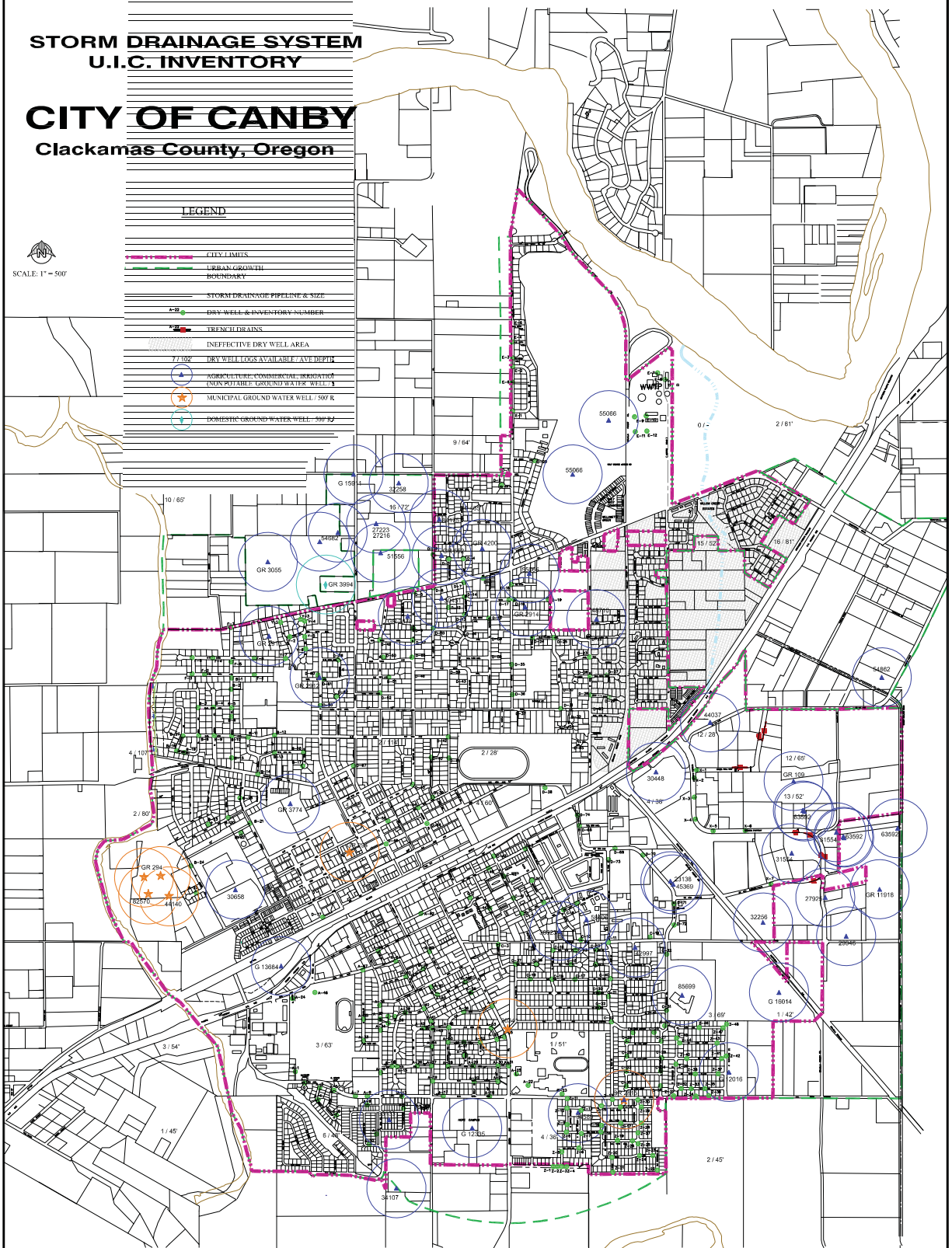


EXHIBIT 11

CURRAN-MCLEOD, INC
CONSULTING ENGINEERS

Pre-Application Conference Narrative

The purpose of this application is to request the approval for the Annexation of the subject property (and those that may choose to join the annexation) from unincorporated Clackamas County into the City of Canby and apply local zoning designations, consistent with the Comprehensive Plan, through the process of a Zoning Map Amendment. The subject property is located at 1882 N Holly Street, Canby, OR 97013; Specifically, Tax Lot 00400 on Tax Map 3S1E28C (Exhibit 1), which is approximately 19.32 acres.

The subject property is within and makes up a large portion of the north **Holly Development Concept Plan (DCP)** area, which is identified on the City of Canby Annexation Development Map (Exhibit 2). As required by the City of Canby, the applicant will create a DCP for the identified area to be considered and adopted as a part of the annexation application.

The properties included in the Holly DCP area are listed in the table below. Acreage is based on the Tax Map.

Property Owner	APN	Tax Map	Tax Lot	Acres	Comp Plan Designation	Future City Zoning
Thomas Dodds	0776262	3S 1E 28C	00400	19.32	LDR	R-1
Thomas Dodds	0776280	3S 1E 28C	00500	0.46	LDR	R-1
Montecucco Rentals	0776217	3S 1E 28C	00100	4.61	LDR	R-1
Montecucco Rentals	0776315	3S 1E 28C	00800	3.67	LDR	R-1
Susan Burkert	0776299	3S 1E 28C	00600	8.43	LDR	R-1
Susan Burkert	1374989	3S 1E 28C	00601	1.10	LDR	R-1
City of Canby	0776226	3S 1E 28C	00200	2.31	Park	Park
Ifa Nurseries	0776431	3S 1E 28C	01602	1.00	LDR	R-1
Nicholas & Linda Gitts	0776324	3S 1E 28C	00900	5.60	LDR	R-1
David & Susan Gordon	0776306	3S 1E 28C	00700	1.03	LDR	R-1
Lori Hemmerling	0776271	3S 1E 28C	00401	2.86	LDR	R-1
Margaret Peterson	0776468	3S 1E 28C	01900	3.36	LDR	R-1
Johnathan Doty	0776244	3S 1E 28C	00302	1.55	LDR	R-1
Amanda Zeiber	0776413	3S 1E 28C	01600	2.21	LDR	R-1
				<u>57.51</u>		

The applicant has determined that annexation of the subject property is prudent and will address the need for residential lots and land in the City of Canby. Subject to approval of annexation, the subject property is proposed to be rezoned from the Clackamas County designation of Rural Residential Farm Forest 5-Acre Minimum (RRFF-5) to existing City of Canby designations that are consistent with the Comprehensive Plan. In this case, all properties included within the annexation boundary of the DCP area would receive an R-1 zoning designation. The city park property would receive a “Park” zoning designation.

The applicant plans to engage the surrounding property owners in the Holly DCP area to determine who would like to have their property included in the annexation application. The creation of the Development Concept Plan for this area will be the result of collaboration with surrounding owners and community members. The first draft of the Holly DCP plans are attached as Exhibits 3-9. We attempted to create streets that follow existing property lines with logical and independent development of each existing tax lot. The ownership and net acres of each tax lot is identified by Exhibit 5. The current Canby TSP Map is shown by Exhibit 10. Exhibit 11 shows all the well Locations. When the well is removed on the Dodds property, Tax Lot 400, adequate area will become available for storm infiltration manholes.

QUESTIONS:

1. These plans show a planned right-of-way width of 70' on NW Territorial Rd. and N Holly Street. Both streets are designated as Collector Streets. N Locust Street, NW 22nd Ave and all the interior streets are shown at a planned 50' ROW width. Are these the appropriate widths?
2. The attached plans show conceptual roadways on parcels not included in the DCP area and outside the UGB. Should these conceptual roadways be included on the plan we propose for adoption?
3. Are there any capacity issues in this area for public utilities?
4. Will storm water generated need to be infiltrated on-site like the Beck Pond project for future subdivisions?
5. We assume the DKS Transportation Report only included the number of lots in the Holly DCP area. Will the anticipated update of the Canby TSP affect the preparation of the DKS report for this DCP and the timing of approval of the DCP, Annexation, Zone Change and future subdivision approval of the Dodds property?
6. We assume the city is not interested in additional park dedication. Is this correct?
7. What is the status of the Traffic Scoping by DKS?
8. Attached is the proposed outline of the final application which includes a list of exhibits we plan to submit. Are there any additional sections or exhibits that should be included?

LIST OF PRE-APP EXHIBITS

1. Tax Map
2. Canby Annexation Development Map
3. Project Site Aerial
4. DCP Area Perspective Aerial
5. DCP Area Ownership & Acreage
6. Existing Conditions & Topography
7. Holly DCP Road Layout
 - a. With Topo
 - b. Without Topo
8. Existing Sewer Lines
9. Existing Water Lines
10. Canby TSP Map
11. Existing Well Locations

PROPOSED FINAL APPLICATION OUTLINE:

Cover Page

Table of Contents

List of Exhibits (see below)

Annexation & Zoning Map Amendment Narrative

- I. Introduction
- II. Site Description
- III. Facilities and Services
- IV. Neighborhood Involvement
- V. Approval Criteria
 - a. Canby Municipal Code
 - b. Comprehensive Plan Policies
 - c. Urban Growth Management Agreement (UGMA)
 - d. Oregon Revised Statutes (ORS)

Holly DCP Narrative

- I. Purpose
- II. Existing Conditions
- III. Opportunities and Constraints
- IV. Concept Plan Overview
- V. Utility Service
- VI. Park Dedication

Exhibits

1. Vicinity Map (8.5x11)
2. Canby Annexation Development Map (8.5x11)
3. Annexation Properties Map (Same or similar to 4.3)
4. Holly DCP Plans (11x17)
 - 4.1. Site Aerial with Property Lines and DCP Boundary
 - 4.2. Perspective Aerial with DCP Boundary
 - 4.3. Ownership, Development Sites & Net Acres in UGB
 - 4.4. Existing Conditions and Topo Survey
 - 4.5. Holly Development Concept Plan (Road Layout)
 - 4.6. Aerial Overlay with Holly DCP
 - 4.7. Sanitary Sewer Master Plan Overview
 - 4.8. Sanitary Sewer Master Plan North
 - 4.9. Sanitary Sewer Master Plan South
 - 4.10. Water Line Master Plan Overview
 - 4.11. Water Line Master Plan North
 - 4.12. Water Line Master Plan South
 - 4.13. Storm Sewer Master Plan Overview
 - 4.14. Storm Sewer Master Plan North
 - 4.15. Storm Sewer Master Plan South
5. City Plan Maps (11x17)

- 5.1. Canby Existing Well Locations Map
- 5.2. Canby Parks Master Plan
- 5.3. Canby Comprehensive Plan Map
- 5.4. Canby Zoning Map
- 5.5. Canby Transportation System Plan Map
- 6. Canby Street Sections (8.5x11)
- 7. Traffic Study (8.5x11)
- 8. Demographic Profile (8.5x11)
- 9. Neighborhood Meeting Materials (8.5x11)
 - 9.1. Neighborhood Association Map
 - 9.2. Mailing List
 - 9.3. Sign-In Sheet
 - 9.4. Meeting Minutes
- 10. Annexation Properties Legal Descriptions



Pre-Application Meeting

N Holly Development Concept Plan Annexation

July 18, 2018

10:30 am

Attended by:

Ryan O'Brien, Planning & Land Design, 503-780-4061
Jennifer Cline, Public Works, 503-266-0780
Levi Levasa, Stafford Development Co., 503-250-3651

Gordon Root, Stafford Development Co., 503-720-0914
Hassan Ibrahim, Curran-McLeod Engineering, 503-684-3478
Bryan Brown, Planning Department, 503-266-0702

This document is for preliminary use only and is not a contractual document.

ANNEXATION DISCUSSION

- Levi said we will be doing an annexation for the Dodd's property and it is the piece of property in the middle surrounded by red and to do the annexation we had to come up with a concept plan. Ryan stated the city would probably want to annex the park also. Hassan asked if they were going up towards NE 22nd Avenue and Levi said not unless these owners decide they want to join us in the annexation. The development concept plan (DCP) is outlined in blue and this is the area we are required to do a master plan and we are only planning to annex the one lot, but we are showing potential future extensions for reference sake. This is outside the urban growth boundary (UGB) and it is a real unique situation because it is zoned exclusive farm use (EFU) and the rest is rural residential farm (RFF-5). Ryan stated they wanted us to go all the way out to here for planning purposes even though it is outside the city limits. Levi said we showed how it works if it ever does get inside the UGB. Gordon said we wanted to have it come in and see if we could do a minor amendment of some sort and apparently it is quite a process for a residential land use study, instead of a minor amendment here to bring this lot in. This is apparently a much bigger deal than we thought it would be and it is an EFU zone and it is a strange place to have one. Where the UGB goes around it. Levi said we did as Bryan asked to develop a concept plan for the area and we are only planning on doing the area in red right now.
- Levi stated we will be having a neighborhood meeting in approximately two weeks to see if anyone else wants to be included in the annexation.
- Levi said we will not be submitting lot lines in the plan because the last time it got confusing and this is what we will be submitting for the master plan road concepts. Jennifer asked about the cell tower and Levi stated it was existing and we would have to relocate some lines and we have already started talking with DirectLink.
- Ryan said the draftsman put in the sheds and he was only supposed to put in the houses. The agricultural buildings will be outlined, but it is really important to show where people's houses are and it will be changed to reflect it.

- Levi said once we are through the annexation process and we would obviously subdivide this portion surrounding the EFU. There are some owners who we have talked to and they do not have any interest in being included with the annexation or a future subdivision.
- Levi said Ryan already got the traffic scoping done from DKS and we may or may not use them for this application. We will have the traffic study done for the entire DCP and also for the potential subdivision. Jennifer said she saw the sewer line here and Hassan said yes this is correct it goes up from the intersection and it is just a gravel road here. Ryan said the surveyors assumed an “ie” and it is not very accurate and Hassan said it should be deep enough. At this point, as far as I know, we have adequate capacity at the wastewater treatment plant for annexation purposes. Levi said he received the as-builts from the surrounding area from Ronda and we also have the surveyors working on the rest for the size of the lines. Hassan said a couple of the streets are county roads and the city road needs to be improved to 44 ft wide with 8 ft parking only the south side to match what is already existing, (2) bike lanes on NE Territorial Road. We realize it would look different because of the transition happening on NE Territorial Road because of the EFU land. Most of NE Territorial Road is improved except for some intermittent sections, but it is filling in pretty quickly. Jennifer asked what the right-of-way (ROW) was on NE Territorial Road and Hassan said 60 ft and asked Bryan if NE Territorial Road was a major arterial and Bryan said it was a collector. Ryan said they are showing it as a 70 ft ROW and N Holly Street is a collector also. The other roadways are local streets, some county and some city and we show them as a 35 ft ROW and Hassan said we would annex those and Bryan said the issue is we would probably annex it if it was adjacent to the boundaries to what is being annexed. Our Urban Growth Management Agreement, which you have read recently Jennifer, it talks about annexing adjacent local streets and Jennifer said we take jurisdiction at that time and the county owes us an overlay and Bryan said it also states they retain arterial streets. Hassan said according to the county’s standards these are local streets, N Locust and NE 22nd Avenue.
- Jennifer asked if they would wait on the annexation until you know if these guys will be in the development and Gordon stated they will either jump on the train or not. The way the lots are designed is each tax lot can be independently done. Ryan said we made it for them to be able to develop separately, like ours and we do not have to worry about developing. We think it is a good idea to have a through street in here and it is far enough away from the intersection. Bryan asked if they knew the length of the distance of that street and Ryan said he did not know. Bryan said there are numerous streets in Canby having that length and are straight shots, but it does not necessarily mean and Ryan said we can move the street around if you want. Gordon said you are talking about speed and Bryan said it might invite future problems with speed. Ryan said we can do all kinds of traffic calming, we are just in the beginning stages of this concept plan. Bryan said there was not anything else I saw in the design other than the straight-away and I did not know how to respond at this point. The other one, however, this street right here will not meet our separation distance from the intersection of N Locust and NE Territorial Road. Ryan said he could redesign it and Hassan said you could put in a hammerhead or a bubble and you would have to sprinkle the houses and Levi said it is out of the UGB, which makes it odd. Gordon said the planning commission is very concerned about the ability of the individual property owners to develop

independently of one another. They are very concerned about showing it going through existing homes and this has been through multiple iterations to get to here and how are you doing to let this person develop independently from anyone else. Levi asked what was the spacing needed on the streets and Bryan said 250 ft for a new proposed street, which this would be and should not be any closer than 250 ft of a collector street. This is mentioned in the Public Works Designs and in the traffic scope, they were going to look at it and they said there were five connections to N Locust and one of them they had to look at closely because it might be too close. Maybe you guys could do more of an analysis on how unusual of a straight shot is because it is not desired and it just introduces high speeds and through traffic. It is not that it cannot happen, but if there is potential to calm it or change it. Hassan said to keep in mind these are still county roads and they may have more stringent requirements on access spacing than the city. Bryan said he talked to Matilda yesterday and she said prior to five to six years ago we always got the county to acquiesce to our standards since it would eventually be in the city and then five to six years ago I fought and got one concession. Now they are saying it is our street and we maintain it and Hassan said if you look at their comments they clearly state you need to get a required development permit from Clackamas County and it means the roads have to follow their standards. Gordon asked if N Pine Street was under the county's jurisdiction and Hasan said yes. Gordon said we had to build it to county road standards and Hassan said yes. Jennifer asked if they required 6 ft sidewalks and Bryan said in rural areas they say 5 ft and Jennifer said we require 6 ft sidewalks on Territorial Road. Hassan said from what they said they will not be fronting Territorial Road at all unless these other owners agree to annex and the answer was yes. Hassan said in the county's comments they say "based on the existing level of improvement of NE 22nd Avenue, any new roadway connection to the roadway will require an improvement of at least a 20-foot wide paved surface between N Holly Street and N Locust Street". When Auburn Farms Subdivision was built they required 26 ft and now they are requiring 20 ft.

- Gordon asked if the city wanted to have the park annexed and Bryan said yes. Gordon said we will annex the park at the same time and then instead of having a park inside our development here, we were just going to make some improvements in this park. Jennifer stated it has a lease, the city administrator will have to know a year in advance to not renew the lease because he renews it every year from what I understand for farming. There was a question of whether or not they would come back this next year, but it is currently leased for farming. Gordon said the timing of it, obviously with this development concept plan will move a lot faster than the south property we did.
- Hassan asked about NE 20th Avenue and Gordon said they could not have it continue through because of your park land. Listening to the planning commission and the city council about trying to make certain every tax lot can develop on its own without being reliant and no straddling of the lot lines and removing as few houses as possible.
- Bryan asked what are you doing for annexing the adjacent local streets because typically we have been annexing half of them. Hassan said yes, to the centerline. Bryan said I think we would do it here and Jennifer said we would not take jurisdiction of the street. Bryan said we can still take jurisdiction over them, but if we are going to do that, which is in the intergovernmental agreement seems to say we should and it makes me think we should annex the entire ROW. Ryan said yes because then you would not have to get a permit from the

county to work on their half of the street and a city permit for the other half. Hassan said if you do the legal you go to the centerline of the road and Ryan said we always go to the other side of the road. Hassan said we did not do that on N Pine Street and Ryan said we did it on S Fir Street for the Beck Pond Subdivision and we do not like to have two different standards. Bryan said this is adjacent to the city limits and it makes me think it may already be annexed to the centerline and Hassan said we do not take ownership till they bring it to city standards, this section will be to county standards. We will come to a common ground to what we want, but do we really want to annex this and Bryan said I do not think we have any obligation to take over N Holly Street because it is a collector street and I think we should only go to centerline of N Holly Street. We will take over the maintenance of N Locust because it will be completely in the city limits, but N Holly Street is a collector and we are not obligated by the UBG agreement. Jennifer said if I talk to the county and said if we plan to do an inter-governmental agreement (IGA) after the annexation to transfer the ownership to the city they would probably be likely to meet and only require city standards on this if I tell them I will take over the jurisdiction.

- Levi said he did not think the Montecucco's have any interest in annexation.
- Ryan thought N Locust Street was entirely under the city's jurisdiction, but he would have to do more research on it and Bryan said will we be asking for additional ROW dedication along N Locust Street. Does this show the ROW on N Locust Street and Hassan said it varies along the street from 40 to 52 ft. Levi said they would have the surveyor confirm the ROW for N Locust Street.
- Gordon asked Bryan what the park system development charges (SDC) are and Bryan said \$5,400 approximately. Gordon said for the annexation application for the park, we make improvements for your park since the park SDC's alone would be over \$400,000.00 with improvements. Bryan said I have not given any thought to it and Jennifer said the park commission is very eager to get the park developed. Bryan said they are also eager to develop it in a manner the city wants it developed not necessarily what the developer does. If you want to propose something or find out what the city wants it to be and design it. Gordon stated we would like to figure out what the city wants it to be and Bryan said this would give the Parks Recreation Board something to do and they just had a meeting last night. Gordon asked who did they need to talk to about the park and Bryan said Matilda Deas and Jennifer said also, Rick Robinson. Bryan said the Park Recreation Board will also want to discuss this issue and I do not know if they have a concept plan for this park yet. Gordon said they will get together with Matilda and figure out what type of park or amenity they want.
- Ryan said he would like to discuss water and he did not know if they wanted the same size water line around the area and Hassan said you would need to talk to Jim Stuart and I do not want to speak for him. Jennifer stated he would want it looped. Bryan said you will need to be addressing how these will be served by utilities over here and Ryan said they could. Hassan said if there are any dead ends you will need to have a blow-off and they can be expensive.
- Bryan said are you confident wise that the entire DCP area can be gravity feed sewers and Hassan said the Wastewater Treatment Plant has the capacity and when their survey is completed they can see if they can serve all of it. Jennifer stated they prefer not to have a

pump station and Bryan said if any portion of this entire DCP needs to have a pump station I think you will have a serious problem getting the DCP approved.

- Jennifer asked what they planned on doing with stormwater and Ryan said they have not done the plan yet, but we do have a plan showing where all the water wells are located and the wells on the subject properties going away and then we will show where the potential drywells will be located. When we take the subject well of the property we are developing we will need to do infiltration tests. Hassan said you will need to be 267 ft radius minimum away from any water wells. Jennifer said she looked at the stormwater standards and it mentioned all developments will do low impact development (LID) first and second would be the drywells, make sure there is some sort of LID improvements along with the drywells. Bryan said of course when you do that, one of the natural things to think about is adjacent swells along the public street, which Centex (Auburn Farms Subdivision) did and it turned out horrible and they have not been popular and Public Works does not like to maintain them. The fact our code was changed to deliberately promote LID type solutions, not drywells and that was when we thought we would be totally banned from new drywells. Hassan said LID's are for the most part water quality rather than capacity discharge and Bryan said the change is coming. Hassan said we had to modify what they did and Bryan said the issues I heard that came up were people were falling and twisting their ankles. The other thing was they used rock, but then all the kids were picking up the rocks and throwing them everywhere. Hassan said they do not have to be very deep and Levi stated in the City of Sandy the swells are barely anything. Hassan said you can do something that is no more than 3 inches deep with a curb opening so water can get in and pipe it at the end.
- What will be the street widths and the answer was 34 ft with parking on both sides of the street. Bryan said I would encourage you to do 34 ft streets with a 50 ft ROW.
- Bryan said there is a possibility to your strategy to develop the park could be a plus for you because for the past 15 years or so, people wanted it developed and they are screaming to the city to have a park.
- Ryan said Bryan you were not here when we talked about the lot lines for the purposes for you guys to look at, but that will not be a part of our plans. Bryan said he thought it would be okay.

PETITION FOR A CONSENT ANNEXATION
TO THE CITY OF CANBY, OREGON

Pursuant to ORS 222.170

To the City Council of the City of Canby, Oregon

I (we), the undersigned owners of the property described below, hereby petition and give consent to, annexation of said property to the City of Canby.

Property Information:

Owner(s): Montecucco Rentals, LLC
Site Address: No Situs, Canby, OR
Tax Map: 3 1E 28C
Tax Lot: 00800
Parcel Number: 00776315

Property Characteristics:

Current Jurisdiction: Clackamas County
Current Zoning: RRF-5 – Rural Residential Farm Forest 5 Acre Minimum
Current Use: Agricultural Land
Approximate Size: 3.67 Acres
Canby Comprehensive Plan Designation: LDR – Low Density Residential

Owner Signature(s): Montecucco Rentals, LLC

Mailing Address: 3460 N Holly St.; Canby, OR 97013

Signature: Edward Montecucco TTEE

By: Edward Montecucco TTEE
Credit Shelter Trust Title: Member
Evelyn Montecucco

Signature: Paul A. Montecucco TTEE

By: Paul A. Montecucco TTEE Title: Member
Virgil A, Montecucco Admin Trust

Signature: R. Frances Montecucco, Trustee

By: R. Frances Montecucco, Trustee Title: Member
R. Frances Montecucco Revocable Living Trust

Signature: Susan M. Myers, Trustee

By: Susan M. Myers, Trustee Title: Member
Paul S. Montecucco GST Trust

Signature: Susan M. Myers, Trustee

Paul S. Montecucco Family Trust Title: Member

**CONSENT TO ZONING MAP
AMENDMENT APPLICATION**

To the City Council of the City of Canby, Oregon

I (we), the undersigned owners of the property described below, hereby give consent to the inclusion of said property in the zoning map amendment application being considered concurrent with the annexation application for said property.

Property Information:

Owner(s): Montecucco Rentals, LLC
Site Address: No Situs, Canby, OR
Tax Map: 3 1E 28C
Tax Lot: 00800
Parcel Number: 00776315

Property Characteristics:

Current Jurisdiction: Clackamas County
Current Zoning: RRFF-5 – Rural Residential Farm Forest 5 Acre Minimum
Current Use: Agricultural Land
Approximate Size: 3.67 Acres
Canby Comprehensive Plan Designation: LDR – Low Density Residential
Proposed City of Canby Zoning: R-1 – Low Density Residential Zone

Owner Signature(s): Montecucco Rentals, LLC

Mailing Address: 3460 N Holly St; Canby, OR 97013

Signature: Edward Montecucco TTEE

By: Edward Montecucco TTEE Title: Member
Evelyn Montecucco
Credit Shelter Trust

Signature: Paul A. Montecucco TTEE

By: Paul A. Montecucco TTEE Title: Member
Virgil A. Montecucco Admin Trust

Signature: R. Frances Montecucco, Trustee

By: R. Frances Montecucco, Trustee Title: Member
R. Frances Montecucco Revocable Living Trust

Signature: Susan M. Myers, Trustee

By: Susan M. Myers, Trustee Title: Member
Paul S. Montecucco & ST Trust

Signature: Susan M. Myers, Trustee Title: Member
Paul S. Montecucco Family Trust

**PETITION FOR A CONSENT ANNEXATION
TO THE CITY OF CANBY, OREGON**

Pursuant to ORS 222.170

To the City Council of the City of Canby, Oregon

I (we), the undersigned owners of the property described below, hereby petition and give consent to, annexation of said property to the City of Canby.

Property Information:

Owner(s): Montecucco Rentals, LLC
Site Address: No Situs, Canby, OR
Tax Map: 3 1E 28C
Tax Lot: 00100
Parcel Number: 00776217

Property Characteristics:

Current Jurisdiction: Clackamas County
Current Zoning: RFFF-5 – Rural Residential Farm Forest 5 Acre Minimum
Current Use: Agricultural Land
Approximate Size: 4.62 Acres
Canby Comprehensive Plan Designation: LDR – Low Density Residential

Owner Signature(s): Montecucco Rentals, LLC

Mailing Address: 3460 N. Holly St., Canby, OR 97013

Signature: Edward Montecucco TTEE

By: Edward Montecucco TTEE Title: Member
Evelyn Montecucco Credit Shelter Trust

Signature: Paul A. Montecucco TTEE

By: Paul A. Montecucco TTEE Title: Member
Virgil Ai Montecucco Admin Trust

Signature: R. Frances Montecucco, Trustee

By: R. Frances Montecucco, Trustee Title: Member
R. Frances Montecucco Revocable Living Trust

Signature: Susan M. Myers, Trustee

By: Susan M. Myers, Trustee Title: Member
Paul S. Montecucco GST Trust

Signature: Susan M. Myers, Trustee
Paul S. Montecucco Family Trust Title: Member

**CONSENT TO ZONING MAP
AMENDMENT APPLICATION**

To the City Council of the City of Canby, Oregon

I (we), the undersigned owners of the property described below, hereby give consent to the inclusion of said property in the zoning map amendment application being considered concurrent with the annexation application for said property.

Property Information:

Owner(s): Montecucco Rentals, LLC
Site Address: No Situs, Canby, OR
Tax Map: 3 1E 28C
Tax Lot: 00100
Parcel Number: 00776217

Property Characteristics:

Current Jurisdiction: Clackamas County
Current Zoning: RRFF-5 – Rural Residential Farm Forest 5 Acre Minimum
Current Use: Agricultural Land
Approximate Size: 4.62 Acres
Canby Comprehensive Plan Designation: LDR – Low Density Residential
Proposed City of Canby Zoning: R-1 – Low Density Residential Zone

Owner Signature(s): Montecucco Rentals, LLC

Mailing Address: 3460 N Holly St.; Canby, OR 97013

Signature: Edward Montecucco TTEE

By: Edward Montecucco TTEE
Member
Shelter Trust

Signature: Paul A. Montecucco TTEE

By: Paul A. Montecucco TTEE Title: Member
Virgil A. Montecucco Admin Trust

Signature: R Frances Montecucco Trustee

By: R. Frances Montecucco, Trustee Title: Member
R. Frances Montecucco Revocable Living Trust

Signature: Susan M. Myers, Trustee

By: Susan M. Myers Trustee Title: Member
Paul S. Montecucco Family Trust

Signature: Susan M. Myers, Trustee
Paul S. Montecucco GST Trust Title: Member

**PETITION FOR A CONSENT ANNEXATION
TO THE CITY OF CANBY, OREGON**
Pursuant to ORS 222.170

To the City Council of the
City of Canby, Oregon

I (we), the undersigned owners of the property described below, hereby petition and give consent to, annexation of said property to the City of Canby.

Property Information:

Owner(s): Susan Burkert
Site Address: No Situs, Canby, OR
Tax Map: 3 1E 28C
Tax Lot: 00600
Parcel Number: 00776299

Property Characteristics:

Current Jurisdiction: Clackamas County
Current Zoning: RRFF-5 – Rural Residential Farm Forest 5 Acre Minimum
Current Use: Agricultural Land
Approximate Size: 8.02 Acres
Canby Comprehensive Plan Designation: LDR – Low Density Residential

Owner Signature(s):

Signature: *Susan N. Burkert* *9/5/2018*

By: Susan Burkert *Susan N. Burkert*

Mailing Address: 2058 N Holly St, Canby, OR 97013

CONSENT TO ZONING MAP AMENDMENT APPLICATION

To the City Council of the
City of Canby, Oregon

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Owner(s): Susan Burkert
Site Address: No Situs, Canby, OR
Tax Map: 3 1E 28C
Tax Lot: 00600
Parcel Number: 00776299

Property Characteristics:

Current Jurisdiction: Clackamas County
Current Zoning: RRFF-5 – Rural Residential Farm Forest 5 Acre Minimum
Current Use: Agricultural Land
Approximate Size: 8.02 Acres
Canby Comprehensive Plan Designation: LDR – Low Density Residential
Proposed City of Canby Zoning: R-1 – Low Density Residential Zone

Owner Signature(s):

Signature: *Susan N. Burkert* *9/5/2018*

By: Susan Burkert *Susan N. Burkert*

Mailing Address: 2058 N Holly St, Canby, OR 97013

**PETITION FOR A CONSENT ANNEXATION
TO THE CITY OF CANBY, OREGON**
Pursuant to ORS 222.170

To the City Council of the
City of Canby, Oregon

I (we), the undersigned owners of the property described below, hereby petition and give consent to, annexation of said property to the City of Canby.

Property Information:

Owner(s): Susan Burkert
Site Address: 2058 N Holly St, Canby, OR 97013
Tax Map: 3 1E 28C
Tax Lot: 00601
Parcel Number: 01374989

Property Characteristics:

Current Jurisdiction: Clackamas County
Current Zoning: RRFF-5 – Rural Residential Farm Forest 5 Acre Minimum
Current Use: Single Family Residence
Approximate Size: 1.10 Acres
Canby Comprehensive Plan Designation: LDR – Low Density Residential

Owner Signature(s):

Signature: *Susan N. Burkert* *9/5/2018*
By: Susan Burkert *Susan N. Burkert*

Mailing Address: 2058 N Holly St, Canby, OR 97013

**CONSENT TO ZONING MAP
AMENDMENT APPLICATION**

To the City Council of the
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Tax Lot: 00601
Parcel Number: 01374989

Property Characteristics:

Current Jurisdiction: Clackamas County
Current Zoning: RRFF-5 – Rural Residential Farm Forest 5 Acre Minimum
Current Use: Single Family Residence
Approximate Size: 1.10 Acres
Canby Comprehensive Plan Designation: LDR – Low Density Residential
Proposed City of Canby Zoning: R-1 – Low Density Residential Zone

Owner Signature(s):

Signature: *Susan N. Burkert* *9/5/2018*

By: Susan Burkert *Susan N. Burkert*

Mailing Address: 2058 N Holly St, Canby, OR 97013

**PETITION FOR A CONSENT ANNEXATION
TO THE CITY OF CANBY, OREGON
Pursuant to ORS 222.170**

To the City Council of the
City of Canby, Oregon

I (we), the undersigned owners of the property described below, hereby petition and give consent to, annexation of said property to the City of Canby.

Property Information:

Owner(s): Hemmerling Nursery, LLC
Site Address: 102 NE Territorial Rd, Canby, OR 97013
Tax Map: 3 1E 28C
Tax Lot: 00401
Parcel Number: 00776271

Property Characteristics:

Current Jurisdiction: Clackamas County
Current Zoning: RRFF-5 – Rural Residential Farm Forest 5 Acre Minimum
Current Use: Farms 3.06 UH
Approximate Size: ~~2.06~~ Acres
Canby Comprehensive Plan Designation: LDR – Low Density Residential

Owner Signature(s):

Signature: Lori A. Hemmerling 9/5/18

By: Lori A. Hemmerling Title: manager, Hemmerling nursery, LLC

Mailing Address: 1500 Cooper Street, Seaside, OR 97138

Signature: Lynn M. Hemmerling

By: Lynn M. Hemmerling Title: manager, Hemmerling nursery, LLC

Mailing Address: 2754 N. Hampden Ct #1002, Chicago, IL 60614

CONSENT TO ZONING MAP AMENDMENT APPLICATION

To the City Council of the
City of Canby, Oregon

I (we), the undersigned owners of the property described below, hereby give consent to the inclusion of said property in the zoning map amendment application being considered concurrent with the annexation application for said property.

Property Information:

Owner(s): Hemmerling Nursery, LLC
Site Address: 102 NE Territorial Rd, Canby, OR 97013
Tax Map: 3 1E 28C
Tax Lot: 00401
Parcel Number: 00776271

Property Characteristics:

Current Jurisdiction: Clackamas County
Current Zoning: RRFF-5 – Rural Residential Farm Forest 5 Acre Minimum
Current Use: Farms
Approximate Size: ~~3.08~~ 3.06 ^{lt} Acres
Canby Comprehensive Plan Designation: LDR – Low Density Residential
Proposed City of Canby Zoning: R-1 – Low Density Residential Zone

Owner Signature(s):

Signature: Lori A. Hemmerling 9/5/18
By: Lori A. Hemmerling Title: manager, Hemmerling Nursery, LLC
Mailing Address: 1500 Cooper Street, Seaside, OR 97138

Signature: Lynn M. Hemmerling
By: Lynn M. Hemmerling Title: manager, Hemmerling Nursery, LLC
Mailing Address: 2754 N. Hampden Ct #1002, Chicago, IL 60614

**PETITION FOR A CONSENT ANNEXATION
TO THE CITY OF CANBY, OREGON**
Pursuant to ORS 222.170

To the City Council of the
City of Canby, Oregon

I (we), the undersigned owners of the property described below, hereby petition and give consent to, annexation of said property to the City of Canby.

Property Information:

Owner(s): David Gordon & Susan Gordon
Site Address: 2146 N Holly St, Canby, OR 97013
Tax Map: 3 1E 28C
Tax Lot: 00700
Parcel Number: 00776306

Property Characteristics:

Current Jurisdiction: Clackamas County
Current Zoning: RRFF-5 – Rural Residential Farm Forest 5 Acre Minimum
Current Use: Single Family Residence
Approximate Size: 1.03 Acres
Canby Comprehensive Plan Designation: LDR – Low Density Residential

Owner Signature(s):

Signature: David Gordon

By: David Gordon

Mailing Address: 2146 N Holly St, Canby, OR 97013

Signature: Susan Gordon

By: Susan Gordon

Mailing Address: 2146 N Holly St, Canby, OR 97013

Our consent is contingent upon at least one of our neighboring adjacent parcels (Barkert or Montecucco) being annexed as well.
9/4/18
David Gordon
David Gordon
Susan Gordon
Susan Gordon

CONSENT TO ZONING MAP AMENDMENT APPLICATION

To the City Council of the
City of Canby, Oregon

I (we), the undersigned owners of the property described below, hereby give consent to the inclusion of said property in the zoning map amendment application being considered concurrent with the annexation application for said property.

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Tax Map: 3 1E 28C
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Current Zoning: RRFF-5 – Rural Residential Farm Forest 5 Acre Minimum
Current Use: Single Family Residence
Approximate Size: 1.03 Acres
Canby Comprehensive Plan Designation: LDR – Low Density Residential
Proposed City of Canby Zoning: R-1 – Low Density Residential Zone

Owner Signature(s):

Signature: David Gordon

By: David Gordon

Mailing Address: 2146 N Holly St, Canby, OR 97013

Signature: Susan Gordon

By: Susan Gordon

Mailing Address: 2146 N Holly St, Canby, OR 97013

Our consent is contingent upon at least one of our neighboring adjacent parcels (Butter or Montecucco) being annexed as well.
9/4/18
David Gordon
Susan Gordon
David Gordon
Susan Gordon

Holly Development Concept Plan

Transportation Impact Study
Canby, Oregon

Date:

September 13, 2018

Prepared for:

Levi Levasa
Stafford Land Company

Prepared by:

Daniel Stumpf, EI
William Farley, PE



LANCASTER
ENGINEERING

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Executive Summary

1. The proposed Holly Development Concept Plan (DCP) includes properties located north of NE/NW Territorial Road, south of NE/NW 22nd Avenue, west of N Locust Street, and along both sides of N Holly Street near Canby, Oregon. Upon annexation, properties within the Holly DCP area must be rezoned from their existing zoning of *Rural Residential Farm Forest 5-Acre (RRFF-5)* to *Low Density Residential (R-1)* for development as a maximum 240-lot residential subdivision.
2. The trip generation calculations show that under the proposed zoning, the site could reasonably generate up to 178 morning peak hour trips, 238 evening peak hour trips, and 2,266 weekday trips.
3. No significant trends or crash patterns were identified at any of the study intersections that were indicative of safety concerns.
4. Left-turn lane warrants are projected to be met for the eastbound approach at the intersection of NE Territorial Road at N Locust Street by the 2030 planning horizon year with the full buildout of the DCP area. No other new turn lanes are necessary or recommended.
5. Due to insufficient main and side-street traffic volumes, traffic signal warrants are not projected to be met at the study intersections along NE/NW Territorial Road under any of the analysis scenarios.
6. All study intersections are currently operating acceptably per their respective jurisdictional standards and are projected to continue operating acceptably through the 2030 planning horizon with the full buildout of the DCP area.
7. The future development of the Holly DCP is not projected to degrade the performance of any existing or planned transportation facility below acceptable City of Canby or Clackamas County standards. In addition, the proposal is consistent with the City's Transportation System Plan and Comprehensive Plan. Accordingly, the Transportation Planning Rule is satisfied.

Project Description and Location

Introduction

The proposed Holly Development Concept Plan (DCP) includes properties located north of NE/NW Territorial Road, south of NE/NW 22nd Avenue, west of N Locust Street, and along both sides of N Holly Street near Canby, Oregon. Upon annexation, properties within the Holly DCP area must be rezoned from their existing zoning of *Rural Residential Farm Forest 5-Acre (RRFF-5)* to *Low Density Residential (R-1)* for development as a maximum 240-lot residential subdivision. Based on correspondence with City of Canby staff, the report conducts safety and capacity/level of service analyses at the following intersections:

- N Holly Street at NW Territorial Road;
- N Locust Street at NE Territorial Road; and
- N Locust Street at NE 19th Avenue (future site access).

The purpose of this study is to assess the potential impacts of the proposed DCP and address the transportation analysis requirements of the City of Canby and Oregon's Transportation Planning Rule. The report will identify the potential net increase in site generated traffic and examine the transportation impacts of the added trips at the planning horizon. The report will also include level of service calculations and volume-to-capacity calculations for existing conditions as well as year 2030 traffic conditions, both with and without the development of the proposed DCP. Additionally, a review and assessment of crash history at the study intersections was conducted. Detailed information on traffic counts, trip generation calculations, safety analyses, and level of service calculations is included in the appendix to this report.

Project and Location Description

The project site is located just north of Canby City limits, within the urban growth boundary, in unincorporated Clackamas County, Oregon. The subject site is situated in a developing residential area, with single-family houses to the east and south, and agricultural land-uses to the north and west.

The project site includes 15 tax lots which encompass an approximate total of 57.93 acres. The site is currently developed as low density commercial/residential agricultural land-uses. The DCP will include the construction of 13 future public access intersections onto vicinity roadways: specifically, 5 access intersections onto NE 22nd Avenue, 4 access intersections onto N Holly Street, and 4 access intersections onto N Locust Street.

Vicinity Streets

Development of the proposed DCP is expected to primarily impact four nearby, existing vicinity roadways. Table 1 provides a description of each of the vicinity roadways.

Table 1: Vicinity Roadway Descriptions

Roadway	Jurisdiction	Functional Classification	Cross-Section	Speed	On-street Parking	Bicycle Lanes	Curbs	Sidewalks
NE/NW 22nd Avenue	City of Canby/ Clackamas County	Local Street	2 Lanes/ Gravel	25 mph Statutory	Partially Permitted	None	Partial Both Sides	Partial Both Sides
NE/NW Territorial Road	City of Canby	Arterial/ Neighborhood Connector	2 Lanes	25/35 mph Posted	Partially Permitted	Partial Both Sides	Partial Both Sides	Partial Both Sides
N Holly Street	City of Canby/ Clackamas County	Arterial/ Collector/Local Street	2 Lanes	25/45 mph Posted	Partially Permitted	None	Partial Both Sides	Partial Both Sides
N Locust Street	City of Canby/ Clackamas County	Local Street	2 Lanes	25 mph Posted	Partially Permitted	None	Partial Both Sides	Partial Both Sides

Note: Functional Classification and Jurisdiction based on City of Canby's *Transportation System Plan*.

Study Intersections

A majority of site trips generated by the proposed development are expected to impact three nearby, existing intersections of significance. A summarized description of these intersections is provided in Table 2.

Table 2: Study Intersection Descriptions

Number	Name	Geometry	Traffic Control	Phasing/Stopped Approaches
1	N Holly Street at NW Territorial Road	Four-Legged	Stop-Controlled	All-Way Stop-Controlled
2	N Locust Street at NE Territorial Road	Four-Legged	Stop-Controlled	NB/SB Stop-Controlled
5	N Locust Street at NE 19th Avenue	Three-Legged	Stop-Controlled	WB Stop-Controlled

A vicinity map displaying the project site, vicinity streets, and the study intersections with their associated lane configurations is shown in Figure 1 on page 5.

Traffic Counts

Intersection Counts

Traffic counts were conducted at the study intersections on Thursday, August 9th, 2018, from 7:00 AM to 9:00 AM and from 4:00 PM to 6:00 PM. Data was used from each intersection’s respective morning and evening peak hours. To estimate existing traffic volumes at the proposed site access intersections along NE 22nd Avenue, N Holly Street, and N Locust Street, volumes were balanced with the study intersections as well as the intersections of N Holly Street at NW 22nd Avenue and N Locust Street at NE 22nd Avenue, where additional count data was collected.

School Traffic

At the time of conducting traffic counts, local schools were closed for the summer months. In order to reflect typical weekday traffic conditions with school in session, additional volumes were added to the collected count data utilizing the City of Canby’s Small Community Model. The modeling data was provided by DKS Associates and is included within the technical appendix to this report.

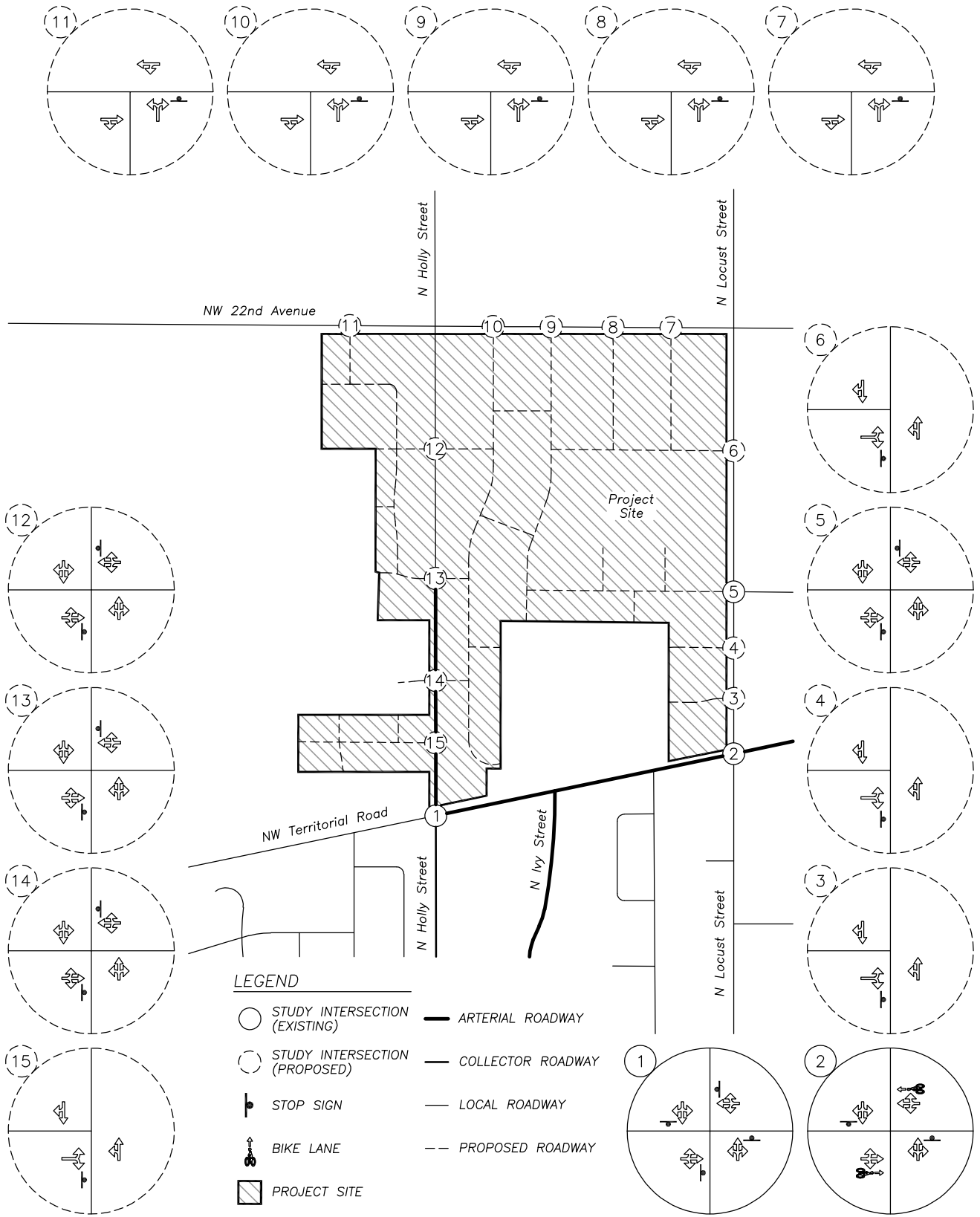
NE/NW Territorial Road Data Collection

Per direction by the City of Canby, 24-hour vehicle volume, classification, and speed data was collected along NE/NW Territorial Road on Thursday, August 9th, 2018. Table 3 summarizes the reported findings of the collected data.

Table 3: Territorial Road Volume Summary

	Classification (Daily Count)							Speed (mph)		
	Bikes	Cars & Trailers	2 Axle (Long)	Buses	2 Axle (6 Tires)	3+ Axle (Single & Multi)	Not Classed	ADT	50th Percentile	85th Percentile
EB	62	2,068	472	4	168	13	57	2,844	28	33
WB	39	1,863	555	7	221	18	78	2,781	31	35
Total	101	3,931	1,027	11	389	31	135	5,625	-	-

Figure 2 on page 6 and Figure 3 on page 7 show the existing morning and evening peak hour traffic volumes at the study intersections, respectively.



VICINITY MAP



FIGURE 1
PAGE 5

NOTE: EXISTING TRAFFIC VOLUMES INCLUDE SCHOOL TRAFFIC
BASED ON THE CANBY SMALL COMMUNITY MODEL.

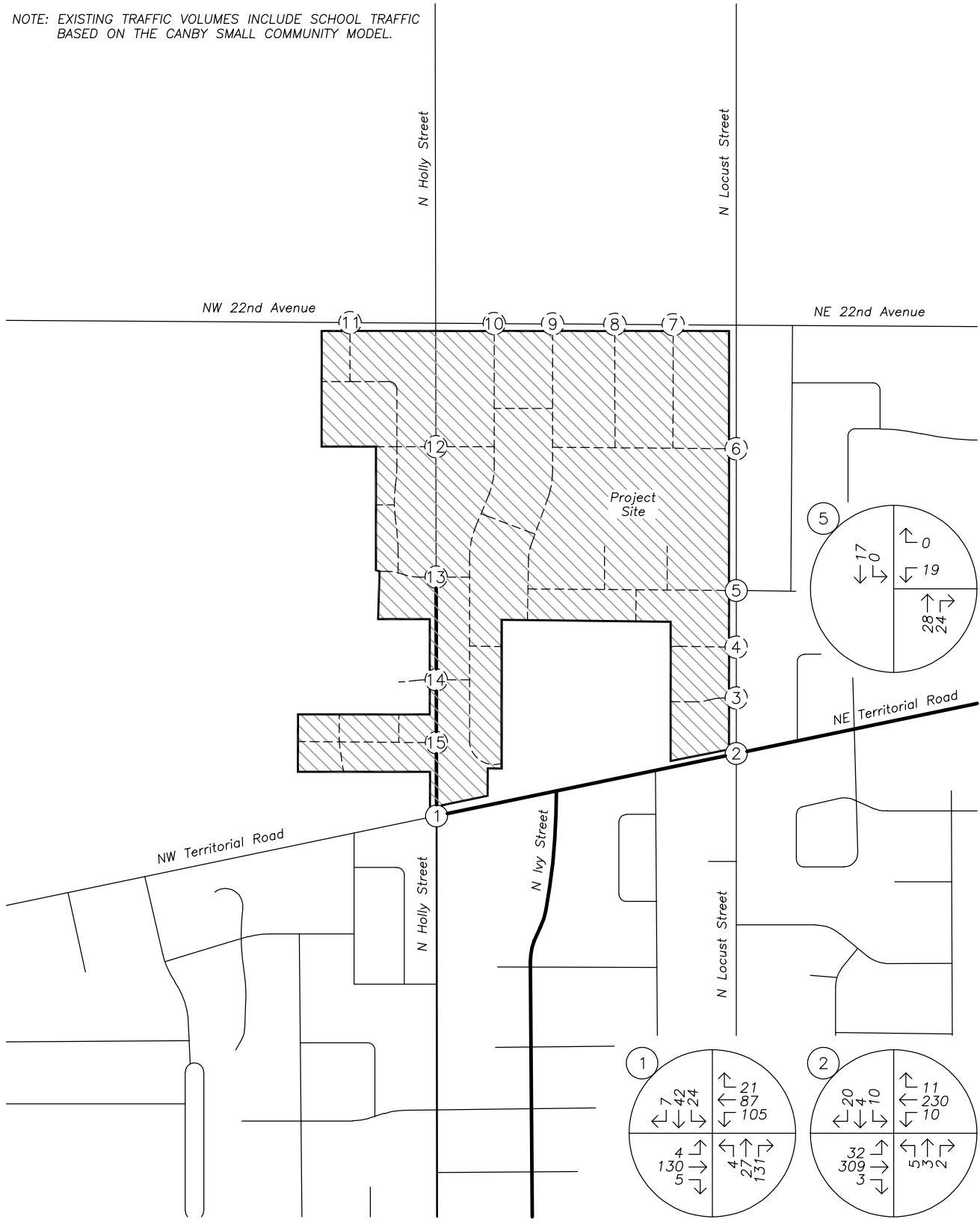


TRAFFIC VOLUMES
Existing Conditions
AM Peak Hour



FIGURE
2
PAGE
6

NOTE: EXISTING TRAFFIC VOLUMES INCLUDE SCHOOL TRAFFIC
BASED ON THE CANBY SMALL COMMUNITY MODEL.



TRAFFIC VOLUMES
Existing Conditions
PM Peak Hour



FIGURE
3
PAGE
7

Site Trips

Trip Generation

The proposed Holly DCP includes properties currently zoned as *Rural Residential Farm Forest 5-Acre* (RRFF-5) by Clackamas County and, upon annexation into the City, would be rezoned to *Low Density Residential* (R-1) in conformance with the City's Comprehensive Plan. To determine the impacts of the proposed change in zoning, a "reasonable worst-case" development scenario for the proposed zone was determined by comparing land use data provided within the *Trip Generation Manual*¹ with the most traffic-intensive uses permitted within the zone.

Typically, when conducting an annexation/zone change analysis, "reasonable worst-case" development scenarios under existing and proposed zones are determined. The net trip generation between both zones is then calculated in order to determine the change in additional trip generation intensity that could impact that nearby transportation system. For the purposes of simplicity as well as maintaining a conservative analysis of potential site trip impacts, no reductions associated with the existing zone's "reasonable worst-case" development scenario were made.

It should be noted that the subject site is located within the City of Canby's urban growth boundary and the City's Transportation System Plan (TSP) has accounted for the annexation/zone change. Therefore, impacts associated with the proposed annexation have already been analyzed and acknowledged by the City of Canby.

Proposed R-1 Zone

To determine a "reasonable worst-case" development scenario under the proposed R-1 zoning, City of Canby's Municipal Code *Chapter 16.16 R-1 Low Density Residential Zone*, was referenced and compared to a variety of land-uses provided within the *Trip Generation Manual*. Based on an assessment of permitted uses under the R-1 zone, data from land-use code 210, *Single-Family Detached Housing*, was used to estimate a potential, "reasonable worst-case" development scenario under the proposed zoning. According to the applicant, the maximum number of units that could be developed within the DCP area may include the construction of 240 single-family dwellings. Therefore, a 240-lot subdivision was treated as the "reasonable worst-case" development scenario under the proposed zone.

It should be noted that the final lot count of the DCP will likely be less than the analyzed 240 maximum lot count when developed. Accordingly, the transportation impacts related to the proposed DCP are expected to be less than those analyzed within this study and will be further evaluated in future transportation impact studies.

Analysis Results

The trip generation calculations show that under the proposed zoning, the site could reasonably generate up to 178 morning peak hour trips, 238 evening peak hour trips, and 2,266 weekday trips. The trip generation

¹ Institute of Transportation Engineers (ITE), *Trip Generation Manual*, 10th Edition, 2017.

estimates are summarized in Table 4. Detailed trip generation calculations are included in the technical appendix to this report.

Table 4: Trip Generation Summary

	ITE Code	Size	Morning Peak Hour			Evening Peak Hour			Weekday Total
			Enter	Exit	Total	Enter	Exit	Total	
Proposed Conditions									
Single-Family Detached Housing	210	240 units	45	133	178	150	88	238	2,266

Trip Distribution

The directional distribution of site trips to/from the project site was estimated based on locations of likely trip destinations, locations of major transportation facilities in the site vicinity, and existing travel patterns at the study intersections. The following trip distribution was estimated and used for analysis:

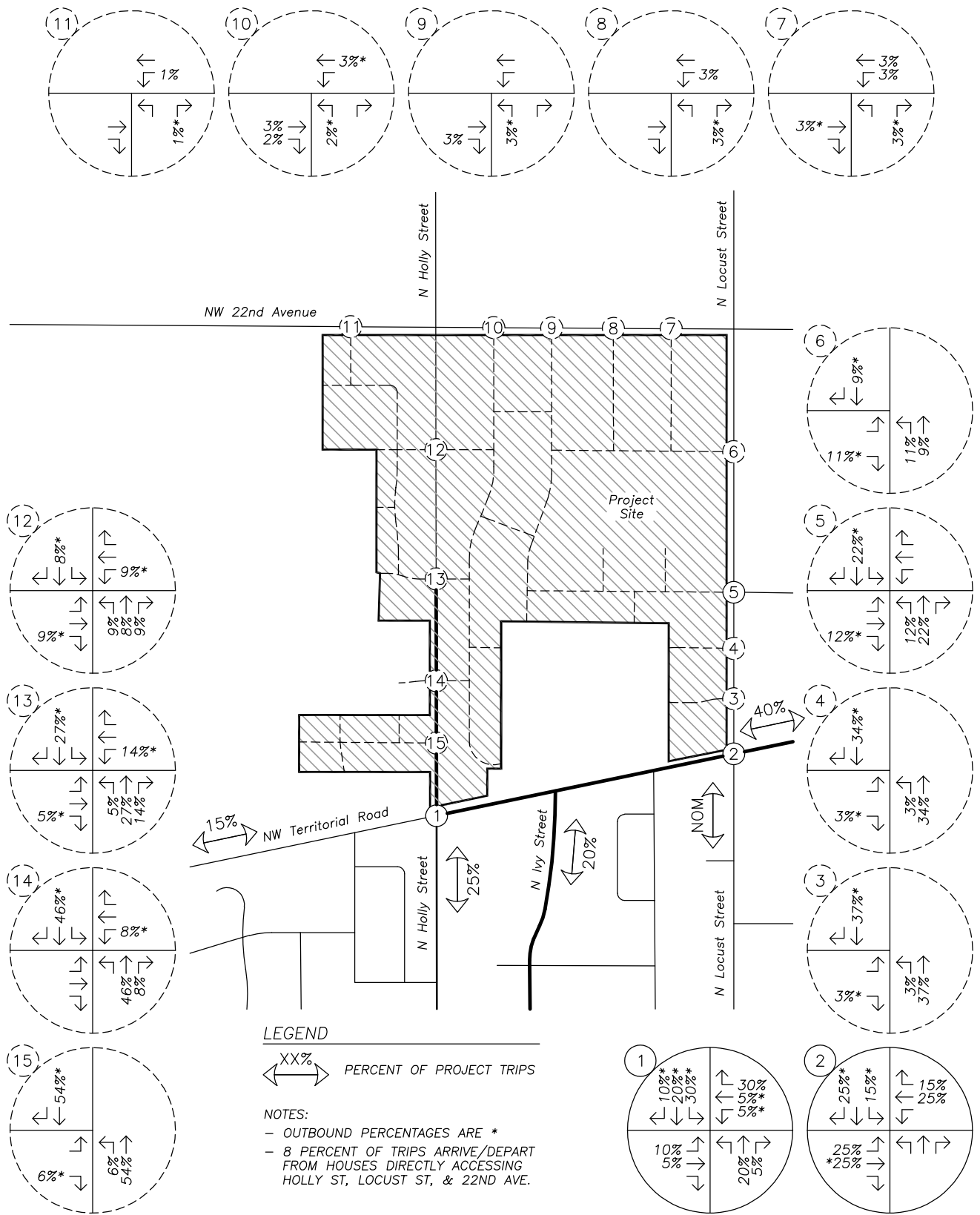
- Approximately 40 percent of site trips will travel to/from the east along NE Territorial Road;
- Approximately 25 percent of site trips will travel to/from the south along N Holly Street;
- Approximately 20 percent of site trips will travel to/from the south along N Ivy Street; and
- Approximately 15 percent of site trips will travel to/from the west along NW Territorial Road.

Based on the preliminary site plan and locations of proposed accesses, site trips are expected to utilize site accesses as follows:

- Approximately 3 percent of site trips will travel to/from the west at Intersection 3;
- Approximately 3 percent of site trips will travel to/from the west at Intersection 4;
- Approximately 12 percent of site trips will travel to/from the west at Intersection 5;
- Approximately 11 percent of site trips will travel to/from the west at Intersection 6;
- Approximately 3 percent of site trips will travel to/from the south at Intersection 7;
- Approximately 3 percent of site trips will travel to/from the south at Intersection 8;
- Approximately 3 percent of site trips will travel to/from the south at Intersection 9;
- Approximately 2 percent of site trips will travel to/from the south at Intersection 10;
- Approximately 1 percent of site trips will travel to/from the south at Intersection 11;
- Approximately 9 percent of site trips will travel to/from the east at Intersection 12;
- Approximately 9 percent of site trips will travel to/from the west at Intersection 12;

- Approximately 14 percent of site trips will travel to/from the east at Intersection 13;
- Approximately 5 percent of site trips will travel to/from the west at Intersection 13;
- Approximately 8 percent of site trips will travel to/from the east at Intersection 14;
- Approximately 6 percent of site trips will travel to/from the west at Intersection 15; and
- Approximately 8 percent of site trips will travel to/from houses which take direct access to N Holly Street, N Locust Street, and NE/NW 22nd Avenue.

The trip distribution utilized for site trips generated by the subject site are shown in Figure 4 on page 11. The trip assignment for the site trips generated during the morning and evening peak hours is shown in Figure 5 on page 12 and Figure 6 on page 13, respectively.

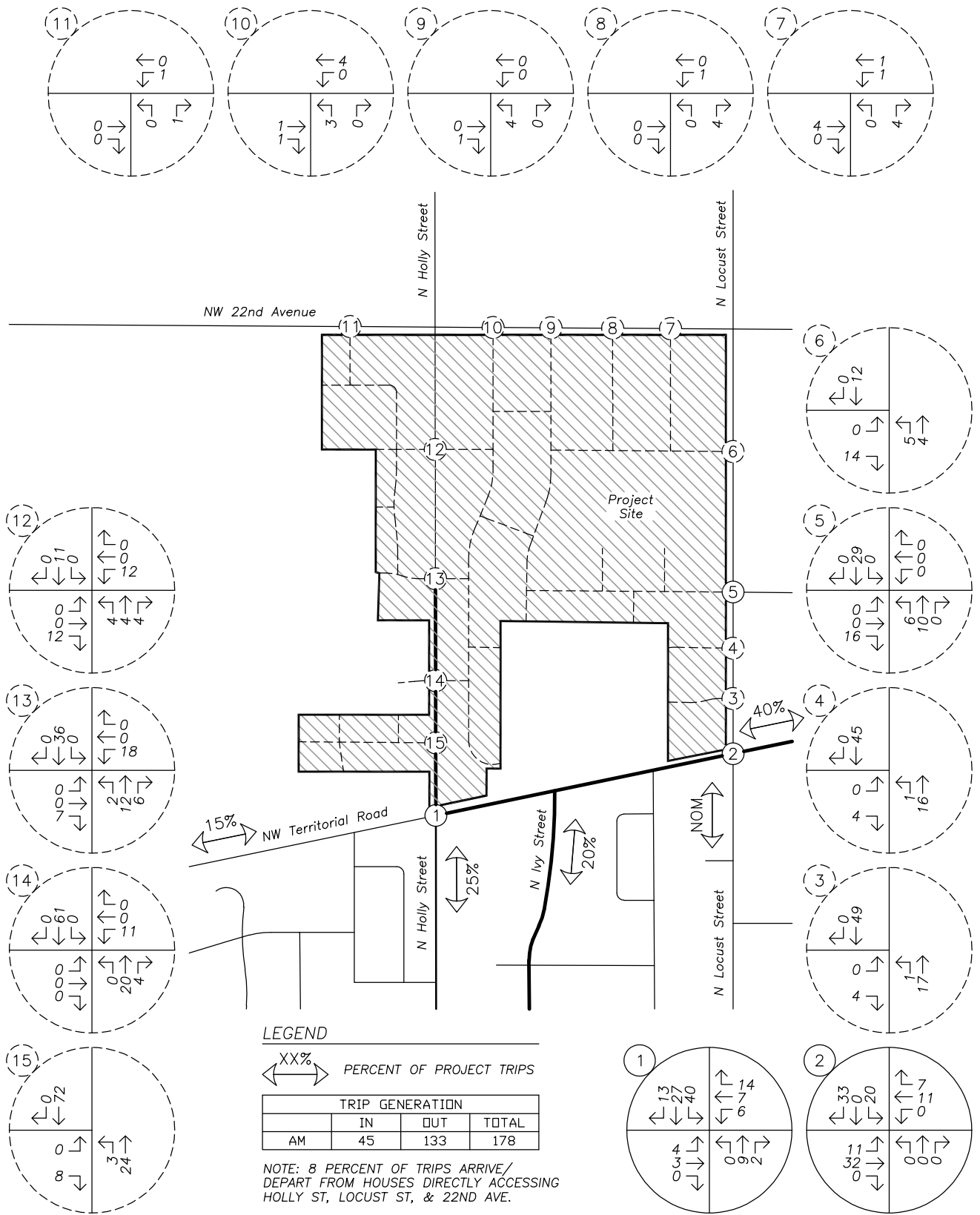


SITE TRIP DISTRIBUTION
Inbound & Outbound Percentages
AM & PM Peak Hours



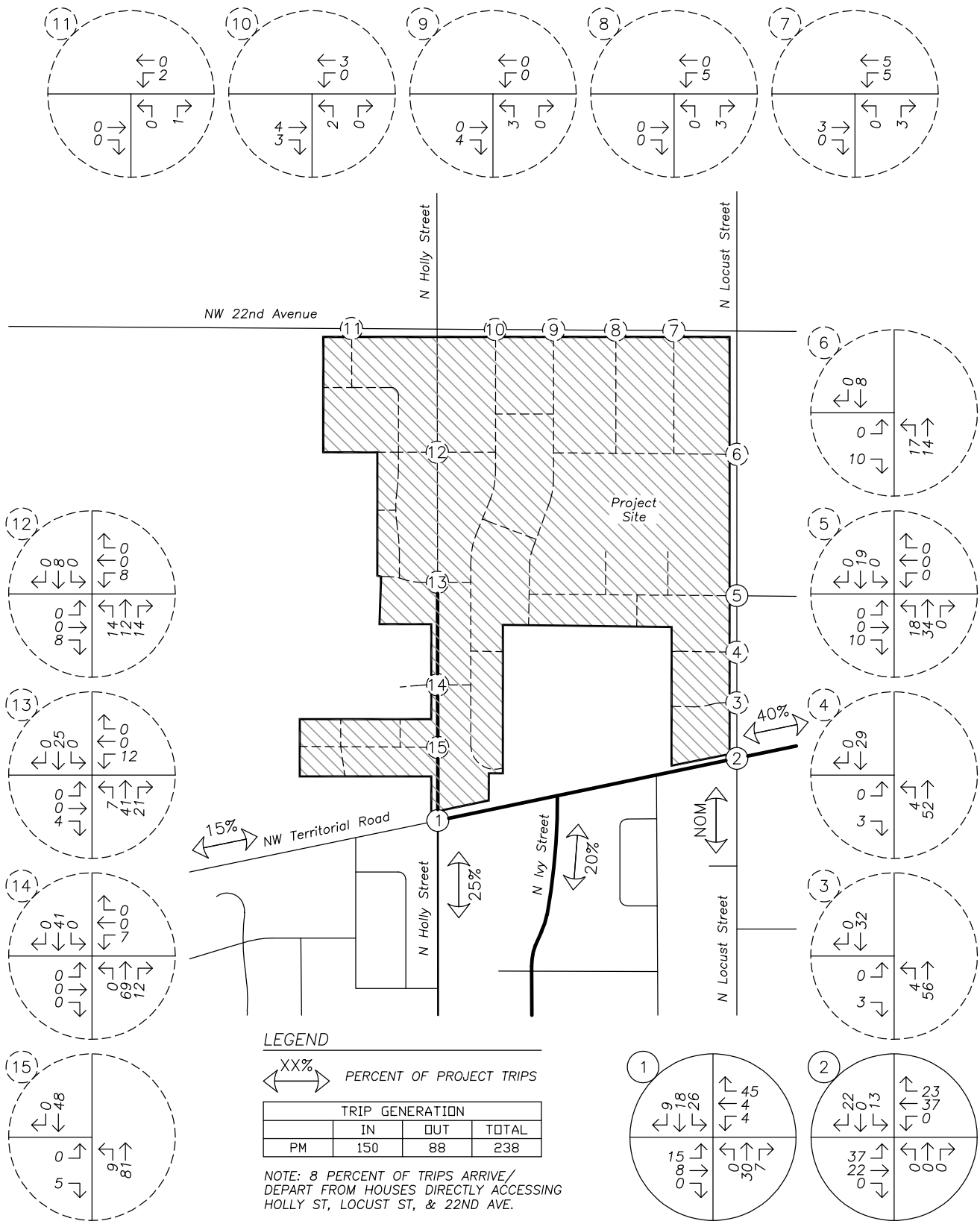
FIGURE
4

PAGE
11



SITE TRIP ASSIGNMENT
 Reasonable Worst-Case Development Scenario – R-1 Zone
 AM Peak Hour





SITE TRIP ASSIGNMENT
 Reasonable Worst-Case Development Scenario - R-1 Zone
 PM Peak Hour



FIGURE
6
PAGE
13

Future Traffic Volumes

2030 Planning Horizon Volumes

To provide analysis of the impact of the proposed DCP on the nearby transportation facilities, an estimate of future traffic volumes is required.

In order to calculate the future traffic volumes, a compounded growth rate of 2.62 percent per year was applied to the measured existing traffic volumes over a 12-year period to approximate the year 2030 planning horizon traffic conditions. The assumed 2.62 percent per year growth rate was calculated based on the expected population growth within the City between 2009 and 2030, as reported in the City of Canby's TSP.

Figure 7 on page 15 and Figure 8 on page 16 show the projected year 2030 planning horizon volumes, without development of the proposed DCP, at the study intersections during the morning and evening peak hours, respectively.

2030 Planning Horizon Volumes with Annexation

Peak hour trips calculated to be generated by the proposed DCP, as described earlier within the *Site Trips* section, were added to the projected year 2030 planning horizon volumes to obtain the expected 2030 planning year volumes with the proposed DCP.

It should be noted that the City's TSP already accounts for the proposed DCP area, where projected 2030 planning year traffic volumes at the intersection of N Holly Street at NW Territorial Road are provided in Figure 4-2b of the City's TSP. To maintain consistency with the TSP, as well as provide a conservative assessment of intersection operation, all turning movement volumes at the intersection of N Holly Street at NW Territorial Road were further increased to at least match the minimum volumes reported in the TSP after applying the peak hour trips.

Figure 9 on page 17 and Figure 10 on page 18 show the projected 2030 planning year traffic volumes, with full development of the proposed DCP, at the study intersections during the morning and evening peak hours, respectively.

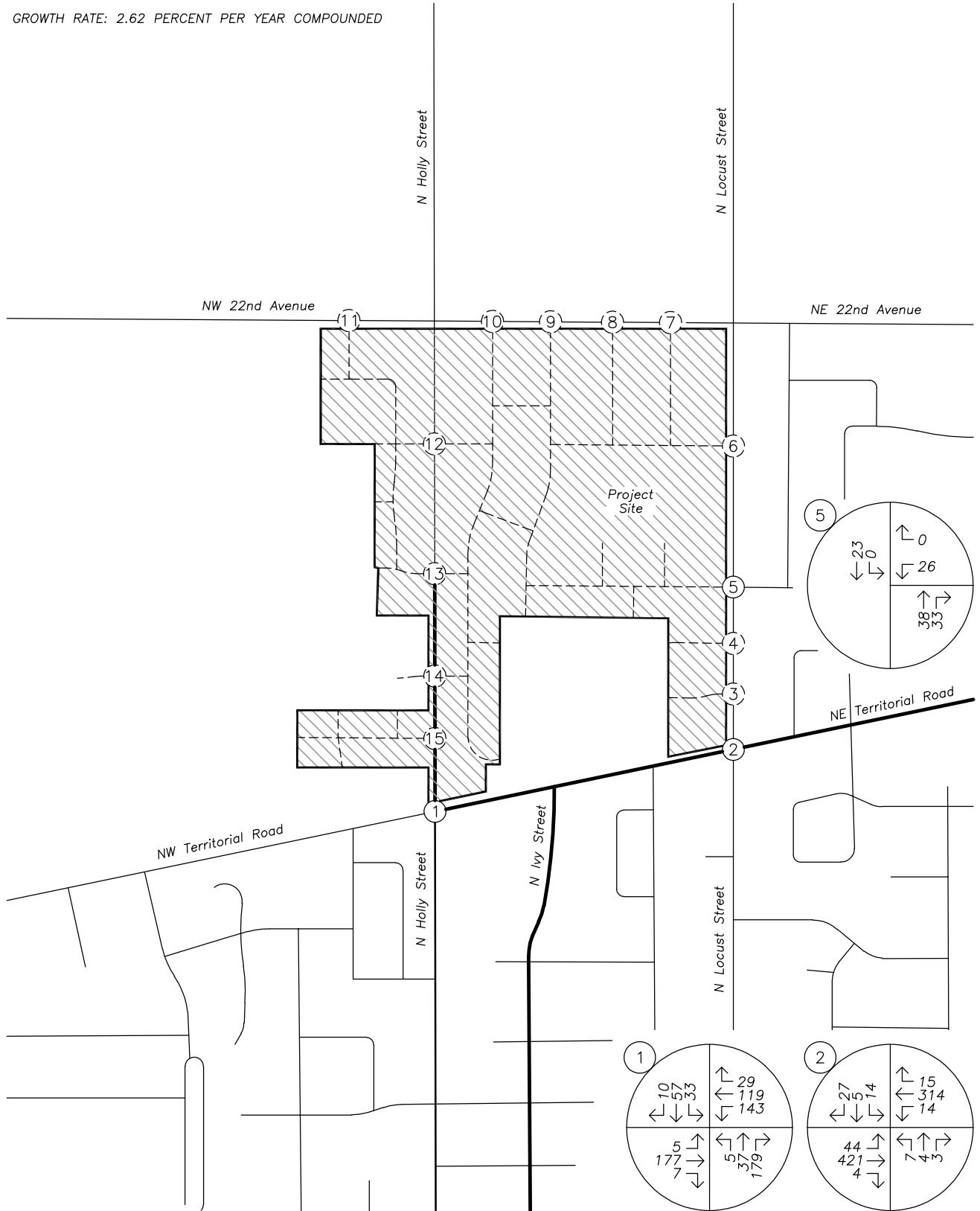
GROWTH RATE: 2.62 PERCENT PER YEAR COMPOUNDED



TRAFFIC VOLUMES
 Year 2030 Planning Horizon w/o Annexation
 AM Peak Hour



GROWTH RATE: 2.62 PERCENT PER YEAR COMPOUNDED

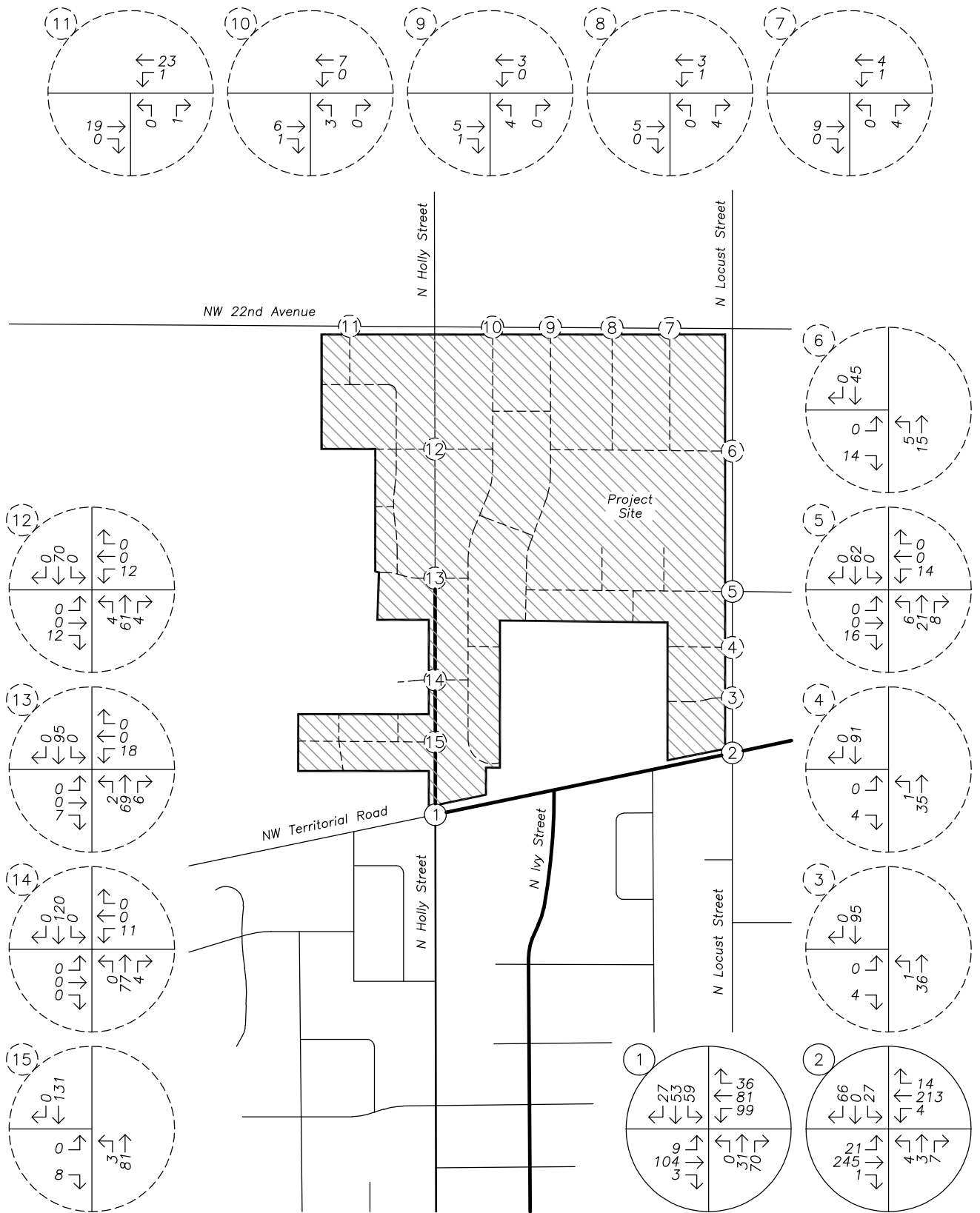


TRAFFIC VOLUMES
 Year 2030 Planning Horizon w/o Annexation
 PM Peak Hour



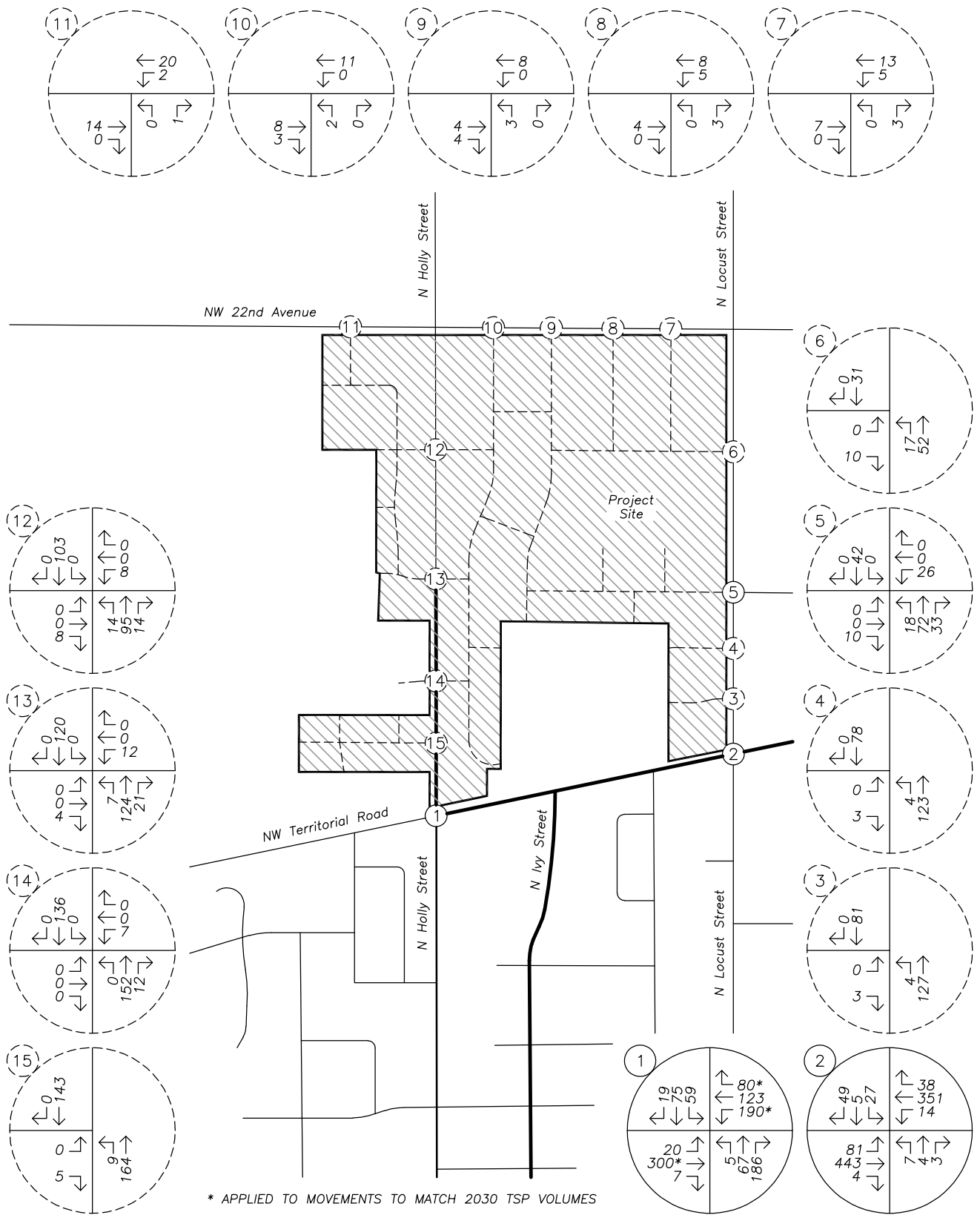
FIGURE
8

PAGE
16



TRAFFIC VOLUMES
 Year 2030 Planning Horizon with Annexation
 AM Peak Hour





TRAFFIC VOLUMES
 Year 2030 Planning Horizon with Annexation
 PM Peak Hour



Safety Analysis

Crash Data Analysis

Using data obtained from the Oregon Department of Transportation's (ODOT) Crash Analysis and Reporting Unit, a review of the most recent available five years of crash history (January 2012 to December 2016) at the study intersections was performed. 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 the 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 using the common assumption that traffic counted during the evening peak period represents 10 percent of the annual average daily traffic (AADT) at the intersection. Crash rates in excess of 1.0 crashes per million entering vehicles (CMEV) may be indicative of design deficiencies and therefore require a need for further investigation and possible mitigation.

N Holly Street at NW Territorial Road

The intersection of N Holly Street at NW Territorial Road had four reported crashes during the analysis period. The crashes consisted of two angle-type collisions, one rear-end collision, and one bicycle related crash. Of the reported crashes, two were classified as "Property Damage Only" (*PDO*), one was classified as "Possible Injury – Complaint of Pain" (*Injury C*), and one was classified as "Non-Incapacitating Injury" (*Injury B*). The crash rate at the intersection was calculated to be 0.37 CMEV.

One of the crashes at the intersection involved a bicyclist. The crash occurred when a north/south traveling bicyclist disregarded an intersection stop sign and collided with a westbound passenger car. The bicyclist sustained injuries consistent with *Injury B* classification.

N Locust Street at NW Territorial Road

The intersection of N Locust Street at NW Territorial Road had five reported crashes during the analysis period. The crashes consisted of three angle-type collisions and two rear-end collisions. Of the reported crashes, two were classified as *PDO*, two were classified as *Injury C*, and one was classified as *Injury B*. The crash rate at the intersection was calculated to be 0.43 CMEV.

N Locust Street at NE 19th Avenue

The intersection of N Locust Street at NE 19th Avenue had no reported crashes during the analysis period.

Based on the most recent five years of available crash data, no significant trends or crash patterns were identified at any of the study intersections that were indicative of safety concerns.

Warrant Analysis

Left-turn lane and traffic signal warrants were examined for the study intersections where such treatments would be applicable.

A left-turn refuge lane is primarily a safety consideration for the major-street, removing left-turning vehicles from the through traffic stream. The left-turn lane warrants were examined using methodologies provided within the *National Cooperative Highway Research Program's (NCHRP) Report 457*. Turn lane warrants were evaluated based on the number of advancing and opposing vehicles as well as the number of turning vehicles, the travel speed, and the number of through lanes.

Left-turn lane warrants are projected to be met for the eastbound approach at the intersection of NE Territorial Road at N Locust Street by the 2030 planning horizon year with the full buildout of the proposed DCP during the evening peak hour. No other new turn lanes are necessary or recommended.

Preliminary traffic signal warrants were examined for the unsignalized study intersections along NE/NW Territorial Road to determine whether the installation of a new traffic signal will be warranted at these intersections by the 2030 planning horizon. Due to insufficient main and side-street traffic volumes, traffic signal warrants are not projected to be met at these intersections under any of the analysis scenarios.

Operational Analysis

A capacity and delay analysis was conducted for each of the study intersections per the unsignalized intersection analysis methodologies in the *Highway Capacity Manual*² (HCM). 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.

According to the City of Canby's TSP, the following minimum acceptable operation standards apply to intersections under City jurisdiction:

- Signalized and all-way stop-controlled intersections are required to operate at LOS D or better.
- Two-way stop-controlled intersections are required to operate at LOS E or better.

Additionally, the roadways of N Holly Street and N Locust Street (north of NE/NW Territorial Road) as well as NE/NW 22nd Avenue (east of N Locust Street and west of N Holly Street) are under the jurisdiction of Clackamas County. Therefore, intersections along these roadways must operate acceptably per County standards. According to the Clackamas County Comprehensive Plan, *Chapter 5 – Transportation System Plan*, the following operational standards apply to study intersections along these roadways:

- Unsignalized rural intersections (i.e. intersections outside the Portland Metropolitan Urban Growth Boundary) outside of Cities are required to operate at LOS E or better during the morning and evening peak hours.
- Signalized and roundabout rural intersections outside of Cities are required to operate with a v/c ratio of 0.90 or less during the morning and evening peak hours.

The v/c, delay, and LOS results of the capacity analysis are shown in Table 5 for the morning and evening peak hours. Detailed calculations as well as tables showing the relationship between delay and LOS are included in the appendix to this report.

² Transportation Research Board, *Highway Capacity Manual*, 6th Edition, 2016.

Table 5: Intersection Capacity Analysis Summary

	Morning Peak Hour			Evening Peak Hour		
	LOS	Delay (s)	v/c	LOS	Delay (s)	v/c
1. N Holly Street at NW Territorial Road						
2018 Existing Conditions	A	8	-	A	9	-
2028 Background Conditions	A	9	-	B	12	-
2028 Buildout Conditions	A	10	-	C	21	-
2. N Locust Street at NE Territorial Road						
2018 Existing Conditions	B	11	0.04	B	15	0.07
2028 Background Conditions	B	12	0.06	C	19	0.13
2028 Buildout Conditions	B	13	0.17	C	25	0.27
3. Site Access at N Locust Street						
2028 Buildout Conditions	A	9	0.01	A	9	0.01
4. Site Access at N Locust Street						
2028 Buildout Conditions	A	9	0.01	A	9	0.01
5. N Locust Street at NE 19th Avenue						
2018 Existing Conditions	A	9	0.01	A	9	0.03
2028 Background Conditions	A	9	0.02	A	9	0.04
2028 Buildout Conditions*	A	10	0.02	B	10	0.05
6. Site Access at N Locust Street						
2028 Buildout Conditions	A	9	0.02	A	9	0.01
7. Site Access at NW 22nd Avenue						
2028 Buildout Conditions	A	8	0.01	A	9	0.01
8. Site Access at NW 22nd Avenue						
2028 Buildout Conditions	A	8	0.01	A	8	0.01
9. Site Access at NW 22nd Avenue						
2028 Buildout Conditions	A	9	0.01	A	9	0.01

* Converted from three-legged to four-legged intersection.

Table 5: Intersection Capacity Analysis Summary (Continued)

	Morning Peak Hour			Evening Peak Hour		
	LOS	Delay (s)	v/c	LOS	Delay (s)	v/c
10. Site Access at NW 22nd Avenue						
2028 Buildout Conditions	A	9	0.01	A	9	0.01
11. Site Access at NW 22nd Avenue						
2028 Buildout Conditions	A	9	0.01	A	9	0.01
12. Site Access at N Holly Street						
2028 Buildout Conditions	A	10	0.02	B	10	0.02
13. Site Access at N Holly Street						
2028 Buildout Conditions	A	10	0.03	B	11	0.02
14. Site Access at N Holly Street						
2028 Buildout Conditions	A	10	0.02	B	11	0.01
15. Site Access at N Holly Street						
2028 Buildout Conditions	A	9	0.01	A	9	0.01

Based on the results of the operational analysis, all study intersections are currently operating acceptably per their respective jurisdictional standards and are projected to continue operating acceptably through the 2030 planning horizon with the proposed annexation. No operational mitigation is necessary or recommended.

Transportation Planning Rule Analysis

A Transportation Planning Rule (TPR) analysis is required for the proposed DCP due to the annexation of the subject properties into the City of Canby. The TPR is intended to ensure that the transportation system is capable of supporting possible increases in traffic intensity that could result from changes to adopted plans and land-use regulations. The applicable portions of the TPR are quoted in italics below, with responses following.

660-012-0060

- (1) *If an amendment to a functional plan, an acknowledged comprehensive plan, or a land use regulation (including a zoning map) would significantly affect an existing or planned transportation facility, then the local government must put in place measures as provided in section (2) of this rule, unless the amendment is allowed under section (3), (9) or (10) of this rule. A plan or land use regulation amendment significantly affects a transportation facility if it would:*

- (a) *Change the functional classification of an existing or planned transportation facility (exclusive of correction of map errors in an adopted plan);*

The annexation and zone change of properties within the proposed Holly DCP will not necessitate changes to the functional classification of existing or planned transportation facilities. Accordingly, this section is not triggered.

- (b) *Change standards implementing a functional classification system; or*

The annexation and zone change of properties within the proposed Holly DCP will not change any standards implementing the functional classification system. Accordingly, this section is also not triggered.

- (c) *Result in any of the effects listed in paragraphs (A) through (C) of this subsection based on projected conditions measured at the end of the planning period identified in the adopted TSP. As part of evaluating projected conditions, the amount of traffic projected to be generated within the area of the amendment may be reduced if the amendment includes an enforceable, ongoing requirement that would demonstrably limit traffic generation, including, but not limited to, transportation demand management. This reduction may diminish or completely eliminate the significant effect of the amendment.*

- (A) *Types or levels of travel or access that are inconsistent with the functional classification of an existing or planned transportation facility;*
- (B) *Degrade the performance of an existing or planned transportation facility such that it would not meet the performance standards identified in the TSP or comprehensive plan; or*
- (C) *Degrade the performance of an existing or planned transportation facility that is otherwise projected to not meet the performance standards identified in the TSP or comprehensive plan.*

The annexation and zone change of properties within the proposed Holly DCP is not projected to degrade the performance of any study intersection below acceptable levels of operation per City of Canby and Clackamas County standards. Additionally, the proposed annexation of the DCP area and subsequent zone change have already been accounted for within the City's TSP; therefore, expected vehicle types and levels of travel/access are consistent with the functional classification of nearby existing/planned transportation facilities.

In addition to section 1 described above, the TPR also includes the following language:

- (9) *Notwithstanding section (1) of this rule, a local government may find that an amendment to a zoning map does not significantly affect an existing or planned transportation facility if all of the following requirements are met.*
 - (a) *The proposed zoning is consistent with the existing comprehensive plan map designation and the amendment does not change the comprehensive plan map;*
 - (b) *The local government has an acknowledged TSP and the proposed zoning is consistent with the TSP; and*
 - (c) *The area subject to the zoning map amendment was not exempted from this rule at the time of an urban growth boundary amendment as permitted in OAR 660-024-0020(1)(d), or the area was exempted from this rule but*

the local government has a subsequently acknowledged TSP amendment that accounted for urbanization of the area.

In this instance, the proposed zoning is consistent with the Comprehensive Plan Map designation, the City of Canby has an acknowledged TSP that accounts for future development under the proposed zoning, and the area was not exempted from the rule at the time of the urban growth boundary amendment. Accordingly, the City may find that any proposed annexation and zone change of properties within the Holly DCP is consistent with the City's adopted plans and does not significantly affect any existing or planned transportation facility.

Based on the above TPR analysis, the full buildout of the proposed Holly DCP will not degrade the performance of any existing or planned transportation facility below acceptable City or County standards. In addition, the proposal is consistent with the City's TSP and Comprehensive Plan. Accordingly, the TPR is satisfied.

Conclusions

No significant trends or crash patterns were identified at any of the study intersections that were indicative of safety concerns.

Left-turn lane warrants are projected to be met for the eastbound approach at the intersection of NE Territorial Road at N Locust Street by the 2030 planning horizon year with the proposed DCP during the evening peak hour. No other new turn lanes are necessary or recommended.

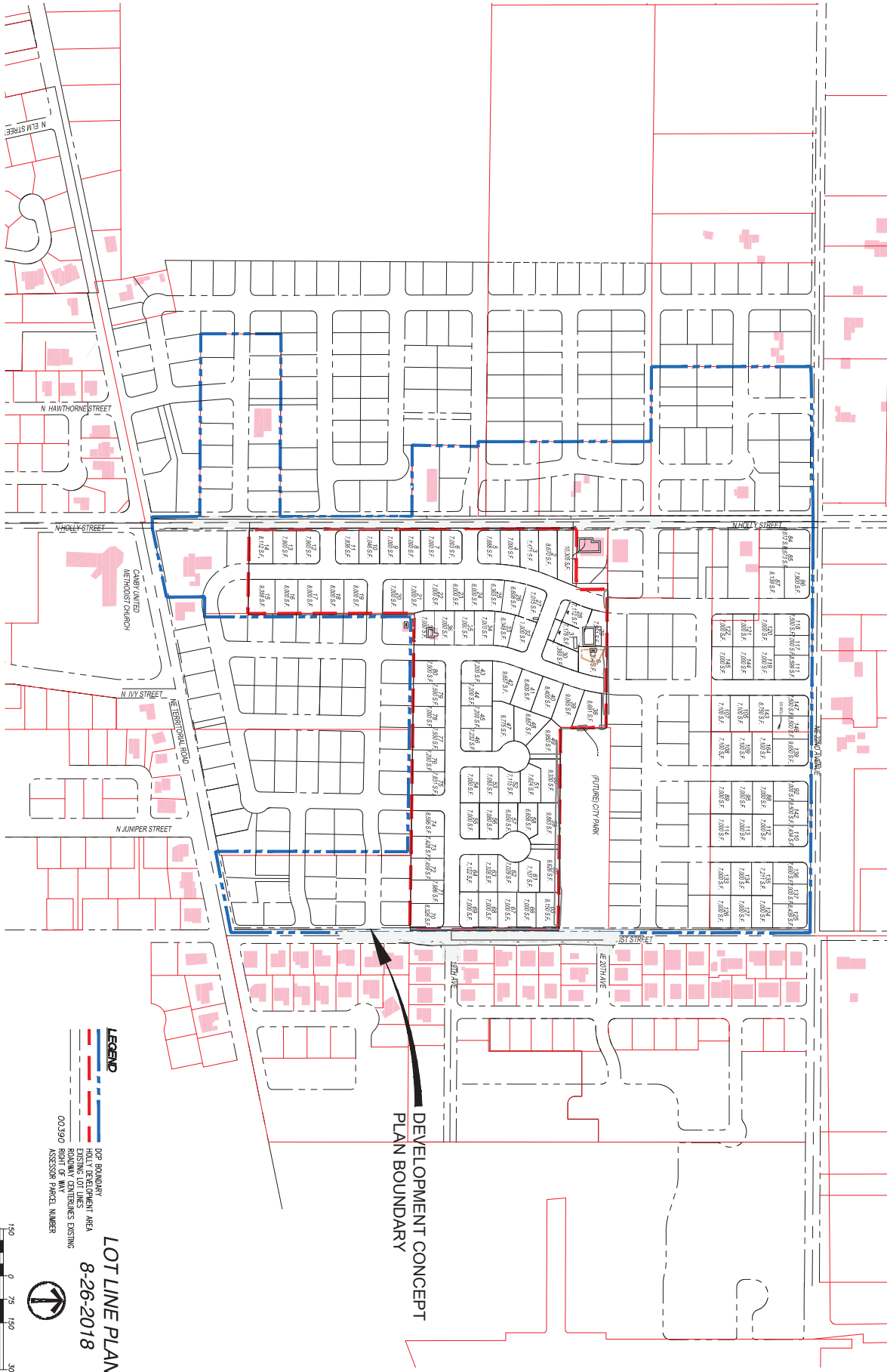
Due to insufficient main and side-street traffic volumes, traffic signal warrants are not projected to be met at the study intersections along NE/NW Territorial Road under any of the analysis scenarios.

All study intersections are currently operating acceptably per their respective jurisdictional standards and are projected to continue operating acceptably through the 2030 planning horizon with the proposed DCP.

The proposed DCP is not projected to degrade the performance of any existing or planned transportation facility below acceptable City of Canby or Clackamas County standards. In addition, the proposal is consistent with the City's Transportation System Plan and Comprehensive Plan. Accordingly, the Transportation Planning Rule is satisfied.

Appendix

LOT LINE PLAN



LEGEND

- DCP BOUNDARY
- HOLLY DEVELOPMENT AREA
- EXISTING LOT LINES
- RIGHT OF WAY
- ASSESSOR'S PARCEL NUMBER

LOT LINE PLAN
8-26-2018

1 inch = 150 ft.
1 inch = 300 ft. (11'x17')

PLANNING & LAND DESIGN
1862 NE ESTATE DRIVE
HILLSBORO, OREGON 97124
RYAN O'BRIEN
(503)780-4061

REVISIONS	
NO.	DESCRIPTION

HOLLY DCP
LOT LINE PLAN

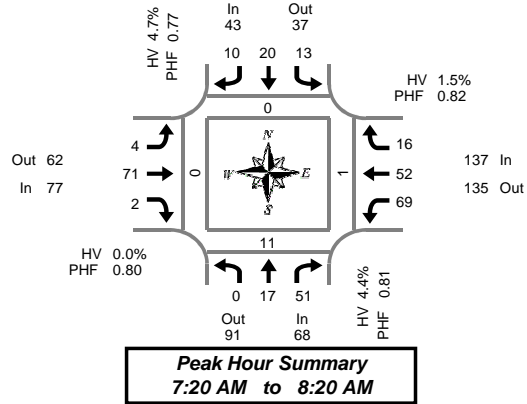
STAFFORD
DEVELOPMENT COMPANY, LLC
485 SOUTH STATE STREET
LAKE OSWEGO, OREGON 97034

DEVELOPMENT CONCEPT PLAN
FOR SW 1/4, T3S, R1E, W.M.
TAX LOTS 400 AND 401, OF
TAX MAP 3-1E-28C

Total Vehicle Summary



Clay Carney
(503) 833-2740



N Holly St & Territorial Rd

Thursday, August 09, 2018

7:00 AM to 9:00 AM

5-Minute Interval Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound N Holly St				Southbound N Holly St				Eastbound Territorial Rd				Westbound Territorial Rd				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
7:00 AM	0	0	3	0	0	0	3	0	0	5	0	0	8	5	0	0	24	0	0	0	0
7:05 AM	2	2	4	0	0	0	0	0	1	4	0	0	4	7	3	0	27	0	3	0	0
7:10 AM	0	1	0	0	0	3	0	0	1	4	0	0	4	7	1	0	21	0	1	0	0
7:15 AM	0	0	6	0	0	0	0	0	1	5	0	0	3	5	1	0	21	0	0	0	0
7:20 AM	0	0	3	0	1	0	0	0	1	9	0	0	6	8	0	0	28	0	3	0	0
7:25 AM	0	2	5	0	2	4	1	0	0	7	0	0	6	5	2	0	34	0	4	0	0
7:30 AM	0	2	4	2	1	2	1	0	0	1	1	0	5	4	1	0	22	0	0	0	0
7:35 AM	0	1	6	0	0	2	1	0	0	7	0	0	12	7	0	0	36	0	1	1	0
7:40 AM	0	1	7	0	0	0	1	0	0	6	0	0	0	9	0	0	24	0	0	0	0
7:45 AM	0	1	2	0	0	3	0	0	0	9	0	0	6	3	1	0	25	0	0	0	0
7:50 AM	0	3	5	0	2	0	2	0	1	8	0	0	2	4	4	0	31	0	1	0	0
7:55 AM	0	2	6	0	1	1	0	0	0	5	0	0	5	2	3	0	25	0	0	0	0
8:00 AM	0	1	3	0	2	2	1	0	0	7	0	0	9	1	4	0	30	0	1	0	0
8:05 AM	0	1	4	0	1	1	2	0	0	4	0	0	2	3	0	1	18	0	1	0	0
8:10 AM	0	1	4	0	2	2	1	3	2	4	0	1	9	2	0	0	27	0	0	0	0
8:15 AM	0	2	2	0	1	3	0	0	0	4	1	0	7	4	1	0	25	0	0	0	0
8:20 AM	0	1	3	0	0	2	0	0	1	7	0	0	6	8	0	0	28	0	1	0	0
8:25 AM	0	2	2	0	1	1	0	0	2	7	0	0	4	1	1	0	21	0	0	0	0
8:30 AM	0	0	5	0	2	2	1	0	0	0	0	0	4	11	1	0	26	0	1	0	0
8:35 AM	0	1	7	0	4	1	0	0	0	3	0	0	6	3	2	1	27	0	1	0	0
8:40 AM	0	2	3	0	3	2	1	0	0	7	0	0	5	5	2	0	30	0	0	0	0
8:45 AM	0	0	6	0	1	1	2	0	2	4	0	0	6	7	2	0	31	0	0	0	0
8:50 AM	0	4	5	0	0	1	0	0	0	3	0	0	8	2	0	0	23	0	0	0	0
8:55 AM	0	3	5	0	3	2	0	0	1	5	0	0	7	5	1	0	32	0	0	0	0
Total Survey	2	33	100	2	27	38	14	3	13	125	2	1	134	118	30	2	636	0	18	1	0

15-Minute Interval Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound N Holly St				Southbound N Holly St				Eastbound Territorial Rd				Westbound Territorial Rd				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
7:00 AM	2	3	7	0	0	6	0	0	2	13	0	0	16	19	4	0	72	0	4	0	0
7:15 AM	0	2	14	0	3	4	1	0	2	21	0	0	15	18	3	0	83	0	7	0	0
7:30 AM	0	4	17	2	1	4	3	0	0	14	1	0	17	20	1	0	82	0	1	1	0
7:45 AM	0	6	13	0	3	4	2	0	1	22	0	0	13	9	8	0	81	0	1	0	0
8:00 AM	0	3	11	0	5	5	4	3	2	15	0	1	20	6	4	1	75	0	2	0	0
8:15 AM	0	5	7	0	2	6	0	0	3	18	1	0	17	13	2	0	74	0	1	0	0
8:30 AM	0	3	15	0	9	5	2	0	0	10	0	0	15	19	5	1	83	0	2	0	0
8:45 AM	0	7	16	0	4	4	2	0	3	12	0	0	21	14	3	0	86	0	0	0	0
Total Survey	2	33	100	2	27	38	14	3	13	125	2	1	134	118	30	2	636	0	18	1	0

Peak Hour Summary

7:20 AM to 8:20 AM

By Approach	Northbound N Holly St				Southbound N Holly St				Eastbound Territorial Rd				Westbound Territorial Rd				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	68	91	159	2	43	37	80	3	77	62	139	1	137	135	272	1	325	0	11	1	0
%HV	4.4%				4.7%				0.0%				1.5%				2.2%				
PHF	0.81				0.77				0.80				0.82				0.88				

By Movement	Northbound N Holly St				Southbound N Holly St				Eastbound Territorial Rd				Westbound Territorial Rd				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	0	17	51	68	13	20	10	43	4	71	2	77	69	52	16	137	325
%HV	0.0%	5.9%	3.9%	4.4%	7.7%	5.0%	0.0%	4.7%	0.0%	0.0%	0.0%	0.0%	2.9%	0.0%	0.0%	1.5%	2.2%
PHF	0.00	0.71	0.75	0.81	0.65	0.63	0.63	0.77	0.50	0.77	0.50	0.80	0.75	0.65	0.36	0.82	0.88

Rolling Hour Summary

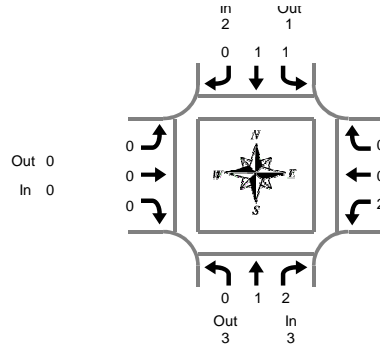
7:00 AM to 9:00 AM

Interval Start Time	Northbound N Holly St				Southbound N Holly St				Eastbound Territorial Rd				Westbound Territorial Rd				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
7:00 AM	2	15	51	2	7	18	6	0	5	70	1	0	61	66	16	0	318	0	13	1	0
7:15 AM	0	15	55	2	12	17	10	3	5	72	1	1	65	53	16	1	321	0	11	1	0
7:30 AM	0	18	48	2	11	19	9	3	6	69	2	1	67	48	15	1	312	0	5	1	0
7:45 AM	0	17	46	0	19	20	8	3	6	65	1	1	65	47	19	2	313	0	6	0	0
8:00 AM	0	18	49	0	20	20	8	3	8	55	1	1	73	52	14	2	318	0	5	0	0

Heavy Vehicle Summary



Clay Carney
(503) 833-2740



N Holly St & Territorial Rd

Thursday, August 09, 2018

7:00 AM to 9:00 AM

Heavy Vehicle 5-Minute Interval Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound N Holly St				Southbound N Holly St				Eastbound Territorial Rd				Westbound Territorial Rd				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:05 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:10 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1
7:20 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:25 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
7:30 AM	0	0	1	1	0	1	0	1	0	0	0	0	0	0	0	0	2
7:35 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
7:40 AM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:50 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
7:55 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:05 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:10 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1
8:20 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:25 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:35 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
8:40 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	1
8:45 AM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1
8:50 AM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1
8:55 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Survey	0	2	5	7	1	1	0	2	0	0	0	0	2	2	0	4	13

Heavy Vehicle 15-Minute Interval Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound N Holly St				Southbound N Holly St				Eastbound Territorial Rd				Westbound Territorial Rd				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	1	1	0	0	0	0	0	0	0	0	1	0	0	1	2
7:30 AM	0	0	2	2	0	1	0	1	0	0	0	0	1	0	0	1	4
7:45 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	1	0	0	1	0	0	0	0	0	1	0	1	2
8:30 AM	0	1	0	1	0	0	0	0	0	0	0	0	1	0	1	2	2
8:45 AM	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	2
Total Survey	0	2	5	7	1	1	0	2	0	0	0	0	2	2	0	4	13

Heavy Vehicle Peak Hour Summary

7:20 AM to 8:20 AM

By Approach	Northbound N Holly St			Southbound N Holly St			Eastbound Territorial Rd			Westbound Territorial Rd			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	3	3	6	2	1	3	0	0	0	2	3	5	7
PHF	0.38			0.50			0.00			0.25			0.44

By Movement	Northbound N Holly St				Southbound N Holly St				Eastbound Territorial Rd				Westbound Territorial Rd				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	0	1	2	3	1	1	0	2	0	0	0	0	2	0	0	2	7
PHF	0.00	0.25	0.25	0.38	0.25	0.25	0.00	0.50	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.25	0.44

Heavy Vehicle Rolling Hour Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound N Holly St				Southbound N Holly St				Eastbound Territorial Rd				Westbound Territorial Rd				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
7:00 AM	0	1	3	4	0	1	0	1	0	0	0	0	2	0	0	2	7
7:15 AM	0	1	3	4	0	1	0	1	0	0	0	0	2	0	0	2	7
7:30 AM	0	1	2	3	1	1	0	2	0	0	0	0	1	1	0	2	7
7:45 AM	0	2	0	2	1	0	0	1	0	0	0	0	0	2	0	2	5
8:00 AM	0	1	2	3	1	0	0	1	0	0	0	0	0	2	0	2	6

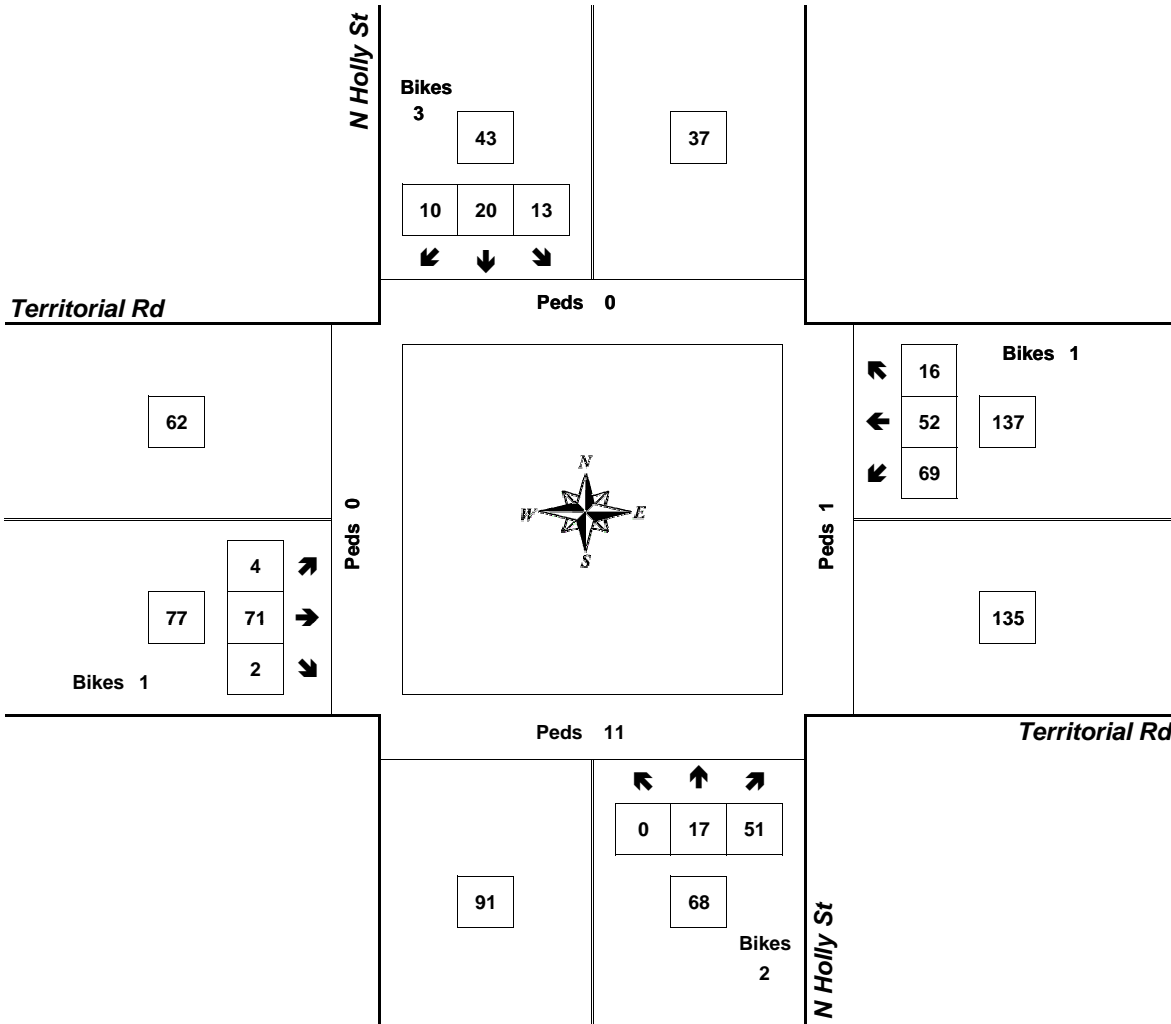
Peak Hour Summary



Clay Carney
(503) 833-2740

N Holly St & Territorial Rd

7:20 AM to 8:20 AM
Thursday, August 09, 2018



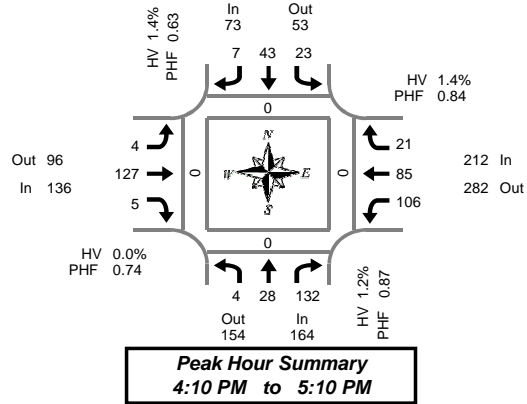
Approach	PHF	HV%	Volume
EB	0.80	0.0%	77
WB	0.82	1.5%	137
NB	0.81	4.4%	68
SB	0.77	4.7%	43
Intersection	0.88	2.2%	325

Count Period: 7:00 AM to 9:00 AM

Total Vehicle Summary



Clay Carney
(503) 833-2740



N Holly St & Territorial Rd

Thursday, August 09, 2018

4:00 PM to 6:00 PM

5-Minute Interval Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound N Holly St				Southbound N Holly St				Eastbound Territorial Rd				Westbound Territorial Rd				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
4:00 PM	0	0	11	0	5	0	0	1	0	8	0	0	17	7	0	0	48	0	0	0	0
4:05 PM	0	0	9	0	1	2	0	0	3	8	0	1	7	6	1	0	37	0	0	0	0
4:10 PM	0	5	11	0	1	1	0	0	0	6	0	0	15	13	1	0	53	0	0	0	0
4:15 PM	0	1	14	0	0	3	2	0	2	8	0	0	10	5	1	0	46	0	0	0	0
4:20 PM	0	2	7	0	6	1	1	0	0	13	0	0	4	11	3	0	48	0	0	0	0
4:25 PM	0	0	10	0	1	3	1	2	0	8	1	0	11	1	1	0	37	0	0	0	0
4:30 PM	0	2	8	0	0	2	0	1	0	13	0	0	13	10	4	0	52	0	0	0	0
4:35 PM	1	6	12	0	4	12	2	0	0	12	0	0	5	4	0	0	58	0	0	0	0
4:40 PM	0	1	14	0	1	2	1	0	0	15	1	0	7	6	1	0	49	0	0	0	0
4:45 PM	1	2	10	0	3	4	0	0	2	16	0	0	9	7	1	0	55	0	0	0	0
4:50 PM	0	0	16	0	1	2	0	0	0	7	2	0	11	3	0	0	42	0	0	0	0
4:55 PM	1	1	5	0	1	4	0	1	0	9	0	0	8	7	2	1	38	0	0	0	0
5:00 PM	1	3	12	0	2	4	0	1	0	10	1	0	6	10	4	0	53	0	0	0	0
5:05 PM	0	5	13	0	3	5	0	0	0	10	0	0	7	8	3	0	54	0	0	0	0
5:10 PM	0	1	14	0	1	0	0	0	0	13	1	0	7	6	4	0	47	0	0	0	0
5:15 PM	0	2	3	0	2	2	0	0	0	10	0	0	9	10	1	0	39	0	0	1	0
5:20 PM	0	2	11	0	5	3	1	1	0	6	0	0	11	8	1	0	48	0	0	0	0
5:25 PM	0	1	11	0	1	0	0	0	1	15	0	0	8	7	2	0	46	0	0	0	0
5:30 PM	0	2	10	0	2	4	0	0	0	10	0	0	8	9	2	0	47	0	0	0	0
5:35 PM	0	2	6	0	4	4	1	0	0	9	1	0	6	10	3	0	46	0	0	0	0
5:40 PM	0	2	8	0	3	4	0	0	3	3	0	0	9	1	1	1	34	0	0	0	0
5:45 PM	0	4	6	0	4	4	0	1	0	5	1	0	7	8	3	0	42	0	2	0	0
5:50 PM	2	4	6	0	2	0	0	0	2	6	0	0	4	5	1	0	32	0	2	0	0
5:55 PM	0	5	6	0	3	6	1	0	0	8	0	0	3	3	2	0	37	0	0	0	0
Total Survey	6	53	233	0	56	72	10	8	13	228	8	1	202	165	42	2	1,088	0	4	1	0

15-Minute Interval Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound N Holly St				Southbound N Holly St				Eastbound Territorial Rd				Westbound Territorial Rd				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
4:00 PM	0	5	31	0	7	3	0	1	3	22	0	1	39	26	2	0	138	0	0	0	0
4:15 PM	0	3	31	0	7	7	4	2	2	29	1	0	25	17	5	0	131	0	0	0	0
4:30 PM	1	9	34	0	5	16	3	1	0	40	1	0	25	20	5	0	159	0	0	0	0
4:45 PM	2	3	31	0	5	10	0	1	2	32	2	0	28	17	3	1	135	0	0	0	0
5:00 PM	1	9	39	0	6	9	0	1	0	33	2	0	20	24	11	0	154	0	0	0	0
5:15 PM	0	5	25	0	8	5	1	1	1	31	0	0	28	25	4	0	133	0	0	1	0
5:30 PM	0	6	24	0	9	12	1	0	3	22	1	0	23	20	6	1	127	0	0	0	0
5:45 PM	2	13	18	0	9	10	1	1	2	19	1	0	14	16	6	0	111	0	4	0	0
Total Survey	6	53	233	0	56	72	10	8	13	228	8	1	202	165	42	2	1,088	0	4	1	0

Peak Hour Summary

4:10 PM to 5:10 PM

By Approach	Northbound N Holly St				Southbound N Holly St				Eastbound Territorial Rd				Westbound Territorial Rd				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	164	154	318	0	73	53	126	5	136	96	232	0	212	282	494	1	585	0	0	0	0
%HV	1.2%				1.4%				0.0%				1.4%				1.0%				
PHF	0.87				0.63				0.74				0.84				0.90				

By Movement	Northbound N Holly St				Southbound N Holly St				Eastbound Territorial Rd				Westbound Territorial Rd				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	4	28	132	164	23	43	7	73	4	127	5	136	106	85	21	212	585
%HV	0.0%	0.0%	1.5%	1.2%	0.0%	2.3%	0.0%	1.4%	0.0%	0.0%	0.0%	0.0%	1.9%	1.2%	0.0%	1.4%	1.0%
PHF	0.50	0.78	0.83	0.87	0.72	0.60	0.44	0.63	0.50	0.74	0.42	0.74	0.91	0.73	0.58	0.84	0.90

Rolling Hour Summary

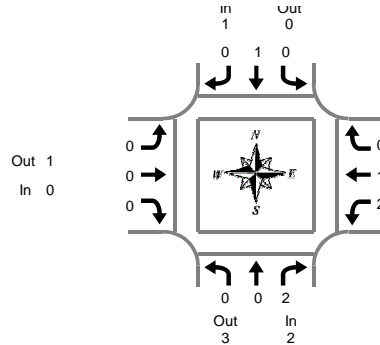
4:00 PM to 6:00 PM

Interval Start Time	Northbound N Holly St				Southbound N Holly St				Eastbound Territorial Rd				Westbound Territorial Rd				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
4:00 PM	3	20	127	0	24	36	7	5	7	123	4	1	117	80	15	1	563	0	0	0	0
4:15 PM	4	24	135	0	23	42	7	5	4	134	6	0	98	78	24	1	579	0	0	0	0
4:30 PM	4	26	129	0	24	40	4	4	3	136	5	0	101	86	23	1	581	0	0	1	0
4:45 PM	3	23	119	0	28	36	2	3	6	118	5	0	99	86	24	2	549	0	0	1	0
5:00 PM	3	33	106	0	32	36	3	3	6	105	4	0	85	85	27	1	525	0	4	1	0

Heavy Vehicle Summary



Clay Carney
(503) 833-2740



Peak Hour Summary
4:10 PM to 5:10 PM

N Holly St & Territorial Rd

Thursday, August 09, 2018

4:00 PM to 6:00 PM

Heavy Vehicle 5-Minute Interval Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound N Holly St				Southbound N Holly St				Eastbound Territorial Rd				Westbound Territorial Rd				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	
4:05 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:10 PM	0	0	1	1	0	0	0	0	0	0	0	0	1	1	0	2	
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:20 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:25 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	1	
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	
4:35 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:40 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:45 PM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	
4:50 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:55 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:05 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:10 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:20 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:25 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:35 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	1	
5:40 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	1	
5:45 PM	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	1	
5:50 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:55 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total Survey	0	1	2	3	1	2	0	3	1	0	0	1	3	1	0	4	11

Heavy Vehicle 15-Minute Interval Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound N Holly St				Southbound N Holly St				Eastbound Territorial Rd				Westbound Territorial Rd				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
4:00 PM	0	0	1	1	0	0	0	0	0	0	0	0	2	1	0	3	
4:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	1	
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	
4:45 PM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:15 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	
5:30 PM	0	0	0	0	0	1	0	1	1	0	0	1	0	0	0	2	
5:45 PM	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	1	
Total Survey	0	1	2	3	1	2	0	3	1	0	0	1	3	1	0	4	11

Heavy Vehicle Peak Hour Summary

4:10 PM to 5:10 PM

By Approach	Northbound N Holly St			Southbound N Holly St			Eastbound Territorial Rd			Westbound Territorial Rd			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	2	3	5	1	0	1	0	1	1	3	2	5	6
PHF	0.50			0.25			0.00			0.38			0.50

By Movement	Northbound N Holly St				Southbound N Holly St				Eastbound Territorial Rd				Westbound Territorial Rd				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	0	0	2	2	0	1	0	1	0	0	0	0	2	1	0	3	6
PHF	0.00	0.00	0.50	0.50	0.00	0.25	0.00	0.25	0.00	0.00	0.00	0.00	0.50	0.25	0.00	0.38	0.50

Heavy Vehicle Rolling Hour Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound N Holly St				Southbound N Holly St				Eastbound Territorial Rd				Westbound Territorial Rd				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
4:00 PM	0	0	2	2	0	1	0	1	0	0	0	0	3	1	0	4	7
4:15 PM	0	0	1	1	0	1	0	1	0	0	0	0	1	0	0	1	3
4:30 PM	0	1	1	2	0	0	0	0	0	0	0	0	1	0	0	1	3
4:45 PM	0	1	1	2	0	1	0	1	1	0	0	1	0	0	0	0	4
5:00 PM	0	1	0	1	1	1	0	2	1	0	0	1	0	0	0	0	4

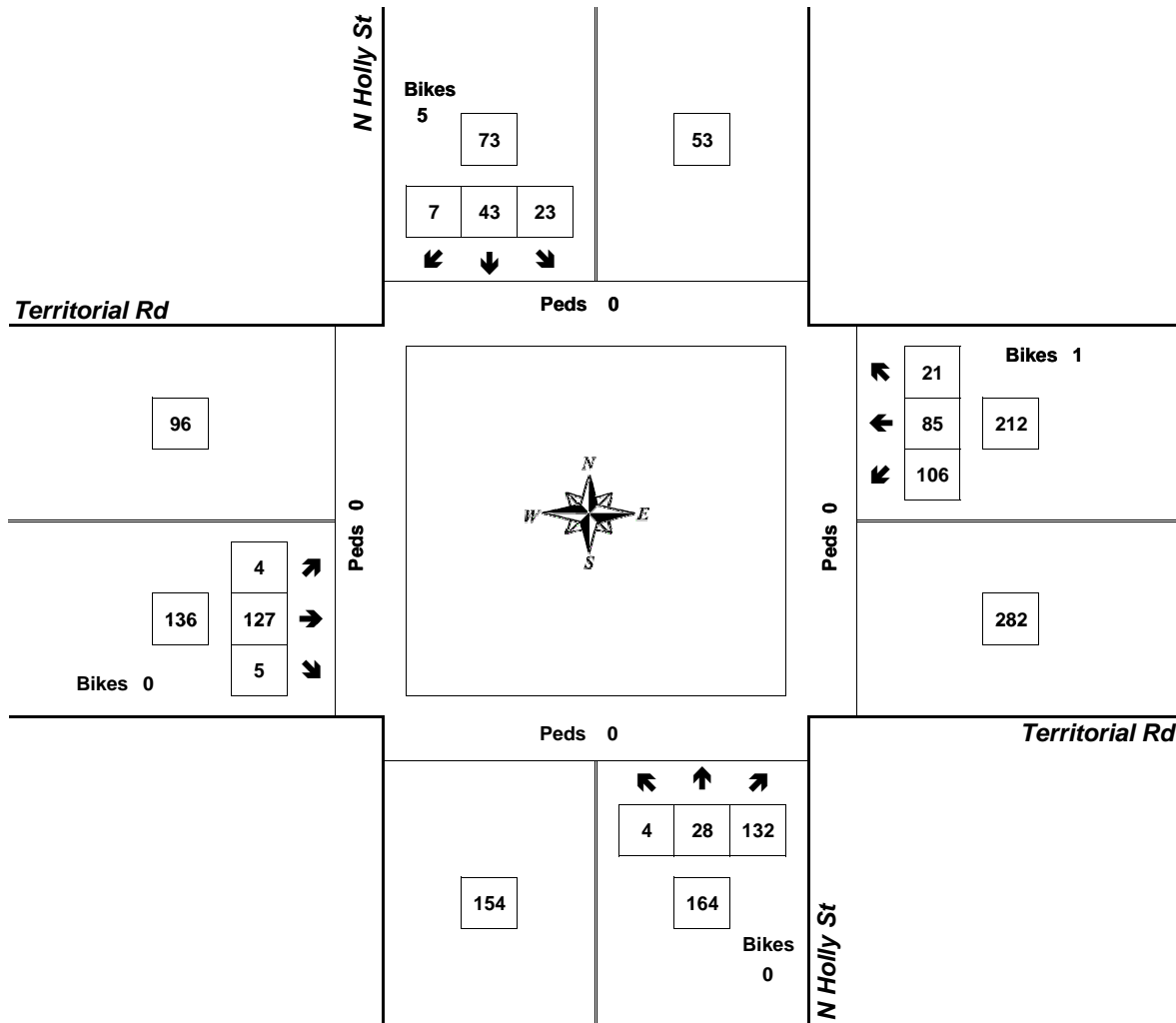
Peak Hour Summary



Clay Carney
(503) 833-2740

N Holly St & Territorial Rd

4:10 PM to 5:10 PM
Thursday, August 09, 2018



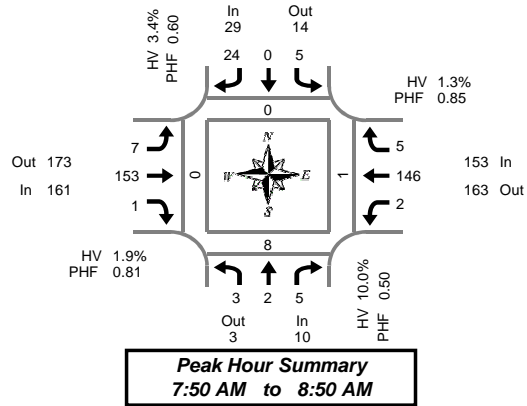
Approach	PHF	HV%	Volume
EB	0.74	0.0%	136
WB	0.84	1.4%	212
NB	0.87	1.2%	164
SB	0.63	1.4%	73
Intersection	0.90	1.0%	585

Count Period: 4:00 PM to 6:00 PM

Total Vehicle Summary



Clay Carney
(503) 833-2740



N Locust St & Territorial Rd

Thursday, August 09, 2018

7:00 AM to 9:00 AM

5-Minute Interval Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound N Locust St				Southbound N Locust St				Eastbound Territorial Rd				Westbound Territorial Rd				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
7:00 AM	0	0	1	0	1	0	1	0	0	6	0	0	0	13	0	0	22	0	0	0	0
7:05 AM	0	0	1	0	0	0	2	0	0	10	0	0	1	18	0	0	32	0	1	0	0
7:10 AM	0	0	0	0	1	0	1	0	0	6	0	0	0	10	0	0	18	0	0	0	2
7:15 AM	0	0	1	0	0	0	0	0	1	8	0	0	0	8	0	0	18	0	0	0	0
7:20 AM	1	0	0	0	0	1	1	0	1	13	0	0	0	11	0	0	28	0	0	0	0
7:25 AM	1	0	0	0	0	0	2	0	2	16	0	0	0	12	0	0	33	0	2	0	0
7:30 AM	0	0	1	0	1	0	3	0	0	12	0	2	0	10	1	0	28	0	3	0	0
7:35 AM	0	0	0	0	0	1	4	0	0	14	0	0	1	15	0	0	35	0	0	0	0
7:40 AM	0	0	0	0	1	0	2	0	0	14	0	0	0	9	0	0	26	0	0	0	0
7:45 AM	0	0	0	0	0	1	3	0	0	11	0	0	0	9	1	0	25	0	1	0	0
7:50 AM	0	0	0	0	0	0	0	0	1	20	0	0	0	8	1	0	30	0	0	0	0
7:55 AM	1	0	1	0	2	0	1	0	1	13	0	0	0	10	0	0	29	0	1	1	0
8:00 AM	0	0	0	0	1	0	1	0	1	14	0	0	1	16	0	0	34	0	0	0	0
8:05 AM	0	0	0	0	0	0	1	0	3	5	0	0	0	7	2	1	18	0	0	0	0
8:10 AM	0	0	1	0	0	0	3	0	0	7	0	3	0	16	0	0	27	0	1	0	0
8:15 AM	0	1	0	0	0	0	4	0	0	17	0	2	0	14	0	1	36	0	0	0	0
8:20 AM	0	0	0	0	0	0	2	0	1	9	0	0	1	12	0	0	25	0	0	0	0
8:25 AM	0	0	2	1	0	0	1	0	0	12	0	0	0	7	1	1	23	0	2	0	0
8:30 AM	0	0	1	0	0	0	1	0	0	13	0	0	0	19	0	0	34	0	1	0	0
8:35 AM	2	0	0	0	0	0	2	0	0	12	0	0	0	14	1	1	31	0	2	0	0
8:40 AM	0	1	0	0	0	0	1	0	0	12	1	0	0	11	0	0	26	0	1	0	0
8:45 AM	0	0	0	0	2	0	7	0	0	19	0	0	0	12	0	0	40	0	0	0	0
8:50 AM	0	0	1	0	1	0	3	0	0	9	0	0	0	12	1	0	27	0	0	0	0
8:55 AM	1	0	0	0	0	1	1	0	3	11	0	0	0	11	3	0	31	0	0	1	0
Total Survey	6	2	10	1	10	4	47	0	14	283	1	7	4	284	11	4	676	0	15	2	2

15-Minute Interval Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound N Locust St				Southbound N Locust St				Eastbound Territorial Rd				Westbound Territorial Rd				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
7:00 AM	0	0	2	0	2	0	4	0	0	22	0	0	1	41	0	0	72	0	1	0	2
7:15 AM	2	0	1	0	0	1	3	0	4	37	0	0	0	31	0	0	79	0	2	0	0
7:30 AM	0	0	1	0	2	1	9	0	0	40	0	2	1	34	1	0	89	0	3	0	0
7:45 AM	1	0	1	0	2	1	4	0	2	44	0	0	0	27	2	0	84	0	2	1	0
8:00 AM	0	0	1	0	1	0	5	0	4	26	0	3	1	39	2	1	79	0	1	0	0
8:15 AM	0	1	2	1	0	0	7	0	1	38	0	2	1	33	1	2	84	0	2	0	0
8:30 AM	2	1	1	0	0	0	4	0	0	37	1	0	0	44	1	1	91	0	4	0	0
8:45 AM	1	0	1	0	3	1	11	0	3	39	0	0	0	35	4	0	98	0	0	1	0
Total Survey	6	2	10	1	10	4	47	0	14	283	1	7	4	284	11	4	676	0	15	2	2

Peak Hour Summary

7:50 AM to 8:50 AM

By Approach	Northbound N Locust St				Southbound N Locust St				Eastbound Territorial Rd				Westbound Territorial Rd				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	10	3	13	1	29	14	43	0	161	173	334	5	153	163	316	4	353	0	8	1	0
%HV	10.0%				3.4%				1.9%				1.3%				2.0%				
PHF	0.50				0.60				0.81				0.85				0.91				

By Movement	Northbound N Locust St				Southbound N Locust St				Eastbound Territorial Rd				Westbound Territorial Rd				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	3	2	5	10	5	0	24	29	7	153	1	161	2	146	5	153	353
%HV	0.0%	0.0%	20.0%	10.0%	0.0%	0.0%	4.2%	3.4%	0.0%	2.0%	0.0%	1.9%	0.0%	0.7%	20.0%	1.3%	2.0%
PHF	0.38	0.50	0.42	0.50	0.42	0.00	0.60	0.60	0.35	0.81	0.25	0.81	0.50	0.83	0.63	0.85	0.91

Rolling Hour Summary

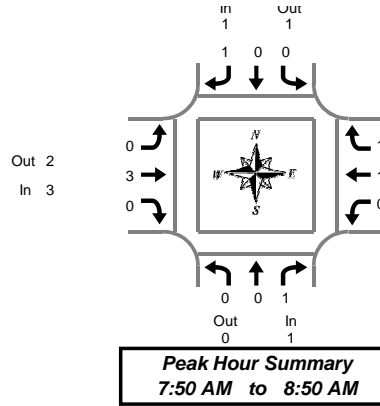
7:00 AM to 9:00 AM

Interval Start Time	Northbound N Locust St				Southbound N Locust St				Eastbound Territorial Rd				Westbound Territorial Rd				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
7:00 AM	3	0	5	0	6	3	20	0	6	143	0	2	2	133	3	0	324	0	8	1	2
7:15 AM	3	0	4	0	5	3	21	0	10	147	0	5	2	131	5	1	331	0	8	1	0
7:30 AM	1	1	5	1	5	2	25	0	7	148	0	7	3	133	6	3	336	0	8	1	0
7:45 AM	3	2	5	1	3	1	20	0	7	145	1	5	2	143	6	4	338	0	9	1	0
8:00 AM	3	2	5	1	4	1	27	0	8	140	1	5	2	151	8	4	352	0	7	1	0

Heavy Vehicle Summary



Clay Carney
(503) 833-2740



N Locust St & Territorial Rd

Thursday, August 09, 2018

7:00 AM to 9:00 AM

Heavy Vehicle 5-Minute Interval Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound N Locust St				Southbound N Locust St				Eastbound Territorial Rd				Westbound Territorial Rd				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:05 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:10 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:20 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:25 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	2
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:35 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:40 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
7:45 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
7:50 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:55 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:05 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:10 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	2
8:20 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:25 AM	0	0	1	1	0	0	1	1	0	0	0	0	0	0	0	0	2
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:35 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
8:40 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	1
8:45 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
8:50 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
8:55 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Survey	0	0	1	1	0	0	1	1	0	7	0	7	0	2	1	3	12

Heavy Vehicle 15-Minute Interval Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound N Locust St				Southbound N Locust St				Eastbound Territorial Rd				Westbound Territorial Rd				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	2
7:30 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
7:45 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	1	1	0	0	1	1	0	2	0	2	0	0	0	0	4
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	2
8:45 AM	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	2
Total Survey	0	0	1	1	0	0	1	1	0	7	0	7	0	2	1	3	12

Heavy Vehicle Peak Hour Summary

7:50 AM to 8:50 AM

By Approach	Northbound N Locust St			Southbound N Locust St			Eastbound Territorial Rd			Westbound Territorial Rd			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	1	0	1	1	1	2	3	2	5	2	4	6	7
PHF	0.25			0.25			0.38			0.25			0.44

By Movement	Northbound N Locust St				Southbound N Locust St				Eastbound Territorial Rd				Westbound Territorial Rd				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	0	0	1	1	0	0	1	1	0	3	0	3	0	1	1	2	7
PHF	0.00	0.00	0.25	0.25	0.00	0.00	0.25	0.25	0.00	0.38	0.00	0.38	0.00	0.25	0.25	0.25	0.44

Heavy Vehicle Rolling Hour Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound N Locust St				Southbound N Locust St				Eastbound Territorial Rd				Westbound Territorial Rd				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	3	0	3	0	1	0	1	4
7:15 AM	0	0	0	0	0	0	0	0	0	3	0	3	0	1	0	1	4
7:30 AM	0	0	1	1	0	0	1	1	0	4	0	4	0	0	0	0	6
7:45 AM	0	0	1	1	0	0	1	1	0	3	0	3	0	1	1	2	7
8:00 AM	0	0	1	1	0	0	1	1	0	4	0	4	0	1	1	2	8

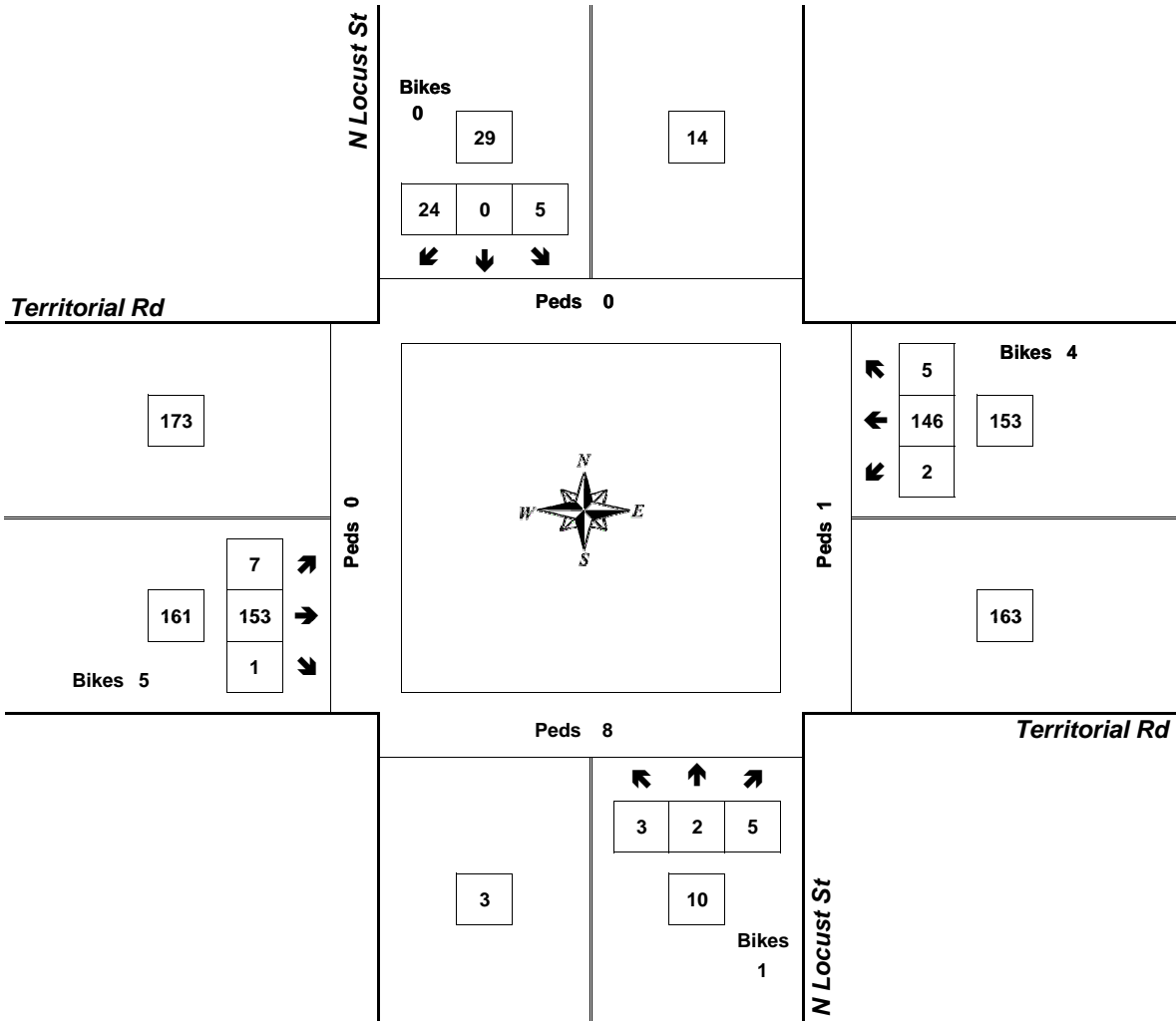
Peak Hour Summary



Clay Carney
(503) 833-2740

N Locust St & Territorial Rd

7:50 AM to 8:50 AM
Thursday, August 09, 2018



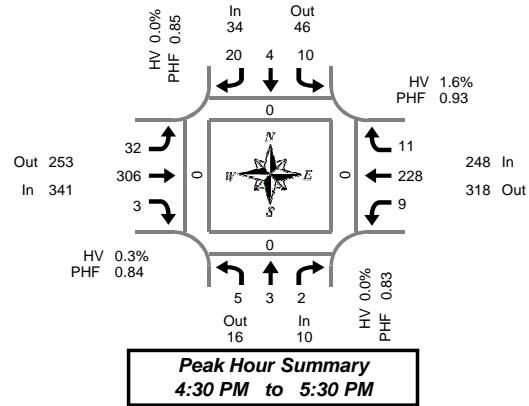
Approach	PHF	HV%	Volume
EB	0.81	1.9%	161
WB	0.85	1.3%	153
NB	0.50	10.0%	10
SB	0.60	3.4%	29
Intersection	0.91	2.0%	353

Count Period: 7:00 AM to 9:00 AM

Total Vehicle Summary



Clay Carney
(503) 833-2740



N Locust St & Territorial Rd

Thursday, August 09, 2018

4:00 PM to 6:00 PM

Peak Hour Summary
4:30 PM to 5:30 PM

5-Minute Interval Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound N Locust St				Southbound N Locust St				Eastbound Territorial Rd				Westbound Territorial Rd				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
4:00 PM	0	0	1	0	1	0	4	0	5	23	1	1	1	21	0	0	57	0	0	0	0
4:05 PM	0	4	1	0	0	0	0	0	1	20	0	2	0	14	0	0	40	0	0	2	0
4:10 PM	0	0	0	0	0	2	1	0	5	16	1	0	2	31	1	0	59	0	0	0	0
4:15 PM	0	0	0	0	0	1	4	0	1	31	0	0	0	14	1	0	52	0	0	0	0
4:20 PM	0	0	0	0	0	1	3	0	5	17	1	0	0	19	1	0	47	0	0	0	0
4:25 PM	0	0	1	0	0	1	1	0	5	17	0	1	0	13	1	0	39	0	0	0	0
4:30 PM	0	1	1	0	0	2	2	0	4	21	0	0	2	32	1	0	66	0	0	0	0
4:35 PM	0	0	0	1	1	0	2	0	3	29	0	1	0	14	0	0	49	0	0	0	0
4:40 PM	1	0	0	0	1	1	1	0	3	28	0	0	3	15	0	0	53	0	0	0	0
4:45 PM	0	1	0	0	2	0	2	0	2	35	1	0	1	18	1	0	63	0	0	0	0
4:50 PM	0	0	0	0	0	0	1	0	3	26	0	0	0	16	0	0	46	0	0	0	0
4:55 PM	2	0	0	0	1	0	3	0	2	14	0	0	1	17	1	0	41	0	0	0	0
5:00 PM	1	0	0	0	1	1	1	0	1	24	0	0	0	22	4	2	55	0	0	0	0
5:05 PM	0	0	0	0	1	0	2	0	5	29	0	0	0	18	1	0	56	0	0	0	0
5:10 PM	0	0	0	0	1	0	0	0	0	36	0	0	1	17	1	0	56	0	0	0	0
5:15 PM	0	1	0	0	0	0	3	0	4	17	0	0	1	22	0	0	48	0	0	0	0
5:20 PM	1	0	1	0	2	0	1	0	2	20	2	0	0	19	0	0	48	0	0	0	0
5:25 PM	0	0	0	0	0	0	2	0	3	27	0	0	0	18	2	0	52	0	0	0	0
5:30 PM	0	0	0	0	0	0	1	0	3	27	0	0	0	25	1	0	57	0	0	0	0
5:35 PM	1	0	1	0	0	0	4	0	2	20	1	0	1	15	0	0	45	0	0	0	0
5:40 PM	0	1	0	0	0	0	1	0	1	14	1	0	0	11	0	2	29	0	0	0	0
5:45 PM	0	0	1	0	0	0	6	0	2	18	0	0	1	23	2	0	53	0	2	2	0
5:50 PM	1	0	0	0	0	0	1	0	3	11	0	0	0	8	1	0	25	0	0	0	0
5:55 PM	0	1	1	0	0	0	1	0	3	16	0	0	2	9	0	0	33	0	0	0	0
Total Survey	7	9	8	1	11	9	47	0	68	536	8	5	16	431	19	4	1,169	0	2	4	0

15-Minute Interval Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound N Locust St				Southbound N Locust St				Eastbound Territorial Rd				Westbound Territorial Rd				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
4:00 PM	0	4	2	0	1	2	5	0	11	59	2	3	3	66	1	0	156	0	0	2	0
4:15 PM	0	0	1	0	0	3	8	0	11	65	1	1	0	46	3	0	138	0	0	0	0
4:30 PM	1	1	1	1	2	3	5	0	10	78	0	1	5	61	1	0	168	0	0	0	0
4:45 PM	2	1	0	0	3	0	6	0	7	75	1	0	2	51	2	0	150	0	0	0	0
5:00 PM	1	0	0	0	3	1	3	0	6	89	0	0	1	57	6	2	167	0	0	0	0
5:15 PM	1	1	1	0	2	0	6	0	9	64	2	0	1	59	2	0	148	0	0	0	0
5:30 PM	1	1	1	0	0	0	6	0	6	61	2	0	1	51	1	2	131	0	0	0	0
5:45 PM	1	1	2	0	0	0	8	0	8	45	0	0	3	40	3	0	111	0	2	2	0
Total Survey	7	9	8	1	11	9	47	0	68	536	8	5	16	431	19	4	1,169	0	2	4	0

Peak Hour Summary

4:30 PM to 5:30 PM

By Approach	Northbound N Locust St				Southbound N Locust St				Eastbound Territorial Rd				Westbound Territorial Rd				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	10	16	26	1	34	46	80	0	341	253	594	1	248	318	566	2	633	0	0	0	0
%HV	0.0%				0.0%				0.3%				1.6%				0.8%				
PHF	0.83				0.85				0.84				0.93				0.94				

By Movement	Northbound N Locust St				Southbound N Locust St				Eastbound Territorial Rd				Westbound Territorial Rd				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	5	3	2	10	10	4	20	34	32	306	3	341	9	228	11	248	633
%HV	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%	0.0%	0.3%	11.1%	1.3%	0.0%	1.6%	0.8%
PHF	0.42	0.75	0.50	0.83	0.63	0.33	0.83	0.85	0.80	0.83	0.38	0.84	0.45	0.93	0.46	0.93	0.94

Rolling Hour Summary

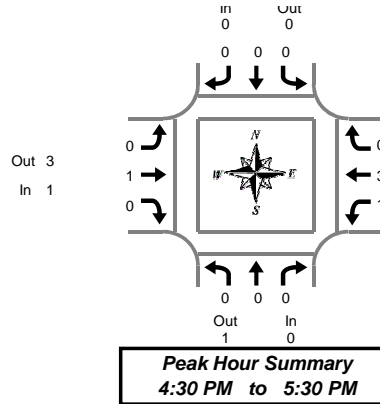
4:00 PM to 6:00 PM

Interval Start Time	Northbound N Locust St				Southbound N Locust St				Eastbound Territorial Rd				Westbound Territorial Rd				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
4:00 PM	3	6	4	1	6	8	24	0	39	277	4	5	10	224	7	0	612	0	0	2	0
4:15 PM	4	2	2	1	8	7	22	0	34	307	2	2	8	215	12	2	623	0	0	0	0
4:30 PM	5	3	2	1	10	4	20	0	32	306	3	1	9	228	11	2	633	0	0	0	0
4:45 PM	5	3	2	0	8	1	21	0	28	289	5	0	5	218	11	4	596	0	0	0	0
5:00 PM	4	3	4	0	5	1	23	0	29	259	4	0	6	207	12	4	557	0	2	2	0

Heavy Vehicle Summary



Clay Carney
(503) 833-2740



N Locust St & Territorial Rd

Thursday, August 09, 2018

4:00 PM to 6:00 PM

Heavy Vehicle 5-Minute Interval Summary 4:00 PM to 6:00 PM

Interval Start Time	Northbound N Locust St				Southbound N Locust St				Eastbound Territorial Rd				Westbound Territorial Rd				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
4:05 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0
4:10 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	2
4:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0
4:20 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:25 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
4:35 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:40 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0
4:50 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
4:55 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:05 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:10 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
5:20 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:25 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:35 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:40 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:50 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0
5:55 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Survey	0	0	0	0	0	0	0	0	0	5	0	5	1	6	0	7	12

Heavy Vehicle 15-Minute Interval Summary 4:00 PM to 6:00 PM

Interval Start Time	Northbound N Locust St				Southbound N Locust St				Eastbound Territorial Rd				Westbound Territorial Rd				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	2	0	2	0	3	0	3	5
4:15 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2	
4:45 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	2
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
Total Survey	0	0	0	0	0	0	0	0	0	5	0	5	1	6	0	7	12

Heavy Vehicle Peak Hour Summary 4:30 PM to 5:30 PM

By Approach	Northbound N Locust St			Southbound N Locust St			Eastbound Territorial Rd			Westbound Territorial Rd			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	0	1	1	0	0	0	1	3	4	4	1	5	5
PHF	0.00			0.00			0.25			0.50			0.63

By Movement	Northbound N Locust St				Southbound N Locust St				Eastbound Territorial Rd				Westbound Territorial Rd				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	0	0	0	0	0	0	0	0	0	1	0	1	1	3	0	4	5
PHF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.25	0.25	0.38	0.00	0.50	0.63

Heavy Vehicle Rolling Hour Summary 4:00 PM to 6:00 PM

Interval Start Time	Northbound N Locust St				Southbound N Locust St				Eastbound Territorial Rd				Westbound Territorial Rd				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	4	0	4	0	6	0	6	10
4:15 PM	0	0	0	0	0	0	0	0	0	2	0	2	0	3	0	3	5
4:30 PM	0	0	0	0	0	0	0	0	0	1	0	1	1	3	0	4	5
4:45 PM	0	0	0	0	0	0	0	0	0	1	0	1	1	1	0	2	3
5:00 PM	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	1	2

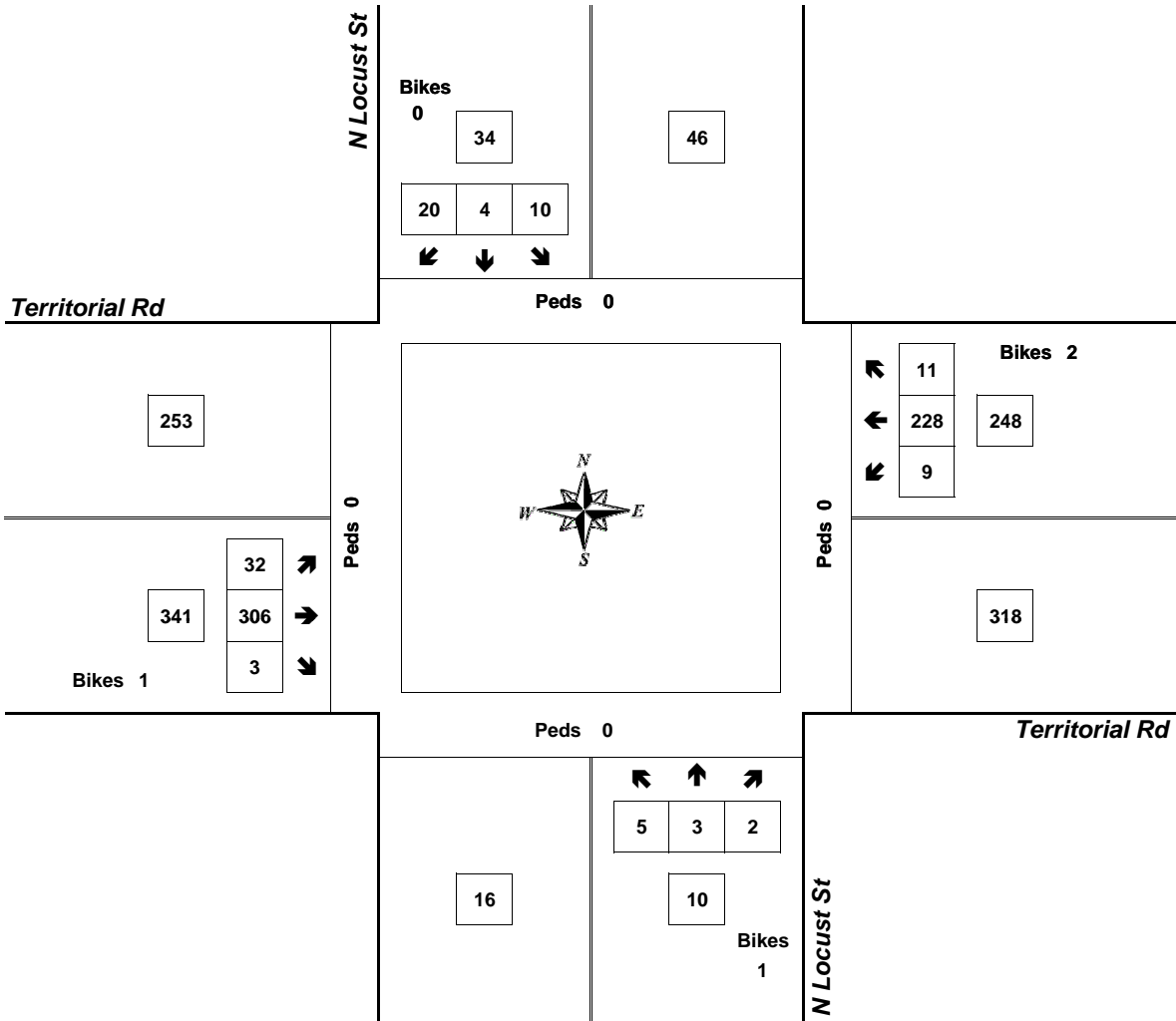
Peak Hour Summary



Clay Carney
(503) 833-2740

N Locust St & Territorial Rd

4:30 PM to 5:30 PM
Thursday, August 09, 2018



Approach	PHF	HV%	Volume
EB	0.84	0.3%	341
WB	0.93	1.6%	248
NB	0.83	0.0%	10
SB	0.85	0.0%	34
Intersection	0.94	0.8%	633

Count Period: 4:00 PM to 6:00 PM

Total Vehicle Summary

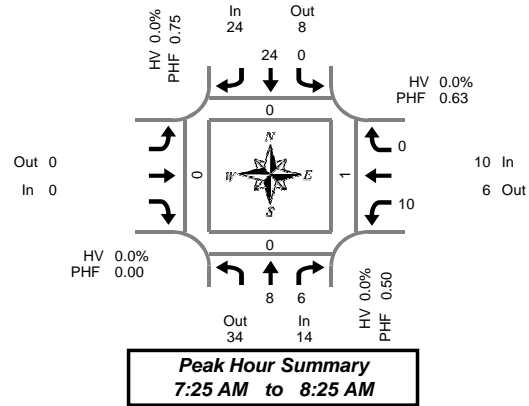


Clay Carney
(503) 833-2740

N Locust St & NE 19th Ave

Thursday, August 09, 2018

7:00 AM to 9:00 AM



5-Minute Interval Summary 7:00 AM to 9:00 AM

Interval Start Time	Northbound N Locust St			Southbound N Locust St			Eastbound NE 19th Ave			Westbound NE 19th Ave			Interval Total	Pedestrians Crosswalk			
	T	R	Bikes	L	T	Bikes			Bikes	L	R	Bikes		North	South	East	West
7:00 AM	0	0	0	0	1	0			0	1	0	0	2	0	0	0	0
7:05 AM	0	0	0	0	1	0			0	1	0	0	2	0	0	0	0
7:10 AM	0	0	0	0	0	0			0	1	0	0	1	0	0	0	0
7:15 AM	0	1	0	0	0	0			0	1	0	0	2	0	0	0	0
7:20 AM	0	0	0	0	1	0			0	0	0	0	1	0	0	0	0
7:25 AM	2	0	0	0	1	0			0	2	0	0	5	0	0	0	0
7:30 AM	1	1	0	0	2	0			0	2	0	0	6	0	0	0	0
7:35 AM	0	0	0	0	4	0			0	0	0	0	4	0	0	0	0
7:40 AM	0	0	0	0	2	0			0	1	0	0	3	0	0	0	0
7:45 AM	1	0	0	0	2	0			0	1	0	0	4	0	0	0	0
7:50 AM	0	1	0	0	2	0			0	0	0	0	3	0	0	0	0
7:55 AM	0	0	0	0	2	0			0	1	0	0	3	0	0	1	0
8:00 AM	2	0	0	0	2	0			0	0	0	0	4	0	0	0	0
8:05 AM	1	2	0	0	1	0			0	0	0	0	4	0	0	0	0
8:10 AM	1	1	0	0	1	0			0	0	0	0	3	0	0	0	0
8:15 AM	0	1	0	0	3	0			0	3	0	0	7	0	0	0	0
8:20 AM	0	0	1	0	2	0			0	0	0	0	2	0	0	0	0
8:25 AM	1	0	1	0	0	0			0	0	0	0	1	0	0	0	0
8:30 AM	1	1	0	0	1	0			0	1	0	0	4	0	0	0	0
8:35 AM	1	0	0	0	3	0			0	0	0	0	4	0	0	0	0
8:40 AM	1	0	0	0	1	0			0	0	0	0	2	0	0	0	0
8:45 AM	0	0	0	0	3	0			0	4	0	0	7	0	0	0	0
8:50 AM	1	0	0	0	3	0			0	2	0	0	6	0	0	0	0
8:55 AM	3	0	0	0	1	0			0	0	0	0	4	0	0	0	0
Total Survey	16	8	2	0	39	0			0	21	0	0	84	0	0	1	0

15-Minute Interval Summary 7:00 AM to 9:00 AM

Interval Start Time	Northbound N Locust St			Southbound N Locust St			Eastbound NE 19th Ave			Westbound NE 19th Ave			Interval Total	Pedestrians Crosswalk			
	T	R	Bikes	L	T	Bikes			Bikes	L	R	Bikes		North	South	East	West
7:00 AM	0	0	0	0	2	0			0	3	0	0	5	0	0	0	0
7:15 AM	2	1	0	0	2	0			0	3	0	0	8	0	0	0	0
7:30 AM	1	1	0	0	8	0			0	3	0	0	13	0	0	0	0
7:45 AM	1	1	0	0	6	0			0	2	0	0	10	0	0	1	0
8:00 AM	4	3	0	0	4	0			0	0	0	0	11	0	0	0	0
8:15 AM	1	1	2	0	5	0			0	3	0	0	10	0	0	0	0
8:30 AM	3	1	0	0	5	0			0	1	0	0	10	0	0	0	0
8:45 AM	4	0	0	0	7	0			0	6	0	0	17	0	0	0	0
Total Survey	16	8	2	0	39	0			0	21	0	0	84	0	0	1	0

Peak Hour Summary 7:25 AM to 8:25 AM

By Approach	Northbound N Locust St			Southbound N Locust St			Eastbound NE 19th Ave			Westbound NE 19th Ave			Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	14	34	48	1	24	8	32	0	0	0	0	0	10	6	16	0	48
%HV	0.0%			0.0%			0.0%			0.0%			0.0%				
PHF	0.50			0.75			0.00			0.63			0.80				

By Movement	Northbound N Locust St			Southbound N Locust St			Eastbound NE 19th Ave			Westbound NE 19th Ave			Total
	T	R	Total	L	T	Total			Total	L	R	Total	
Volume	8	6	14	0	24	24			0	10	0	10	48
%HV	NA	0.0%	0.0%	0.0%	0.0%	NA	0.0%	NA	NA	NA	0.0%	0.0%	0.0%
PHF	0.50	0.38	0.50	0.00	0.75	0.75			0.00	0.63	0.00	0.63	0.80

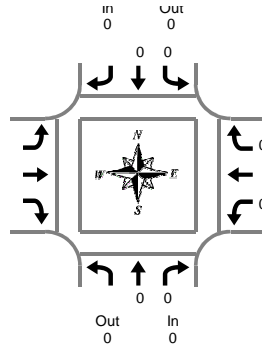
Rolling Hour Summary 7:00 AM to 9:00 AM

Interval Start Time	Northbound N Locust St			Southbound N Locust St			Eastbound NE 19th Ave			Westbound NE 19th Ave			Interval Total	Pedestrians Crosswalk			
	T	R	Bikes	L	T	Bikes			Bikes	L	R	Bikes		North	South	East	West
7:00 AM	4	3	0	0	18	0			0	11	0	0	36	0	0	1	0
7:15 AM	8	6	0	0	20	0			0	8	0	0	42	0	0	1	0
7:30 AM	7	6	2	0	23	0			0	8	0	0	44	0	0	1	0
7:45 AM	9	6	2	0	20	0			0	6	0	0	41	0	0	1	0
8:00 AM	12	5	2	0	21	0			0	10	0	0	48	0	0	0	0

Heavy Vehicle Summary



Clay Carney
(503) 833-2740



Peak Hour Summary
7:25 AM to 8:25 AM

N Locust St & NE 19th Ave

Thursday, August 09, 2018

7:00 AM to 9:00 AM

Heavy Vehicle 5-Minute Interval Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound N Locust St			Southbound N Locust St			Eastbound NE 19th Ave			Westbound NE 19th Ave			Interval Total
	T	R	Total	L	T	Total			Total	L	R	Total	
7:00 AM	0	0	0	0	0	0			0	0	0	0	0
7:05 AM	0	0	0	0	0	0			0	0	0	0	0
7:10 AM	0	0	0	0	0	0			0	0	0	0	0
7:15 AM	0	0	0	0	0	0			0	0	0	0	0
7:20 AM	0	0	0	0	0	0			0	0	0	0	0
7:25 AM	0	0	0	0	0	0			0	0	0	0	0
7:30 AM	0	0	0	0	0	0			0	0	0	0	0
7:35 AM	0	0	0	0	0	0			0	0	0	0	0
7:40 AM	0	0	0	0	0	0			0	0	0	0	0
7:45 AM	0	0	0	0	0	0			0	0	0	0	0
7:50 AM	0	0	0	0	0	0			0	0	0	0	0
7:55 AM	0	0	0	0	0	0			0	0	0	0	0
8:00 AM	0	0	0	0	0	0			0	0	0	0	0
8:05 AM	0	0	0	0	0	0			0	0	0	0	0
8:10 AM	0	0	0	0	0	0			0	0	0	0	0
8:15 AM	0	0	0	0	0	0			0	0	0	0	0
8:20 AM	0	0	0	0	0	0			0	0	0	0	0
8:25 AM	0	0	0	0	0	0			0	0	0	0	0
8:30 AM	0	0	0	0	0	0			0	1	0	1	1
8:35 AM	1	0	1	0	0	0			0	0	0	0	1
8:40 AM	0	0	0	0	0	0			0	0	0	0	0
8:45 AM	0	0	0	0	0	0			0	0	0	0	0
8:50 AM	0	0	0	0	0	0			0	0	0	0	0
8:55 AM	0	0	0	0	0	0			0	0	0	0	0
Total Survey	1	0	1	0	0	0			0	1	0	1	2

Heavy Vehicle 15-Minute Interval Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound N Locust St			Southbound N Locust St			Eastbound NE 19th Ave			Westbound NE 19th Ave			Interval Total
	T	R	Total	L	T	Total			Total	L	R	Total	
7:00 AM	0	0	0	0	0	0			0	0	0	0	0
7:15 AM	0	0	0	0	0	0			0	0	0	0	0
7:30 AM	0	0	0	0	0	0			0	0	0	0	0
7:45 AM	0	0	0	0	0	0			0	0	0	0	0
8:00 AM	0	0	0	0	0	0			0	0	0	0	0
8:15 AM	0	0	0	0	0	0			0	0	0	0	0
8:30 AM	1	0	1	0	0	0			0	1	0	1	2
8:45 AM	0	0	0	0	0	0			0	0	0	0	0
Total Survey	1	0	1	0	0	0			0	1	0	1	2

Heavy Vehicle Peak Hour Summary

7:25 AM to 8:25 AM

By Approach	Northbound N Locust St			Southbound N Locust St			Eastbound NE 19th Ave			Westbound NE 19th Ave			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	0	0	0	0	0	0	0	0	0	0	0	0	0
PHF	0.00			0.00			0.00			0.00			0.00

By Movement	Northbound N Locust St			Southbound N Locust St			Eastbound NE 19th Ave			Westbound NE 19th Ave			Total
	T	R	Total	L	T	Total			Total	L	R	Total	
Volume	0	0	0	0	0	0			0	0	0	0	0
PHF	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00	0.00

Heavy Vehicle Rolling Hour Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound N Locust St			Southbound N Locust St			Eastbound NE 19th Ave			Westbound NE 19th Ave			Interval Total
	T	R	Total	L	T	Total			Total	L	R	Total	
7:00 AM	0	0	0	0	0	0			0	0	0	0	0
7:15 AM	0	0	0	0	0	0			0	0	0	0	0
7:30 AM	0	0	0	0	0	0			0	0	0	0	0
7:45 AM	1	0	1	0	0	0			0	1	0	1	2
8:00 AM	1	0	1	0	0	0			0	1	0	1	2

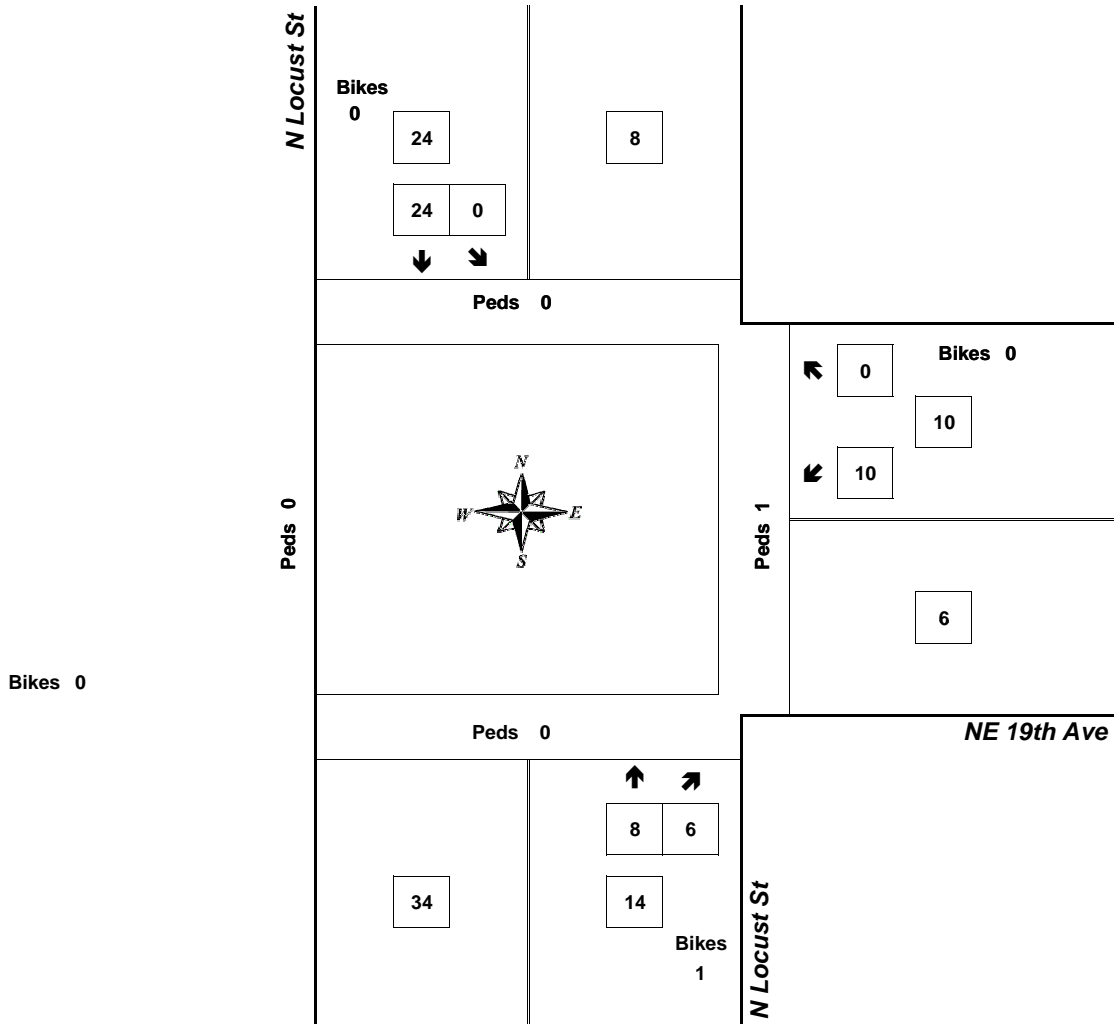
Peak Hour Summary



Clay Carney
(503) 833-2740

N Locust St & NE 19th Ave

7:25 AM to 8:25 AM
Thursday, August 09, 2018



Approach	PHF	HV%	Volume
EB	0.00	0.0%	0
WB	0.63	0.0%	10
NB	0.50	0.0%	14
SB	0.75	0.0%	24
Intersection	0.80	0.0%	48

Count Period: 7:00 AM to 9:00 AM

Total Vehicle Summary

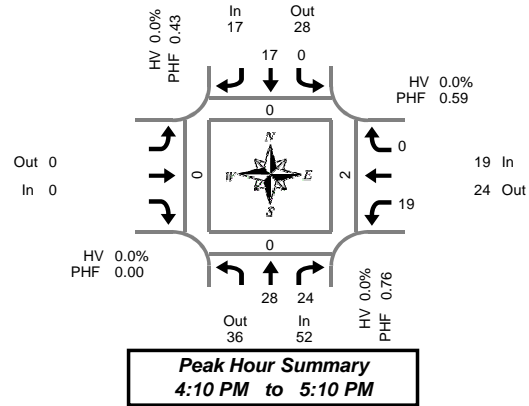


Clay Carney
(503) 833-2740

N Locust St & NE 19th Ave

Thursday, August 09, 2018

4:00 PM to 6:00 PM



5-Minute Interval Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound N Locust St			Southbound N Locust St			Eastbound NE 19th Ave			Westbound NE 19th Ave			Interval Total	Pedestrians Crosswalk			
	T	R	Bikes	L	T	Bikes			Bikes	L	R	Bikes		North	South	East	West
4:00 PM	0	1	0	0	2	0			0	0	0	0	3	0	0	0	0
4:05 PM	3	2	0	0	3	0			0	0	0	0	8	0	0	0	0
4:10 PM	2	3	0	0	0	0			0	2	0	0	7	0	0	0	0
4:15 PM	2	3	0	0	0	1			0	1	0	0	6	0	0	0	0
4:20 PM	2	1	0	0	7	0			0	0	0	0	10	0	0	0	0
4:25 PM	5	2	0	0	1	0			0	1	0	0	9	0	0	1	0
4:30 PM	3	1	0	0	2	0			0	2	0	0	8	0	0	0	0
4:35 PM	2	4	0	0	1	0			0	2	0	0	9	0	0	0	0
4:40 PM	1	2	0	0	1	0			0	2	0	0	6	0	0	0	0
4:45 PM	0	3	0	0	0	0			0	4	0	0	7	0	0	1	0
4:50 PM	4	1	0	0	0	0			0	0	0	1	5	0	0	0	0
4:55 PM	1	1	0	0	3	0			0	2	0	0	7	0	0	0	0
5:00 PM	1	3	0	0	0	0			0	1	0	1	5	0	0	0	0
5:05 PM	5	0	0	0	2	0			0	2	0	0	9	0	0	0	0
5:10 PM	4	0	0	0	2	0			0	0	0	0	6	0	0	0	0
5:15 PM	2	2	0	0	1	0			0	1	0	0	6	0	0	0	0
5:20 PM	0	2	0	0	1	0			0	2	0	0	5	0	0	0	0
5:25 PM	2	3	0	0	0	0			0	2	0	0	7	0	0	0	0
5:30 PM	1	2	0	0	0	0			0	1	0	0	4	0	0	0	0
5:35 PM	2	1	0	0	1	0			0	3	0	0	7	0	0	0	0
5:40 PM	3	0	0	0	1	0			0	0	1	0	5	0	0	0	0
5:45 PM	2	2	0	0	2	0			0	2	0	0	8	0	0	2	0
5:50 PM	1	2	0	0	1	0			0	2	0	0	6	0	0	0	0
5:55 PM	2	1	0	0	0	0			0	0	0	0	3	0	0	0	0
Total Survey	50	42	0	0	31	1			0	32	1	2	156	0	0	4	0

15-Minute Interval Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound N Locust St			Southbound N Locust St			Eastbound NE 19th Ave			Westbound NE 19th Ave			Interval Total	Pedestrians Crosswalk			
	T	R	Bikes	L	T	Bikes			Bikes	L	R	Bikes		North	South	East	West
4:00 PM	5	6	0	0	5	0			0	2	0	0	18	0	0	0	0
4:15 PM	9	6	0	0	8	1			0	2	0	0	25	0	0	1	0
4:30 PM	6	7	0	0	4	0			0	6	0	0	23	0	0	0	0
4:45 PM	5	5	0	0	3	0			0	6	0	1	19	0	0	1	0
5:00 PM	10	3	0	0	4	0			0	3	0	1	20	0	0	0	0
5:15 PM	4	7	0	0	2	0			0	5	0	0	18	0	0	0	0
5:30 PM	6	3	0	0	2	0			0	4	1	0	16	0	0	0	0
5:45 PM	5	5	0	0	3	0			0	4	0	0	17	0	0	2	0
Total Survey	50	42	0	0	31	1			0	32	1	2	156	0	0	4	0

Peak Hour Summary

4:10 PM to 5:10 PM

By Approach	Northbound N Locust St			Southbound N Locust St			Eastbound NE 19th Ave			Westbound NE 19th Ave			Total	Pedestrians Crosswalk			
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total		North	South	East	West
Volume	52	36	88	0	17	28	45	1	0	0	0	0	19	24	43	2	88
%HV	0.0%			0.0%			0.0%			0.0%			0.0%				
PHF	0.76			0.43			0.00			0.59			0.81				

By Movement	Northbound N Locust St			Southbound N Locust St			Eastbound NE 19th Ave			Westbound NE 19th Ave			Total
	T	R	Total	L	T	Total			Total	L	R	Total	
Volume	28	24	52	0	17	17			0	19	0	19	88
%HV	NA	0.0%	0.0%	0.0%	0.0%	NA	0.0%	NA	NA	NA	0.0%	0.0%	0.0%
PHF	0.70	0.67	0.76	0.00	0.43	0.43			0.00	0.59	0.00	0.59	0.81

Rolling Hour Summary

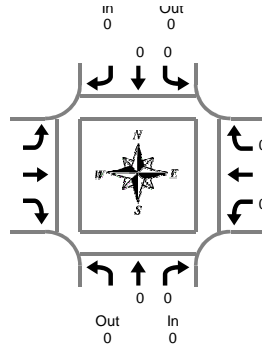
4:00 PM to 6:00 PM

Interval Start Time	Northbound N Locust St			Southbound N Locust St			Eastbound NE 19th Ave			Westbound NE 19th Ave			Interval Total	Pedestrians Crosswalk			
	T	R	Bikes	L	T	Bikes			Bikes	L	R	Bikes		North	South	East	West
4:00 PM	25	24	0	0	20	1			0	16	0	1	85	0	0	2	0
4:15 PM	30	21	0	0	19	1			0	17	0	2	87	0	0	2	0
4:30 PM	25	22	0	0	13	0			0	20	0	2	80	0	0	1	0
4:45 PM	25	18	0	0	11	0			0	18	1	2	73	0	0	1	0
5:00 PM	25	18	0	0	11	0			0	16	1	1	71	0	0	2	0

Heavy Vehicle Summary



Clay Carney
(503) 833-2740



Peak Hour Summary
4:10 PM to 5:10 PM

N Locust St & NE 19th Ave

Thursday, August 09, 2018

4:00 PM to 6:00 PM

Heavy Vehicle 5-Minute Interval Summary 4:00 PM to 6:00 PM

Interval Start Time	Northbound N Locust St			Southbound N Locust St			Eastbound NE 19th Ave			Westbound NE 19th Ave			Interval Total
	T	R	Total	L	T	Total			Total	L	R	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:05 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:10 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:20 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:25 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:35 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:40 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:50 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:55 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:05 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:10 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:20 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:25 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:35 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:40 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:50 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:55 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Survey	0	0	0	0	0	0	0	0	0	0	0	0	0

Heavy Vehicle 15-Minute Interval Summary 4:00 PM to 6:00 PM

Interval Start Time	Northbound N Locust St			Southbound N Locust St			Eastbound NE 19th Ave			Westbound NE 19th Ave			Interval Total
	T	R	Total	L	T	Total			Total	L	R	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Survey	0	0	0	0	0	0	0	0	0	0	0	0	0

Heavy Vehicle Peak Hour Summary 4:10 PM to 5:10 PM

By Approach	Northbound N Locust St			Southbound N Locust St			Eastbound NE 19th Ave			Westbound NE 19th Ave			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	0	0	0	0	0	0	0	0	0	0	0	0	0
PHF	0.00			0.00			0.00			0.00			0.00

By Movement	Northbound N Locust St			Southbound N Locust St			Eastbound NE 19th Ave			Westbound NE 19th Ave			Total
	T	R	Total	L	T	Total			Total	L	R	Total	
Volume	0	0	0	0	0	0	0	0	0	0	0	0	0
PHF	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00	0.00

Heavy Vehicle Rolling Hour Summary 4:00 PM to 6:00 PM

Interval Start Time	Northbound N Locust St			Southbound N Locust St			Eastbound NE 19th Ave			Westbound NE 19th Ave			Interval Total
	T	R	Total	L	T	Total			Total	L	R	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0

Peak Hour Summary

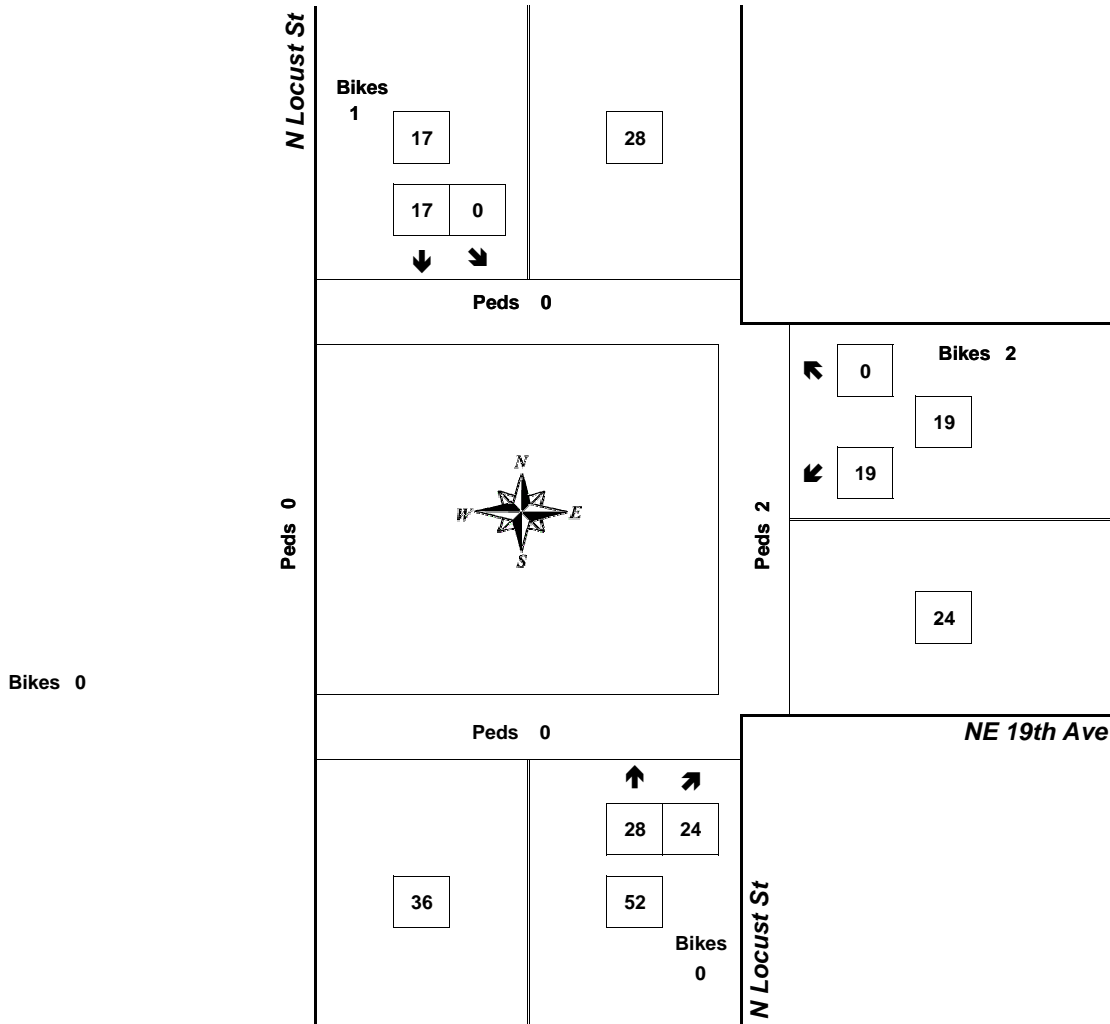


Clay Carney
(503) 833-2740

N Locust St & NE 19th Ave

4:10 PM to 5:10 PM

Thursday, August 09, 2018



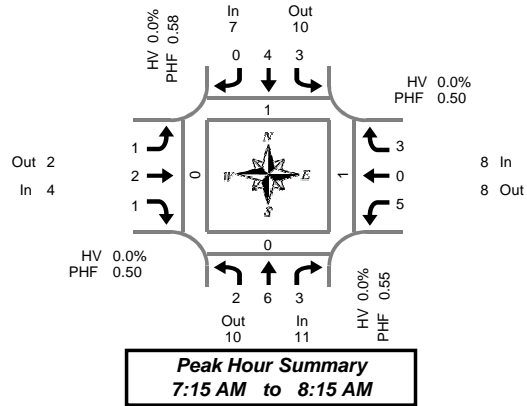
Approach	PHF	HV%	Volume
EB	0.00	0.0%	0
WB	0.59	0.0%	19
NB	0.76	0.0%	52
SB	0.43	0.0%	17
Intersection	0.81	0.0%	88

Count Period: 4:00 PM to 6:00 PM

Total Vehicle Summary



Clay Carney
(503) 833-2740



N Locust St & NE 22nd Ave

Thursday, August 09, 2018

7:00 AM to 9:00 AM

5-Minute Interval Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound N Locust St				Southbound N Locust St				Eastbound NE 22nd Ave				Westbound NE 22nd Ave				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
7:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:05 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	
7:10 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:15 AM	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	
7:20 AM	1	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	
7:25 AM	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	
7:30 AM	0	2	0	0	0	1	0	0	0	0	0	0	0	0	2	0	0	0	0	0	
7:35 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	
7:40 AM	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	
7:45 AM	0	0	1	0	1	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	
7:50 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:55 AM	0	1	0	0	0	1	0	0	0	0	0	1	0	0	1	0	0	0	0	0	
8:00 AM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:05 AM	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	
8:10 AM	0	0	1	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:20 AM	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	
8:25 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:35 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:40 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	
8:50 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	
8:55 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total Survey	4	6	5	2	4	4	0	0	1	2	1	1	7	1	4	1	39	1	1	1	1

15-Minute Interval Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound N Locust St				Southbound N Locust St				Eastbound NE 22nd Ave				Westbound NE 22nd Ave				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
7:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	
7:15 AM	1	3	0	0	0	0	0	0	0	1	0	1	1	0	0	0	0	0	0	0	
7:30 AM	0	2	0	0	1	1	0	0	0	0	0	0	2	0	2	0	0	0	0	0	
7:45 AM	0	1	1	0	1	1	0	0	0	1	1	0	1	0	1	0	0	0	0	0	
8:00 AM	1	0	2	0	1	2	0	0	0	1	0	0	1	0	0	0	0	0	0	0	
8:15 AM	1	0	0	2	0	0	0	0	0	0	0	0	1	0	0	1	2	0	0	0	
8:30 AM	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1	0	
8:45 AM	0	0	1	0	0	0	0	0	0	0	0	0	1	1	0	0	3	0	0	0	
Total Survey	4	6	5	2	4	4	0	0	1	2	1	1	7	1	4	1	39	1	1	1	1

Peak Hour Summary

7:15 AM to 8:15 AM

By Approach	Northbound N Locust St				Southbound N Locust St				Eastbound NE 22nd Ave				Westbound NE 22nd Ave				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	11	10	21	0	7	10	17	0	4	2	6	1	8	8	16	0	30	1	0	1	0
%HV	0.0%				0.0%				0.0%				0.0%				0.0%				
PHF	0.55				0.58				0.50				0.50				0.75				

By Movement	Northbound N Locust St				Southbound N Locust St				Eastbound NE 22nd Ave				Westbound NE 22nd Ave				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	2	6	3	11	3	4	0	7	1	2	1	4	5	0	3	8	30
%HV	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
PHF	0.50	0.38	0.38	0.55	0.38	0.50	0.00	0.58	0.25	0.50	0.25	0.50	0.42	0.00	0.38	0.50	0.75

Rolling Hour Summary

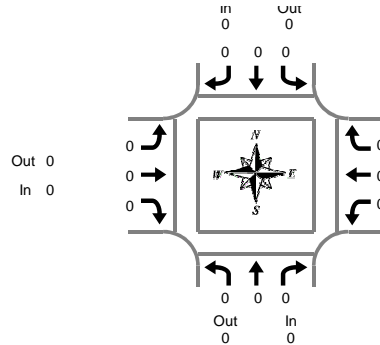
7:00 AM to 9:00 AM

Interval Start Time	Northbound N Locust St				Southbound N Locust St				Eastbound NE 22nd Ave				Westbound NE 22nd Ave				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
7:00 AM	1	6	1	0	3	2	0	0	0	2	1	1	4	0	4	0	24	1	0	1	0
7:15 AM	2	6	3	0	3	4	0	0	1	2	1	1	5	0	3	0	30	1	0	1	0
7:30 AM	2	3	3	2	3	4	0	0	1	1	1	0	5	0	3	1	26	0	0	0	0
7:45 AM	3	1	4	2	2	3	0	0	1	1	1	0	3	0	1	1	20	0	1	0	1
8:00 AM	3	0	4	2	1	2	0	0	1	0	0	0	3	1	0	1	15	0	1	0	1

Heavy Vehicle Summary



Clay Carney
(503) 833-2740



Peak Hour Summary
7:15 AM to 8:15 AM

N Locust St & NE 22nd Ave

Thursday, August 09, 2018

7:00 AM to 9:00 AM

Heavy Vehicle 5-Minute Interval Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound N Locust St				Southbound N Locust St				Eastbound NE 22nd Ave				Westbound NE 22nd Ave				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:05 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:10 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:20 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:25 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:35 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:40 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:50 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:55 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:05 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:10 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:20 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:25 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:35 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
8:40 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:50 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:55 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Survey	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1

Heavy Vehicle 15-Minute Interval Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound N Locust St				Southbound N Locust St				Eastbound NE 22nd Ave				Westbound NE 22nd Ave				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Survey	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1

Heavy Vehicle Peak Hour Summary

7:15 AM to 8:15 AM

By Approach	Northbound N Locust St			Southbound N Locust St			Eastbound NE 22nd Ave			Westbound NE 22nd Ave			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	0	0	0	0	0	0	0	0	0	0	0	0	0
PHF	0.00			0.00			0.00			0.00			0.00

By Movement	Northbound N Locust St				Southbound N Locust St				Eastbound NE 22nd Ave				Westbound NE 22nd Ave				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PHF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Heavy Vehicle Rolling Hour Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound N Locust St				Southbound N Locust St				Eastbound NE 22nd Ave				Westbound NE 22nd Ave				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
8:00 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1

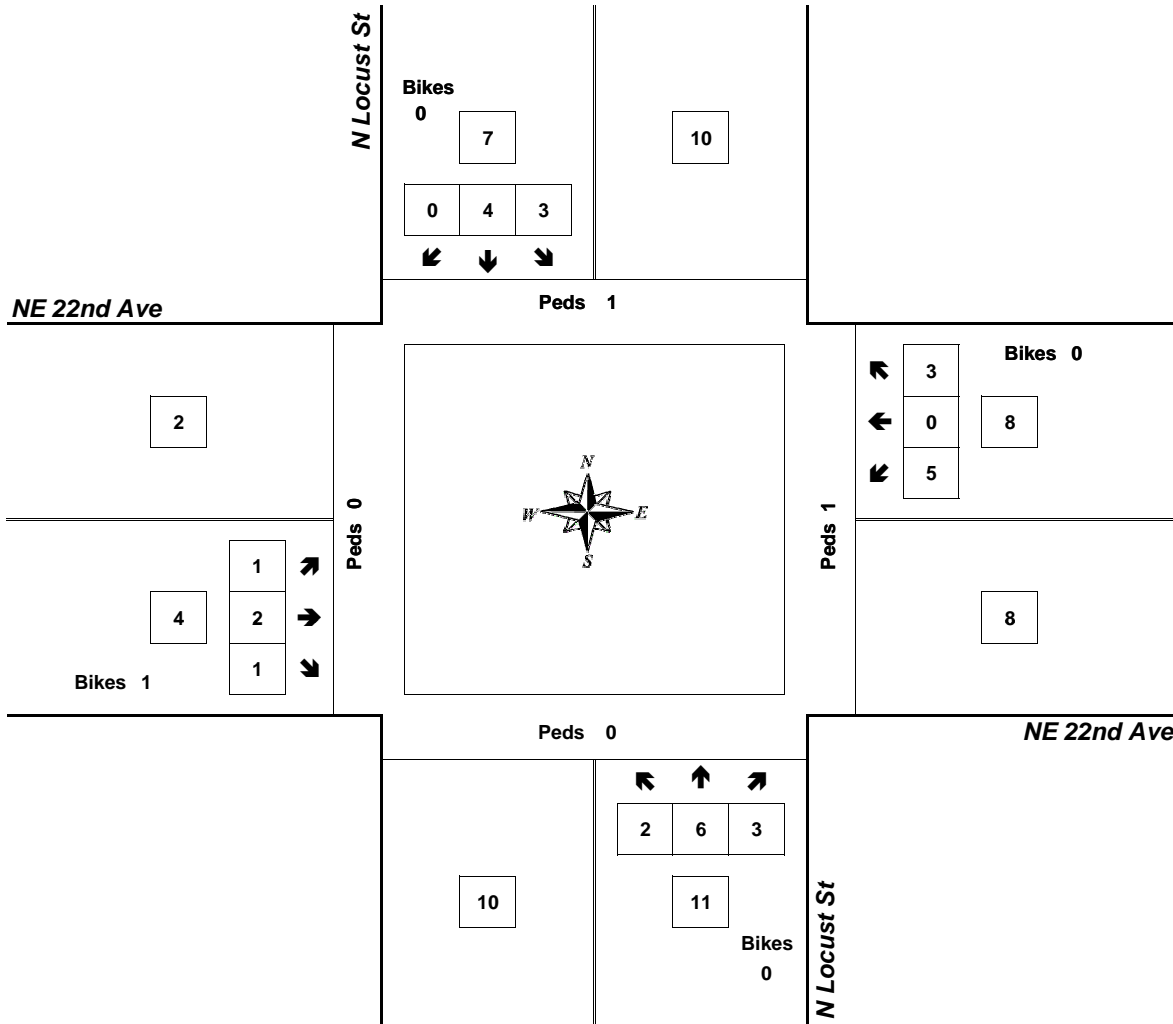
Peak Hour Summary



Clay Carney
(503) 833-2740

N Locust St & NE 22nd Ave

7:15 AM to 8:15 AM
Thursday, August 09, 2018



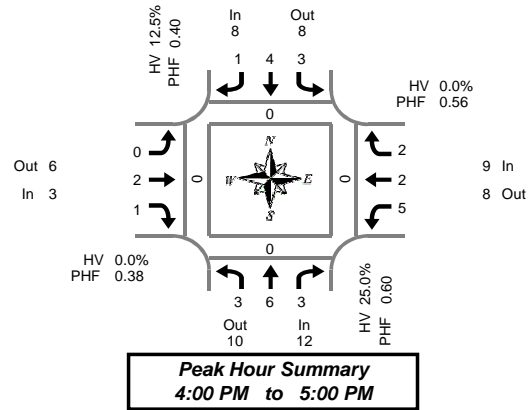
Approach	PHF	HV%	Volume
EB	0.50	0.0%	4
WB	0.50	0.0%	8
NB	0.55	0.0%	11
SB	0.58	0.0%	7
Intersection	0.75	0.0%	30

Count Period: 7:00 AM to 9:00 AM

Total Vehicle Summary



Clay Carney
(503) 833-2740



N Locust St & NE 22nd Ave

Thursday, August 09, 2018

4:00 PM to 6:00 PM

5-Minute Interval Summary 4:00 PM to 6:00 PM

Interval Start Time	Northbound N Locust St				Southbound N Locust St				Eastbound NE 22nd Ave				Westbound NE 22nd Ave				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
4:00 PM	0	1	0	0	0	1	0	0	0	0	1	0	0	2	0	0	1	0	0	0	0
4:05 PM	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:10 PM	0	0	0	0	2	0	1	0	0	0	0	1	0	1	0	0	0	0	0	0	0
4:15 PM	0	1	0	0	0	2	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0
4:20 PM	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
4:25 PM	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0
4:35 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
4:40 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:50 PM	0	1	1	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
4:55 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
5:05 PM	1	0	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:10 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:20 PM	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
5:25 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
5:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:35 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:40 PM	0	1	2	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
5:45 PM	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
5:50 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:55 PM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Total Survey	5	10	7	0	7	5	1	0	0	4	2	1	8	4	2	1	55	1	0	1	0

15-Minute Interval Summary 4:00 PM to 6:00 PM

Interval Start Time	Northbound N Locust St				Southbound N Locust St				Eastbound NE 22nd Ave				Westbound NE 22nd Ave				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
4:00 PM	2	2	1	0	2	1	1	0	0	0	1	1	2	1	0	1	13	0	0	0	0
4:15 PM	1	3	1	0	0	3	0	0	0	0	0	0	2	0	1	0	11	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	2	0	0	1	0	0	0	3	0	0	0	0
4:45 PM	0	1	1	0	1	0	0	0	0	0	0	0	0	1	1	0	5	0	0	0	0
5:00 PM	1	1	2	0	2	0	0	0	0	1	1	0	0	1	0	0	9	0	0	0	0
5:15 PM	0	0	0	0	2	0	0	0	0	0	0	0	1	1	0	0	4	0	0	0	0
5:30 PM	0	2	2	0	0	0	0	0	0	0	0	0	1	0	0	0	5	1	0	1	0
5:45 PM	1	1	0	0	0	1	0	0	0	0	1	0	0	1	0	0	5	0	0	0	0
Total Survey	5	10	7	0	7	5	1	0	0	4	2	1	8	4	2	1	55	1	0	1	0

Peak Hour Summary 4:00 PM to 5:00 PM

By Approach	Northbound N Locust St				Southbound N Locust St				Eastbound NE 22nd Ave				Westbound NE 22nd Ave				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	12	10	22	0	8	8	16	0	3	6	9	1	9	8	17	1	32	0	0	0	0
%HV	25.0%				12.5%				0.0%				0.0%				12.5%				
PHF	0.60				0.40				0.38				0.56				0.62				

By Movement	Northbound N Locust St				Southbound N Locust St				Eastbound NE 22nd Ave				Westbound NE 22nd Ave				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	3	6	3	12	3	4	1	8	0	2	1	3	5	2	2	9	32
%HV	66.7%	16.7%	0.0%	25.0%	0.0%	25.0%	0.0%	12.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	12.5%
PHF	0.38	0.50	0.75	0.60	0.38	0.33	0.25	0.40	0.00	0.25	0.25	0.38	0.63	0.50	0.50	0.56	0.62

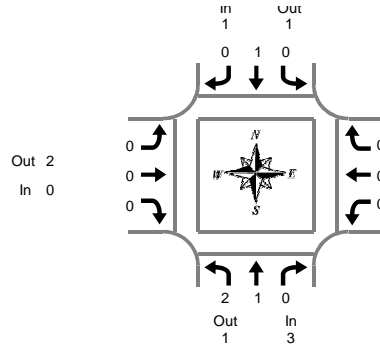
Rolling Hour Summary 4:00 PM to 6:00 PM

Interval Start Time	Northbound N Locust St				Southbound N Locust St				Eastbound NE 22nd Ave				Westbound NE 22nd Ave				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
4:00 PM	3	6	3	0	3	4	1	0	0	2	1	1	5	2	2	1	32	0	0	0	0
4:15 PM	2	5	4	0	3	3	0	0	0	3	1	0	3	2	2	0	28	0	0	0	0
4:30 PM	1	2	3	0	5	0	0	0	0	3	1	0	2	3	1	0	21	0	0	0	0
4:45 PM	1	4	5	0	5	0	0	0	0	1	1	0	2	3	1	0	23	1	0	1	0
5:00 PM	2	4	4	0	4	1	0	0	0	2	1	0	3	2	0	0	23	1	0	1	0

Heavy Vehicle Summary



Clay Carney
(503) 833-2740



Peak Hour Summary
4:00 PM to 5:00 PM

N Locust St & NE 22nd Ave

Thursday, August 09, 2018

4:00 PM to 6:00 PM

Heavy Vehicle 5-Minute Interval Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound N Locust St				Southbound N Locust St				Eastbound NE 22nd Ave				Westbound NE 22nd Ave				Interval Total	
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total		
4:00 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:05 PM	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
4:10 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
4:20 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:25 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:35 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:40 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:50 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:55 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:05 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:10 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:20 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:25 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:35 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:40 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:50 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:55 PM	0	0	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0	1
Total Survey	2	1	0	3	0	2	0	2	0	0	0	0	0	1	0	1	1	6

Heavy Vehicle 15-Minute Interval Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound N Locust St				Southbound N Locust St				Eastbound NE 22nd Ave				Westbound NE 22nd Ave				Interval Total	
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total		
4:00 PM	2	1	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3
4:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1
Total Survey	2	1	0	3	0	2	0	2	0	0	0	0	0	1	0	1	1	6

Heavy Vehicle Peak Hour Summary

4:00 PM to 5:00 PM

By Approach	Northbound N Locust St			Southbound N Locust St			Eastbound NE 22nd Ave			Westbound NE 22nd Ave			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	3	1	4	1	1	2	0	2	2	0	0	0	4
PHF	0.25			0.25			0.00			0.00			0.33

By Movement	Northbound N Locust St				Southbound N Locust St				Eastbound NE 22nd Ave				Westbound NE 22nd Ave				Total	
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total		
Volume	2	1	0	3	0	1	0	1	0	0	0	0	0	0	0	0	0	4
PHF	0.25	0.25	0.00	0.25	0.00	0.25	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.33

Heavy Vehicle Rolling Hour Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound N Locust St				Southbound N Locust St				Eastbound NE 22nd Ave				Westbound NE 22nd Ave				Interval Total	
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total		
4:00 PM	2	1	0	3	0	1	0	1	0	0	0	0	0	0	0	0	0	4
4:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	1
5:00 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	1	2

Peak Hour Summary

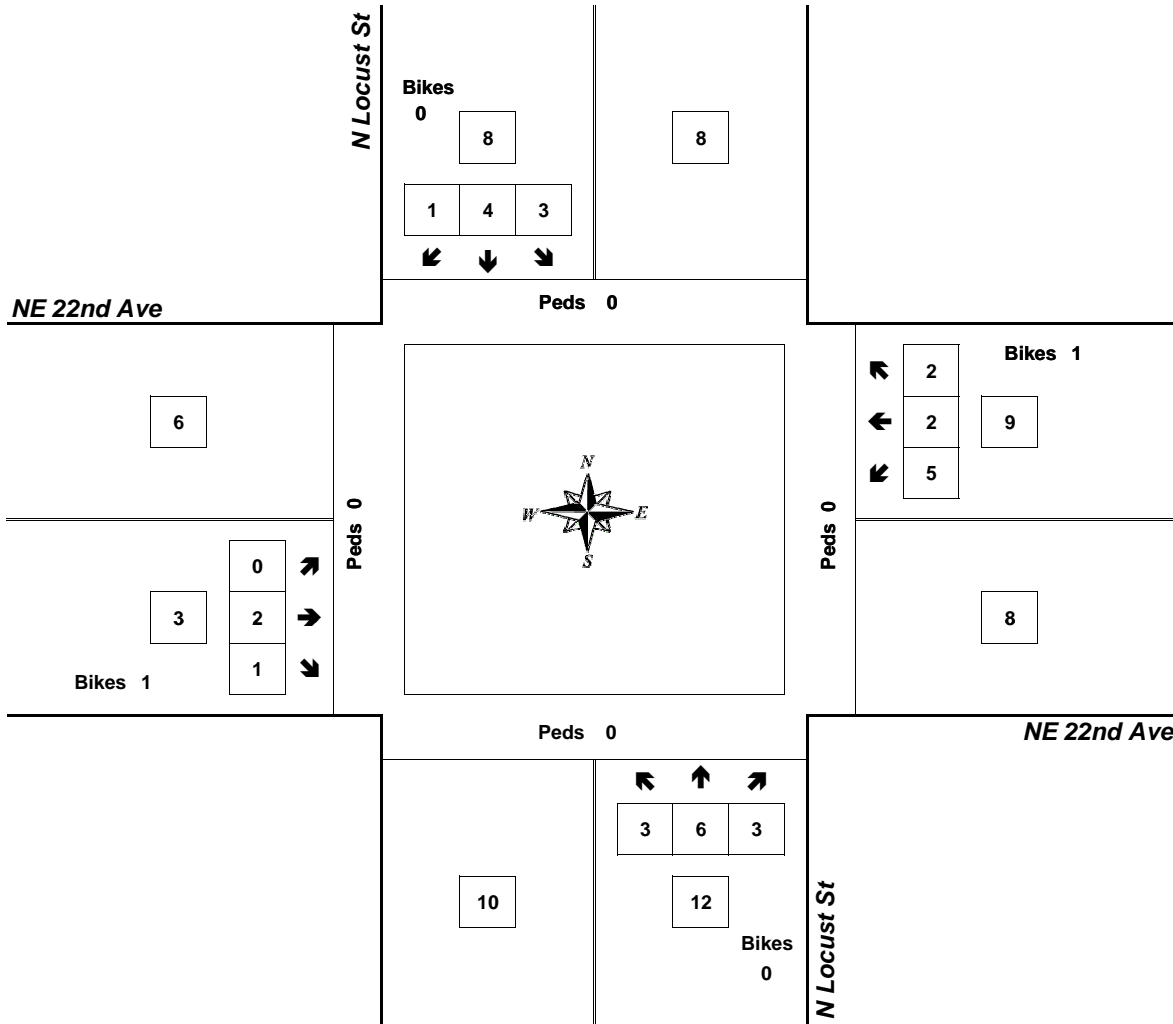


Clay Carney
(503) 833-2740

N Locust St & NE 22nd Ave

4:00 PM to 5:00 PM

Thursday, August 09, 2018



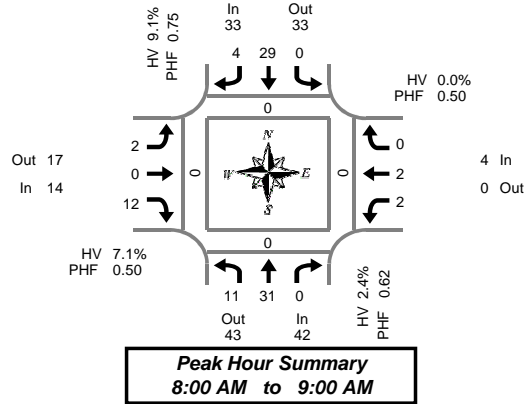
Approach	PHF	HV%	Volume
EB	0.38	0.0%	3
WB	0.56	0.0%	9
NB	0.60	25.0%	12
SB	0.40	12.5%	8
Intersection	0.62	12.5%	32

Count Period: 4:00 PM to 6:00 PM

Total Vehicle Summary



Clay Carney
(503) 833-2740



N Holly St & NE 22nd Ave

Thursday, August 09, 2018

7:00 AM to 9:00 AM

5-Minute Interval Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound N Holly St				Southbound N Holly St				Eastbound NE 22nd Ave				Westbound NE 22nd Ave				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
7:00 AM	0	0	0	0	0	1	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0
7:05 AM	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
7:10 AM	0	5	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
7:15 AM	0	2	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
7:20 AM	3	1	0	0	1	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0
7:25 AM	0	4	0	0	0	5	0	0	0	0	0	1	0	1	0	0	0	0	1	0	0
7:30 AM	3	2	0	0	0	3	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
7:35 AM	0	2	0	0	0	4	1	0	1	0	1	0	1	0	0	0	0	0	0	0	0
7:40 AM	1	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	1	0	0	0	0	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
7:50 AM	1	3	0	0	0	1	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0
7:55 AM	1	6	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
8:00 AM	2	2	0	0	0	1	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0
8:05 AM	3	2	0	1	0	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:10 AM	1	0	0	0	0	1	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0
8:15 AM	1	1	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:20 AM	1	1	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
8:25 AM	0	4	0	0	0	1	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0
8:30 AM	0	2	0	0	0	3	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0
8:35 AM	0	2	0	0	0	4	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0
8:40 AM	0	3	0	0	0	2	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0
8:45 AM	1	5	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:50 AM	1	5	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:55 AM	1	4	0	0	0	3	1	0	0	0	1	0	1	1	0	0	0	0	0	0	0
Total Survey	21	60	0	1	2	47	7	4	3	0	23	1	5	3	1	0	172	1	1	2	0

15-Minute Interval Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound N Holly St				Southbound N Holly St				Eastbound NE 22nd Ave				Westbound NE 22nd Ave				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
7:00 AM	0	9	0	0	0	2	0	0	0	0	2	0	1	0	0	0	14	0	0	1	0
7:15 AM	3	7	0	0	1	5	0	0	0	0	1	1	1	1	1	0	20	1	0	1	0
7:30 AM	4	4	0	0	0	8	3	0	1	0	2	0	1	0	0	0	23	0	1	0	0
7:45 AM	3	9	0	0	1	3	0	0	0	0	6	0	0	0	0	0	22	0	0	0	0
8:00 AM	6	4	0	1	0	5	3	3	0	0	5	0	0	0	0	0	23	0	0	0	0
8:15 AM	2	6	0	0	0	5	0	1	1	0	0	0	1	1	0	0	16	0	0	0	0
8:30 AM	0	7	0	0	0	9	0	0	1	0	6	0	0	0	0	0	23	0	0	0	0
8:45 AM	3	14	0	0	0	10	1	0	0	0	1	0	1	1	0	0	31	0	0	0	0
Total Survey	21	60	0	1	2	47	7	4	3	0	23	1	5	3	1	0	172	1	1	2	0

Peak Hour Summary

8:00 AM to 9:00 AM

By Approach	Northbound N Holly St				Southbound N Holly St				Eastbound NE 22nd Ave				Westbound NE 22nd Ave				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	42	43	85	1	33	33	66	4	14	17	31	0	4	0	4	0	93	0	0	0	0
%HV	2.4%				9.1%				7.1%				0.0%				5.4%				
PHF	0.62				0.75				0.50				0.50				0.75				

By Movement	Northbound N Holly St				Southbound N Holly St				Eastbound NE 22nd Ave				Westbound NE 22nd Ave				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	11	31	0	42	0	29	4	33	2	0	12	14	2	2	0	4	93
%HV	0.0%	3.2%	0.0%	2.4%	0.0%	3.4%	50.0%	9.1%	50.0%	0.0%	0.0%	7.1%	0.0%	0.0%	0.0%	0.0%	5.4%
PHF	0.46	0.55	0.00	0.62	0.00	0.66	0.33	0.75	0.50	0.00	0.50	0.50	0.50	0.50	0.00	0.50	0.75

Rolling Hour Summary

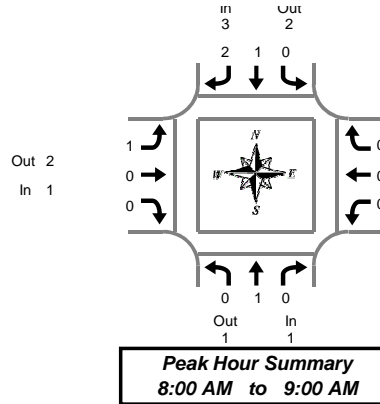
7:00 AM to 9:00 AM

Interval Start Time	Northbound N Holly St				Southbound N Holly St				Eastbound NE 22nd Ave				Westbound NE 22nd Ave				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
7:00 AM	10	29	0	0	2	18	3	0	1	0	11	1	3	1	1	0	79	1	1	2	0
7:15 AM	16	24	0	1	2	21	6	3	1	0	14	1	2	1	1	0	88	1	1	1	0
7:30 AM	15	23	0	1	1	21	6	4	2	0	13	0	2	1	0	0	84	0	1	0	0
7:45 AM	11	26	0	1	1	22	3	4	2	0	17	0	1	1	0	0	84	0	0	0	0
8:00 AM	11	31	0	1	0	29	4	4	2	0	12	0	2	2	0	0	93	0	0	0	0

Heavy Vehicle Summary



Clay Carney
(503) 833-2740



N Holly St & NE 22nd Ave

Thursday, August 09, 2018

7:00 AM to 9:00 AM

Heavy Vehicle 5-Minute Interval Summary 7:00 AM to 9:00 AM

Interval Start Time	Northbound N Holly St				Southbound N Holly St				Eastbound NE 22nd Ave				Westbound NE 22nd Ave				Interval Total	
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:05 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:10 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:20 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:25 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1
7:35 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1
7:40 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:50 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:55 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:05 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	1
8:10 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1
8:20 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
8:25 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:35 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:40 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:50 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:55 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	1
Total Survey	1	4	0	5	0	3	2	5	1	0	0	1	0	0	0	0	0	11

Heavy Vehicle 15-Minute Interval Summary 7:00 AM to 9:00 AM

Interval Start Time	Northbound N Holly St				Southbound N Holly St				Eastbound NE 22nd Ave				Westbound NE 22nd Ave				Interval Total	
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
7:30 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	2
7:45 AM	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
8:00 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	1
8:15 AM	0	0	0	0	0	1	0	1	1	0	0	1	0	0	0	0	0	2
8:30 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:45 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	1
Total Survey	1	4	0	5	0	3	2	5	1	0	0	1	0	0	0	0	0	11

Heavy Vehicle Peak Hour Summary 8:00 AM to 9:00 AM

By Approach	Northbound N Holly St			Southbound N Holly St			Eastbound NE 22nd Ave			Westbound NE 22nd Ave			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	1	1	2	3	2	5	1	2	3	0	0	0	5
PHF	0.25			0.38			0.25			0.00			0.63

By Movement	Northbound N Holly St				Southbound N Holly St				Eastbound NE 22nd Ave				Westbound NE 22nd Ave				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	0	1	0	1	0	1	2	3	1	0	0	1	0	0	0	0	5
PHF	0.00	0.25	0.00	0.25	0.00	0.25	0.50	0.38	0.25	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.63

Heavy Vehicle Rolling Hour Summary 7:00 AM to 9:00 AM

Interval Start Time	Northbound N Holly St				Southbound N Holly St				Eastbound NE 22nd Ave				Westbound NE 22nd Ave				Interval Total	
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total		
7:00 AM	1	3	0	4	0	2	0	2	0	0	0	0	0	0	0	0	0	6
7:15 AM	1	3	0	4	0	2	1	3	0	0	0	0	0	0	0	0	0	7
7:30 AM	0	2	0	2	0	3	1	4	1	0	0	1	0	0	0	0	0	7
7:45 AM	0	3	0	3	0	1	1	2	1	0	0	1	0	0	0	0	0	6
8:00 AM	0	1	0	1	0	1	2	3	1	0	0	1	0	0	0	0	0	5

Peak Hour Summary

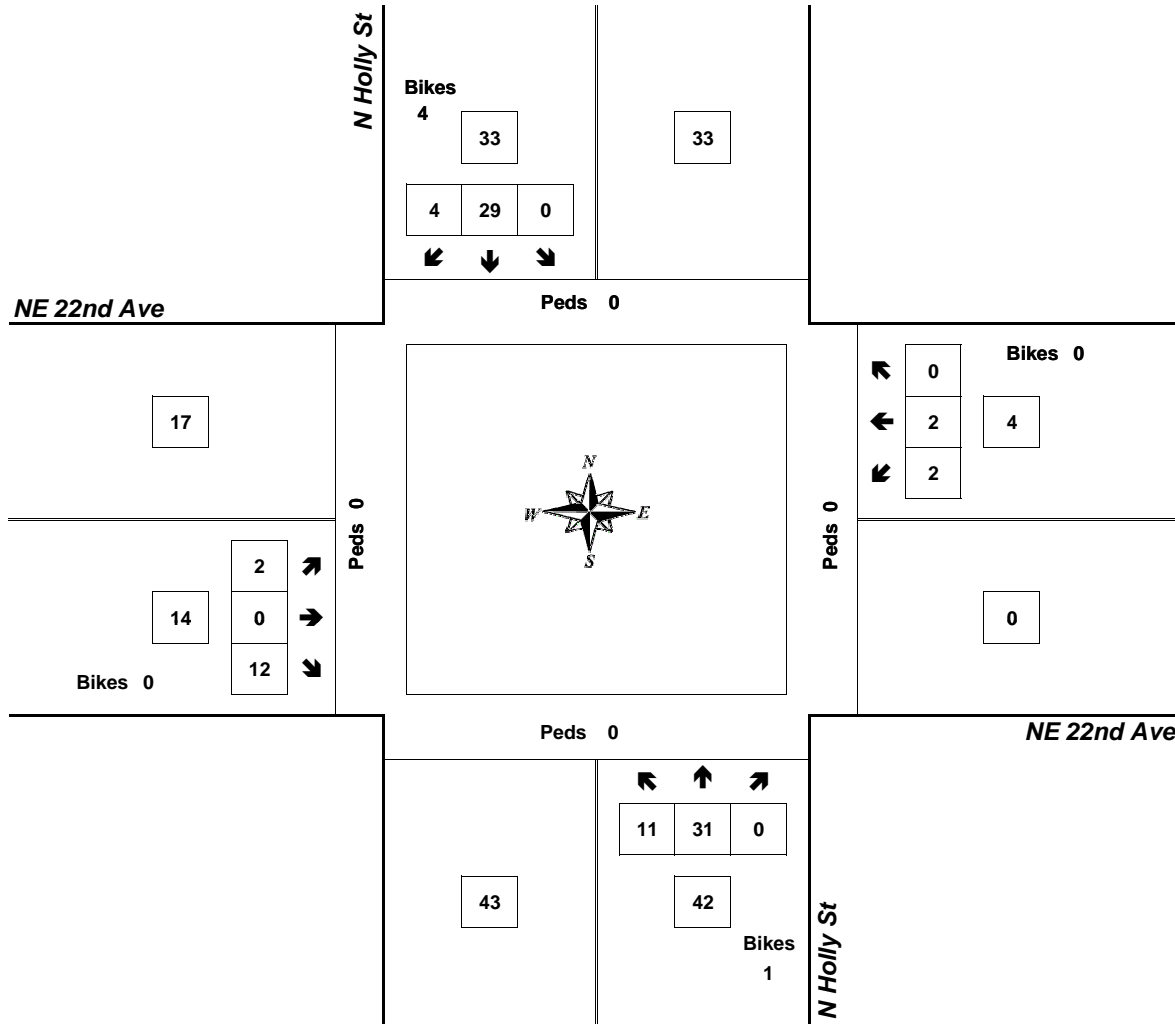


Clay Carney
(503) 833-2740

N Holly St & NE 22nd Ave

8:00 AM to 9:00 AM

Thursday, August 09, 2018



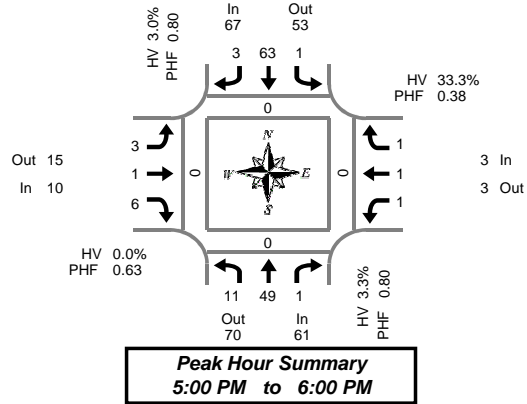
Approach	PHF	HV%	Volume
EB	0.50	7.1%	14
WB	0.50	0.0%	4
NB	0.62	2.4%	42
SB	0.75	9.1%	33
Intersection	0.75	5.4%	93

Count Period: 7:00 AM to 9:00 AM

Total Vehicle Summary



Clay Carney
(503) 833-2740



N Holly St & NE 22nd Ave

Thursday, August 09, 2018

4:00 PM to 6:00 PM

5-Minute Interval Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound N Holly St				Southbound N Holly St				Eastbound NE 22nd Ave				Westbound NE 22nd Ave				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
4:00 PM	0	1	0	0	0	3	0	0	0	0	0	1	0	0	0	0	0	0	0	0	
4:05 PM	0	2	0	0	0	6	0	1	0	0	1	0	1	0	2	0	0	0	0	0	
4:10 PM	0	4	0	0	0	1	0	0	0	0	1	0	0	1	0	0	0	0	0	0	
4:15 PM	1	4	0	0	0	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	
4:20 PM	3	2	0	0	0	10	0	0	1	0	0	2	0	0	0	0	0	0	0	0	
4:25 PM	1	1	0	0	0	1	0	0	0	0	1	0	0	1	0	0	0	0	0	0	
4:30 PM	3	2	0	0	0	5	1	1	0	1	2	0	0	0	0	0	0	0	0	2	
4:35 PM	3	5	1	0	0	9	0	0	0	1	3	0	0	0	0	0	0	0	0	2	
4:40 PM	1	0	1	0	0	9	0	0	2	0	2	0	0	0	0	0	0	0	0	0	
4:45 PM	0	4	0	0	0	7	0	0	1	0	0	0	0	0	0	0	0	0	0	0	
4:50 PM	1	0	0	0	0	3	0	1	0	0	1	0	0	0	0	0	0	0	0	0	
4:55 PM	0	2	0	0	0	3	0	0	0	0	0	0	0	1	0	0	0	0	0	0	
5:00 PM	0	3	0	0	1	5	0	1	1	0	1	0	0	0	0	0	0	0	0	0	
5:05 PM	1	8	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:10 PM	2	3	0	0	0	7	0	0	1	0	0	0	0	0	1	0	0	0	0	0	
5:15 PM	1	1	0	0	0	2	1	1	0	0	0	0	1	0	0	0	0	0	0	0	
5:20 PM	0	3	0	0	0	8	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
5:25 PM	1	4	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0	
5:30 PM	1	3	1	0	0	6	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:35 PM	0	4	0	0	0	6	0	0	1	0	2	0	0	0	0	0	0	0	0	0	
5:40 PM	2	4	0	0	0	7	0	1	0	0	1	0	0	0	0	0	0	0	0	0	
5:45 PM	0	4	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:50 PM	1	7	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:55 PM	2	5	0	0	0	7	0	0	0	1	2	0	0	0	0	0	0	0	0	0	
Total Survey	24	76	3	0	1	122	4	7	7	3	18	3	2	4	3	0	0	0	0	4	

15-Minute Interval Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound N Holly St				Southbound N Holly St				Eastbound NE 22nd Ave				Westbound NE 22nd Ave				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
4:00 PM	0	7	0	0	0	10	0	1	0	0	2	1	1	1	2	0	0	0	0	23	
4:15 PM	5	7	0	0	0	13	0	0	1	0	2	2	0	1	0	0	0	0	0	29	
4:30 PM	7	7	2	0	0	23	1	1	2	2	7	0	0	0	0	0	0	0	0	51	
4:45 PM	1	6	0	0	0	13	0	1	1	0	1	0	0	1	0	0	0	0	0	23	
5:00 PM	3	14	0	0	1	15	0	1	2	0	1	0	0	0	1	0	0	0	0	37	
5:15 PM	2	8	0	0	0	12	1	2	0	0	0	0	1	1	0	0	0	0	0	25	
5:30 PM	3	11	1	0	0	19	2	1	1	0	3	0	0	0	0	0	0	0	0	40	
5:45 PM	3	16	0	0	0	17	0	0	0	1	2	0	0	0	0	0	0	0	0	39	
Total Survey	24	76	3	0	1	122	4	7	7	3	18	3	2	4	3	0	0	0	0	4	

Peak Hour Summary

5:00 PM to 6:00 PM

By Approach	Northbound N Holly St				Southbound N Holly St				Eastbound NE 22nd Ave				Westbound NE 22nd Ave				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	61	70	131	0	67	53	120	4	10	15	25	0	3	3	6	0	0	0	0	141	
%HV	3.3%				3.0%				0.0%				33.3%				3.5%	0			
PHF	0.80				0.80				0.63				0.38				0.88	0			

By Movement	Northbound N Holly St				Southbound N Holly St				Eastbound NE 22nd Ave				Westbound NE 22nd Ave				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	11	49	1	61	1	63	3	67	3	1	6	10	1	1	1	3	141
%HV	0.0%	4.1%	0.0%	3.3%	0.0%	3.2%	0.0%	3.0%	0.0%	0.0%	0.0%	0.0%	0.0%	#####	0.0%	33.3%	3.5%
PHF	0.69	0.77	0.25	0.80	0.25	0.79	0.38	0.80	0.38	0.25	0.50	0.63	0.25	0.25	0.25	0.38	0.88

Rolling Hour Summary

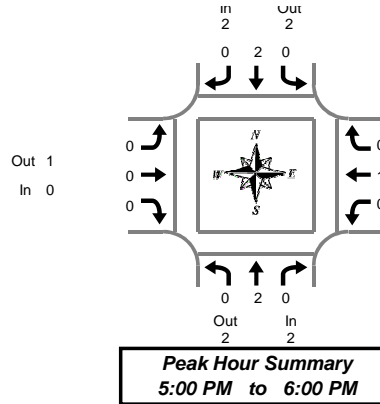
4:00 PM to 6:00 PM

Interval Start Time	Northbound N Holly St				Southbound N Holly St				Eastbound NE 22nd Ave				Westbound NE 22nd Ave				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
4:00 PM	13	27	2	0	0	59	1	3	4	2	12	3	1	3	2	0	0	0	0	126	
4:15 PM	16	34	2	0	1	64	1	3	6	2	11	2	0	2	1	0	0	0	0	140	
4:30 PM	13	35	2	0	1	63	2	5	5	2	9	0	1	2	1	0	0	0	0	136	
4:45 PM	9	39	1	0	1	59	3	5	4	0	5	0	1	2	1	0	0	0	0	125	
5:00 PM	11	49	1	0	1	63	3	4	3	1	6	0	1	1	1	0	0	0	0	141	

Heavy Vehicle Summary



Clay Carney
(503) 833-2740



N Holly St & NE 22nd Ave

Thursday, August 09, 2018

4:00 PM to 6:00 PM

Heavy Vehicle 5-Minute Interval Summary 4:00 PM to 6:00 PM

Interval Start Time	Northbound N Holly St				Southbound N Holly St				Eastbound NE 22nd Ave				Westbound NE 22nd Ave				Interval Total	
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:05 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2
4:10 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:20 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:25 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1
4:35 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:40 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:50 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:55 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:05 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:10 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:20 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:25 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	1	0	1	2	2
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:35 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1
5:40 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:50 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1
5:55 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Survey	0	2	0	2	0	3	0	3	1	0	0	1	0	1	2	3	9	9

Heavy Vehicle 15-Minute Interval Summary 4:00 PM to 6:00 PM

Interval Start Time	Northbound N Holly St				Southbound N Holly St				Eastbound NE 22nd Ave				Westbound NE 22nd Ave				Interval Total	
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2	2
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	1	0	1	1	0	0	1	0	0	0	0	0	2
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	1	0	1	2	2
5:30 PM	0	1	0	1	0	1	0	1	1	0	0	0	0	0	0	0	0	2
5:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1
Total Survey	0	2	0	2	0	3	0	3	1	0	0	1	0	1	2	3	9	9

Heavy Vehicle Peak Hour Summary 5:00 PM to 6:00 PM

By Approach	Northbound N Holly St			Southbound N Holly St			Eastbound NE 22nd Ave			Westbound NE 22nd Ave			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	2	2	4	2	2	4	0	1	1	1	0	1	5
PHF	0.50			0.50			0.00			0.25			0.42

By Movement	Northbound N Holly St				Southbound N Holly St				Eastbound NE 22nd Ave				Westbound NE 22nd Ave				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	0	2	0	2	0	2	0	2	0	0	0	0	0	1	0	1	5
PHF	0.00	0.50	0.00	0.50	0.00	0.50	0.00	0.50	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.25	0.42

Heavy Vehicle Rolling Hour Summary 4:00 PM to 6:00 PM

Interval Start Time	Northbound N Holly St				Southbound N Holly St				Eastbound NE 22nd Ave				Westbound NE 22nd Ave				Interval Total	
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total		
4:00 PM	0	0	0	0	0	1	0	1	1	0	0	1	0	0	2	2	4	4
4:15 PM	0	0	0	0	0	1	0	1	1	0	0	1	0	0	0	0	0	2
4:30 PM	0	1	0	1	0	1	0	1	1	0	0	1	0	1	0	1	4	4
4:45 PM	0	2	0	2	0	1	0	1	0	0	0	0	0	1	0	1	4	4
5:00 PM	0	2	0	2	0	2	0	2	0	0	0	0	0	1	0	1	5	5

Peak Hour Summary

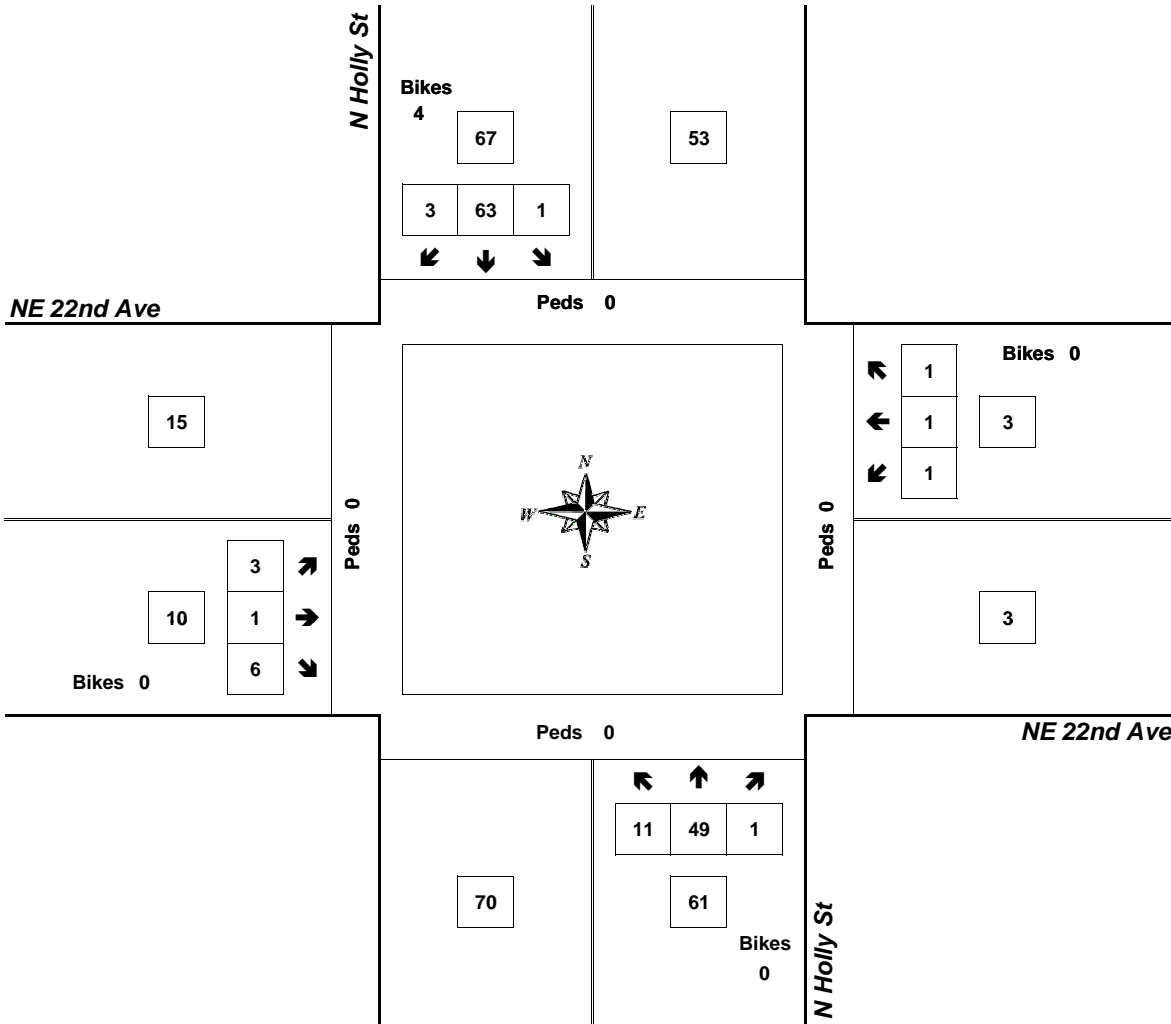


Clay Carney
(503) 833-2740

N Holly St & NE 22nd Ave

5:00 PM to 6:00 PM

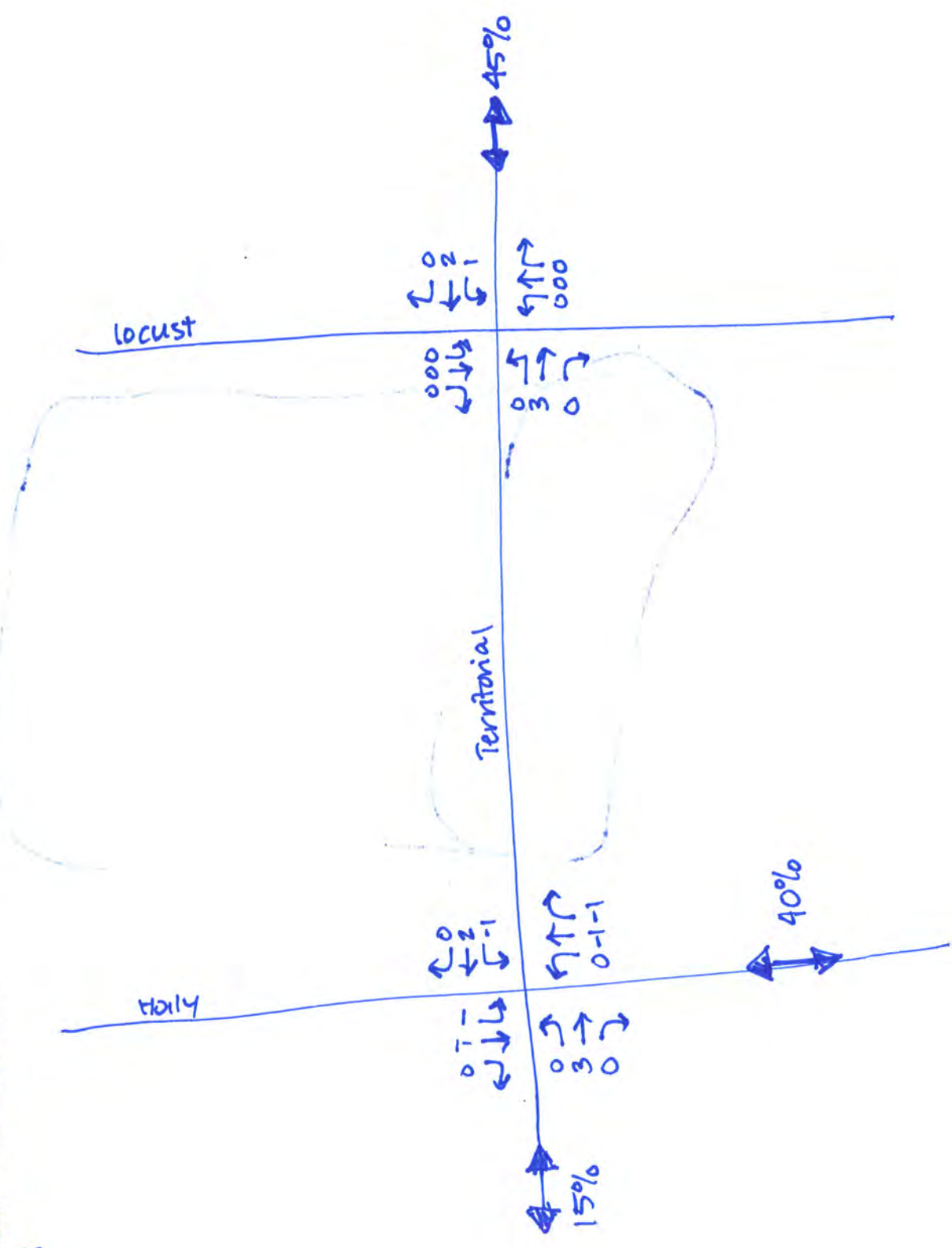
Thursday, August 09, 2018



Approach	PHF	HV%	Volume
EB	0.63	0.0%	10
WB	0.38	33.3%	3
NB	0.80	3.3%	61
SB	0.80	3.0%	67
Intersection	0.88	3.5%	141

Count Period: 4:00 PM to 6:00 PM

School Trips and Trips Distribution from Canby Small Community Pool
 Canby Stafford Annexation
 DKS, 8/14/18



All Traffic Data
15105 SE 17th St.
Vancouver, WA. 98683
503-833-2740

Site Code: 1
 Territorial Rd W-O Locust St

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Classed	Not	Total
08/09/18	0	7	1	0	0	0	0	0	0	0	0	0	0	0	1	9
01:00	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	7
02:00	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2
03:00	0	4	1	0	1	0	0	0	0	0	0	0	0	0	6	6
04:00	0	13	2	0	3	0	0	0	0	0	0	0	0	0	0	18
05:00	0	23	12	0	5	0	0	0	0	0	0	0	0	0	40	40
06:00	2	53	17	0	4	1	0	0	0	0	0	0	0	0	0	77
07:00	2	91	27	0	7	0	0	0	0	0	0	0	0	2	0	129
08:00	4	81	25	1	9	0	0	0	0	0	0	0	0	8	0	128
09:00	5	84	32	0	13	1	0	0	0	0	0	0	0	2	0	137
10:00	4	96	30	0	6	2	0	0	0	0	0	0	0	4	0	142
11:00	4	100	39	0	20	0	0	0	0	0	0	0	0	1	0	164
12 PM	2	144	22	2	5	0	0	0	0	0	0	0	0	8	0	183
13:00	8	139	33	1	12	1	0	1	1	0	0	0	0	8	0	204
14:00	5	166	32	0	13	2	0	0	0	0	0	0	0	3	0	221
15:00	3	176	36	0	15	0	0	1	0	0	0	0	0	2	0	233
16:00	9	202	48	0	15	1	0	0	0	0	0	0	0	6	0	281
17:00	4	188	36	0	17	1	0	0	0	0	0	0	0	8	0	254
18:00	4	161	32	0	7	0	0	0	0	0	0	0	0	1	0	205
19:00	3	105	17	0	5	0	0	0	0	0	0	0	0	1	0	131
20:00	1	101	11	0	5	0	0	0	0	0	0	0	0	2	0	120
21:00	2	70	11	0	2	0	0	0	1	0	0	0	0	0	0	86
22:00	0	38	7	0	3	0	0	0	0	0	0	0	0	0	0	48
23:00	0	18	0	0	1	0	0	0	0	0	0	0	0	0	0	19
Total	62	2068	472	4	168	9	0	2	2	0	0	0	0	57	0	2844
Percent	2.2%	72.7%	16.6%	0.1%	5.9%	0.3%	0.0%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	2.0%	0.0%	
AM Peak	09:00	11:00	11:00	08:00	11:00	10:00								08:00		
PM Peak	16:00	16:00	16:00	12:00	17:00	14:00		13:00	13:00					12:00	8	
Vol.	5	100	39	1	20	2		1	1					8	8	
Grand Total	62	2068	472	4	168	9	0	2	2	0	0	0	0	57	0	2844
Percent	2.2%	72.7%	16.6%	0.1%	5.9%	0.3%	0.0%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	2.0%	0.0%	

All Traffic Data
15105 SE 17th St.
Vancouver, WA. 98683
503-833-2740

Site Code: 1
Territorial Rd W-O Locust St

WB	Start Time	Cats & Trailers	Bikes	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Classed	Not	Total
	08/09/18	7	0	1	0	0	0	0	0	0	0	0	0	0	0	0	8
	01:00	3	0	2	0	1	0	0	0	0	0	0	0	0	0	0	6
	02:00	2	0	1	0	1	0	0	0	0	0	0	0	0	0	0	4
	03:00	8	0	0	0	1	0	0	0	0	0	0	0	0	0	0	9
	04:00	13	0	4	0	2	0	0	0	0	0	0	0	0	0	0	19
	05:00	47	4	15	0	7	1	0	0	0	0	0	0	0	0	74	129
	06:00	83	1	31	0	14	0	0	0	0	0	0	0	0	0	0	136
	07:00	90	3	25	0	12	1	0	1	0	0	0	0	0	0	4	190
	08:00	99	0	31	1	11	0	0	0	1	0	0	0	0	0	3	146
	09:00	128	1	34	0	22	1	0	0	0	0	0	0	0	0	4	190
	10:00	75	2	43	1	13	2	0	1	0	0	0	0	0	0	5	142
	11:00	5	5	38	0	20	1	0	1	2	0	0	0	0	1	1	186
	12 PM	5	5	30	2	12	0	0	0	0	0	0	0	0	0	8	184
	13:00	3	3	35	2	10	1	0	0	0	0	0	0	0	0	8	177
	14:00	2	2	46	0	14	1	0	1	1	0	0	0	0	0	9	238
	15:00	1	1	39	1	15	0	0	1	0	0	0	0	0	0	5	202
	16:00	6	6	34	0	33	0	0	0	0	0	0	0	0	0	14	219
	17:00	2	2	38	0	10	0	0	0	0	0	0	0	0	0	11	202
	18:00	0	0	34	0	9	0	0	0	0	0	0	0	0	0	3	165
	19:00	1	1	29	0	4	0	0	0	1	0	0	0	0	0	1	112
	20:00	2	2	24	0	5	0	0	0	0	0	0	0	0	0	2	103
	21:00	1	1	9	0	3	0	0	0	0	0	0	0	0	0	0	67
	22:00	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	33
	23:00	0	0	4	0	2	0	0	0	0	0	0	0	0	0	0	30
	Total	39	39	555	7	221	8	0	5	5	0	0	0	0	0	78	2781
	Percent	1.4%	1.4%	20.0%	0.3%	7.9%	0.3%	0.0%	0.2%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	2.8%	
	AM Peak	11:00	5	10:00	08:00	09:00	10:00		07:00	11:00						10:00	
	Vol.	16:00	14:00	14:00	12:00	16:00	13:00		14:00	14:00						16:00	
	Vol.	6	164	46	2	33	1		1	1					14		
	Grand Total	39	1863	555	7	221	8	0	5	5	0	0	0	0	0	78	2781
	Percent	1.4%	67.0%	20.0%	0.3%	7.9%	0.3%	0.0%	0.2%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	2.8%	

All Traffic Data
15105 SE 17th St.
Vancouver, WA. 98683
503-833-2740

Site Code: 1
Territorial Rd W-O Locust St

EB	Start Time	15	16	20	21	25	26	30	31	35	36	40	41	45	46	50	51	55	56	60	61	65	66	70	71	75	76	799	Total	85th Percent	95th Percent
	08/09/18	1	0	0	2	2	5	7	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	29	32	
	01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	29	29	
	02:00	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	34	34	34	
	03:00	0	0	0	2	2	3	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	30	33	33	
	04:00	0	0	0	0	0	10	10	7	7	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18	33	35	35	
	05:00	0	0	0	4	4	17	17	17	17	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40	33	35	35	
	06:00	0	1	1	4	4	28	28	35	35	9	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	77	34	37	37	
	07:00	2	1	1	12	12	76	76	34	34	3	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0	129	32	34	34	
	08:00	8	3	3	15	15	60	60	30	30	11	11	1	1	0	0	0	0	0	0	0	0	0	0	0	0	128	33	37	37	
	09:00	2	3	3	25	25	55	55	42	42	8	8	2	2	0	0	0	0	0	0	0	0	0	0	0	0	137	33	36	36	
	10:00	5	0	0	17	17	71	71	36	36	12	12	1	1	0	0	0	0	0	0	0	0	0	0	0	0	142	33	37	37	
	11:00	2	0	0	17	17	48	48	80	80	16	16	1	1	0	0	0	0	0	0	0	0	0	0	0	0	164	34	37	37	
	12 PM	9	2	2	31	31	91	91	44	44	6	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	183	32	34	34	
	13:00	8	4	4	37	37	91	91	56	56	8	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	204	32	34	34	
	14:00	3	0	0	23	23	118	118	68	68	9	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	221	33	34	34	
	15:00	3	0	0	18	18	90	90	95	95	24	24	3	3	0	0	0	0	0	0	0	0	0	0	0	0	233	34	38	38	
	16:00	8	1	1	15	15	112	112	124	124	18	18	3	3	0	0	0	0	0	0	0	0	0	0	0	0	281	34	36	36	
	17:00	8	1	1	14	14	109	109	92	92	27	27	3	3	0	0	0	0	0	0	0	0	0	0	0	0	254	34	38	38	
	18:00	2	0	0	15	15	84	84	91	91	12	12	1	1	0	0	0	0	0	0	0	0	0	0	0	0	205	34	36	36	
	19:00	2	0	0	19	19	56	56	41	41	4	4	3	3	1	1	0	0	0	0	0	0	0	0	0	0	131	33	36	36	
	20:00	3	1	1	18	18	68	68	28	28	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	120	32	34	34	
	21:00	0	0	0	10	10	51	51	25	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	86	32	34	34	
	22:00	0	0	0	7	7	25	25	12	12	2	2	2	2	0	0	0	0	0	0	0	0	0	0	0	0	48	33	39	39	
	23:00	0	0	0	1	1	13	13	5	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19	32	34	34	
	Total	66	17	17	311	311	1288	1288	966	966	174	174	21	21	1	1	0	0	0	0	0	0	0	0	0	0	2844				
	Percent	2.3%	0.6%	0.6%	10.9%	10.9%	45.3%	45.3%	34.0%	34.0%	6.1%	6.1%	0.7%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	11:00				
	AM Peak	08:00	08:00	08:00	09:00	09:00	07:00	07:00	11:00	11:00	11:00	11:00	09:00	09:00														164			
	Vol.	8	3	3	25	25	76	76	80	80	16	16	2	2													16:00				
	PM Peak	12:00	13:00	13:00	13:00	13:00	14:00	14:00	16:00	16:00	17:00	17:00	15:00	15:00	19:00	19:00												281			
	Vol.	9	4	4	37	37	118	118	124	124	27	27	3	3	1	1															
	Grand Total	66	17	17	311	311	1288	1288	966	966	174	174	21	21	1	1	0	0	0	0	0	0	0	0	0	0	2844				
	Percent	2.3%	0.6%	0.6%	10.9%	10.9%	45.3%	45.3%	34.0%	34.0%	6.1%	6.1%	0.7%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	11:00				

Statistics	10 MPH Pace Speed :	26-35 MPH
Number in Pace :	2254	
Percent in Pace :	79.3%	
Number of Vehicles > 55 MPH :	0	
Percent of Vehicles > 55 MPH :	0.0%	
Mean Speed(Average) :	29 MPH	

All Traffic Data
15105 SE 17th St.
Vancouver, WA. 98683
503-833-2740

Site Code: 1
Territorial Rd W-O Locust St

WB	Start Time	15	16	20	21	25	26	30	31	35	36	40	41	45	46	50	51	55	56	60	61	65	66	70	71	75	76	85th Percent	95th Percent							
08/09/18	01:00	0	0	0	0	0	5	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
	02:00	0	0	0	0	0	1	2	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
	03:00	0	0	0	0	0	2	6	6	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
	04:00	0	1	2	2	4	4	9	9	2	2	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
	05:00	0	1	3	3	20	28	28	28	18	3	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
	06:00	0	0	4	4	24	72	72	72	27	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
	07:00	4	1	7	7	33	67	67	67	21	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
	08:00	3	1	14	14	55	61	61	61	11	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
	09:00	4	1	9	9	55	95	95	95	25	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
	10:00	5	0	13	13	39	60	60	60	23	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	11:00	1	0	11	11	39	99	99	99	30	6	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	12 PM	8	2	7	7	79	62	62	62	22	4	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	13:00	8	0	11	11	55	77	77	77	26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	14:00	9	1	10	10	68	128	128	128	19	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	15:00	5	1	4	4	51	98	98	98	37	5	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	16:00	16	1	11	11	58	109	109	109	19	4	1	4	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	17:00	11	0	6	6	56	101	101	101	25	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	18:00	3	0	7	7	39	87	87	87	26	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	19:00	1	1	6	6	38	54	54	54	10	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	20:00	3	0	7	7	35	46	46	46	9	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	21:00	0	1	5	5	23	21	21	21	15	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	22:00	0	0	3	3	14	11	11	11	4	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	23:00	0	0	1	1	12	15	15	15	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total		81	12	141	141	808	1313	1313	1313	371	46	8	46	1.7%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		
Percent		2.9%	0.4%	5.1%	5.1%	29.1%	47.2%	47.2%	47.2%	13.3%	1.7%	0.3%	1.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	10:00	04:00	08:00	08:00	08:00	08:00	11:00	11:00	11:00	11:00	11:00	11:00	11:00	11:00	04:00																					
Vol.	5	1	14	14	55	99	99	99	99	30	6	1	6																							
PM Peak	16:00	12:00	13:00	12:00	12:00	12:00	14:00	14:00	14:00	15:00	15:00	15:00	15:00	15:00	17:00																					
Vol.	16	2	11	11	79	128	128	128	128	37	5	2	5																							
Grand Total	81	12	141	141	808	1313	1313	1313	1313	371	46	8	46	1.7%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Percent	2.9%	0.4%	5.1%	5.1%	29.1%	47.2%	47.2%	47.2%	47.2%	13.3%	1.7%	0.3%	1.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

10 MPH Pace Speed :	26-35 MPH
Number in Pace :	2121
Percent in Pace :	76.3%
Number of Vehicles > 55 MPH :	1
Percent of Vehicles > 55 MPH :	0.0%
Mean Speed(Average) :	31 MPH

15th Percentile :	26 MPH
50th Percentile :	31 MPH
85th Percentile :	35 MPH
95th Percentile :	38 MPH



TRIP GENERATION CALCULATIONS Proposed Conditions

Land Use: Single-Family Detached Housing
Land Use Code: 210
Setting/Location: General Urban/Suburban
Variable: Dwelling Units
Variable Value: 240

AM PEAK HOUR

Trip Rate: 0.74

	Enter	Exit	Total
Directional Distribution	25%	75%	
Trip Ends	45	133	178

PM PEAK HOUR

Trip Rate: 0.99

	Enter	Exit	Total
Directional Distribution	63%	37%	
Trip Ends	150	88	238

WEEKDAY

Trip Rate: 9.44

	Enter	Exit	Total
Directional Distribution	50%	50%	
Trip Ends	1,133	1,133	2,266

SATURDAY

Trip Rate: 9.54

	Enter	Exit	Total
Directional Distribution	50%	50%	
Trip Ends	1,145	1,145	2,290

Source: Trip Generation Manual, Tenth Edition

TERRITORIAL RD at HOLLY ST, City of Canby, Clackamas County, 01/01/2012 to 12/31/2016

COLLISION TYPE	FATAL CRASHES	NON-PROPERTY			TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER-SECTION RELATED	INTER-SECTION RELATED	OFF-ROAD
		FATAL CRASHES	PROPERTY DAMAGE ONLY	CRASHES											
YEAR: 2016	0	0	1	1	1	0	0	1	0	0	1	0	1	0	0
ANGLE	0	0	1	1	1	0	0	1	0	0	1	0	1	0	0
YEAR 2016 TOTAL	0	0	1	1	1	0	0	1	0	0	1	0	1	0	0
YEAR: 2014	0	1	0	1	1	0	1	1	0	0	0	1	1	0	0
TURNING MOVEMENTS	0	1	0	1	1	0	1	1	0	0	0	1	1	0	0
YEAR 2014 TOTAL	0	1	0	1	1	0	1	1	0	0	0	1	1	0	0
YEAR: 2013	0	0	1	1	1	0	0	1	0	0	1	0	1	0	0
ANGLE	0	0	1	1	1	0	0	1	0	0	1	0	1	0	0
YEAR 2013 TOTAL	0	0	1	1	1	0	0	1	0	0	1	0	1	0	0
YEAR: 2012	0	1	0	1	1	0	1	0	1	1	0	1	1	0	0
REAR-END	0	1	0	1	1	0	1	0	1	1	0	1	1	0	0
YEAR 2012 TOTAL	0	1	0	1	1	0	1	0	1	1	0	1	1	0	0
FINAL TOTAL	0	2	2	4	4	0	2	3	1	2	2	2	4	0	0

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 committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirements, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

CDS380
08/10/2018

OREGON.. DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT

URBAN NON-SYSTEM CRASH LISTING
TERRITORIAL RD at HOLLY ST, City of Canby, Clackamas County, 01/01/2012 to 12/31/2016
1 - 4 of 4 Crash records shown.

CITY OF CANBY, CLACKAMAS COUNTY

SER#	P	R	S	W	DATE	CLASS	CITY STREET	RD CHAR	INT-TYPE	INT-REL	OFFRD	WTHR	CRASH	SPCL USE	TRLR QTY	OWNER	MOVE	A	S	PRTC	INJ	G	E	LICNS	PED	P#	TYPE	SVRTY	E	X	RES	LOC	ERROR	ACT. EVENT	CAUSE							
INVEST	E	A	U	C	O	DAY	FIRST STREET	RD CHAR	(MEDIAN)	INT-REL	TRAF-	LEGS	(PLANES)	CONTL	CROSS	N	RAIN	S-1STOP	0	STRGHT	UN-UN	DRVR	NONE	37	F	SUSP	OR<25	026,043	000	000	000	000	000	000	000	07						
RD DFT	E	L	G	H	R	TIME	SECOND STREET	LOCIN	(#LANES)	CONTL	DRVWY	LIGHT	SVRTY	VH TYPE	01	NONE	0	STRGHT	UN-UN	DRVR	NONE	40	M	OR-Y	OR<25	000	000	000	000	000	000	000	000	000	000	000						
UNLOC#	D	C	S	L	K	LAT	LONG	LR	NW	HOLLY	ST	16	06/22/2012	0	FR	0	NE	TERRITORIAL	RD	UN	06	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
02235	N	Y	N	N	N	06/22/2012	16	NW HOLLY ST	INTER	CROSS	N	STOP	SIGN	N	WET	REAR	UN-UN	DRVR	NONE	37	F	SUSP	OR<25	026,043	000	000	000	000	000	000	000	000	000	000	000	000	07					
	N					9P																																				
	N					45 1.6	-122 41																																			
	N					30.9428157	49.1990836																																			
00768	N	N	N	N	03/07/2013	16	NW HOLLY ST	INTER	CROSS	N	STOP	SIGN	N	CLR	ANGL-OTH	01	NONE	0	STRGHT	UN-UN	DRVR	NONE	40	M	OR-Y	OR<25	000	000	000	000	000	000	000	000	000	000	000	000	02			
	NONE					TH																																				
	N					45 1.6	-122 41																																			
	N					30.9973439	49.291656																																			
00948	N	N	N	N	03/07/2014	16	NW HOLLY ST	INTER	CROSS	N	STOP	SIGN	N	CLR	BIKE																											
	CITY					FR																																				
	N					5P																																				
	N					45 1.6	-122 41																																			
	N					30.9973439	49.291656																																			
00637	N	N	N	N	02/08/2016	16	NW HOLLY ST	INTER	CROSS	N	STOP	SIGN	N	CLR	ANGL-OTH	01	NONE	9	STRGHT	UN-UN	DRVR	NONE	49	F	OR-Y	OR<25	000	000	000	000	000	000	000	000	000	000	000	000	000	02		
	NO RPT					MO																																				
	N					7A																																				
	N					45 1.6 31	-122 41																																			
	N					49.29																																				

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 committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirement, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

TERRITORIAL RD at LOCUST ST, City of Canby, Clackamas County, 01/01/2012 to 12/31/2016

COLLISION TYPE	FATAL CRASHES	NON- FATAL CRASHES	PROPERTY DAMAGE ONLY			TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER- SECTION RELATED	INTER- SECTION RELATED	OFF- ROAD
			FATAL	PROPERTY	ONLY											
YEAR: 2015																
ANGLE	0	1	1	1	2	0	1	0	1	1	1	1	1	2	0	0
REAR-END	0	0	1	1	1	0	1	0	1	0	1	0	0	1	0	0
YEAR 2015 TOTAL	0	1	2	3	3	0	2	0	2	1	2	1	1	3	0	0
YEAR: 2013																
ANGLE	0	1	0	1	1	0	1	0	0	0	1	0	0	1	0	0
YEAR 2013 TOTAL	0	1	0	1	1	0	1	0	0	0	1	0	0	1	0	0
YEAR: 2012																
REAR-END	0	1	0	1	1	0	2	0	1	0	1	0	0	1	0	0
YEAR 2012 TOTAL	0	1	0	1	1	0	2	0	1	0	1	0	0	1	0	0
FINAL TOTAL	0	3	2	5	5	0	4	0	3	1	4	1	1	5	0	0

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 committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirements, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

OREGON... DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT
URBAN NON-SYSTEM CRASH LISTING

TERRITORIAL RD at LOCUST ST, City of Canby, Clackamas County, 01/01/2012 to 12/31/2016

1 - 4 of 5 Crash records shown.

CITY OF CANBY, CLACKAMAS COUNTY

SER#	P	D	R	S	W	DATE	CLASS	CITY STREET	RD CHAR	INT-TYPE	INT-REL	OFFRD	WTHR	CRASH	SPCL USE	TRLR QTY	OWNER	MOVE	A	S	PRTC	INJ	G	E	LICNS	PED	PH TYPE	SVRTY	E	X	RES	LOC	ERROR	ACT. EVENT	CAUSE			
04931	N	N	N	N	N	11/20/2015	16	NE LOCUST ST	INTER	CROSS	N	N	CLR	S-1STOP	0	STRGHT	01	NONE	0	STRGHT	01	DRVR	NONE	57	F	OR-Y	OR<25	026				000	000	00	29			
NONE						FR	0	NE TERRITORIAL RD	NE	UNKNOWN	UNKNOWN	N	DRY	REAR		PRVTE		NE-SW																				
N						3P	45 16 33.69	-122 41	06	0		N	DAY	PDO		PSNGR CAR																						
N						45 16 33.69	-122 41	30.78																														
01665	N	N	N	N	N	05/07/2012	16	NE LOCUST ST	INTER	CROSS	N	N	CLR	S-1STOP	0	STRGHT	01	NONE	0	STRGHT	01	DRVR	INJC	65	M	OR-Y	OR<25	043,026					000	000	00	07		
COUNTY						MO	0	NE TERRITORIAL RD	E	UNKNOWN	UNKNOWN	N	DRY	REAR		PRVTE		E-W																				
N						12P	45 16	-122 41	06	0		N	DAY	INJ		PSNGR CAR																						
N						45 16	-122 41	33.6262505	30.7583797																													
00885	N	N	N	N	N	03/16/2013	16	NE LOCUST ST	INTER	CROSS	N	N	UNK	ANGL-OTH	0	STRGHT	01	NONE	0	STRGHT	01	DRVR	INJC	19	M	OR-Y	OR<25	000					011	013	00	00		
COUNTY						SA	0	NE TERRITORIAL RD	CN	STOP SIGN	STOP SIGN	N	UNK	ANGL		PRVTE		E-W																				
N						6P	45 16	-122 41	04	0		N	DAY	INJ		PSNGR CAR																						
N						45 16	-122 41	33.6930959	30.781572																													
01814	N	N	N	N	N	05/13/2015	16	NE LOCUST ST	INTER	CROSS	N	N	RAIN	ANGL-OTH	0	STRGHT	01	NONE	0	STRGHT	01	DRVR	INJC	17	M	OR-Y	OR<25	028					015	000	00	02		
CITY						WE	0	NE TERRITORIAL RD	CN	STOP SIGN	STOP SIGN	N	WET	ANGL		PRVTE		S-N																				
N						8P	45 16 33.69	-122 41	02	0		N	DLIT	INJ		PSNGR CAR																						
N						45 16 33.69	-122 41	30.78																														
05086	N	N	N	N	N	12/01/2015	16	NE LOCUST ST	INTER	CROSS	N	N	CLR	ANGL-OTH	0	STRGHT	01	NONE	0	STRGHT	01	DRVR	INJC	48	M	OR-Y	OR<25	000					000	000	00	00		
CITY						TU	0	NE TERRITORIAL RD	CN	STOP SIGN	STOP SIGN	N	DRY	ANGL		PRVTE		N-S																				
N						11A	45 16 33.69	-122 41	03	0		N	DAY	PDO		PSNGR CAR																						
N						45 16 33.69	-122 41	30.78																														

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 committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assure that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirement, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

Left-Turn Lane Warrant Analysis

Project: Holly DCP
 Intersection: 2. NE Territorial Road at N Locust Street
 Date: 9/5/2018
 Scenario: 2030 Planning Horizon with Annexation - AM Peak Hour (EB)

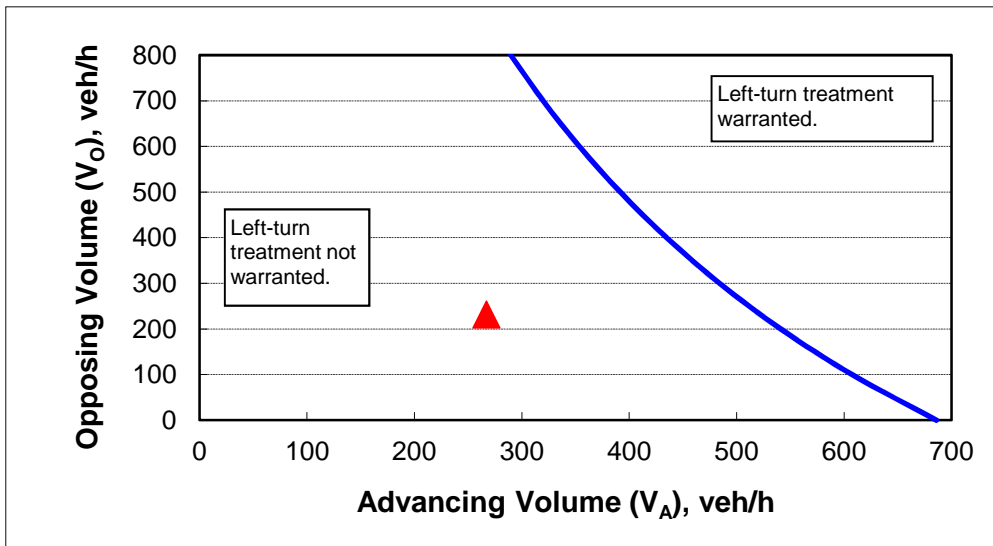
2-lane roadway (English)

INPUT

Variable	Value
85 th percentile speed, mph:	35
Percent of left-turns in advancing volume (V_A), %:	8%
Advancing volume (V_A), veh/h:	267
Opposing volume (V_O), veh/h:	231

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	522
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Left-Turn Lane Warrant Analysis

Project: Holly DCP
 Intersection: 2. NE Territorial Road at N Locust Street
 Date: 9/5/2018
 Scenario: 2030 Planning Horizon with Annexation - AM Peak Hour (WB)

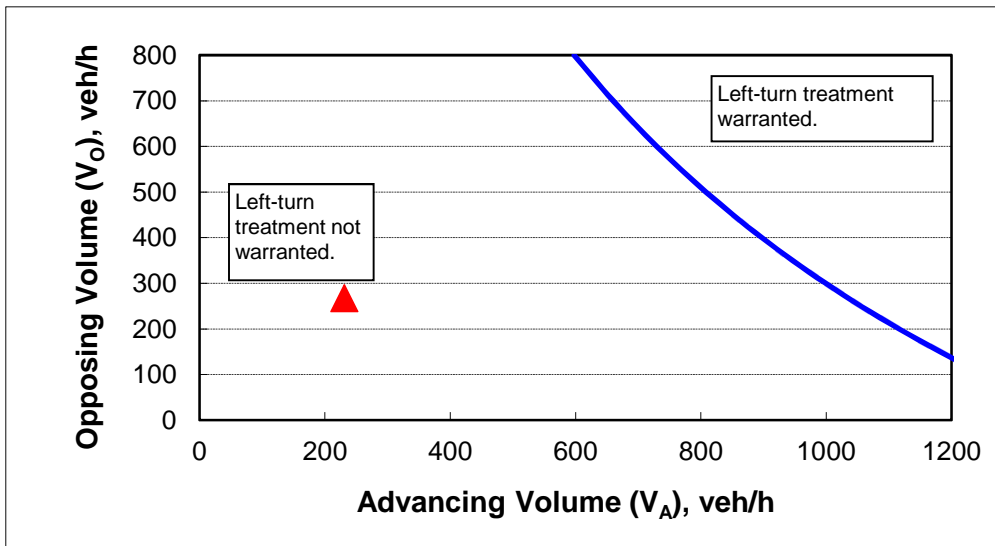
2-lane roadway (English)

INPUT

Variable	Value
85 th percentile speed, mph:	35
Percent of left-turns in advancing volume (V_A), %:	2%
Advancing volume (V_A), veh/h:	231
Opposing volume (V_O), veh/h:	267

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	1036
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Left-Turn Lane Warrant Analysis

Project: Holly DCP
 Intersection: 2. NE Territorial Road at N Locust Street
 Date: 9/5/2018
 Scenario: 2030 Planning Horizon w/o Annexation - PM Peak Hour (EB)

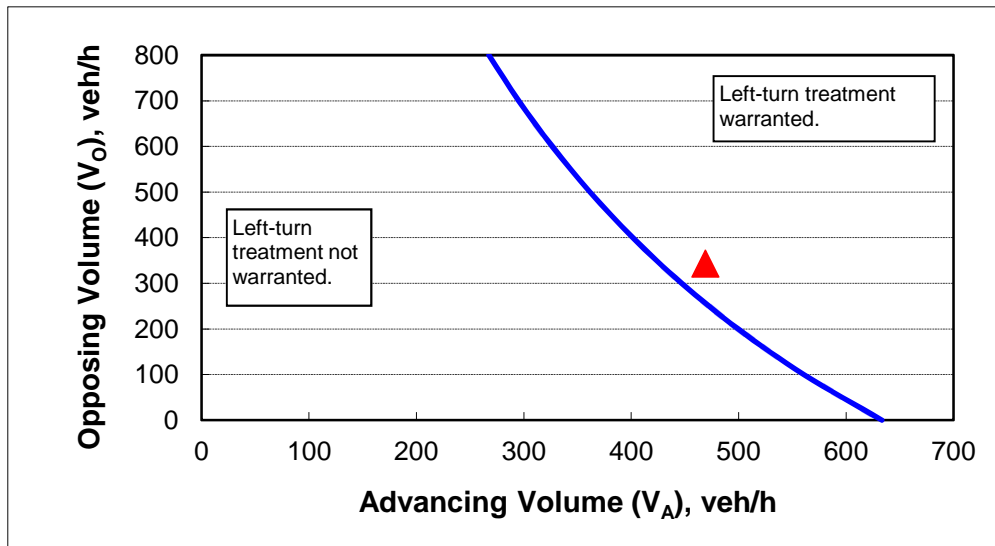
2-lane roadway (English)

INPUT

Variable	Value
85 th percentile speed, mph:	35
Percent of left-turns in advancing volume (V_A), %:	9%
Advancing volume (V_A), veh/h:	469
Opposing volume (V_O), veh/h:	343

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	427
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Left-Turn Lane Warrant Analysis

Project: Holly DCP
 Intersection: 2. NE Territorial Road at N Locust Street
 Date: 9/5/2018
 Scenario: 2030 Planning Horizon with Annexation - PM Peak Hour (WB)

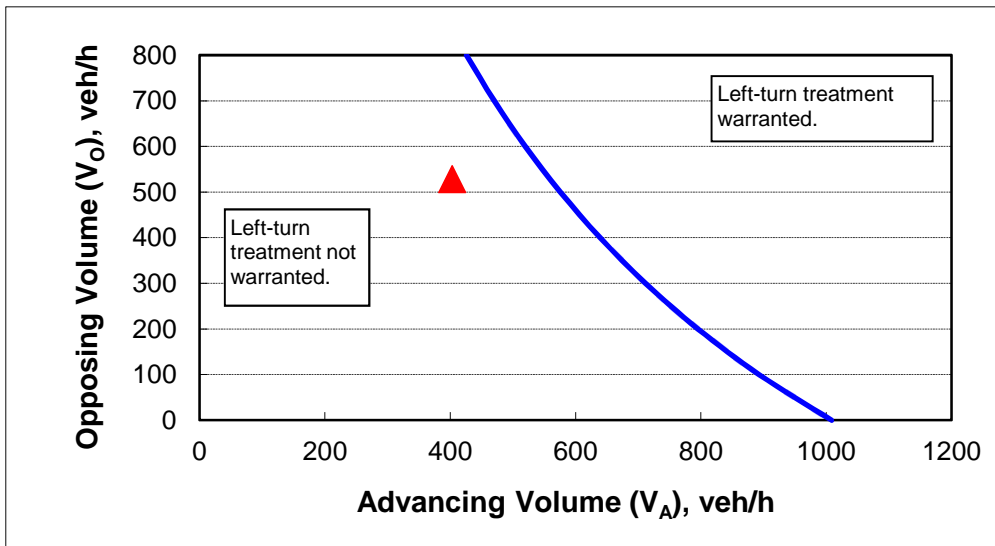
2-lane roadway (English)

INPUT

Variable	Value
85 th percentile speed, mph:	35
Percent of left-turns in advancing volume (V_A), %:	3%
Advancing volume (V_A), veh/h:	403
Opposing volume (V_O), veh/h:	528

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	559
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Left-Turn Lane Warrant Analysis

Project: Holly DCP
 Intersection: 3. Site Access at N Locust Street
 Date: 9/5/2018
 Scenario: 2030 Planning Horizon with Annexation - AM Peak Hour

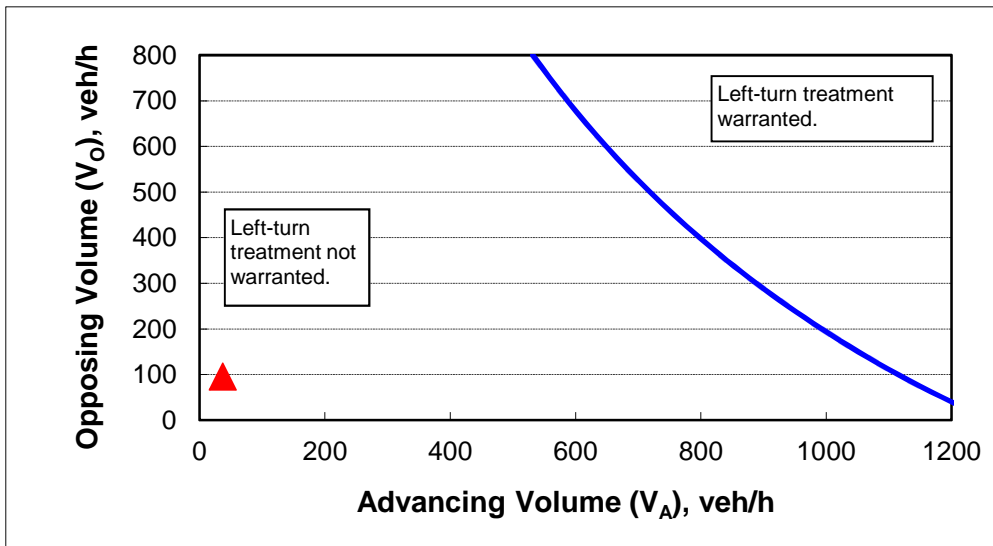
2-lane roadway (English)

INPUT

Variable	Value
85 th percentile speed, mph:	25
Percent of left-turns in advancing volume (V_A), %:	3%
Advancing volume (V_A), veh/h:	37
Opposing volume (V_O), veh/h:	95

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	1121
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Left-Turn Lane Warrant Analysis

Project: Holly DCP
 Intersection: 3. Site Access at N Locust Street
 Date: 9/5/2018
 Scenario: 2030 Planning Horizon with Annexation - PM Peak Hour

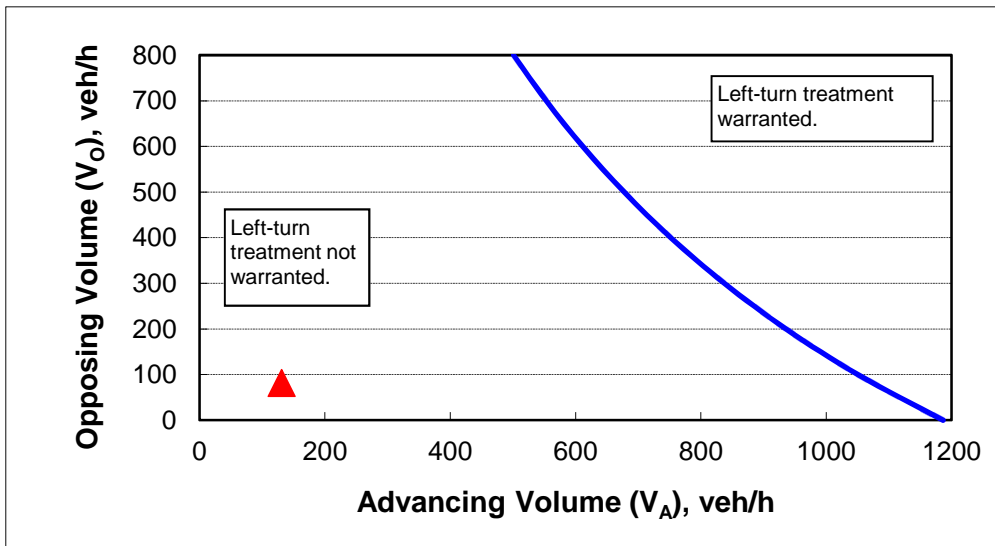
2-lane roadway (English)

INPUT

Variable	Value
85 th percentile speed, mph:	25
Percent of left-turns in advancing volume (V_A), %:	3%
Advancing volume (V_A), veh/h:	131
Opposing volume (V_O), veh/h:	81

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	1075
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Left-Turn Lane Warrant Analysis

Project: Holly DCP
 Intersection: 4. Site Access at N Locust Street
 Date: 9/5/2018
 Scenario: 2030 Planning Horizon with Annexation - AM Peak Hour

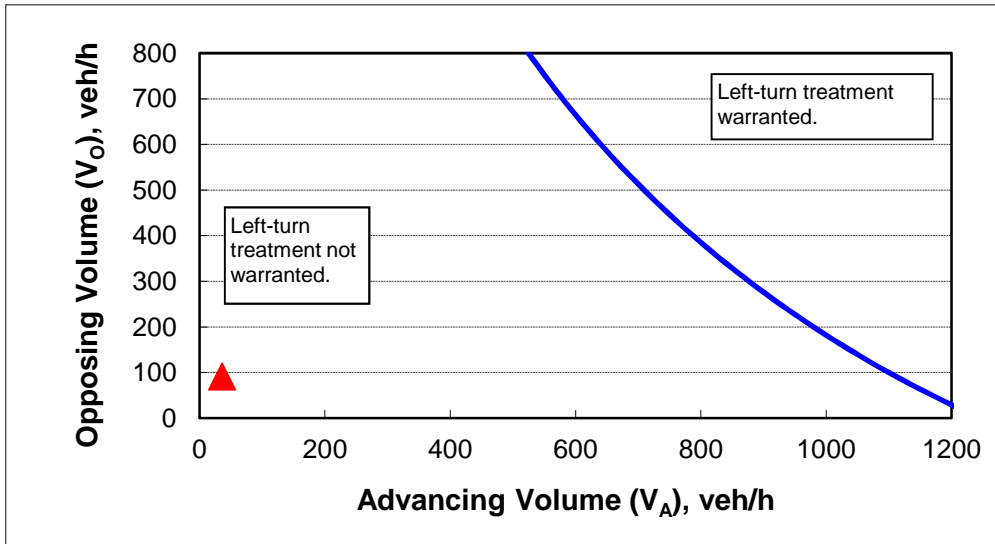
2-lane roadway (English)

INPUT

Variable	Value
85 th percentile speed, mph:	25
Percent of left-turns in advancing volume (V_A), %:	3%
Advancing volume (V_A), veh/h:	36
Opposing volume (V_O), veh/h:	91

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	1112
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Left-Turn Lane Warrant Analysis

Project: Holly DCP
 Intersection: 4. Site Access at N Locust Street
 Date: 9/5/2018
 Scenario: 2030 Planning Horizon with Annexation - PM Peak Hour

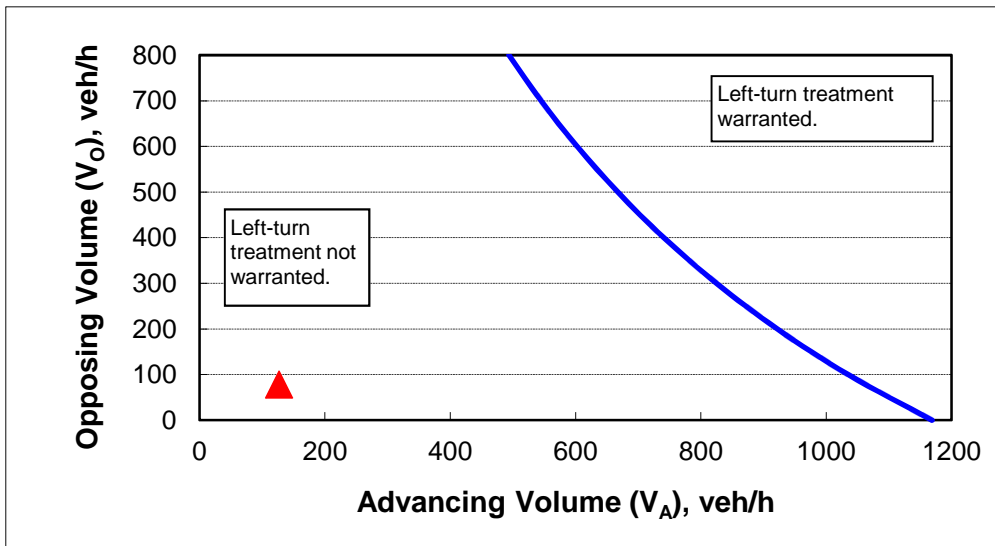
2-lane roadway (English)

INPUT

Variable	Value
85 th percentile speed, mph:	25
Percent of left-turns in advancing volume (V_A), %:	3%
Advancing volume (V_A), veh/h:	127
Opposing volume (V_O), veh/h:	78

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	1062
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Left-Turn Lane Warrant Analysis

Project: Holly DCP
 Intersection: 5. NE 19th Avenue at N Locust Street
 Date: 9/5/2018
 Scenario: 2030 Planning Horizon with Annexation - AM Peak Hour (NB)

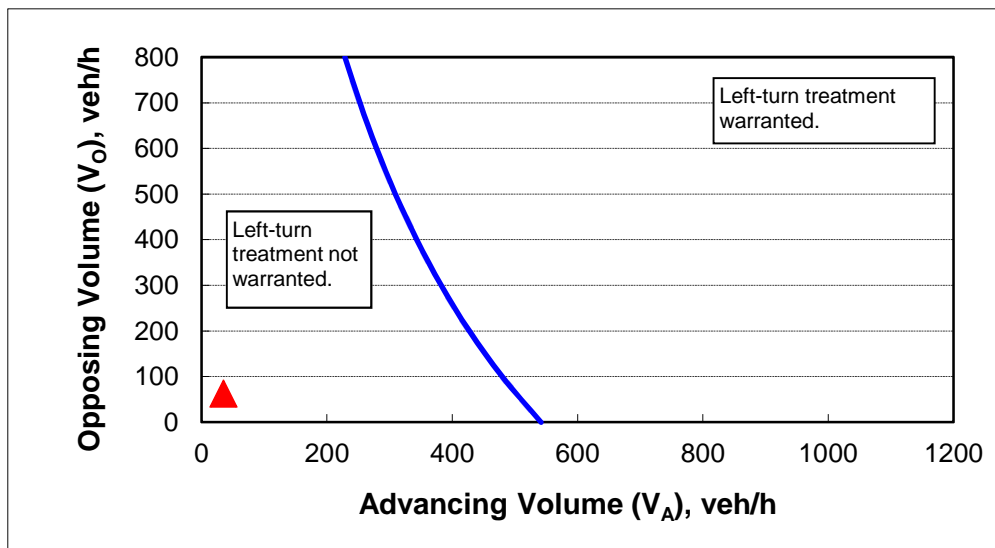
2-lane roadway (English)

INPUT

Variable	Value
85 th percentile speed, mph:	25
Percent of left-turns in advancing volume (V_A), %:	17%
Advancing volume (V_A), veh/h:	35
Opposing volume (V_O), veh/h:	62

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	502
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Left-Turn Lane Warrant Analysis

Project: Holly DCP
 Intersection: 5. NE 19th Avenue at N Locust Street
 Date: 9/5/2018
 Scenario: 2030 Planning Horizon with Annexation - AM Peak Hour (SB)

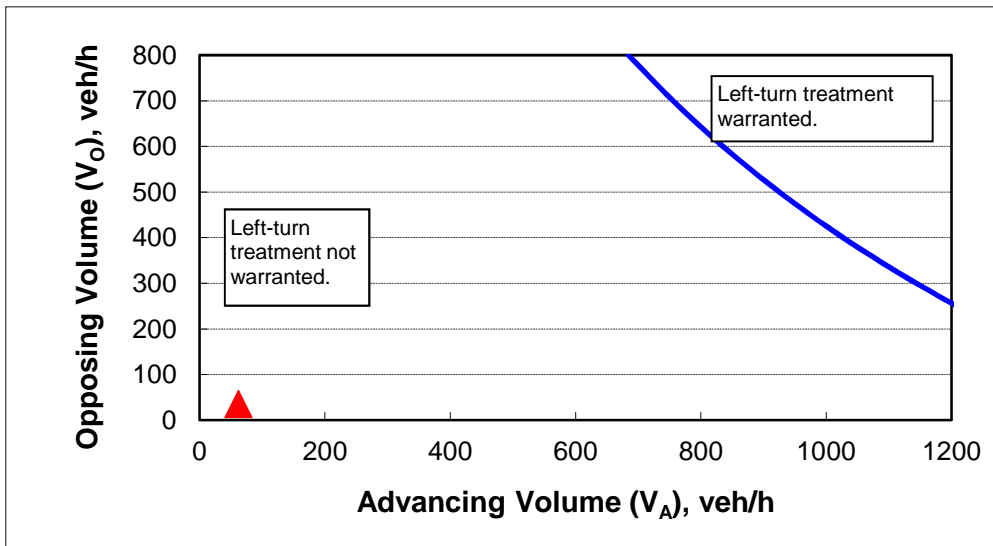
2-lane roadway (English)

INPUT

Variable	Value
85 th percentile speed, mph:	25
Percent of left-turns in advancing volume (V_A), %:	2%
Advancing volume (V_A), veh/h:	62
Opposing volume (V_O), veh/h:	35

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	1552
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Left-Turn Lane Warrant Analysis

Project: Holly DCP
 Intersection: 5. NE 19th Avenue at N Locust Street
 Date: 9/5/2018
 Scenario: 2030 Planning Horizon with Annexation - PM Peak Hour (NB)

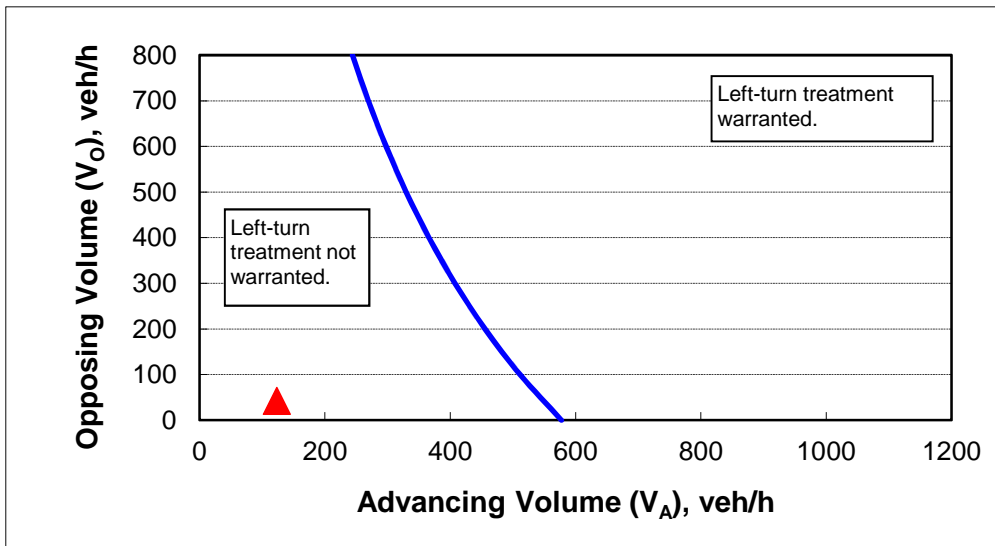
2-lane roadway (English)

INPUT

Variable	Value
85 th percentile speed, mph:	25
Percent of left-turns in advancing volume (V_A), %:	15%
Advancing volume (V_A), veh/h:	123
Opposing volume (V_O), veh/h:	42

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	548
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Left-Turn Lane Warrant Analysis

Project: Holly DCP
 Intersection: 5. NE 19th Avenue at N Locust Street
 Date: 9/5/2018
 Scenario: 2030 Planning Horizon with Annexation - PM Peak Hour (SB)

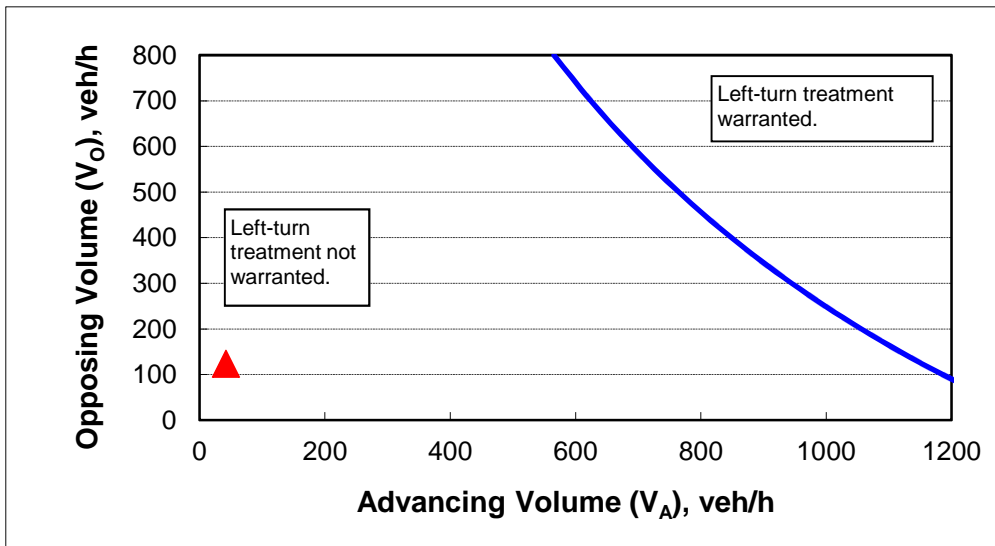
2-lane roadway (English)

INPUT

Variable	Value
85 th percentile speed, mph:	25
Percent of left-turns in advancing volume (V_A), %:	2%
Advancing volume (V_A), veh/h:	42
Opposing volume (V_O), veh/h:	123

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	1154
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Left-Turn Lane Warrant Analysis

Project: Holly DCP
 Intersection: 6. Site Access at N Locust Street
 Date: 9/5/2018
 Scenario: 2030 Planning Horizon with Annexation - AM Peak Hour

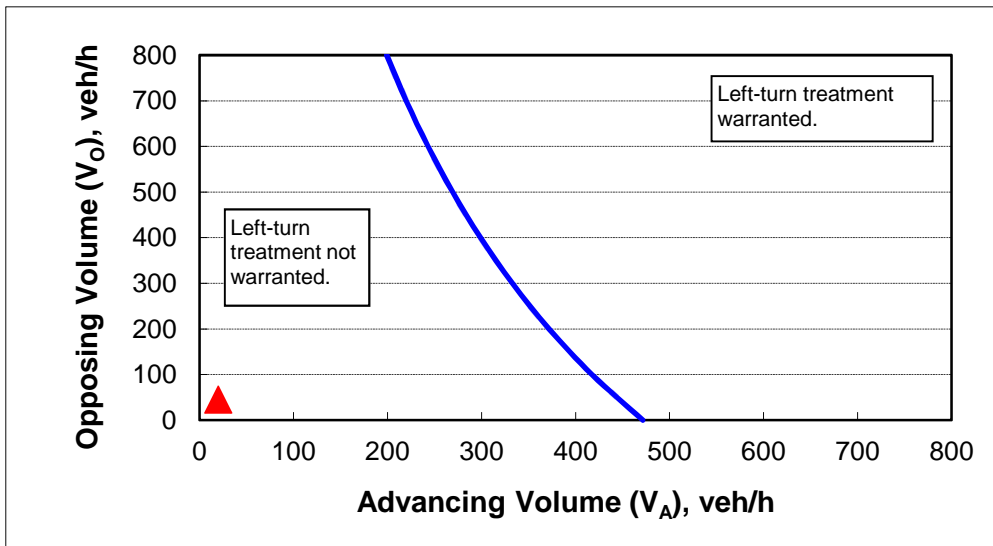
2-lane roadway (English)

INPUT

Variable	Value
85 th percentile speed, mph:	25
Percent of left-turns in advancing volume (V_A), %:	25%
Advancing volume (V_A), veh/h:	20
Opposing volume (V_O), veh/h:	45

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	446
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Left-Turn Lane Warrant Analysis

Project: Holly DCP
 Intersection: 6. Site Access at N Locust Street
 Date: 9/5/2018
 Scenario: 2030 Planning Horizon with Annexation - PM Peak Hour

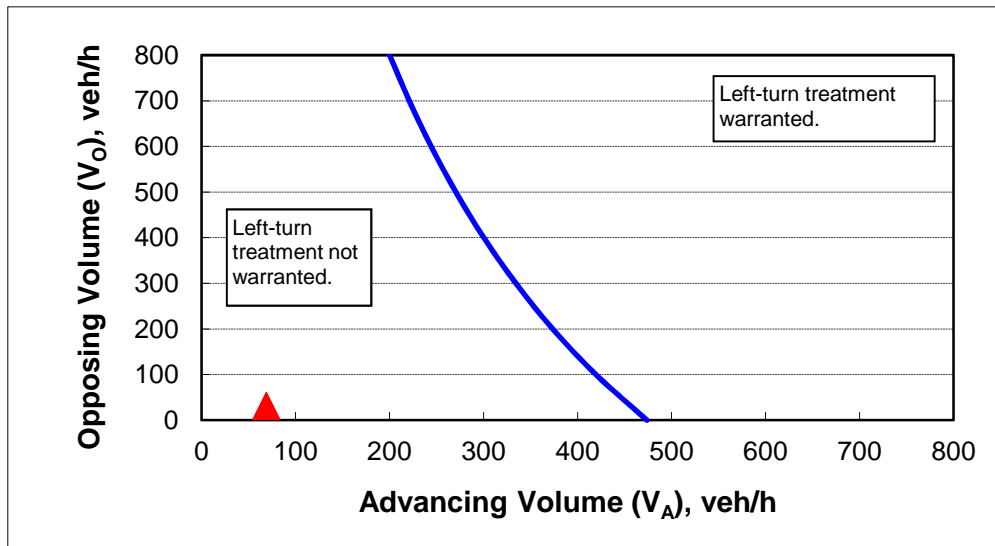
2-lane roadway (English)

INPUT

Variable	Value
85 th percentile speed, mph:	25
Percent of left-turns in advancing volume (V_A), %:	25%
Advancing volume (V_A), veh/h:	69
Opposing volume (V_O), veh/h:	31

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	456
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Left-Turn Lane Warrant Analysis

Project: Holly DCP
 Intersection: 12. Site Access at N Locust Street
 Date: 9/5/2018
 Scenario: 2030 Planning Horizon with Annexation - AM Peak Hour (NB)

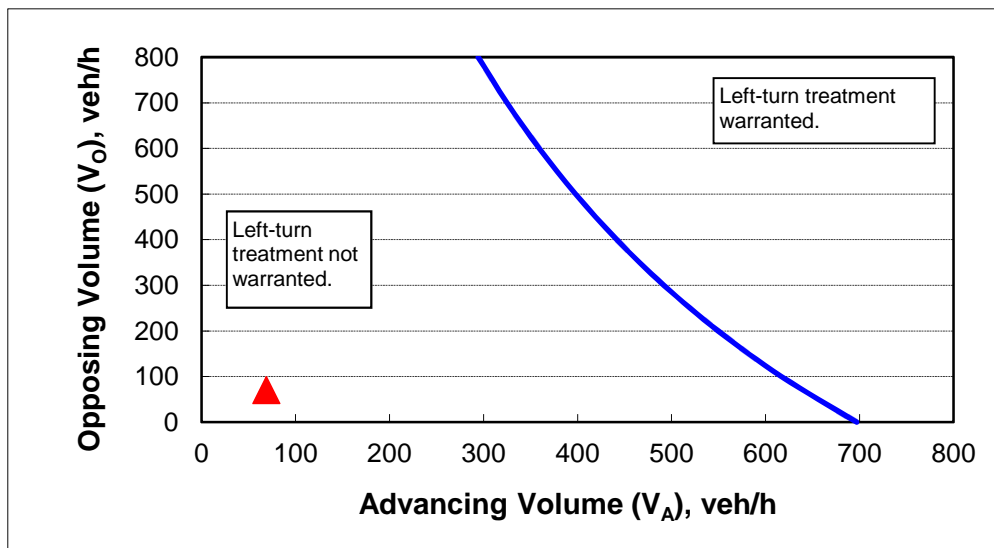
2-lane roadway (English)

INPUT

Variable	Value
85 th percentile speed, mph:	45
Percent of left-turns in advancing volume (V_A), %:	6%
Advancing volume (V_A), veh/h:	69
Opposing volume (V_O), veh/h:	70

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	640
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Left-Turn Lane Warrant Analysis

Project: Holly DCP
 Intersection: 12. Site Access at N Locust Street
 Date: 9/5/2018
 Scenario: 2030 Planning Horizon with Annexation - AM Peak Hour (SB)

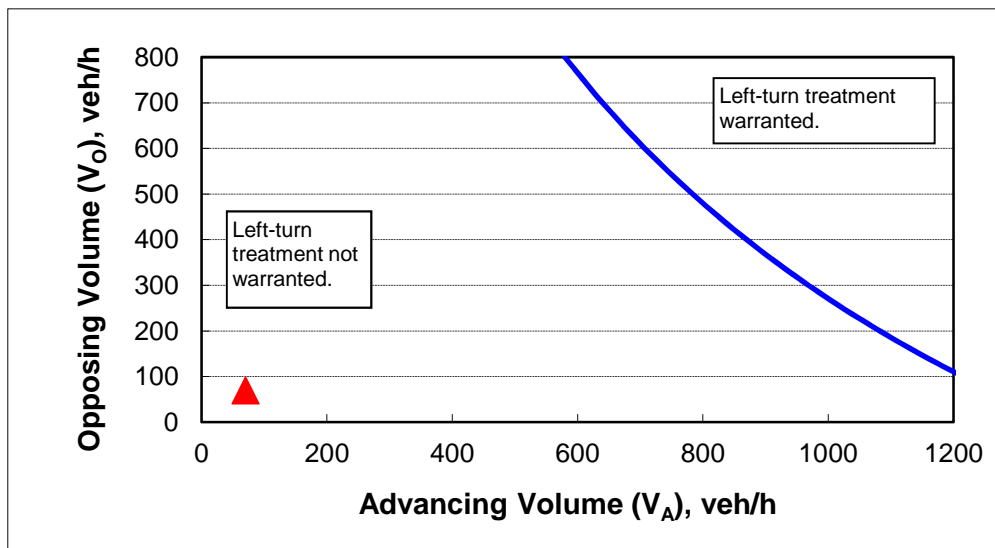
2-lane roadway (English)

INPUT

Variable	Value
85 th percentile speed, mph:	45
Percent of left-turns in advancing volume (V_A), %:	1%
Advancing volume (V_A), veh/h:	70
Opposing volume (V_O), veh/h:	69

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	1261
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Left-Turn Lane Warrant Analysis

Project: Holly DCP
 Intersection: 12. Site Access at N Locust Street
 Date: 9/5/2018
 Scenario: 2030 Planning Horizon with Annexation - PM Peak Hour (NB)

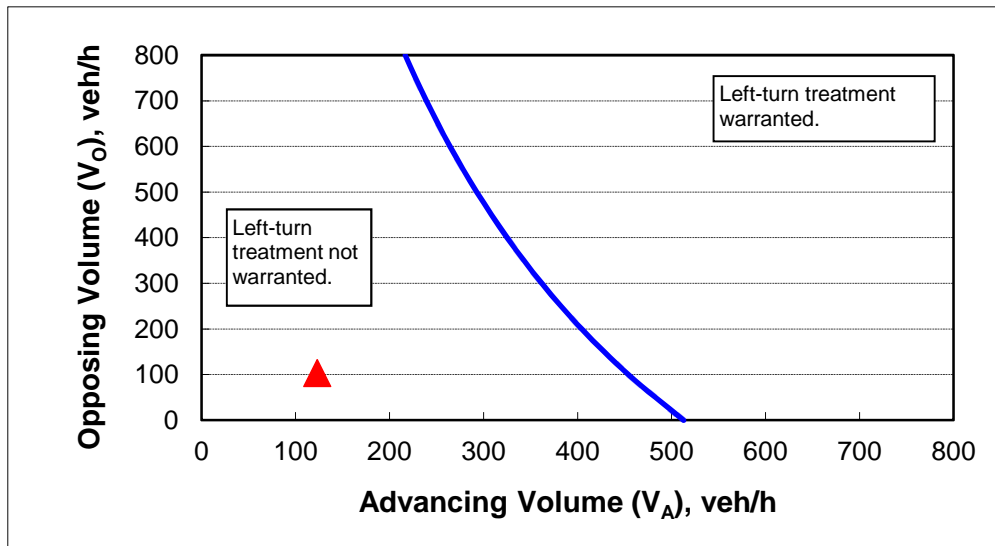
2-lane roadway (English)

INPUT

Variable	Value
85 th percentile speed, mph:	45
Percent of left-turns in advancing volume (V_A), %:	11%
Advancing volume (V_A), veh/h:	123
Opposing volume (V_O), veh/h:	103

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	452
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Left-Turn Lane Warrant Analysis

Project: Holly DCP
 Intersection: 12. Site Access at N Locust Street
 Date: 9/5/2018
 Scenario: 2030 Planning Horizon with Annexation - PM Peak Hour (SB)

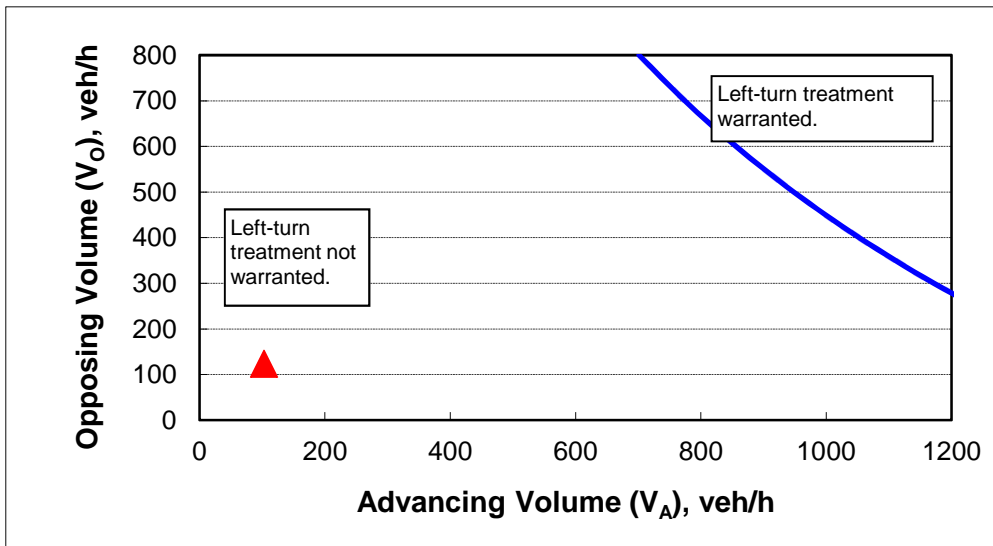
2-lane roadway (English)

INPUT

Variable	Value
85 th percentile speed, mph:	45
Percent of left-turns in advancing volume (V_A), %:	1%
Advancing volume (V_A), veh/h:	103
Opposing volume (V_O), veh/h:	123

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	1431
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Left-Turn Lane Warrant Analysis

Project: Holly DCP
 Intersection: 13. Site Access at N Locust Street
 Date: 9/5/2018
 Scenario: 2030 Planning Horizon with Annexation - AM Peak Hour (NB)

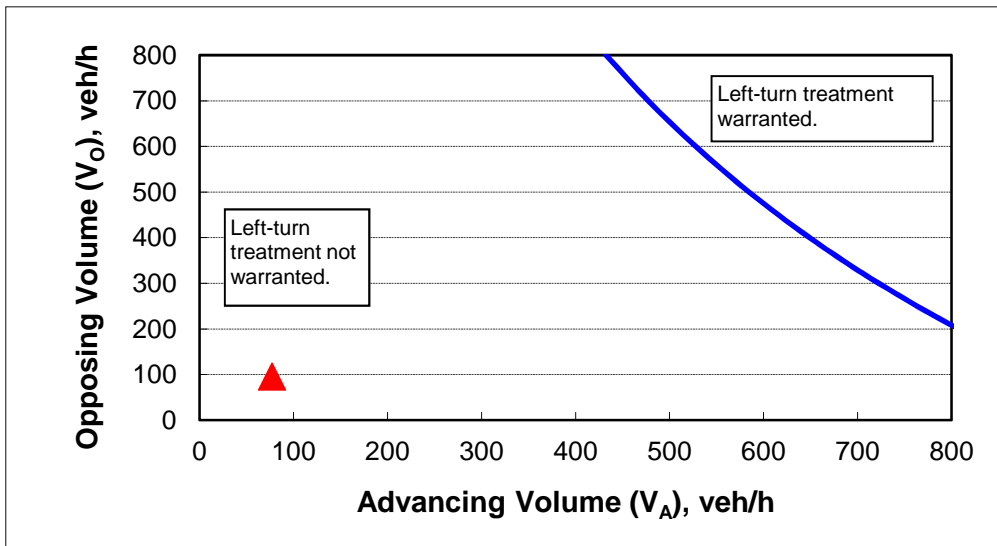
2-lane roadway (English)

INPUT

Variable	Value
85 th percentile speed, mph:	45
Percent of left-turns in advancing volume (V_A), %:	3%
Advancing volume (V_A), veh/h:	77
Opposing volume (V_O), veh/h:	95

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	912
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Left-Turn Lane Warrant Analysis

Project: Holly DCP
 Intersection: 13. Site Access at N Locust Street
 Date: 9/5/2018
 Scenario: 2030 Planning Horizon with Annexation - AM Peak Hour (SB)

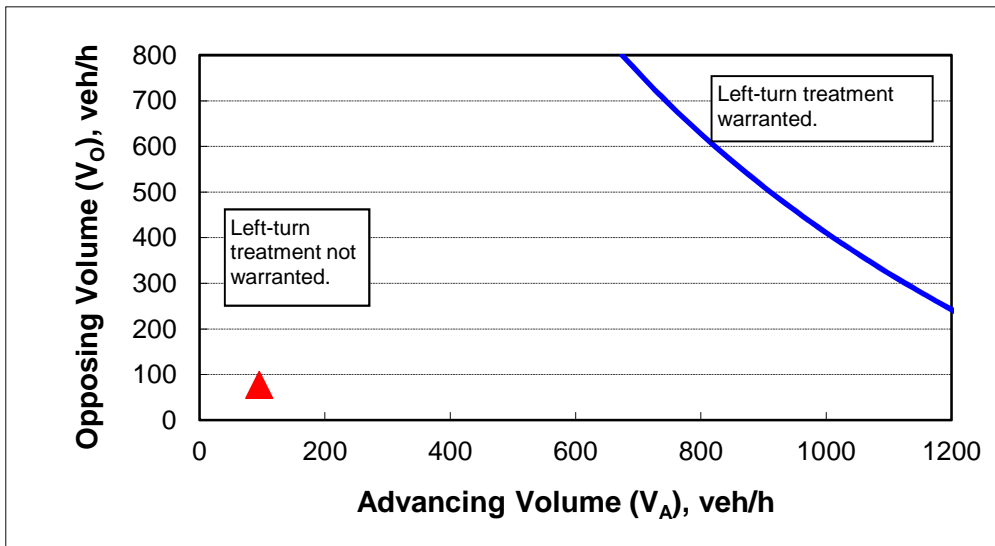
2-lane roadway (English)

INPUT

Variable	Value
85 th percentile speed, mph:	45
Percent of left-turns in advancing volume (V_A), %:	1%
Advancing volume (V_A), veh/h:	95
Opposing volume (V_O), veh/h:	77

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	1452
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Left-Turn Lane Warrant Analysis

Project: Holly DCP
 Intersection: 13. Site Access at N Locust Street
 Date: 9/5/2018
 Scenario: 2030 Planning Horizon with Annexation - PM Peak Hour (NB)

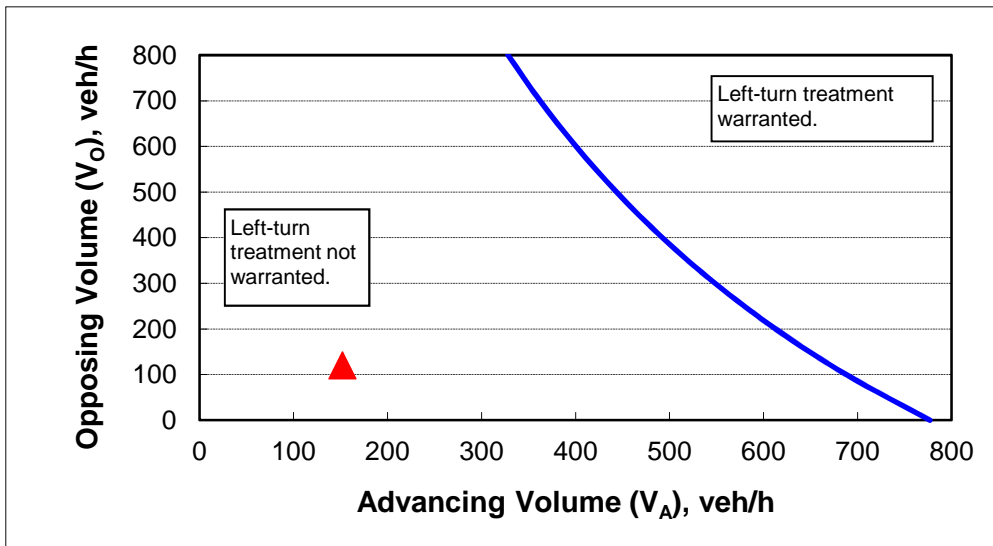
2-lane roadway (English)

INPUT

Variable	Value
85 th percentile speed, mph:	45
Percent of left-turns in advancing volume (V_A), %:	5%
Advancing volume (V_A), veh/h:	152
Opposing volume (V_O), veh/h:	120

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	672
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Left-Turn Lane Warrant Analysis

Project: Holly DCP
 Intersection: 13. Site Access at N Locust Street
 Date: 9/5/2018
 Scenario: 2030 Planning Horizon with Annexation - PM Peak Hour (SB)

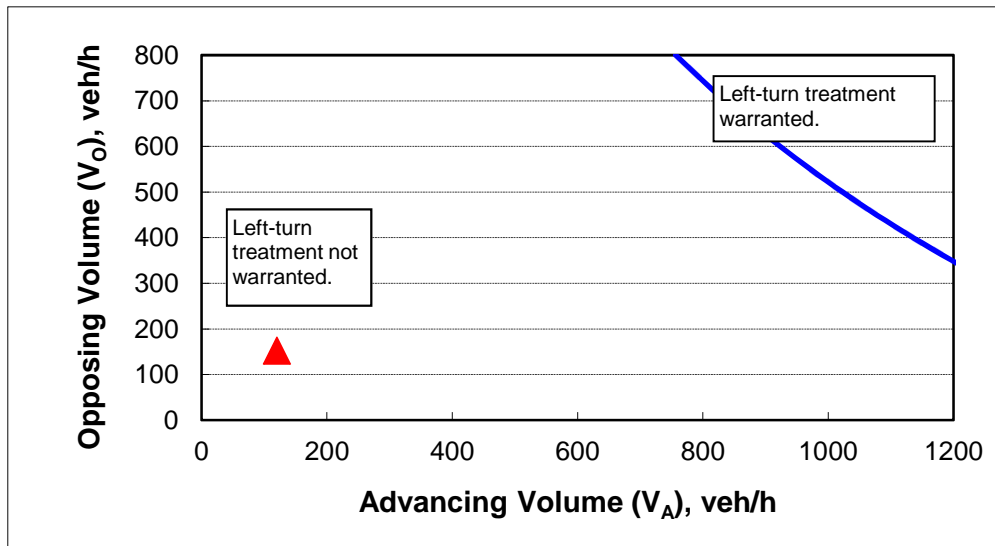
2-lane roadway (English)

INPUT

Variable	Value
85 th percentile speed, mph:	45
Percent of left-turns in advancing volume (V_A), %:	1%
Advancing volume (V_A), veh/h:	120
Opposing volume (V_O), veh/h:	152

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	1493
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Left-Turn Lane Warrant Analysis

Project: Holly DCP
 Intersection: 14. Site Access at N Locust Street
 Date: 9/5/2018
 Scenario: 2030 Planning Horizon with Annexation - AM Peak Hour (SB)

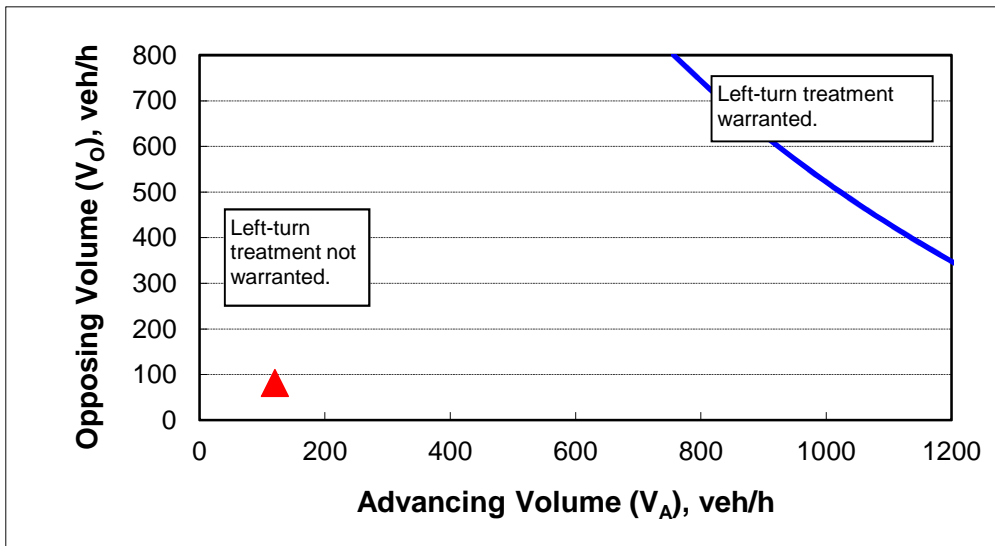
2-lane roadway (English)

INPUT

Variable	Value
85 th percentile speed, mph:	45
Percent of left-turns in advancing volume (V_A), %:	1%
Advancing volume (V_A), veh/h:	120
Opposing volume (V_O), veh/h:	81

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	1622
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Left-Turn Lane Warrant Analysis

Project: Holly DCP
 Intersection: 14. Site Access at N Locust Street
 Date: 9/5/2018
 Scenario: 2030 Planning Horizon with Annexation - PM Peak Hour (SB)

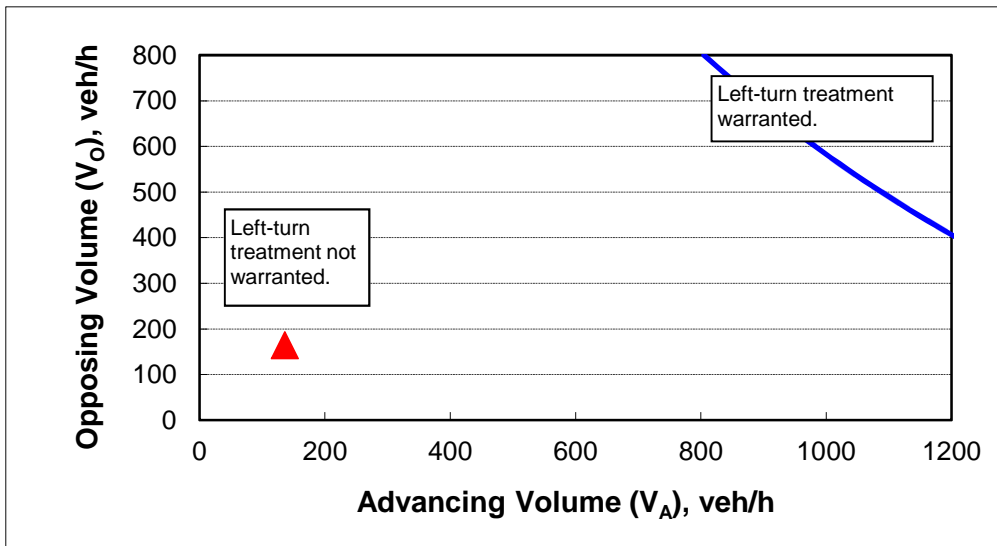
2-lane roadway (English)

INPUT

Variable	Value
85 th percentile speed, mph:	45
Percent of left-turns in advancing volume (V_A), %:	1%
Advancing volume (V_A), veh/h:	136
Opposing volume (V_O), veh/h:	164

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	1566
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Left-Turn Lane Warrant Analysis

Project: Holly DCP
 Intersection: 15. Site Access at N Locust Street
 Date: 9/5/2018
 Scenario: 2030 Planning Horizon with Annexation - AM Peak Hour

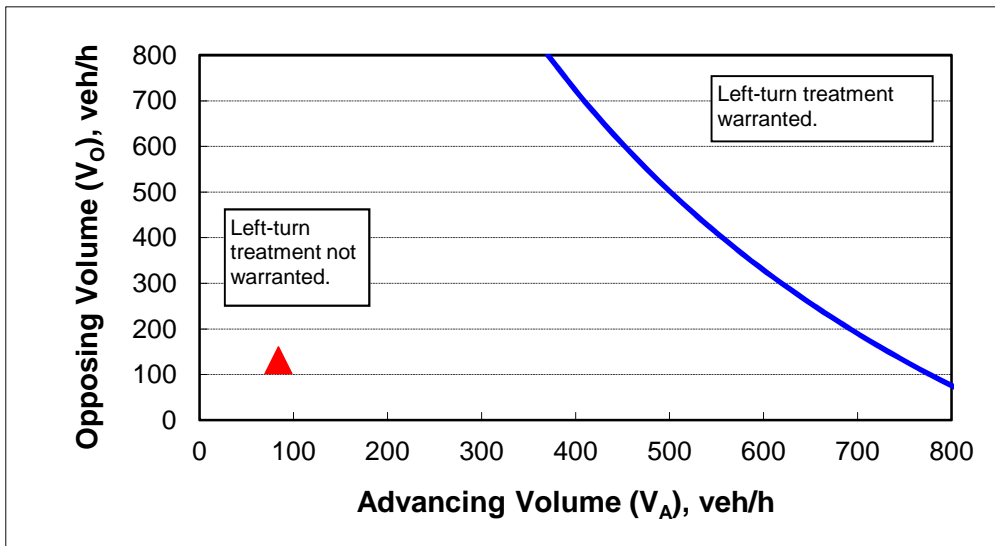
2-lane roadway (English)

INPUT

Variable	Value
85 th percentile speed, mph:	45
Percent of left-turns in advancing volume (V_A), %:	4%
Advancing volume (V_A), veh/h:	84
Opposing volume (V_O), veh/h:	131

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	749
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Left-Turn Lane Warrant Analysis

Project: Holly DCP
 Intersection: 15. Site Access at N Locust Street
 Date: 9/5/2018
 Scenario: 2030 Planning Horizon with Annexation - PM Peak Hour

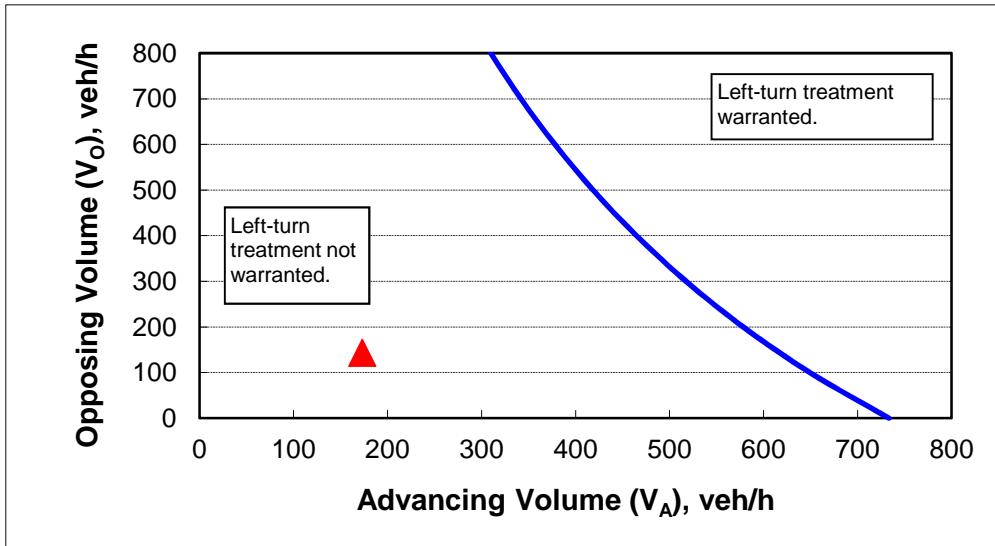
2-lane roadway (English)

INPUT

Variable	Value
85 th percentile speed, mph:	45
Percent of left-turns in advancing volume (V_A), %:	5%
Advancing volume (V_A), veh/h:	173
Opposing volume (V_O), veh/h:	143

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	617
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Traffic Signal Warrant Analysis



Project: Holly DCP
 Date: 9/5/2018
 Scenario: 2030 Planning Horizon with Annexation

Major Street:	NW Territorial Road	Minor Street:	N Holly Street
Number of Lanes:	1	Number of Lanes:	1
PM Peak Hour Volumes:	720	PM Peak Hour Volumes:	212

Warrant Used:
 X 100 percent of standard warrants used
 70 percent of standard warrants used due to 85th percentile speed in excess of 40 mph or isolated community with population less than 10,000.

Number of Lanes for Moving Traffic on Each Approach:		ADT on Major St. (total of both approaches)		ADT on Minor St. (higher-volume approach)	
Major St.	Minor St.	100% Warrants	70% Warrants	100% Warrants	70% Warrants
WARRANT 1, CONDITION A					
1	1	8,850	6,200	2,650	1,850
2 or more	1	10,600	7,400	2,650	1,850
2 or more	2 or more	10,600	7,400	3,550	2,500
1	2 or more	8,850	6,200	3,550	2,500
WARRANT 1, CONDITION B					
1	1	13,300	9,300	1,350	950
2 or more	1	15,900	11,100	1,350	950
2 or more	2 or more	15,900	11,100	1,750	1,250
1	2 or more	13,300	9,300	1,750	1,250

Note: ADT volumes assume 8th highest hour is 5.6% of the daily volume

	Approach Volumes	Minimum Volumes	Is Signal Warrant Met?
<i>Warrant 1</i>			
<i>Condition A: Minimum Vehicular Volume</i>			
Major Street	7,200	8,850	
Minor Street*	2,120	2,650	No
<i>Condition B: Interruption of Continuous Traffic</i>			
Major Street	7,200	13,300	
Minor Street*	2,120	1,350	No
<i>Combination Warrant</i>			
Major Street	7,200	10,640	
Minor Street*	2,120	2,120	No

Note: Minor street right-turning traffic volumes reduced by 25%.

Traffic Signal Warrant Analysis



Project: Holly DCP
 Date: 9/5/2018
 Scenario: 2030 Planning Horizon with Annexation

Major Street:	NE Territorial Road	Minor Street:	N Locust Street
Number of Lanes:	1	Number of Lanes:	1
PM Peak Hour Volumes:	931	PM Peak Hour Volumes:	69

Warrant Used:
 100 percent of standard warrants used
 70 percent of standard warrants used due to 85th percentile speed in excess of 40 mph or isolated community with population less than 10,000.

Number of Lanes for Moving Traffic on Each Approach:		ADT on Major St. (total of both approaches)	ADT on Minor St. (higher-volume approach)		
Major St.	Minor St.	100% Warrants	70% Warrants	100% Warrants	70% Warrants
WARRANT 1, CONDITION A					
1	1	8,850	6,200	2,650	1,850
2 or more	1	10,600	7,400	2,650	1,850
2 or more	2 or more	10,600	7,400	3,550	2,500
1	2 or more	8,850	6,200	3,550	2,500
WARRANT 1, CONDITION B					
1	1	13,300	9,300	1,350	950
2 or more	1	15,900	11,100	1,350	950
2 or more	2 or more	15,900	11,100	1,750	1,250
1	2 or more	13,300	9,300	1,750	1,250

Note: ADT volumes assume 8th highest hour is 5.6% of the daily volume

	Approach Volumes	Minimum Volumes	Is Signal Warrant Met?
<i>Warrant 1</i>			
<i>Condition A: Minimum Vehicular Volume</i>			
Major Street	9,310	8,850	
Minor Street*	690	2,650	No
<i>Condition B: Interruption of Continuous Traffic</i>			
Major Street	9,310	13,300	
Minor Street*	690	1,350	No
<i>Combination Warrant</i>			
Major Street	9,310	10,640	
Minor Street*	690	2,120	No

Note: Minor street right-turning traffic volumes reduced by 25%.



LEVEL OF SERVICE

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	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	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	8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	74	2	68	54	16	1	16	50	14	19	10
Future Vol, veh/h	4	74	2	68	54	16	1	16	50	14	19	10
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles, %	0	0	0	2	2	2	4	4	4	5	5	5
Mvmt Flow	5	84	2	77	61	18	1	18	57	16	22	11
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.9	8.4	7.6	7.9
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	1%	5%	49%	33%
Vol Thru, %	24%	93%	39%	44%
Vol Right, %	75%	3%	12%	23%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	67	80	138	43
LT Vol	1	4	68	14
Through Vol	16	74	54	19
RT Vol	50	2	16	10
Lane Flow Rate	76	91	157	49
Geometry Grp	1	1	1	1
Degree of Util (X)	0.088	0.11	0.19	0.062
Departure Headway (Hd)	4.138	4.34	4.353	4.552
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	867	827	830	788
Service Time	2.156	2.357	2.353	2.571
HCM Lane V/C Ratio	0.088	0.11	0.189	0.062
HCM Control Delay	7.6	7.9	8.4	7.9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	0.4	0.7	0.2

HCM 6th TWSC
2: Locust Street & Territorial Road

08/29/2018

Intersection												
Int Delay, s/veh	1.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	7	156	1	3	148	5	3	2	5	5	1	24
Future Vol, veh/h	7	156	1	3	148	5	3	2	5	5	1	24
Conflicting Peds, #/hr	0	0	8	8	0	0	0	0	1	1	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	1	1	1	10	10	10	3	3	3
Mvmt Flow	8	171	1	3	163	5	3	2	5	5	1	26

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	168	0	0	180	0	0	381	370	181	364	368	166
Stage 1	-	-	-	-	-	-	196	196	-	172	172	-
Stage 2	-	-	-	-	-	-	185	174	-	192	196	-
Critical Hdwy	4.12	-	-	4.11	-	-	7.2	6.6	6.3	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.2	5.6	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.2	5.6	-	6.13	5.53	-
Follow-up Hdwy	2.218	-	-	2.209	-	-	3.59	4.09	3.39	3.527	4.027	3.327
Pot Cap-1 Maneuver	1410	-	-	1402	-	-	563	547	841	590	559	876
Stage 1	-	-	-	-	-	-	788	724	-	828	755	-
Stage 2	-	-	-	-	-	-	799	740	-	807	737	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1410	-	-	1391	-	-	538	538	834	580	550	876
Mov Cap-2 Maneuver	-	-	-	-	-	-	538	538	-	580	550	-
Stage 1	-	-	-	-	-	-	777	714	-	823	753	-
Stage 2	-	-	-	-	-	-	772	739	-	794	727	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.3			0.1			10.6			9.7		
HCM LOS							B			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	654	1410	-	-	1391	-	-	793
HCM Lane V/C Ratio	0.017	0.005	-	-	0.002	-	-	0.042
HCM Control Delay (s)	10.6	7.6	0	-	7.6	0	-	9.7
HCM Lane LOS	B	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1

Intersection						
Int Delay, s/veh	2.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	10	1	8	6	1	24
Future Vol, veh/h	10	1	8	6	1	24
Conflicting Peds, #/hr	0	0	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	13	1	10	8	1	30

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	47	15	0	0	19
Stage 1	15	-	-	-	-
Stage 2	32	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	968	1070	-	-	1611
Stage 1	1013	-	-	-	-
Stage 2	996	-	-	-	-
Platoon blocked, %					
Mov Cap-1 Maneuver	966	1069	-	-	1609
Mov Cap-2 Maneuver	966	-	-	-	-
Stage 1	1011	-	-	-	-
Stage 2	996	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.7	0	0.3
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	975	1609
HCM Lane V/C Ratio	-	-	0.014	0.001
HCM Control Delay (s)	-	-	8.7	7.2
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0	0

Intersection	
Intersection Delay, s/veh	9.3
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	130	5	105	87	21	4	27	131	24	42	7
Future Vol, veh/h	4	130	5	105	87	21	4	27	131	24	42	7
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
Heavy Vehicles, %	0	0	0	1	1	1	1	1	1	1	1	1
Mvmt Flow	4	144	6	117	97	23	4	30	146	27	47	8
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.1	10	8.8	8.8
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	2%	3%	49%	33%
Vol Thru, %	17%	94%	41%	58%
Vol Right, %	81%	4%	10%	10%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	162	139	213	73
LT Vol	4	4	105	24
Through Vol	27	130	87	42
RT Vol	131	5	21	7
Lane Flow Rate	180	154	237	81
Geometry Grp	1	1	1	1
Degree of Util (X)	0.224	0.205	0.312	0.114
Departure Headway (Hd)	4.475	4.782	4.751	5.079
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	797	746	753	701
Service Time	2.529	2.842	2.808	3.145
HCM Lane V/C Ratio	0.226	0.206	0.315	0.116
HCM Control Delay	8.8	9.1	10	8.8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.9	0.8	1.3	0.4

HCM 6th TWSC
2: Locust Street & Territorial Road

08/29/2018

Intersection												
Int Delay, s/veh	1.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	32	309	3	10	230	11	5	3	2	10	4	20
Future Vol, veh/h	32	309	3	10	230	11	5	3	2	10	4	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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	2	2	2	0	0	0	0	0	0
Mvmt Flow	34	329	3	11	245	12	5	3	2	11	4	21

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	257	0	0	332	0	0	685	678	331	674	673	251
Stage 1	-	-	-	-	-	-	399	399	-	273	273	-
Stage 2	-	-	-	-	-	-	286	279	-	401	400	-
Critical Hdwy	4.1	-	-	4.12	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.218	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1320	-	-	1227	-	-	365	377	715	371	379	793
Stage 1	-	-	-	-	-	-	631	606	-	737	688	-
Stage 2	-	-	-	-	-	-	726	683	-	630	605	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1320	-	-	1227	-	-	341	361	715	356	363	793
Mov Cap-2 Maneuver	-	-	-	-	-	-	341	361	-	356	363	-
Stage 1	-	-	-	-	-	-	611	587	-	713	681	-
Stage 2	-	-	-	-	-	-	695	676	-	605	586	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.7			0.3			14.5			12.3		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	388	1320	-	-	1227	-	-	529
HCM Lane V/C Ratio	0.027	0.026	-	-	0.009	-	-	0.068
HCM Control Delay (s)	14.5	7.8	0	-	8	0	-	12.3
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0	-	-	0.2

HCM 6th TWSC
5: Locust Street & 19th Avenue

08/29/2018

Intersection						
Int Delay, s/veh	2.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	19	1	28	24	1	17
Future Vol, veh/h	19	1	28	24	1	17
Conflicting Peds, #/hr	0	0	0	2	2	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	81	81	81	81	81	81
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	23	1	35	30	1	21

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	75	52	0	0	67
Stage 1	52	-	-	-	-
Stage 2	23	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	933	1021	-	-	1547
Stage 1	976	-	-	-	-
Stage 2	1005	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	930	1019	-	-	1544
Mov Cap-2 Maneuver	930	-	-	-	-
Stage 1	973	-	-	-	-
Stage 2	1005	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9	0	0.4
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	934	1544
HCM Lane V/C Ratio	-	-	0.026	0.001
HCM Control Delay (s)	-	-	9	7.3
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0

Intersection	
Intersection Delay, s/veh	8.7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	101	3	93	74	22	1	22	68	19	26	14
Future Vol, veh/h	5	101	3	93	74	22	1	22	68	19	26	14
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles, %	0	0	0	2	2	2	4	4	4	5	5	5
Mvmt Flow	6	115	3	106	84	25	1	25	77	22	30	16
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.4	9.2	8.1	8.3
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	1%	5%	49%	32%
Vol Thru, %	24%	93%	39%	44%
Vol Right, %	75%	3%	12%	24%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	91	109	189	59
LT Vol	1	5	93	19
Through Vol	22	101	74	26
RT Vol	68	3	22	14
Lane Flow Rate	103	124	215	67
Geometry Grp	1	1	1	1
Degree of Util (X)	0.126	0.156	0.268	0.09
Departure Headway (Hd)	4.385	4.528	4.495	4.809
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	817	791	799	744
Service Time	2.416	2.559	2.525	2.843
HCM Lane V/C Ratio	0.126	0.157	0.269	0.09
HCM Control Delay	8.1	8.4	9.2	8.3
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.4	0.6	1.1	0.3

HCM 6th TWSC
2: Locust Street & Territorial Road

09/05/2018

Intersection												
Int Delay, s/veh	1.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	10	213	1	4	202	7	4	3	7	7	1	33
Future Vol, veh/h	10	213	1	4	202	7	4	3	7	7	1	33
Conflicting Peds, #/hr	0	0	8	8	0	0	0	0	1	1	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	1	1	1	10	10	10	3	3	3
Mvmt Flow	11	234	1	4	222	8	4	3	8	8	1	36

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	230	0	0	243	0	0	518	503	244	497	499	226
Stage 1	-	-	-	-	-	-	265	265	-	234	234	-
Stage 2	-	-	-	-	-	-	253	238	-	263	265	-
Critical Hdwy	4.12	-	-	4.11	-	-	7.2	6.6	6.3	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.2	5.6	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.2	5.6	-	6.13	5.53	-
Follow-up Hdwy	2.218	-	-	2.209	-	-	3.59	4.09	3.39	3.527	4.027	3.327
Pot Cap-1 Maneuver	1338	-	-	1329	-	-	456	460	776	482	472	811
Stage 1	-	-	-	-	-	-	723	675	-	767	709	-
Stage 2	-	-	-	-	-	-	734	694	-	740	688	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1338	-	-	1319	-	-	428	451	769	470	463	811
Mov Cap-2 Maneuver	-	-	-	-	-	-	428	451	-	470	463	-
Stage 1	-	-	-	-	-	-	711	664	-	760	707	-
Stage 2	-	-	-	-	-	-	698	692	-	722	676	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.3			0.1			11.6			10.4		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	558	1338	-	-	1319	-	-	710
HCM Lane V/C Ratio	0.028	0.008	-	-	0.003	-	-	0.063
HCM Control Delay (s)	11.6	7.7	0	-	7.7	0	-	10.4
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.2

Intersection						
Int Delay, s/veh	2.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	14	1	11	8	1	33
Future Vol, veh/h	14	1	11	8	1	33
Conflicting Peds, #/hr	0	0	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	18	1	14	10	1	41

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	63	20	0	0	25
Stage 1	20	-	-	-	-
Stage 2	43	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	948	1064	-	-	1603
Stage 1	1008	-	-	-	-
Stage 2	985	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	946	1063	-	-	1601
Mov Cap-2 Maneuver	946	-	-	-	-
Stage 1	1006	-	-	-	-
Stage 2	985	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.9	0	0.2
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	953	1601
HCM Lane V/C Ratio	-	-	0.02	0.001
HCM Control Delay (s)	-	-	8.9	7.2
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0

Intersection	
Intersection Delay, s/veh	11.5
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	177	7	143	119	29	5	37	179	33	57	10
Future Vol, veh/h	5	177	7	143	119	29	5	37	179	33	57	10
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
Heavy Vehicles, %	0	0	0	1	1	1	1	1	1	1	1	1
Mvmt Flow	6	197	8	159	132	32	6	41	199	37	63	11
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	10.8	12.9	10.8	10.1
HCM LOS	B	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	2%	3%	49%	33%
Vol Thru, %	17%	94%	41%	57%
Vol Right, %	81%	4%	10%	10%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	221	189	291	100
LT Vol	5	5	143	33
Through Vol	37	177	119	57
RT Vol	179	7	29	10
Lane Flow Rate	246	210	323	111
Geometry Grp	1	1	1	1
Degree of Util (X)	0.345	0.312	0.472	0.178
Departure Headway (Hd)	5.054	5.351	5.251	5.761
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	710	670	685	621
Service Time	3.098	3.394	3.288	3.812
HCM Lane V/C Ratio	0.346	0.313	0.472	0.179
HCM Control Delay	10.8	10.8	12.9	10.1
HCM Lane LOS	B	B	B	B
HCM 95th-tile Q	1.5	1.3	2.5	0.6

HCM 6th TWSC
2: Locust Street & Territorial Road

09/05/2018

Intersection												
Int Delay, s/veh	1.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	44	421	4	14	314	15	7	4	3	14	5	27
Future Vol, veh/h	44	421	4	14	314	15	7	4	3	14	5	27
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	2	2	2	0	0	0	0	0	0
Mvmt Flow	47	448	4	15	334	16	7	4	3	15	5	29

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	350	0	0	452	0	0	933	924	450	920	918	342
Stage 1	-	-	-	-	-	-	544	544	-	372	372	-
Stage 2	-	-	-	-	-	-	389	380	-	548	546	-
Critical Hdwy	4.1	-	-	4.12	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.218	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1220	-	-	1109	-	-	248	271	613	254	274	705
Stage 1	-	-	-	-	-	-	527	522	-	653	622	-
Stage 2	-	-	-	-	-	-	639	617	-	524	521	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1220	-	-	1109	-	-	222	253	613	237	256	705
Mov Cap-2 Maneuver	-	-	-	-	-	-	222	253	-	237	256	-
Stage 1	-	-	-	-	-	-	500	495	-	620	611	-
Stage 2	-	-	-	-	-	-	597	607	-	490	494	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.8			0.3			19.2			15.5		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	268	1220	-	-	1109	-	-	393
HCM Lane V/C Ratio	0.056	0.038	-	-	0.013	-	-	0.125
HCM Control Delay (s)	19.2	8.1	0	-	8.3	0	-	15.5
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.2	0.1	-	-	0	-	-	0.4

Intersection						
Int Delay, s/veh	2.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	26	1	38	33	1	23
Future Vol, veh/h	26	1	38	33	1	23
Conflicting Peds, #/hr	0	0	0	2	2	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	81	81	81	81	81	81
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	32	1	47	41	1	28

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	100	70	0	0	90
Stage 1	70	-	-	-	-
Stage 2	30	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	904	998	-	-	1518
Stage 1	958	-	-	-	-
Stage 2	998	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	901	996	-	-	1515
Mov Cap-2 Maneuver	901	-	-	-	-
Stage 1	955	-	-	-	-
Stage 2	998	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.1	0	0.3
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	904	1515
HCM Lane V/C Ratio	-	-	0.037	0.001
HCM Control Delay (s)	-	-	9.1	7.4
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0

Intersection	
Intersection Delay, s/veh	9.5
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	9	104	3	99	81	36	1	31	70	59	53	27
Future Vol, veh/h	9	104	3	99	81	36	1	31	70	59	53	27
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles, %	0	0	0	2	2	2	4	4	4	5	5	5
Mvmt Flow	10	118	3	113	92	41	1	35	80	67	60	31
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9	10.1	8.6	9.5
HCM LOS	A	B	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	1%	8%	46%	42%
Vol Thru, %	30%	90%	38%	38%
Vol Right, %	69%	3%	17%	19%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	102	116	216	139
LT Vol	1	9	99	59
Through Vol	31	104	81	53
RT Vol	70	3	36	27
Lane Flow Rate	116	132	245	158
Geometry Grp	1	1	1	1
Degree of Util (X)	0.15	0.178	0.324	0.219
Departure Headway (Hd)	4.673	4.869	4.753	5
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	762	732	751	714
Service Time	2.741	2.933	2.809	3.064
HCM Lane V/C Ratio	0.152	0.18	0.326	0.221
HCM Control Delay	8.6	9	10.1	9.5
HCM Lane LOS	A	A	B	A
HCM 95th-tile Q	0.5	0.6	1.4	0.8

HCM 6th TWSC
2: Locust Street & Territorial Road

09/05/2018

Intersection												
Int Delay, s/veh	2.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	21	245	1	4	213	14	4	3	7	27	1	66
Future Vol, veh/h	21	245	1	4	213	14	4	3	7	27	1	66
Conflicting Peds, #/hr	0	0	8	8	0	0	0	0	1	1	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	1	1	1	10	10	10	3	3	3
Mvmt Flow	23	269	1	4	234	15	4	3	8	30	1	73

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	249	0	0	278	0	0	611	581	279	572	574	242
Stage 1	-	-	-	-	-	-	324	324	-	250	250	-
Stage 2	-	-	-	-	-	-	287	257	-	322	324	-
Critical Hdwy	4.12	-	-	4.11	-	-	7.2	6.6	6.3	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.2	5.6	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.2	5.6	-	6.13	5.53	-
Follow-up Hdwy	2.218	-	-	2.209	-	-	3.59	4.09	3.39	3.527	4.027	3.327
Pot Cap-1 Maneuver	1317	-	-	1291	-	-	395	414	741	429	428	794
Stage 1	-	-	-	-	-	-	672	636	-	752	698	-
Stage 2	-	-	-	-	-	-	703	680	-	688	648	-
Platoon blocked, %		-	-	-	-	-						
Mov Cap-1 Maneuver	1317	-	-	1281	-	-	349	400	735	414	414	794
Mov Cap-2 Maneuver	-	-	-	-	-	-	349	400	-	414	414	-
Stage 1	-	-	-	-	-	-	653	618	-	736	695	-
Stage 2	-	-	-	-	-	-	635	677	-	662	629	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.6			0.1			12.6			11.9		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	491	1317	-	-	1281	-	-	624
HCM Lane V/C Ratio	0.031	0.018	-	-	0.003	-	-	0.166
HCM Control Delay (s)	12.6	7.8	0	-	7.8	0	-	11.9
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0	-	-	0.6

HCM 6th TWSC
3: Locust Street & Site Access

09/05/2018

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	1	4	1	36	95	1
Future Vol, veh/h	1	4	1	36	95	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	4	1	39	103	1

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	145	104	104	0	-	0
Stage 1	104	-	-	-	-	-
Stage 2	41	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	847	951	1488	-	-	-
Stage 1	920	-	-	-	-	-
Stage 2	981	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	846	951	1488	-	-	-
Mov Cap-2 Maneuver	846	-	-	-	-	-
Stage 1	919	-	-	-	-	-
Stage 2	981	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.9	0.2	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1488	-	928	-	-
HCM Lane V/C Ratio	0.001	-	0.006	-	-
HCM Control Delay (s)	7.4	0	8.9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

HCM 6th TWSC
4: Locust Street & Site Access

09/05/2018

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	1	4	1	35	91	1
Future Vol, veh/h	1	4	1	35	91	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	4	1	38	99	1

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	140	100	100	0	0
Stage 1	100	-	-	-	-
Stage 2	40	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-
Pot Cap-1 Maneuver	853	956	1493	-	-
Stage 1	924	-	-	-	-
Stage 2	982	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	852	956	1493	-	-
Mov Cap-2 Maneuver	852	-	-	-	-
Stage 1	923	-	-	-	-
Stage 2	982	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.9	0.2	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1493	-	933	-	-
HCM Lane V/C Ratio	0.001	-	0.006	-	-
HCM Control Delay (s)	7.4	0	8.9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

HCM 6th TWSC
5: Locust Street & 19th Avenue

09/05/2018

Intersection												
Int Delay, s/veh	2.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	1	16	14	1	1	6	21	8	1	62	1
Future Vol, veh/h	1	1	16	14	1	1	6	21	8	1	62	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	1	1	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	0	0	0	0	0	0	0	0	0
Mvmt Flow	1	1	20	18	1	1	8	26	10	1	78	1

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	129	134	79	139	129	32	79	0	0	37	0	0
Stage 1	81	81	-	48	48	-	-	-	-	-	-	-
Stage 2	48	53	-	91	81	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	844	757	981	836	765	1048	1532	-	-	1587	-	-
Stage 1	927	828	-	971	859	-	-	-	-	-	-	-
Stage 2	965	851	-	921	832	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	838	752	981	813	760	1047	1532	-	-	1585	-	-
Mov Cap-2 Maneuver	838	752	-	813	760	-	-	-	-	-	-	-
Stage 1	922	827	-	965	854	-	-	-	-	-	-	-
Stage 2	958	846	-	900	831	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	8.9		9.5		1.3		0.1	
HCM LOS	A		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1532	-	-	956	821	1585	-
HCM Lane V/C Ratio	0.005	-	-	0.024	0.024	0.001	-
HCM Control Delay (s)	7.4	0	-	8.9	9.5	7.3	0
HCM Lane LOS	A	A	-	A	A	A	A
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-

HCM 6th TWSC
6: Locust Street & Site Access

09/05/2018

Intersection						
Int Delay, s/veh	2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		
Traffic Vol, veh/h	1	14	5	15	45	1
Future Vol, veh/h	1	14	5	15	45	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	15	5	16	49	1

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	76	50	50	0	0
Stage 1	50	-	-	-	-
Stage 2	26	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-
Pot Cap-1 Maneuver	927	1018	1557	-	-
Stage 1	972	-	-	-	-
Stage 2	997	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	924	1018	1557	-	-
Mov Cap-2 Maneuver	924	-	-	-	-
Stage 1	969	-	-	-	-
Stage 2	997	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.6	1.8	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1557	-	1011	-	-
HCM Lane V/C Ratio	0.003	-	0.016	-	-
HCM Control Delay (s)	7.3	0	8.6	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection						
Int Delay, s/veh	2.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	9	1	1	4	1	4
Future Vol, veh/h	9	1	1	4	1	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	1	1	4	1	4

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	11	0	17
Stage 1	-	-	-	-	11
Stage 2	-	-	-	-	6
Critical Hdwy	-	-	4.12	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	-	-	2.218	-	3.518
Pot Cap-1 Maneuver	-	-	1608	-	1001
Stage 1	-	-	-	-	1012
Stage 2	-	-	-	-	1017
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1608	-	1000
Mov Cap-2 Maneuver	-	-	-	-	1000
Stage 1	-	-	-	-	1011
Stage 2	-	-	-	-	1017

Approach	EB	WB	NB
HCM Control Delay, s	0	1.4	8.4
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1055	-	-	1608	-
HCM Lane V/C Ratio	0.005	-	-	0.001	-
HCM Control Delay (s)	8.4	-	-	7.2	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection						
Int Delay, s/veh	3.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	5	1	1	3	1	4
Future Vol, veh/h	5	1	1	3	1	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	1	1	3	1	4

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	6	0	11
Stage 1	-	-	-	-	6
Stage 2	-	-	-	-	5
Critical Hdwy	-	-	4.12	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	-	-	2.218	-	3.518
Pot Cap-1 Maneuver	-	-	1615	-	1009
Stage 1	-	-	-	-	1017
Stage 2	-	-	-	-	1018
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1615	-	1008
Mov Cap-2 Maneuver	-	-	-	-	1008
Stage 1	-	-	-	-	1016
Stage 2	-	-	-	-	1018

Approach	EB	WB	NB
HCM Control Delay, s	0	1.8	8.4
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1062	-	-	1615	-
HCM Lane V/C Ratio	0.005	-	-	0.001	-
HCM Control Delay (s)	8.4	-	-	7.2	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection						
Int Delay, s/veh	3.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	5	1	1	3	4	1
Future Vol, veh/h	5	1	1	3	4	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	1	1	3	4	1

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	6	0	11
Stage 1	-	-	-	-	6
Stage 2	-	-	-	-	5
Critical Hdwy	-	-	4.12	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	-	-	2.218	-	3.518
Pot Cap-1 Maneuver	-	-	1615	-	1009
Stage 1	-	-	-	-	1017
Stage 2	-	-	-	-	1018
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1615	-	1008
Mov Cap-2 Maneuver	-	-	-	-	1008
Stage 1	-	-	-	-	1016
Stage 2	-	-	-	-	1018

Approach	EB	WB	NB
HCM Control Delay, s	0	1.8	8.5
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1021	-	-	1615	-
HCM Lane V/C Ratio	0.005	-	-	0.001	-
HCM Control Delay (s)	8.5	-	-	7.2	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection						
Int Delay, s/veh	2.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	6	1	1	7	3	1
Future Vol, veh/h	6	1	1	7	3	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	1	1	8	3	1

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	8	0	18
Stage 1	-	-	-	-	8
Stage 2	-	-	-	-	10
Critical Hdwy	-	-	4.12	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	-	-	2.218	-	3.518
Pot Cap-1 Maneuver	-	-	1612	-	1000
Stage 1	-	-	-	-	1015
Stage 2	-	-	-	-	1013
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1612	-	999
Mov Cap-2 Maneuver	-	-	-	-	999
Stage 1	-	-	-	-	1014
Stage 2	-	-	-	-	1013

Approach	EB	WB	NB
HCM Control Delay, s	0	0.9	8.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1017	-	-	1612	-
HCM Lane V/C Ratio	0.004	-	-	0.001	-
HCM Control Delay (s)	8.6	-	-	7.2	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection						
Int Delay, s/veh	0.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	19	1	1	23	1	1
Future Vol, veh/h	19	1	1	23	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	21	1	1	25	1	1

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	22	0	49
Stage 1	-	-	-	-	22
Stage 2	-	-	-	-	27
Critical Hdwy	-	-	4.12	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	-	-	2.218	-	3.518
Pot Cap-1 Maneuver	-	-	1593	-	960
Stage 1	-	-	-	-	1001
Stage 2	-	-	-	-	996
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1593	-	959
Mov Cap-2 Maneuver	-	-	-	-	959
Stage 1	-	-	-	-	1000
Stage 2	-	-	-	-	996

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	8.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1005	-	-	1593	-
HCM Lane V/C Ratio	0.002	-	-	0.001	-
HCM Control Delay (s)	8.6	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

HCM 6th TWSC
12: Holly Street & Site Access

09/05/2018

Intersection												
Int Delay, s/veh	1.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	1	12	12	1	1	4	61	4	1	70	1
Future Vol, veh/h	1	1	12	12	1	1	4	61	4	1	70	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	1	13	13	1	1	4	66	4	1	76	1

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	156	157	77	162	155	68	77	0	0	70	0	0
Stage 1	79	79	-	76	76	-	-	-	-	-	-	-
Stage 2	77	78	-	86	79	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	810	735	984	803	737	995	1522	-	-	1531	-	-
Stage 1	930	829	-	933	832	-	-	-	-	-	-	-
Stage 2	932	830	-	922	829	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	806	732	984	789	734	995	1522	-	-	1531	-	-
Mov Cap-2 Maneuver	806	732	-	789	734	-	-	-	-	-	-	-
Stage 1	927	828	-	930	830	-	-	-	-	-	-	-
Stage 2	927	828	-	908	828	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	8.9		9.6		0.4		0.1	
HCM LOS	A		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1522	-	-	946	797	1531	-	-
HCM Lane V/C Ratio	0.003	-	-	0.016	0.019	0.001	-	-
HCM Control Delay (s)	7.4	0	-	8.9	9.6	7.4	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-

HCM 6th TWSC
13: Holly Street & Site Access

09/05/2018

Intersection												
Int Delay, s/veh	1.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	1	7	18	1	1	2	69	6	1	95	1
Future Vol, veh/h	1	1	7	18	1	1	2	69	6	1	95	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	1	8	20	1	1	2	75	7	1	103	1

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	190	192	104	193	189	79	104	0	0	82	0	0
Stage 1	106	106	-	83	83	-	-	-	-	-	-	-
Stage 2	84	86	-	110	106	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	770	703	951	767	706	981	1488	-	-	1515	-	-
Stage 1	900	807	-	925	826	-	-	-	-	-	-	-
Stage 2	924	824	-	895	807	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	767	702	951	759	705	981	1488	-	-	1515	-	-
Mov Cap-2 Maneuver	767	702	-	759	705	-	-	-	-	-	-	-
Stage 1	899	806	-	924	825	-	-	-	-	-	-	-
Stage 2	921	823	-	886	806	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	9.1		9.8		0.2		0.1	
HCM LOS	A		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1488	-	-	892	765	1515	-	-
HCM Lane V/C Ratio	0.001	-	-	0.011	0.028	0.001	-	-
HCM Control Delay (s)	7.4	0	-	9.1	9.8	7.4	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-

HCM 6th TWSC
14: Holly Street & Site Access

09/05/2018

Intersection												
Int Delay, s/veh	0.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	11	0	1	0	77	4	1	120	0
Future Vol, veh/h	0	0	0	11	0	1	0	77	4	1	120	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	12	0	1	0	84	4	1	130	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	219	220	130	218	218	86	130	0	0	88	0	0
Stage 1	132	132	-	86	86	-	-	-	-	-	-	-
Stage 2	87	88	-	132	132	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	737	678	920	738	680	973	1455	-	-	1508	-	-
Stage 1	871	787	-	922	824	-	-	-	-	-	-	-
Stage 2	921	822	-	871	787	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	736	677	920	737	679	973	1455	-	-	1508	-	-
Mov Cap-2 Maneuver	736	677	-	737	679	-	-	-	-	-	-	-
Stage 1	871	786	-	922	824	-	-	-	-	-	-	-
Stage 2	920	822	-	870	786	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	0		9.9		0		0.1	
HCM LOS	A		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1455	-	-	-	752	1508	-
HCM Lane V/C Ratio	-	-	-	-	0.017	0.001	-
HCM Control Delay (s)	0	-	-	0	9.9	7.4	0
HCM Lane LOS	A	-	-	A	A	A	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1	0	-

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	1	8	3	81	131	1
Future Vol, veh/h	1	8	3	81	131	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	9	3	88	142	1

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	237	143	143	0	0
Stage 1	143	-	-	-	-
Stage 2	94	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-
Pot Cap-1 Maneuver	751	905	1440	-	-
Stage 1	884	-	-	-	-
Stage 2	930	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	749	905	1440	-	-
Mov Cap-2 Maneuver	749	-	-	-	-
Stage 1	882	-	-	-	-
Stage 2	930	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.1	0.3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1440	-	885	-	-
HCM Lane V/C Ratio	0.002	-	0.011	-	-
HCM Control Delay (s)	7.5	0	9.1	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection	
Intersection Delay, s/veh	20.8
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	20	300	7	190	123	80	5	67	186	59	75	19
Future Vol, veh/h	20	300	7	190	123	80	5	67	186	59	75	19
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
Heavy Vehicles, %	0	0	0	1	1	1	1	1	1	1	1	1
Mvmt Flow	22	333	8	211	137	89	6	74	207	66	83	21
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	20.7	26.5	16.3	14.1
HCM LOS	C	D	C	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	2%	6%	48%	39%
Vol Thru, %	26%	92%	31%	49%
Vol Right, %	72%	2%	20%	12%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	258	327	393	153
LT Vol	5	20	190	59
Through Vol	67	300	123	75
RT Vol	186	7	80	19
Lane Flow Rate	287	363	437	170
Geometry Grp	1	1	1	1
Degree of Util (X)	0.514	0.647	0.758	0.346
Departure Headway (Hd)	6.456	6.41	6.253	7.32
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	553	560	572	495
Service Time	4.555	4.507	4.346	5.32
HCM Lane V/C Ratio	0.519	0.648	0.764	0.343
HCM Control Delay	16.3	20.7	26.5	14.1
HCM Lane LOS	C	C	D	B
HCM 95th-tile Q	2.9	4.6	6.7	1.5

HCM 6th TWSC
2: Locust Street & Territorial Road

09/05/2018

Intersection												
Int Delay, s/veh	2.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	81	443	4	14	351	38	7	4	3	27	5	49
Future Vol, veh/h	81	443	4	14	351	38	7	4	3	27	5	49
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	2	2	2	0	0	0	0	0	0
Mvmt Flow	86	471	4	15	373	40	7	4	3	29	5	52

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	413	0	0	475	0	0	1097	1088	473	1072	1070	393
Stage 1	-	-	-	-	-	-	645	645	-	423	423	-
Stage 2	-	-	-	-	-	-	452	443	-	649	647	-
Critical Hdwy	4.1	-	-	4.12	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.218	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1157	-	-	1087	-	-	192	218	595	200	223	660
Stage 1	-	-	-	-	-	-	464	471	-	613	591	-
Stage 2	-	-	-	-	-	-	591	579	-	462	470	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1157	-	-	1087	-	-	158	192	595	178	197	660
Mov Cap-2 Maneuver	-	-	-	-	-	-	158	192	-	178	197	-
Stage 1	-	-	-	-	-	-	417	423	-	551	580	-
Stage 2	-	-	-	-	-	-	530	569	-	409	423	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.3			0.3			24.5			20.2		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	199	1157	-	-	1087	-	-	322
HCM Lane V/C Ratio	0.075	0.074	-	-	0.014	-	-	0.268
HCM Control Delay (s)	24.5	8.4	0	-	8.4	0	-	20.2
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.2	0.2	-	-	0	-	-	1.1

HCM 6th TWSC
3: Locust Street & Site Access

09/05/2018

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		
Traffic Vol, veh/h	1	3	4	127	81	1
Future Vol, veh/h	1	3	4	127	81	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	3	4	138	88	1

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	235	89	89	0	-	0
Stage 1	89	-	-	-	-	-
Stage 2	146	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	753	969	1506	-	-	-
Stage 1	934	-	-	-	-	-
Stage 2	881	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	751	969	1506	-	-	-
Mov Cap-2 Maneuver	751	-	-	-	-	-
Stage 1	931	-	-	-	-	-
Stage 2	881	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9	0.2	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1506	-	903	-	-
HCM Lane V/C Ratio	0.003	-	0.005	-	-
HCM Control Delay (s)	7.4	0	9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

HCM 6th TWSC
4: Locust Street & Site Access

09/05/2018

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	3	4	123	78	1
Future Vol, veh/h	1	3	4	123	78	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	3	4	134	85	1

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	228	86	86	0	-	0
Stage 1	86	-	-	-	-	-
Stage 2	142	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	760	973	1510	-	-	-
Stage 1	937	-	-	-	-	-
Stage 2	885	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	758	973	1510	-	-	-
Mov Cap-2 Maneuver	758	-	-	-	-	-
Stage 1	934	-	-	-	-	-
Stage 2	885	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9	0.2	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1510	-	909	-	-
HCM Lane V/C Ratio	0.003	-	0.005	-	-
HCM Control Delay (s)	7.4	0	9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

HCM 6th TWSC
5: Locust Street & 19th Avenue

09/05/2018

Intersection												
Int Delay, s/veh	2.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	1	10	26	1	1	18	72	33	1	42	1
Future Vol, veh/h	1	1	10	26	1	1	18	72	33	1	42	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	2	2	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	81	81	81	81	81	81	81	81	81	81	81	81
Heavy Vehicles, %	2	2	2	0	0	0	0	0	0	0	0	0
Mvmt Flow	1	1	12	32	1	1	22	89	41	1	52	1

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	210	231	53	217	211	112	53	0	0	132	0	0
Stage 1	55	55	-	156	156	-	-	-	-	-	-	-
Stage 2	155	176	-	61	55	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	747	669	1014	744	690	947	1566	-	-	1466	-	-
Stage 1	957	849	-	851	772	-	-	-	-	-	-	-
Stage 2	847	753	-	955	853	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	736	657	1014	724	678	945	1566	-	-	1463	-	-
Mov Cap-2 Maneuver	736	657	-	724	678	-	-	-	-	-	-	-
Stage 1	943	848	-	837	759	-	-	-	-	-	-	-
Stage 2	832	740	-	941	852	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	8.9		10.2		1.1		0.2	
HCM LOS	A		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1566	-	-	942	728	1463	-
HCM Lane V/C Ratio	0.014	-	-	0.016	0.047	0.001	-
HCM Control Delay (s)	7.3	0	-	8.9	10.2	7.5	0
HCM Lane LOS	A	A	-	A	B	A	A
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-

HCM 6th TWSC
6: Locust Street & Site Access

09/05/2018

Intersection						
Int Delay, s/veh	2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		
Traffic Vol, veh/h	1	10	17	52	31	1
Future Vol, veh/h	1	10	17	52	31	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	11	18	57	34	1

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	128	35	35	0	0
Stage 1	35	-	-	-	-
Stage 2	93	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-
Pot Cap-1 Maneuver	866	1038	1576	-	-
Stage 1	987	-	-	-	-
Stage 2	931	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	856	1038	1576	-	-
Mov Cap-2 Maneuver	856	-	-	-	-
Stage 1	975	-	-	-	-
Stage 2	931	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.6	1.8	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1576	-	1018	-	-
HCM Lane V/C Ratio	0.012	-	0.012	-	-
HCM Control Delay (s)	7.3	0	8.6	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection						
Int Delay, s/veh	2.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	7	1	5	13	1	3
Future Vol, veh/h	7	1	5	13	1	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	8	1	5	14	1	3

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	9	0	33
Stage 1	-	-	-	-	9
Stage 2	-	-	-	-	24
Critical Hdwy	-	-	4.12	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	-	-	2.218	-	3.518
Pot Cap-1 Maneuver	-	-	1611	-	980
Stage 1	-	-	-	-	1014
Stage 2	-	-	-	-	999
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1611	-	977
Mov Cap-2 Maneuver	-	-	-	-	977
Stage 1	-	-	-	-	1011
Stage 2	-	-	-	-	999

Approach	EB	WB	NB
HCM Control Delay, s	0	2	8.5
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1047	-	-	1611	-
HCM Lane V/C Ratio	0.004	-	-	0.003	-
HCM Control Delay (s)	8.5	-	-	7.2	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection						
Int Delay, s/veh	3.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	4	1	5	8	1	3
Future Vol, veh/h	4	1	5	8	1	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	1	5	9	1	3

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	5	0	24
Stage 1	-	-	-	-	5
Stage 2	-	-	-	-	19
Critical Hdwy	-	-	4.12	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	-	-	2.218	-	3.518
Pot Cap-1 Maneuver	-	-	1616	-	992
Stage 1	-	-	-	-	1018
Stage 2	-	-	-	-	1004
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1616	-	989
Mov Cap-2 Maneuver	-	-	-	-	989
Stage 1	-	-	-	-	1015
Stage 2	-	-	-	-	1004

Approach	EB	WB	NB
HCM Control Delay, s	0	2.8	8.4
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1054	-	-	1616	-
HCM Lane V/C Ratio	0.004	-	-	0.003	-
HCM Control Delay (s)	8.4	-	-	7.2	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection						
Int Delay, s/veh	2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔			↔	↔	
Traffic Vol, veh/h	4	4	1	8	3	1
Future Vol, veh/h	4	4	1	8	3	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	4	1	9	3	1

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	8	0	17
Stage 1	-	-	-	-	6
Stage 2	-	-	-	-	11
Critical Hdwy	-	-	4.12	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	-	-	2.218	-	3.518
Pot Cap-1 Maneuver	-	-	1612	-	1001
Stage 1	-	-	-	-	1017
Stage 2	-	-	-	-	1012
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1612	-	1000
Mov Cap-2 Maneuver	-	-	-	-	1000
Stage 1	-	-	-	-	1016
Stage 2	-	-	-	-	1012

Approach	EB	WB	NB
HCM Control Delay, s	0	0.8	8.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1018	-	-	1612	-
HCM Lane V/C Ratio	0.004	-	-	0.001	-
HCM Control Delay (s)	8.6	-	-	7.2	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection						
Int Delay, s/veh	1.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	8	3	1	11	2	1
Future Vol, veh/h	8	3	1	11	2	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	3	1	12	2	1

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	12	0	25
Stage 1	-	-	-	-	11
Stage 2	-	-	-	-	14
Critical Hdwy	-	-	4.12	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	-	-	2.218	-	3.518
Pot Cap-1 Maneuver	-	-	1607	-	991
Stage 1	-	-	-	-	1012
Stage 2	-	-	-	-	1009
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1607	-	990
Mov Cap-2 Maneuver	-	-	-	-	990
Stage 1	-	-	-	-	1011
Stage 2	-	-	-	-	1009

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	8.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1015	-	-	1607	-
HCM Lane V/C Ratio	0.003	-	-	0.001	-
HCM Control Delay (s)	8.6	-	-	7.2	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection						
Int Delay, s/veh	0.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	14	1	2	20	1	1
Future Vol, veh/h	14	1	2	20	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	15	1	2	22	1	1

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	16	0	42
Stage 1	-	-	-	-	16
Stage 2	-	-	-	-	26
Critical Hdwy	-	-	4.12	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	-	-	2.218	-	3.518
Pot Cap-1 Maneuver	-	-	1602	-	969
Stage 1	-	-	-	-	1007
Stage 2	-	-	-	-	997
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1602	-	968
Mov Cap-2 Maneuver	-	-	-	-	968
Stage 1	-	-	-	-	1006
Stage 2	-	-	-	-	997

Approach	EB	WB	NB
HCM Control Delay, s	0	0.7	8.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1013	-	-	1602	-
HCM Lane V/C Ratio	0.002	-	-	0.001	-
HCM Control Delay (s)	8.6	-	-	7.2	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

HCM 6th TWSC
12: Holly Street & Site Access

09/05/2018

Intersection												
Int Delay, s/veh	1.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	1	8	8	1	1	14	95	14	1	103	1
Future Vol, veh/h	1	1	8	8	1	1	14	95	14	1	103	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	1	9	9	1	1	15	103	15	1	112	1

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	257	263	113	261	256	111	113	0	0	118	0	0
Stage 1	115	115	-	141	141	-	-	-	-	-	-	-
Stage 2	142	148	-	120	115	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	696	642	940	692	648	942	1476	-	-	1470	-	-
Stage 1	890	800	-	862	780	-	-	-	-	-	-	-
Stage 2	861	775	-	884	800	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	688	634	940	678	640	942	1476	-	-	1470	-	-
Mov Cap-2 Maneuver	688	634	-	678	640	-	-	-	-	-	-	-
Stage 1	880	799	-	853	771	-	-	-	-	-	-	-
Stage 2	849	766	-	874	799	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	9.2		10.3		0.8		0.1	
HCM LOS	A		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1476	-	-	866	693	1470	-	-
HCM Lane V/C Ratio	0.01	-	-	0.013	0.016	0.001	-	-
HCM Control Delay (s)	7.5	0	-	9.2	10.3	7.5	0	-
HCM Lane LOS	A	A	-	A	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-

HCM 6th TWSC
13: Holly Street & Site Access

09/05/2018

Intersection												
Int Delay, s/veh	0.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	1	4	12	1	1	7	124	21	1	120	1
Future Vol, veh/h	1	1	4	12	1	1	7	124	21	1	120	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	1	4	13	1	1	8	135	23	1	130	1

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	297	307	131	298	296	147	131	0	0	158	0	0
Stage 1	133	133	-	163	163	-	-	-	-	-	-	-
Stage 2	164	174	-	135	133	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	655	607	919	654	616	900	1454	-	-	1422	-	-
Stage 1	870	786	-	839	763	-	-	-	-	-	-	-
Stage 2	838	755	-	868	786	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	650	603	919	647	612	900	1454	-	-	1422	-	-
Mov Cap-2 Maneuver	650	603	-	647	612	-	-	-	-	-	-	-
Stage 1	865	785	-	834	758	-	-	-	-	-	-	-
Stage 2	831	750	-	862	785	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	9.6		10.6		0.3		0.1	
HCM LOS	A		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1454	-	-	795	658	1422	-	-
HCM Lane V/C Ratio	0.005	-	-	0.008	0.023	0.001	-	-
HCM Control Delay (s)	7.5	0	-	9.6	10.6	7.5	0	-
HCM Lane LOS	A	A	-	A	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-

HCM 6th TWSC
14: Holly Street & Site Access

09/05/2018

Intersection												
Int Delay, s/veh	0.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	7	0	1	0	152	12	1	136	0
Future Vol, veh/h	0	0	0	7	0	1	0	152	12	1	136	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	8	0	1	0	165	13	1	148	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	322	328	148	322	322	172	148	0	0	178	0	0
Stage 1	150	150	-	172	172	-	-	-	-	-	-	-
Stage 2	172	178	-	150	150	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	631	591	899	631	595	872	1434	-	-	1398	-	-
Stage 1	853	773	-	830	756	-	-	-	-	-	-	-
Stage 2	830	752	-	853	773	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	630	590	899	630	594	872	1434	-	-	1398	-	-
Mov Cap-2 Maneuver	630	590	-	630	594	-	-	-	-	-	-	-
Stage 1	853	772	-	830	756	-	-	-	-	-	-	-
Stage 2	829	752	-	852	772	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	0		10.6		0		0.1	
HCM LOS	A		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1434	-	-	-	653	1398	-
HCM Lane V/C Ratio	-	-	-	-	0.013	0.001	-
HCM Control Delay (s)	0	-	-	0	10.6	7.6	0
HCM Lane LOS	A	-	-	A	B	A	A
HCM 95th %tile Q(veh)	0	-	-	-	0	0	-

HCM 6th TWSC
15: Holly Street & Site Access

09/05/2018

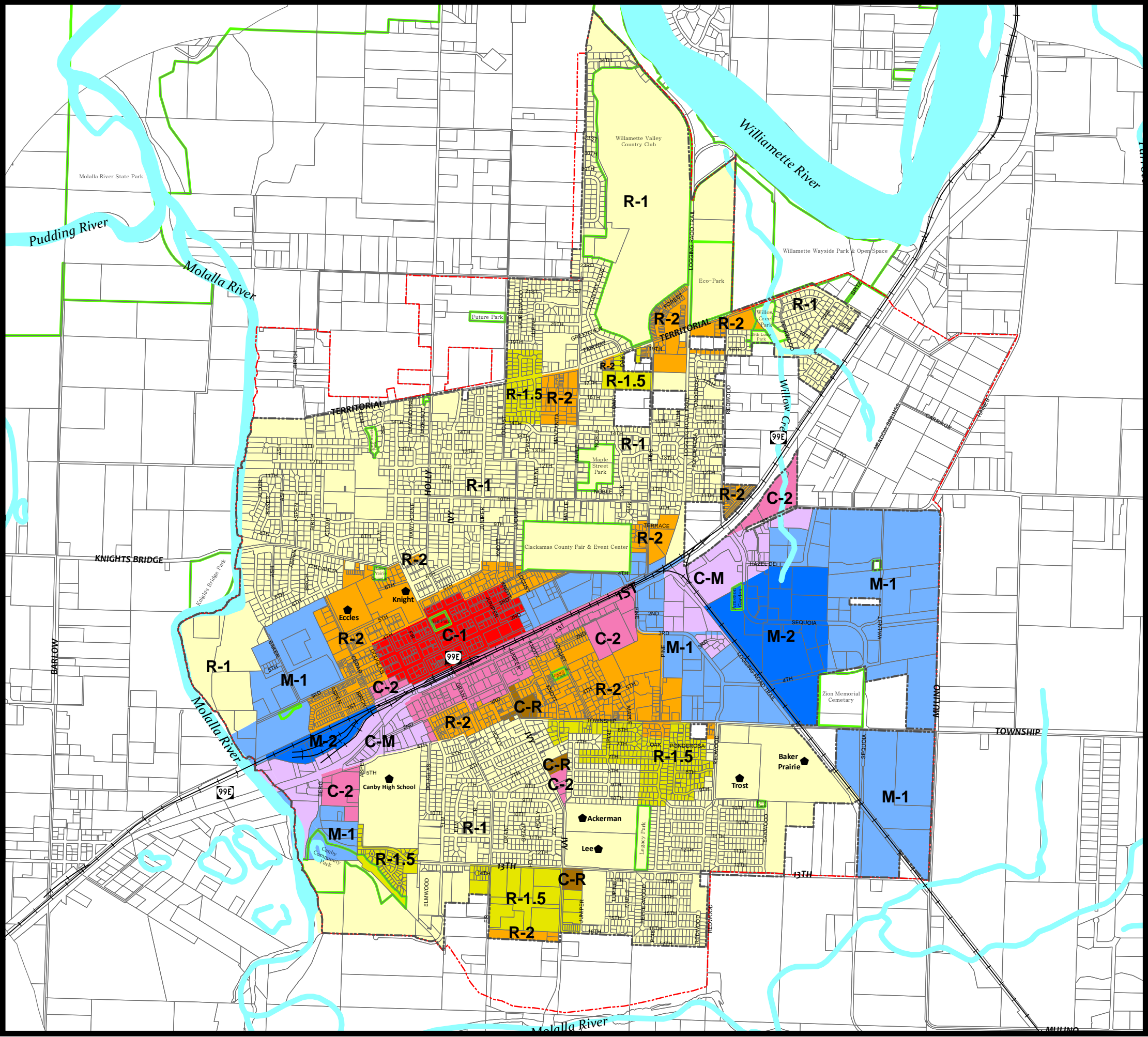
Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	1	5	9	164	143	1
Future Vol, veh/h	1	5	9	164	143	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	5	10	178	155	1

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	354	156	156	0	-	0
Stage 1	156	-	-	-	-	-
Stage 2	198	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	644	890	1424	-	-	-
Stage 1	872	-	-	-	-	-
Stage 2	835	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	639	890	1424	-	-	-
Mov Cap-2 Maneuver	639	-	-	-	-	-
Stage 1	865	-	-	-	-	-
Stage 2	835	-	-	-	-	-

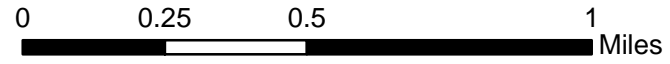
Approach	EB	NB	SB
HCM Control Delay, s	9.3	0.4	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1424	-	835	-	-
HCM Lane V/C Ratio	0.007	-	0.008	-	-
HCM Control Delay (s)	7.5	0	9.3	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

City of Canby Zoning Map



- City Limits
- Urban Growth Boundary
- Parks
- R-1 Low Density Residential
- R-1.5 Medium Density Residential
- R-2 High Density Residential
- C-R Residential Commercial
- C-1 Downtown Commercial
- C-2 Highway Commercial
- C-M Commercial Manufacturing
- M-1 Light Industrial
- M-2 Heavy Industrial

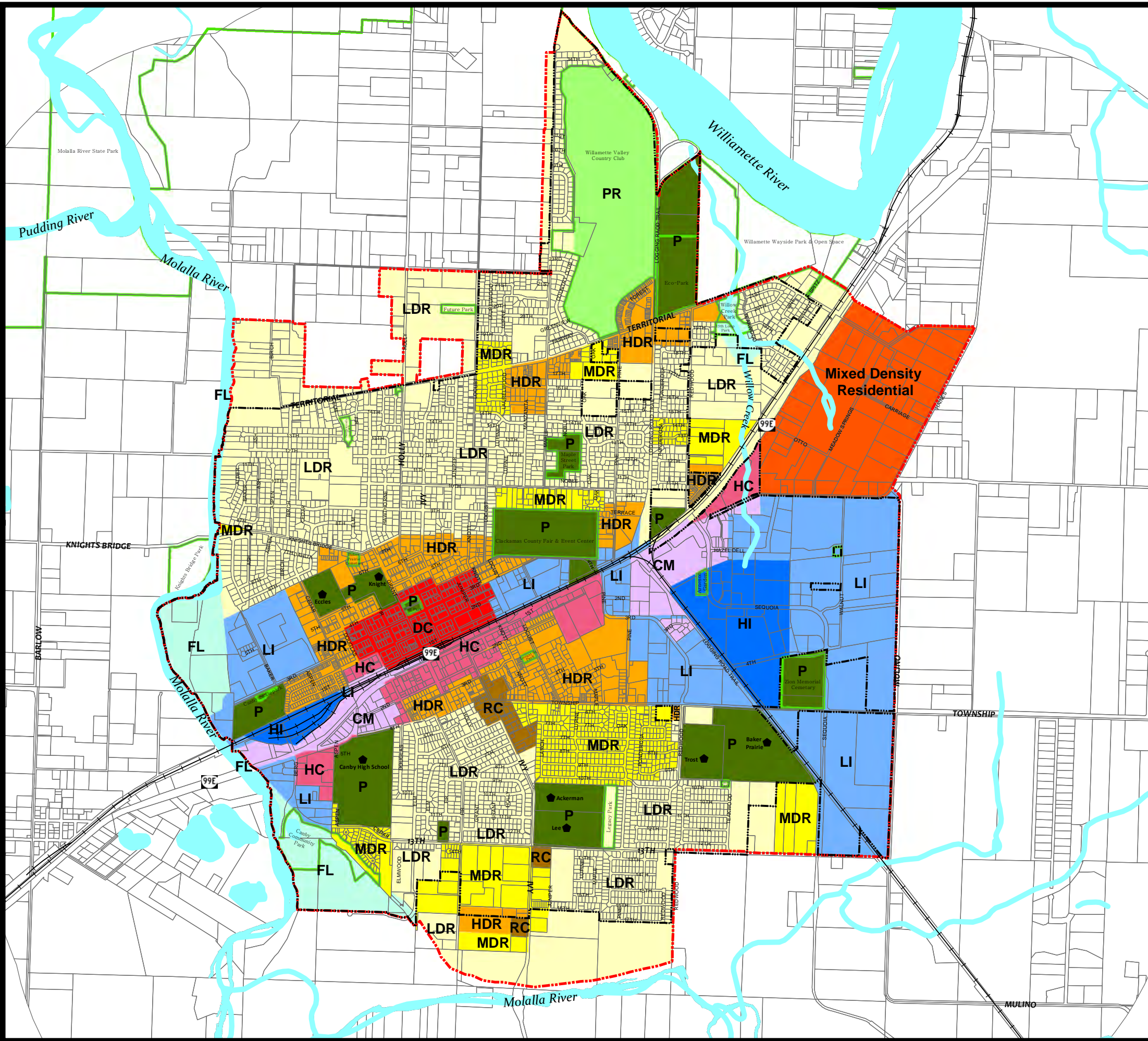


January 2014

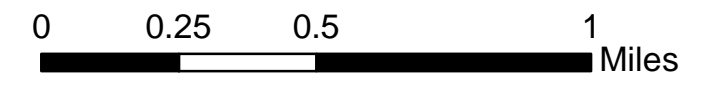


The information depicted on this map is for general reference only. The City of Canby cannot accept any responsibility for errors, omissions, or positional accuracy. However, notification of errors would be appreciated.

City of Canby Comprehensive Plan Map



- City Limits
- Urban Growth Boundary
- Parks
- LDR-Low Density Residential
- MDR-Medium Density Residential
- HDR-High Density Residential
- Mixed Density Residential
- RC-Residential Commercial
- DC-Downtown Commercial
- HC-Highway Commercial
- CM-Commercial/Manufacturing
- LI-Light Industrial
- HI-Heavy Industrial
- P-Public
- PR-Private Recreation
- FL-Flood Prone/Steep Slopes



May 2014

The information depicted on this map is for general reference only. The City of Canby cannot accept any responsibility for errors, omissions, or positional accuracy. However, notification of errors would be appreciated.



CITY OF CANBY – COMMENT FORM

If you are unable to attend the Public Hearings, you may submit written comments on this form or in a letter. Please send comments to the City of Canby Planning Department:

By mail: Planning Department, PO Box 930, Canby, OR 97013
In person: Planning Department at 222 NE Second Street
E-mail: PublicComments@canbyoregon.gov

Written comments to be included in Planning Commission packet are due by Wednesday, November 28, 2018.

Written comments to be included in City Council packet are due by Wednesday, December 12, 2018.

Written and oral comments can be submitted up to the time of the Public Hearings and may also be delivered in person during the Public Hearings.

Application: ANN 18-05/ZC 18-05 Annexation, Zone Change within the N Holly DCP, Stafford Development Company

COMMENTS:

My name is Rebecca Baker. We have lived on Juniper Place since 2007. One of the reasons we loved the home was our view across Territorial where we watch the fields and surrounding area. I will outline multiple concerns.

1. Congestion/traffic - already very busy Territorial Rd
2. Noise and pollution from construction
3. Elimination of agricultural area
4. Destruction of end view
5. Multiple homeowners negatively affected.

CITIZEN NAME: Rebecca Baker
EMAIL: bnmibaker@yahoo.com
ADDRESS: 1562 N. Juniper Place Canby
PHONE # (optional): 503-651-1775
DATE: 11/18/2018

PLEASE EMAIL COMMENTS TO
PublicComments@canbyoregon.gov

AGENCIES: Please check one box and fill in your Name/Agency/Date below:

- Adequate Public Services (of your agency) are available
- Adequate Public Services will become available through the development
- Conditions are needed, as indicated
- Adequate public services are not available and will not become available
- No Comments

NAME: _____
AGENCY: _____
DATE: _____

Thank you!

Laney Fouse

From: Melinda Montecucco <mindymonte@gmail.com>
Sent: Thursday, November 15, 2018 9:02 PM
To: Laney Fouse
Cc: Bruce Parker; Clifford Ash; Mike Hemelstrand
Subject: Re: N Holly ANN & ZC Request for Comments

Will accommodations for bike lanes and sidewalks be planned for Holly St. and Locust St.? I do think this will be important to address as Holly St. has many year round regular bike commuters to the farms and nurseries(think dark, foggy winter days). Also, Locust St. is a very popular for walking jogging and bikes.

Mindy Montecucco, Chairperson
City of Canby Bike and Pedestrian Citizen Advisory Committee

On Nov 15, 2018, at 2:39 PM, Laney Fouse <FouseL@canbyoregon.gov> wrote:

Please find attached a request for comments for the N Holly Annexation and Zone Change including the narrative and street pattern drawings. There will be more emails due to the size of the files. If I miss anything, please email me and let me know if you need any other documents.

Thank you,
Laney

*Laney Fouse
Development Services Department
City of Canby
222 NE 2nd Ave, 2nd Floor
Direct Line: 503-266-0685
Main Line: 503-266-7001
fousel@canbyoregon.gov*

*Send Applications to: PlanningApps@canbyoregon.gov
City Website: www.canbyoregon.gov*

PUBLIC RECORDS LAW DISCLOSURE

This email is a public record of the City of Canby and is subject to public disclosure unless exempt from disclosure under Oregon Public Records Law. This email is subject to the State Retention Schedule.

PUBLIC RECORDS LEGAL DISCLOSURE

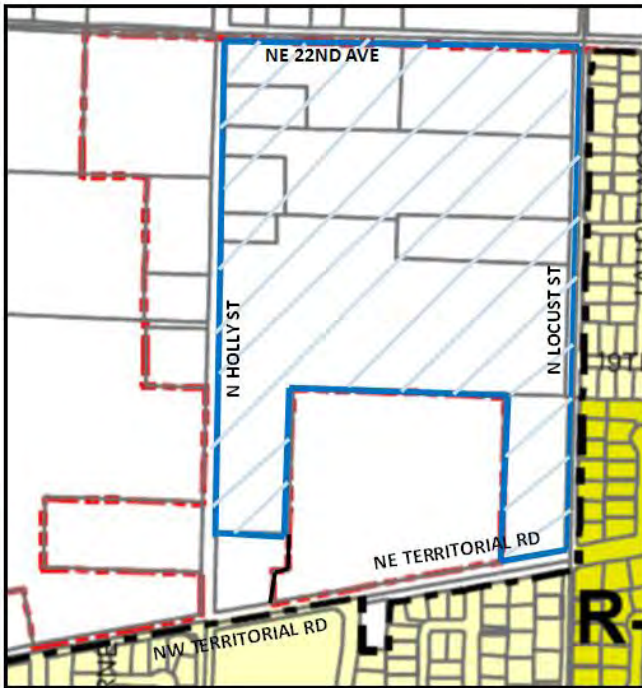
This email is a public record of the City of Canby, Oregon, and is subject to public disclosure unless exempt from disclosure under Oregon Public Records Law. This email is subject to the State Retention Schedule.



City of Canby

PUBLIC HEARING NOTICE & REQUEST FOR COMMENTS FORM
City File No.: ANN 18-05/ZC 18-06
Project Name: N HOLLY DEVELOPMENT CONCEPT PLAN with ANNEXATION & ZONE CHANGE
PUBLIC HEARING DATES: PC-DECEMBER 10, 2018
CC – JANUARY 16, 2019

The purpose of this Notice is to invite you to the Planning Commission and City Council Public Hearings and to request your written comments regarding Annexation and Zoning Map Amendment applications (ANN 18-05/ZC 18-06). Applicant proposes to annex and re-zone in accordance with the Canby Comprehensive Plan, properties located in an unincorporated area of Clackamas County north of Canby, and within the N Holly Development Concept Plan area. Both Public Hearings will be held in the Council Chambers, at 222 NE 2nd Ave, Canby, OR 97013. **The Planning Commission will meet Monday, December 10, 2018 at 7 PM. The City Council will meet Wednesday, January 16, 2019 at 7 PM.**



Location: 2030, 1820 N Holly St, & No Situs, and 2.29 acres of street Right-of-Way (R.O.W.) including N. Holly St, NE Territorial Rd, N Locust St, and NE 22nd Ave (See properties outlined and hatched in blue on map at left).

Annexation Tax Lots: 31E28C00400; 31E28C00500; 31E28C00800; 31E28C00100; 31E28C00600; 31E28C00601; 31E28C00401; 31E28C00700 and 31E28C00200.

Lot Size & Zoning: 43.79 Acres, existing zoning Clackamas County RRF-5 (Rural Residential Farm Forest 5-Acre). Proposed zoning R-1 Low Density Residential.

Property Owners: Thomas Dodds, Montecucco Rentals, LLC, Susan Burkert, David & Susan Gordon, Hemmerling Nursery, LLC, and City of Canby

Applicant: Stafford Development Company, LLC

Application Type: Annexation & Zone Map Amendment (Type IV)

City File Number: ANN 18-05/ZC 18-06

Contact: Bryan Brown, Planning Director at 503-266-0702

Comments due – If you would like your comments to be incorporated into the City’s Staff Report, please return the Comment Form by Wednesday, November 28, 2018 for the Planning Commission Meeting and by Monday, December 12, 2018 for the City Council meeting.

Written and oral comments can also be submitted up to the time of the Public Hearings and may also be delivered in person during the Public Hearings.

What is the Decision Process? The Planning Commission will consider the Proposed N Holly Development Concept Plan and the Annexation/Zoning Map Amendment applications to annex and zone property in the N Holly Development Concept Plan area and make a recommendation to the City Council. The City Council will then consider the N Holly DCP and the Annexation/Zoning Map Amendment applications and make a final decision. Most types of property annexations no longer need approval by the Canby electorate (Senate Bill 1573).

Where can I send my comments? Written and oral comments can be submitted up to the time of the Public Hearings and may also be delivered in person during the Public Hearings. Prior to the Public Hearings comments may be mailed to the Canby Planning Department, P O Box 930, Canby, OR 97013; delivered in person to 222 NE 2nd Ave; or emailed to PublicComments@canbyoregon.gov.

How can I review the documents and staff report? Weekdays from 8 AM to 5 PM at the Canby Planning Department. The staff report will be available for inspection starting Friday, November 30, 2018, and can be viewed on the City’s website: www.canbyoregon.gov. Copies are available at \$0.25 per page or can be emailed to you upon request.

Applicable Canby Municipal Code Chapters:

- 16.08 General Provisions
- 16.16 R-1 Low Density Residential Zone
- 16.54 Amendments to Zoning Map
- 16.84 Annexations
- 16.89 Application & Review Procedures
- Clackamas County/City of Canby Urban Growth Management Agreement
- State Statutes – ORS 195.065 and 222
- Canby Comprehensive Plan Implementation Measures

Please Note: Failure of an issue to be raised in a 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 board based on that issue.

CITY OF CANBY – COMMENT FORM

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In person: Planning Department at 222 NE Second Street
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Written comments to be included in Planning Commission packet are due by Wednesday, November 28, 2018.
Written comments to be included in City Council packet are due by Wednesday, December 12, 2018.
Written and oral comments can be submitted up to the time of the Public Hearings and may also be delivered in person during the Public Hearings.

Application: ANN 18-05/ZC 18-05 Annexation, Zone Change within the N Holly DCP, Stafford Development Company
COMMENTS:

I would like any development along Locust to include a wider street. It is really narrow now and the corner of Locust & Territorial is dangerous when someone parks on Locust

Also a marked crosswalk on Territorial & Locust

thank you

CITIZEN NAME: Keith Starr
EMAIL: akastarr@canby.com
ADDRESS: 430 N.E. 19th Ave
PHONE # (optional): 503-804-9356
DATE: 20 Nov 2018

PLEASE EMAIL COMMENTS TO
PublicComments@canbyoregon.gov

AGENCIES: Please check one box and fill in your Name/Agency/Date below:

- Adequate Public Services (of your agency) are available
- Adequate Public Services will become available through the development
- Conditions are needed, as indicated
- Adequate public services are not available and will not become available
- No Comments

NAME: _____
AGENCY: _____
DATE: _____

Thank you!


CURRAN-McLEOD, INC.
CONSULTING ENGINEERS

6655 S.W. HAMPTON STREET, SUITE 210
PORTLAND, OREGON 97223

November 20, 2018

MEMORANDUM

TO: Public Comments
City of Canby

FROM: Hassan Ibrahim, P.E. 
Curran-McLeod, Inc.

**RE: CITY OF CANBY
N HOLLY DEVELOPMENT (ANN 18-05/ZC 18-06)**

We have reviewed the submitted preliminary plans and materials on the above mentioned project and have the following comments:

1. NE Territorial Rd is a City road and is classified by the City Transportation System Plan (TSP) as a collector road. The existing right-of-way along the entire site frontage is 60 feet wide, additional right of way will be required to convey the eastbound left turn lane at the intersection with N Locust Street. Half street improvements including left turn lane in conformance with the City TSP and the Transportation Impact Study will be required and constructed as part of this development. The improvements will include 6-foot wide concrete sidewalks, 6-foot wide bike lane, ADA ramps, street lights and utilities extensions as needed. The public improvements shall be constructed in conformance with section 2.207 of the City of Canby Public Works Design Standards, dated June 2012. A 12-foot wide public utility easement will also be required.
2. Eastbound left turn lane will be required on NE territorial Rd at the intersection of N Locust Street as per the Transportation Impact Study, prepared by Lancaster Engineering, dated September 13, 2018.
3. The site is surrounded by three county roadways. N Holly Street (minor arterial), N Locust Street and NE 22nd Avenue (local streets). These streets need to be improved to county standards. A development permit from the county will be required prior to constructing any of these streets.
4. All interior streets within the subdivision shall be designed to City local street standards with 34-foot paved width, curbs, 4.5-foot wide planter with street trees, 6-foot wide sidewalks, street lights and utilities in conformance with Chapter 2 of the City of Canby Public Works Design Standards, dated June 2012.

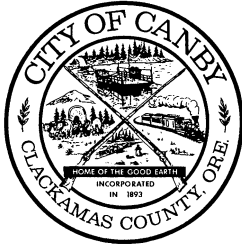
5. Temporary fire truck turnarounds shall be constructed at the phase lines and at the end of the phase lines where the roadway is in excess of 150 feet in length. The geometric turnaround and location shall meet the City of Canby Fire Department requirements.
6. All interior street names and traffic signs shall be installed by the developer as part of this development. The developer's design engineer will be required to submit as part of the construction plans a signing and striping plan. The City may supply the required traffic and street name signs based on a mutually agreed cost.
7. As part of the final design, the developer's design engineer shall provide a minimum of 200-foot future centerline street profile design to assure future grades can be met at all the adjoining properties.
8. Street trees shall be selected from the City approved tree list. The street tree ordinance requires the developer to pay the City \$500 per tree for installation and two (2) year period maintenance, the property owners will take over all of the responsibilities after that date.
9. A demolition permit will be required from Clackamas County prior to demoing the existing structures on-site.
10. An erosion control permit will be required from the City of Canby prior to any on-site disturbance.
11. Sanitary sewer lines exist on N Locust Street and on NE Territorial Rd. A minimum of 8-inch public sanitary sewer line will be required to extend and serve this development.
12. All private storm drainage discharge shall be disposed on-site, the design methodology shall be in conformance with the City of Canby, June 2012 Public Works Standards.
13. No storm drainage analysis or plans are submitted with this development . The developer's engineer will be required to demonstrate how the storm runoff generated from the new impervious surfaces will be disposed. If drywells (UIC) are used as a means to discharge storm runoff from the private streets, they must meet the following criteria: The UIC structures location shall meet at least one of the two conditions: (1) the vertical separation distance between the UIC and seasonal high groundwater is more than 2.5 feet or (2) the horizontal separation distance between the UIC and any water well is a minimum of 267 feet in accordance of the City of Canby Stormwater Master Plan, Appendix "C", Groundwater Protectiveness Demonstration and Risk Prioritization for Underground Injection Control (UIC) Devices. The storm drainage report shall be in

conformance with the requirements as stated in Chapter 4 of the City of Canby Public Works Design Standards dated June 2012.

14. Any existing domestic or irrigation wells shall be abandoned in conformance with OAR 690-220-0030. A copy of Oregon water Rights Department (OWRD) abandonment certificate shall be submitted to the City.
15. Any existing on-site sewage disposal system shall be abandoned in conformance with DEQ and Clackamas County Water Environmental Services (WES) regulations. A copy of the septic tank removal certificate shall be submitted to the City.
16. Water Services/ Fire Protection shall also be constructed in conformance with Canby Utility and Canby Fire Department requirements.

Should you have any questions or need additional information, please let me know.

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**BEFORE THE PLANNING COMMISSION
OF THE CITY OF CANBY**

**A REQUEST FOR SITE AND DESIGN)
REVIEW FOR AN INDUSTRIAL BUILDING)
360 S. SEQUOIA PARKWAY)**

**FINDINGS, CONCLUSION & FINAL ORDER
ENTO PARK/ALPHA SCENTS
DR 18-09**

NATURE OF THE APPLICATION

The Applicant has sought an approval for a Site and Design Review **DR 18-09 ENTO PARK/ALPHA SCENTS** to construct a 10,500 square foot industrial/office building on property addressed as 360 S. Sequoia Parkway otherwise described as Tax Lot 31E3401801, City of Canby, Clackamas County, Oregon. The property is zoned Light Industrial (M-1) under the Canby Municipal Code (CMC).

HEARINGS

The Planning Commission considered application City File# **DR 18-09 ENTO PARK/ALPHA SCENTS** after the duly noticed hearing on December 10, 2018 during which the Planning Commission by a ___/___ vote approved City File# **DR 18-09 ENTO PARK/ALPHA SCENTS**. These findings are entered to document the specifics of the approval.

CRITERIA AND STANDARDS

In judging whether or not a Site and Design Review Application shall be approved, the Planning Commission determines whether criteria from the Code are met, or can be met by observance of conditions, in accordance with Chapter 16.49.040 Site and Design Review and other applicable code criteria and standards reviewed in the Staff Report prepared for and presented at the December 10, 2018 meeting of the Canby Planning Commission.

FINDINGS AND REASONS

The Staff Report was presented by staff with a recommendation for approval of the Site and Design Review application (without benefit of the public hearing) along with Conditions of Approval in order to ensure that the proposed development will meet all required City of Canby Land Development and Planning Ordinance approval criteria.

After holding the public hearing where written and oral testimony was received from the applicant, other proponents, those who were neutral, and opponents in attendance; the Planning Commission closed the public hearing and moved into deliberation where they utilized the findings and conditions listed in the staff report along with the overall presentation record at the public hearing to make the following findings beyond those contained in the staff report to arrive at their decision and support their recommended conditions of approval and the exact wording thereof:

-

CONCLUSION

In summary, the Planning Commission adopted the findings contained in the Staff Report along with the modifications indicated above, concluded that the Site and Design Review application meets all applicable approval criteria, and recommended that City File# **DR 18-09 ENTO PARK/ALPHA SCENTS** be approved with the Conditions of Approval stated below. The Planning Commission decision is reflected in the written Order below.

ORDER

The Planning Commission concludes that based on the record on file including testimony of the applicant and public at the public hearing, that the application will meet the requirements for Site and Design Review approval. Therefore, **IT IS ORDERED BY THE PLANNING COMMISSION** of the City of Canby that City File# **DR 18-09 ENTO PARK/ALPHA SCENTS** is approved, subject to the following conditions of approval:

Conditions of Approval

Staff concludes that, with conditions, the application will meet the requirements for site and design review approval. The city will not approve the building permit until all applicable conditions of approval are either met or shown to be met on the final construction plans. Staff has concluded the following conditions of approval are appropriate to assure conformance with applicable review criterion:

Conditions Unique to this Proposal

1. The applicant shall file a sign permit for any future signs that shall be limited to the size and height standards applicable to the I-O (Canby Industrial Area Overlay Zone) as indicated in Section 16.42.050, Table 7, of the sign ordinance. Proposed signs, after been found to conform to the sign ordinance, must secure a building permit from Clackamas County Building Inspection prior to their installation.
2. **The project must be in conformance with the applicable findings and suggestions outlined by the City Engineer in his memorandum dated November 19, 2018.**

Procedural Conditions

Prior to Issuance of a Building Permit the following must be completed:

- 3 **Prior to the issuance of building permits**, the applicant shall provide confirmation that outdoor pole and exterior wall mounted lighting fixtures shall comply with the shielding requirements to prevent light trespass defined in Figure 16.43.1 and will not exceed the maximum permitted lumen output.
4. The design engineer shall submit to the City of Canby for review and approval at the time of final construction plan approval a storm drainage analysis and report applicable to the defined development area detailing how storm water disposal from both the building and the parking areas is being handled. Any drainage plan shall conform to an acceptable methodology for meeting adopted storm drainage design standards as indicated in the Public Works design standards.
5. A Sediment and Erosion Control Permit will be required from the City prior to commencing site work.
6. Prior to the issuance of a building permit, the installation of public or private utilities, or any other site work other than rough site grading, construction plans must be approved and

signed by the City and all other utility/service providers. A Pre-Construction Conference with sign-off on all final construction plans is required. The design, location, and planned installation of all roadway improvements and utilities including but not limited to water, electric, sanitary sewer, natural gas, telephone, storm water, cable television, and emergency service provisions is subject to approval by the appropriate utility/service provider. The City of Canby's preconstruction process procedures shall be followed.

7. Construction plans shall be designed and stamped by a Professional Engineer registered in the State of Oregon.
8. Clackamas County will provide structural, mechanical, grading, and review of Fire & Life Safety, Plumbing, and Electrical permits for this project.

Prior to Occupancy of the Facility:

9. Prior to occupancy of the facility, all landscaping plant material indicated on the submitted landscape plan shall either be installed and irrigated with a fully automatic design/build irrigation system as proposed, or with sufficient security (bonding, escrow, etc.) pursuant to the provisions of CMC 16.49.100 (B). The applicant should be aware that the City street tree fee is now \$250 per tree if planted by the City.

I CERTIFY THAT THIS ORDER approving **DR 18-09 ENTO PARK ALPHA SCENTS** which was presented to and **APPROVED** by the Planning Commission of the City of Canby.
DATED this 10th day of December, 2018.

 John Savory
 Planning Commission Chair

 Bryan Brown
 Planning Director

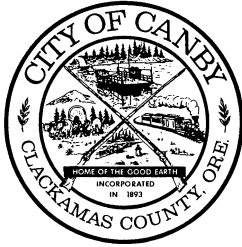
 Laney Fouse, Attest
 Recording Secretary

ORAL DECISION: December 10, 2018

<i>Name</i>	<i>Aye</i>	<i>No</i>	<i>Abstain</i>	<i>Absent</i>
<i>John Savory</i>				
<i>John Serlet</i>				
<i>Larry Boatright</i>				
<i>Derrick Mottern</i>				
<i>Tyler Hall</i>				
<i>Shawn Varwig</i>				
<i>Andrey Chernishov</i>				

WRITTEN DECISION: December 10, 2018

<i>Name</i>	<i>Aye</i>	<i>No</i>	<i>Abstain</i>	<i>Absent</i>
<i>John Savory</i>				
<i>John Serlet</i>				
<i>Larry Boatright</i>				
<i>Derrick Mottern</i>				
<i>Tyler Hall</i>				
<i>Shawn Varwig</i>				
<i>Andrey Chernishov</i>				



**BEFORE THE PLANNING COMMISSION
OF THE CITY OF CANBY**

A REQUEST FOR APPROVAL OF ANNEXATION AND ZONE CHANGE FOR PROPERTY LOCATED AT 1882, 2030, 2058, 2146 N. HOLLY ST. 2041 N. LOCUST ST, 102 NE TERRITORIAL RD)))))	FINDINGS, CONCLUSION & FINAL ORDER ANN 18-05/ZC 18-06 THOMAS DODDS, MONTECUCCO RENTALS, LLC, SUSAN BURKERT, DAVID AND SUSAN GORDON, HEMMERLING NURSERY, LLC, CITY OF CANBY
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NATURE OF THE APPLICATION

The applicants sought approval for an annexation/zone change application ANN 18-05/ZC 18-06 to annex 43.79 acres of real property described as Tax Lots 31E28C00400, 31E28C00500, 31E28C00601, 31E28C00600, 31E28C00700, 31E28C00800, 31E28C00100, 31E28C00200, and 31E28C00401, Clackamas County, Oregon. The property is zoned Clackamas County RRF-5 and is requested to be zoned City R-1, Low Density Residential.

HEARINGS

The Planning Commission considered applications ANN 18-05/ZC 18-06 after the duly noticed hearing on December 10, 2018 during which the Planning Commission recommended by a / vote that the City Council approve ANN 18-05/ZC 18-06 per the recommendation contained in the staff report.

CRITERIA AND STANDARDS

In judging whether or not the annexation and zone change applications shall be approved, the Planning Commission determines whether criteria from the *City of Canby Land Development and Planning Ordinance* are met, or can be met by observance of conditions. Applicable criteria and standards were reviewed in the Planning Commission staff report presented at the December 10, 2018 public hearing of the Planning Commission.

FINDINGS AND REASONS

The Planning Commission considered applications ANN 18-05/ZC 18-06 at a public hearing held on December 10, 2018 during which the staff report was presented, including all attachments. Staff recommended that the Planning Commission forward a recommendation of approval to the City Council for the proposed annexation and new zoning designation.

After hearing public testimony, and closing the public hearing, the Planning Commission made no additional findings beyond those contained in the staff report to arrive at their decision and support their recommendation:

CONCLUSION

In summary, the Planning Commission adopted the findings contained in the staff report, concluded that the annexation/zone change meets all applicable approval criteria, and approved Files ANN 18-05/ZC 18-06 as stated below. The Planning Commission’s order is reflected below.

ORDER

Based on the application submitted and the facts, findings, and conclusions of the staff report, and the supplemental findings from the public hearing, the Planning Commission recommended to the City Council **APPROVAL** of annexation and zone change applications **ANN 18-05/ZC 18-06** as follows:

1. ANN 18-05/ZC 18-06 be approved and,
2. Upon annexation, the zoning of the subject properties be designated as R-1 as indicated by the N. Holly Development Concept Plan Map and the Canby Comprehensive Plan Map.

I CERTIFY THAT THIS ORDER approving **ANN 18-05/ZC 18-06 N HOLLY/STAFFORD ANNEXATION & ZONE CHANGE** which was presented to and **APPROVED FOR RECOMMENDATION TO THE CITY COUNCIL** by the Planning Commission of the City of Canby.

DATED this 10th day of December, 2018.

 John Savory
 Planning Commission Chair

 Bryan Brown
 Planning Director

 Laney Fouse, Attest
 Recording Secretary

ORAL DECISION: December 10, 2018

<i>Name</i>	<i>Aye</i>	<i>No</i>	<i>Abstain</i>	<i>Absent</i>
<i>John Savory</i>				
<i>John Serlet</i>				
<i>Larry Boatright</i>				
<i>Derrick Mottern</i>				
<i>Tyler Hall</i>				
<i>Shawn Varwig</i>				
<i>Andrey Chernishov</i>				

WRITTEN DECISION: December 10, 2018

<i>Name</i>	<i>Aye</i>	<i>No</i>	<i>Abstain</i>	<i>Absent</i>
<i>John Savory</i>				
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