

PLANNING COMMISSION

Meeting Agenda

Monday, July 9, 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 June 25, 2018.

4. NEW BUSINESS

5. PUBLIC HEARING

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

1. Consider a request for a Site & Design Review (Type III), Conditional Use Permit (Type III), Planned Unit Development (Type III), and Subdivision (Type III) application (**DR 18-03/CUP 18-03/PUD 18-01/SUB 18-02 Canby Townhomes**). Applicant proposes to develop a 2.59 acre site, zoned CR (Residential- Commercial) with 30 townhomes (single-family dwellings with common-wall construction) at the corner of SE 13th Avenue and S Ivy Street.

6. FINAL DECISIONS - None

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

- a. **Final Findings DR 18-03/CUP 18-03/PUD 18-01/SUB 18-02 Canby Townhomes**

7. ITEMS OF INTEREST/REPORT FROM PLANNING STAFF

- a. Next regularly scheduled Planning Commission meeting – Monday, August 13, 2018:

- Site & Design Review (Type III), application (**DR 18-05 Gustafson Professional Office Building**).
- Minor Land Partition (Type III) application (**MLP 18-03 City of Canby Pump Station**)

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.

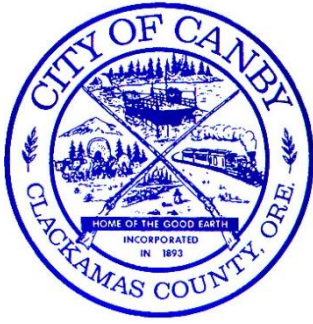
Testimony and evidence must be directed toward the applicable review criteria contained in the staff report, the Comprehensive Plan, or other land use regulations which the person believes to apply to the decision.

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.

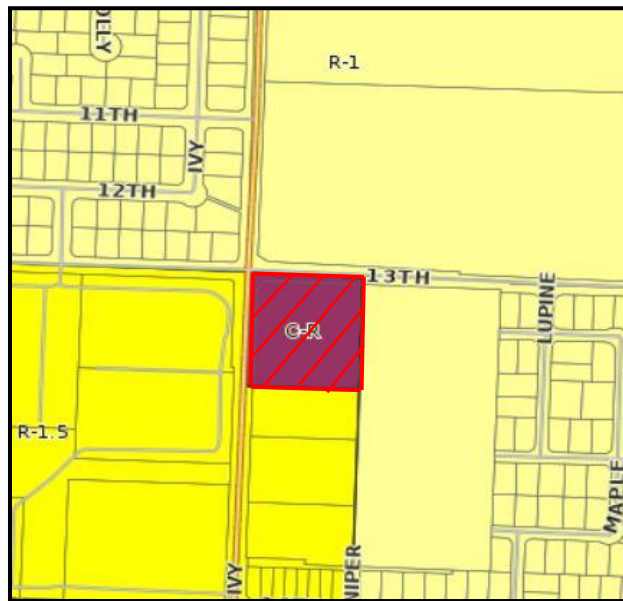
If additional documents or evidence are provided by any party, the Planning Commission may, if requested, allow a continuance or leave the record open to allow the parties a reasonable opportunity to respond. Any such continuance or extension of the record requested by an applicant shall result in a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



City of Canby

SITE AND DESIGN REVIEW STAFF REPORT
FILE #: DR 18-03/CUP 18-03/PUD 18-01/SUB 18-02
Canby Townhomes
Prepared for the July 9, 2018 Planning Commission Hearing

LOCATION: 1300 S. Ivy Street
TAX LOT: 41E04DA04800 (Bordered in map below)
LOT SIZE: 2.59 acres
ZONING: C-R Residential/Commercial Zone
OWNER: Willamette Capital Investments, LLC



APPLICANT: Butch Busse
APPLICATION TYPE: Site & Design Review/Conditional Use Permit/Planned Unit Development/Subdivision (Type III)
CITY FILE NUMBER: DR 18-03/CUP 18-03/PUD 18-01/SUB 18-02

APPLICANT'S REQUEST:

The subject parcel is located at the southeast corner of SE 13th Avenue and S. Ivy Street. The applicant is seeking site and design approval to construct 38 common wall (Townhomes) dwellings each on a separate lot on a 2.59 acre parcel in the C-R Zone with a single street access. The applicant originally proposed 38 units with two access roadways, one on S. Ivy and the other onto SE 13th Avenue. However, S. Ivy Street is under Clackamas County jurisdiction and the City was notified by Clackamas County that no additional access will be allowed onto S. Ivy Street. Subsequently, the

development is limited to one full service access onto SE 13th Avenue. Under Section 16.46.010(A) (2) CMC, a single access limits the number of units to 30 units. The property is located within the C-R zone and common wall (townhomes) are only permitted in the zone under a conditional use approval and must conform to the development standards listed in the R-2 zone. The applicant filed a request for a conditional use permit under this application. Additionally, the applicant filed a Planned Unit Development Application in order to create an opportunity for the Planning Commission to have the flexibility, under the PUD criteria, to reduce the required 20 foot rear yard setbacks for two-story buildings to 15 feet. This application also includes a subdivision to divide a 2.59 acre parcel into 38 separate lots which by ordinance as previously mentioned limits the number of units to 30. CMC 16.46.010.C allows the Planning Commission to increase the 30 unit limit with only one means of access based upon finding that no unwarranted problems for the public street system or emergency service provision will result. The Conditional Use Permit is needed to allow proposed single-family dwellings having common wall construction and the C-R zone requires such development to meet the R-2 development standards which include providing density at a minimum of 14 units per acre. This places two ordinance provisions in direct conflict in terms of limiting a development with only one full service means of access to no more than 30 units versus complying with the minimum of 14 units per acre (36 units).

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**
- 16.24 C-R Residential/Commercial Zone**
- 16.20 R-2 High Density Residential Zone**
- 16.36 Planned Unit Development Overlay Zone (PUD)**
- 16.43 Outdoor Lighting Standards**
- 16.46 Access Limitations on Project Density**
- 16.49 Site and Design Review**
- 16.50 Conditional Uses**
- 16.62 Subdivisions - Applications**
- 16.64 Subdivisions – Design Standards**
- 16.86 Street Alignments**
- 16.70-76 Planned Unit Development**

16.88 General Standards and Procedures

16.89 Application and Review Procedures

16.120 Parks, Open Space, and Recreational Land

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: Based on available information, it appears that the property was created in its current configuration by survey filed with the Clackamas County Surveyor in 1960. The survey was filed prior to 1976 when Oregon State Statutes (ORS) required that land could only be divided through land use action. The subject property can be considered a separate 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 SE 13th Avenue shall be improved to Canby Public Works standards if required by the City Engineer. Clackamas County has jurisdiction of S. Ivy Street and the applicant shall meet conditions proposed by the County in their memo dated: December 13, 2017. The sidewalks must match existing. All sidewalks within the development area must meet required development standards.

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 is required for this particular proposal. Subsequently, a TIS was completed by ATEP, Inc. The study was to evaluate possible transportation impacts from the proposed development. The study reviewed by DKS, Associates and the review stated that, with recommended modifications, the study provides adequate information to comply with the required items identified in the Transportation Impact Study Scope.

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.

16.10.050 Parking standards designated

Findings: Parking for the proposed building can be calculated with the standard for single-family dwellings listed in *Table 16.10.050*. This standard states the following:

2.00 spaces per dwelling unit for new construction...

In this particular case, the applicant will build on the vacant parcel. All uses proposed on the parcel must be consistent with uses permitted in the C-R zone and meet appropriate development standards of the R-2 zone as required under Section 16.24.020 of the C-R zone. The parking calculations table 16.10.050 lists two parking spaces for each single-family residence, and it appears that the proposal can meet these standards.

16.10.070 Parking lots and access

16.10.100 Bicycle Parking

Findings: Bicycle parking is not required for single-family residential use.

16.24 C-R (Residential/Commercial Zone)

16.20 R-2 (High Density Residential Zone)

Findings: The underlying zoning of the property is C-R (16.24). Section 16.24.020(B) lists conditional uses allowed in the zone as follows: "Uses listed as permitted outright in R-2 zones, and not listed as permitted in section 16.24.010. Such uses shall conform to the development standards of the R-2 zone." Single-family dwellings having common wall construction are listed as uses permitted outright in the R-2 zone under section 16.20.010. Subsequently, the R-2 development standards under 16.20.030 will apply and be discussed in the conditional use section of this report.

16.42.040 Signs

Findings: The applicant is not proposing a new sign at this time. Any future signs will be reviewed with submittal of a Sign Permit Application at the time of construction and must be placed outside any vision clearance area.

16.43 Outdoor Lighting Standards

Findings: Generally, for residential subdivision development, only streetlights are required and installed to public works standards. The internal streets are private, and it is not clear if street lights are planned for the development.

16.46 Access Limitations on Project Density

Findings: As previously mentioned, ingress and egress for the project must be from SE 13th Avenue. Clackamas County has jurisdiction of S. Ivy Street and access is not permitted onto that street. Based on available information, the proposed roadway access and driveway will meet separation and width standards listed in the section and reviewed in the submitted TIS. A gated emergency only access exit is proposed onto S. Ivy Street, and the access appears acceptable to the County with this restriction. The access does not conform to the County's separation standard from the street intersection.

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 detailed response to Table 16.49.040 to demonstrate compliance with the total point menu and meets criterion in “B” above. However, the applicant did not submit elevations or details concerning the criteria listed above or development details for the private park area. Staff cannot determine if the proposal meets this criteria. As a condition of approval, the applicant must submit detailed elevations of the project that reveals how the proposal meets the design standards listed in Section 16.49.040.

16.49.065 Bicycle and pedestrian facilities

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

Findings: Construction of proper sidewalks is expected on private streets as well as public streets. The quality of a PUD/CUP site plan is deemed important to assure compatibility with the neighborhood. Internal curb-tight sidewalks are required in the subdivision. Staff concludes that it appears this criterion is met.

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 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 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.

CONDITIONAL USE

16.50 Conditional Uses:

16.50.010 Authorization to grant or deny conditional uses.

A conditional use listed in this title shall be permitted, altered, or denied in accordance with the standards and procedures of this chapter. In the case of a use existing prior to

the effective date of the ordinance codified in this title as a conditional use, a change in the use, or reduction in lot area, or an alteration of the structure, shall require the prior issuance of a conditional use permit. In judging whether or not a conditional use permit shall be approved or denied, the Planning Commission shall weigh the proposal's positive and negative features that would result from authorizing the particular development at the location proposed and to approve such use, shall find that the following criteria are either met, can be met by observance of conditions, or are not applicable.

- A. The proposal will be consistent with the policies of the Comprehensive Plan and the requirements of this title and other applicable policies of the city;
- B. The characteristics of the site are suitable for the proposed use considering size, shape, design, location, topography, existence of improvements and natural features;
- C. All required public facilities and services exist to adequately meet the needs of the proposed development;
- D. The proposed use will not alter the character of the surrounding areas in a manner which substantially limits, or precludes the use of surrounding properties for the uses listed as permitted in the zone. (Ord. 740 section 10.3.75 (A), 1984)

Findings: The applicant filed a Conditional Use Application as required under Section 16.24.020(B) of the C-R zone for single-family common wall dwellings. The above criteria must be addressed to assure consistency of the use within the zone based on these provisions. Staff has reviewed the proposed use and the above criteria. Staff determined that:

There are no policies in the Canby Comprehensive Plan or other policies that would be inconsistent with the applicant's proposed use.

The site is suitable for the proposed use which will offer medium density residential use in a zone that allows for that type of development. However, the development is limited to a total of 30 residential units under criteria listed in Section 16.46.010(A), because the property is allowed only one access onto SE 13th Avenue. An additional emergency only access will be permitted onto S. Ivy Street and must be gaited and constructed to meet the City Engineers stated guidelines. It appears that the proposal will provide residential housing at a needed higher density in the City which will further enhance the economic and residential benefits to Canby. Subdivision developments are in place in to the east and west with residential lots to the south. Canby adult center and swim center is situated to the north. There is no evidence that the residential use proposed significantly conflicts with future or current land uses in the area.

Based on comments from City agencies at the Pre-Application Conference, all public utilities are available and adequate to serve this proposed use on this site.

PLANNED UNIT DEVELOPMENT (PUD)

16.36 Planned Unit Development Overlay Zone (PUD)

16.36.010 Purpose.

The Planned Unit Development Overlay Zone is intended to be used in conjunction with any of the city's underlying base zones (example: R-1/PUD, M-1/PUD, etc.) to assure that the ultimate development of the site will meet the requirements of a planned unit development. The Planned Unit Development Overlay Zone is intended to be applied only to those specific properties which, because of unique characteristics such as size, shape and location of the parcel, are most suitable for development as planned unit developments. (Ord. 740 section 10.3.35 (A), 1984)

Findings: A master planned residential community commonly utilizes a PUD process. Planned unit development, as applied to this request involves certain aspects of the development that require flexibility to the code which the Planning Commission can invoke in order for the proposal to go forward as requested by the applicant. In this particular case, two provisions in the code require the attention of the Planning Commission. According to the submitted site plan, the applicant intends to reduce the 20 foot rear yard setbacks, required for two-story dwellings, to 15 feet for interior yards along the property boundaries that border surrounding properties while maintaining a 20 foot rear yard setback on the arterial roadway frontage. Additionally, the proposal does not meet the density criteria of 14 units per acre required in the R-2 zone, which is required of common wall (townhome) construction within the C-R zone. The townhomes are permitted only under a conditional use approval.

16.74 A. Residential units, either detached or in multiple type dwellings, but at no greater density than is allowed for the zoning district as set forth in Division III, except as may be modified for a density bonus as provided in section 16.76.010 or Chapter 16.80.

Findings: The parcel is 2.59 acres, and the proposal originally included 38 lots which met the required density standard of 14 units per acre: $38 \text{ units} \div 2.59 \text{ acres} = 14.67$. However, as previously mention, access is not permitted onto S. Ivy Street, and the property, therefore is limited to 30 units per Section 16.46.010(A): $30 \text{ units} \div 2.59 \text{ acres} = 11.58 \text{ units}$. Because the reduction in the number of dwelling units is due to a traffic safety issue, in this particular case, staff is willing to support approval of a lower density stated above in order for the project to move forward. The safety factor can override the reduction in density of 14 units per acre in this case. The proposal cannot meet the conflicting standards without eliminating the common wall dwellings otherwise allowed in the C-R zone.

16.76 16.76.010 Minimum requirements.

The minimum requirements for a residential planned unit development shall include the following two items:

A. A minimum of fifteen percent of the gross area of the development shall be devoted to open space, and shall be located in a common area or dedicated to the public, except in the case of conversions of existing rentals to unit ownership, where the Planning Commission may permit a lesser requirement if it is found that adequate recreation facilities exist for the units.

B. The average area per dwelling unit shall not be less than that allowed within the zoning district in which the subdivision is located, unless alternative lot layout is used pursuant to 16.04.040(B). The average area shall be calculated by dividing the number of dwelling units into the gross area of the total land development, minus that area occupied by streets. The commission may grant a density bonus of not more than fifteen percent to planned unit developments where it is found that unique, beneficial design features (such as solar efficiency, recreation facilities, or other community assets) warrant such a bonus. The commission shall clearly state its findings in support of granting or denying a requested density bonus. (Ord. 740 section 10.5.50, 1984; Ord. 1338, 2010)

16.76.040 Exceptions.

A. In considering a proposed planned unit development project, the approval thereof may involve modifications in the regulations, requirements and standards of the zoning district in which the project is located so as to appropriately apply such regulations, requirements and standards to the development. Modification of the lot size, lot width, and yard setback requirements may be approved by the commission at the time of the approval of the tentative subdivision plat or conditional use permit.

B. Building height shall conform to the zoning district in which the development is located.

C. Off-street parking and off-street loading requirement shall be pursuant to Division III. (Ord. 740 section 10.5.60(C), 1984)

Findings: **Based on the applicant's information, the request meets the 15% open space requirement. However, the Planning Commission must determine if the safety factor, that limits the development to one access and 30 dwelling units, justifies the importance of not meeting the minimum density provisions. Also, a determination must be made to allow a reduction in the rear yard setback to 15 feet from adjacent developed properties surrounding the subject parcel. A setback buffer of 15 feet is the minimum setback from an adjacent multi-family use. However, the dwelling units of this project are located on individual platted lots and are therefore single-family residences with common walls. The PUD specifically allows the flexibility to reduce the 20 foot rear yard setback for a two-story home if the overall development is deemed suitable and does not create significant harm to adjacent properties.**

SUBDIVISION

Findings: The subject property is currently a single parcel that contains a single-family dwelling that will be removed from the parcel. The applicant intends to divide the existing 2.59 acres into a 30 lot subdivision that will include 30 common wall (Townhome) single-family dwellings each on a single lot. Staff determined that a Traffic Impact Study (TIS) was required and a DKS Engineering memo, dated May 11, 2018, described the scope of work. A revised TIS prepared by ATEP was issued on June 15, 2018 with mitigation, parking, and spacing conclusions. The report was reviewed by DKS Engineering that issued a memo dated June 20, 2018 which stated the TIS provided adequate information to comply with the required items listed in the Scope of Services. Based on information included in the file, staff concurs with the DKS findings.

Public utilities are currently located at SE 13th Avenue and at S. Ivy Street and can be extended as development occurs. Although the applicant briefly discussed storm drainage associated with the subdivision, a storm drainage plan was not submitted with the subdivision application. As a condition of approval, the applicant shall submit a Storm Drainage Plan associated with the subdivision which intends to install drywells. Interior private streets and sidewalks must meet design standards. Based on the applicant's submitted information, driveways will meet width and length requirements, and the correct number of spaces will be provided for each residences. The C-R or R-2 zones do not require a minimum lot sizes, and the applicant states that lot sizes range from 1,661 square feet to 3,544 square feet. Lot width of 20 feet will be met, and lot averaging is not necessary.

A revised tentative subdivision plan has been submitted which delineates 38 lots within the subdivision. As previously mentioned, S. Ivy Street is under Clackamas County jurisdiction, and comments from the County stated that access to S. Ivy Street is not permitted because access must be within 400 feet of the intersection, and the parcel frontage extends only 342 feet along the roadway frontage. Minimum access requirements are intended to protect the public health, safety and general welfare and provide for both vehicular and pedestrian needs. Subsequently, the proposed subdivision is allowed only one access onto SE 13th Avenue as discussed above. As a condition of approval, the applicant shall submit a revised tentative plat that delineates a total of 30 lots within the subdivision and designs a single access onto SE 13th Avenue and one gated, grasscrete surfaced emergency exist onto S. Ivy Street with a mountable curb and driveway drop as noted in the City Engineer's email dated April 30, 2018.

The applicant must construct street improvements as required by Clackamas County for S. Ivy Street and to Canby Public Works standards along SE 13th Avenue, as stated in comments that are listed as conditions of approval.

The applicant shall construct DEQ approved drywells if required within the subdivision.

As a condition of approval, a Street Tree Plan shall be submitted with the final plat, and street tree fees must be paid prior to release of the final plat.

Park SDC fees will be required for future lots developed on the property.

The applicant shall pay 2.0% of the contract cost of all public improvements at the time of construction plan approval before site improvements begin. In addition, a Site Plan Development Engineering Plan review fee in accordance with the City fee schedule is due prior to obtaining a release letter for issuance of building permits.

Staff has reviewed the applicant's narrative and submitted material and finds that this subdivision application conforms to the applicable review criteria and standards, subject to the conditions of approval noted in *Section IV* of the staff report.

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 along with a Conditional Use Permit to approve common wall dwellings in the C-R zone, and a Planned Unit Development to reduce the rear yard setback and reduce the minimum density standard, and a subdivision to create 30 lots on 2.59 acres. The required land use application process has been followed. A pre-application meeting was held prior to the formal hearing, and the neighborhood meeting was conducted by the applicant. Meeting notes for the meetings are 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 December 13, 2017. The neighborhood meeting was held on May 15, 2018.

16.120 Parks, Open Space, and Recreation Land

Findings: The applicant should be aware of the application of a parks SDC fee prior to issuance of a building permit in lieu of public park land dedication with this development project. The applicant set aside a 6,156 square foot area for a private park. However, the area is too small to receive any park credit for SDC fees. Section 16.120.060(6) states that parkland must be a minimum of two acres in order to receive credit for park fees. The common open space/private park should be designated as a common tract to be maintained by the HOA. Details of the planned open areas shall be submitted either for Planning Commission review or at the time of final construction plan approval.

Public Comments:

Public comments were received from nearby property owners and are included in the file for Planning Commission review.

Agency Comments:

Comments concerning the proposal were received from Curran-McLeod, Inc., the City Engineer, Clackamas County Engineering, and DirectLink. The City Engineer and Clackamas Engineering comments are listed as conditions of approval.

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 18-03/CUP 18-03/PUD 18-01/SUB 18-02 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 18-03/CUP 18-03/PUD 18-01/SUB 18-02, 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 submit a revised tentative plat that delineates a total of 30 lots within the subdivision and establishes a single access onto SE 13th Avenue and one gated, grasscrete surfaced emergency exist onto S. Ivy Street with a mountable curb and driveway drop as noted in the City Engineer's email dated April 30, 2018.**
2. The project must be in conformance with the applicable findings and suggestions outlined by the City Engineer in his memorandum dated June 25, 2018 unless otherwise specified by the Planning Commission.
3. The project must be in conformance with the applicable findings and suggestions outlined by Clackamas County Engineering in the memorandum dated December 13, 2017 unless otherwise specified by the Planning Commission. The conditions are as follows:
 1. The proposed 39-unit multi-family development is located on a property located at the southeast corner of SE 13th Street and S Ivy Street. SE 13th Street is under the jurisdiction of the City of Canby. S Ivy Street is under the jurisdiction of Clackamas County and is classified as a major arterial roadway. It appears the city has a single arterial roadway classification, indicating both SE 13th Street and S Ivy Street as arterial roads. However, Clackamas County designates S Ivy Street a major arterial. Access spacing standards on a major arterial restrict access within 400 feet of a signalized intersection. The project frontage is approximately 342 feet in length. Access on the S Ivy street frontage will not be permitted for the proposed development. If required by the fire department, a gated emergency vehicle access is acceptable on S Ivy Street.
 2. The minimum improvement on the S Ivy Street frontage includes right-of-way and paved width for a 3-lane arterial street section.
 3. The applicant shall dedicate approximately 10 feet of right-of-way along the entire site frontage on S Ivy Street and verify by a professional survey that a 40-foot wide, one-half right-of-way width exists.
 4. The applicant shall grant an 8-foot wide public easement for sign, slope and public utilities along the entire frontage of S Ivy Street.
 5. The applicant shall design and construct improvements along the entire site frontage of S Ivy Street to arterial roadway standards, per Clackamas County Roadway Standards, Standard Drawing C140. These improvements shall consist of:
 - a. A one half-street improvement with a minimum paved width of 25 feet from the centerline of the right-of-way. The structural section shall be designed and constructed per Standard Drawing C100 for an arterial roadway.
 - b. Inbound and outbound tapers shall be provided per Section 250.6.4 of the Clackamas County Roadway Standards.

c. Standard curb, or curb and gutter if curblin slope is less than one percent, with the curb face located 18 feet from the centerline of the right-of-way.

d. A 5-foot wide sidewalk behind a 5-foot wide landscape strip, including street trees shall be constructed along the entire site frontage. Where the sidewalk does not connect to sidewalk on adjacent property, the end of the sidewalk requires a concrete ADA compliant curb ramp, providing a transition from the new sidewalk to the edge of pavement.

e. Dual curb ramps shall be provide at the SE 13th Street and S Ivy Street intersection, constructed per Standard Drawing S910. The designer shall complete the county ADA Assessment Checklist and provide a copy with the improvement plans. The county has adopted the following curb ramp design and construction standards:

Feature	Design Standard	Construction Standard
Ramp Slope	7.5%	8.33%
Ramp Cross Slope	1.5%	2.0%
Landing (turning space) Cross Slope	1.5%	2.0%

f. Storm drainage facilities in conformance with City of Canby Standards and *Clackamas County Roadway Standards* Chapter 4. Any surface water runoff from the site to the S Ivy Street right-of-way shall be detained outside of the right-of-way in conformance with *Clackamas Roadway Standards*.

4. A Demolition Permit from Clackamas County is required along with a Site Plan Review Application (Type I) from the City of Canby prior to demolition of the existing structure on the property.
5. The applicant must submit detailed elevations of the project that reveals how the proposal meets the design standards listed in Section 16.49.040.

Fees/Assurances:

6. All public improvements are normally installed prior to the recordation of the final plat. If the applicant wishes to forgo construction of any portion of the public improvements until after the recordation of the final plat, then the applicant shall provide the City with appropriate performance security (subdivision performance bond or cash escrow) in the amount of 110% of the cost of the remaining public improvements to be installed.
7. If the applicant chooses to provide a subdivision performance bond for some or all of the required public improvements, the applicant shall obtain a certificate from the city engineer that states:
 - a. The applicant has complied with the requirements for bonding or otherwise assured completion of required public improvements.
 - b. The total cost or estimate of the total cost for the development of the subdivision. This is to be accompanied by a final bid estimate of the subdivider's

contractor, if there is a contractor engaged to perform the work, and the certificate of the total cost estimate must be approved by the city engineer. The applicant must guarantee or warranty all public improvement work with a 1 year subdivision maintenance bond in accordance with 16.64.070(P).

8. The applicant must pay the city Master Fee authorized Site Plan Engineering plan review fee and Public Improvement Engineering Plan review fee prior to beginning the construction of site improvements.

Streets, Signage & Striping:

9. The street improvement plans for SE 13th Avenue and S. Ivy Street frontage and the interior street shall conform to the TSP and Public Works standards as indicated by the city engineer and Clackamas County.
10. A roadway striping plan shall be submitted by the applicant and shall be approved by city engineer and by the Public Works street department prior to the construction of public improvements.
11. A roadway signage plan shall be submitted by the applicant and shall be approved by the city engineer and by the Public Works street department prior to the construction of public improvements.
12. The applicant shall be responsible for installing all required street signage and striping at the time of construction of public improvements, unless other arrangements are agreed to by the City.
13. The private streets shall be designated as a common tract for street and sidewalk provision to be cared for and maintained by the HOA.

Sewer:

14. The applicant shall submit documentation of DEQ approval of the sewer plans to the City Engineer prior to the construction of this public improvement.

Stormwater:

15. The applicant shall submit a Storm Drainage Plan associated with the subdivision. Stormwater systems shall be designed in compliance with the Canby Public Works Design Standards as determined by the City Engineer.

Grading/Erosion Control:

16. The applicant shall submit grading and erosion control plans for approval by Canby Public Works in conjunction with construction plan approval prior to the installation of public improvements and start of grading.
17. The applicant shall grade all areas of the site, including the proposed lots, to minimize the amount of soil to be removed or brought in for home construction.

Final plat conditions:

General Final Plat Conditions:

18. The applicant shall apply for final plat approval at the city and pay any applicable city fees to gain approval of the final partition and subdivision plat. Prior to the recordation of the final plat at Clackamas County, it must be approved by the city and all other applicable agencies. The city will distribute the final plat to applicable agencies for comment prior to signing off on the final plat if deemed necessary.
19. All public improvements or submittal of necessary performance security assurance shall be made prior to the signing and release of the final plat for filing of record.
20. The final plat shall conform to the necessary information requirements of CMC 16.68.030, 16.68.040(B), and 16.68.050. The city engineer or county surveyor shall verify that these standards are met prior to the recordation of the subdivision plat.
21. All "as-builts" of public improvements, including: curbing and sidewalks; planter strips; streets; street lighting; street signage; street striping; storm; sewer; electric; water/fire hydrants; cable; underground telephone lines; CATV lines; and natural gas lines, shall be filed at the Canby Public Works and the Canby Planning Department within sixty days of the completion of improvements and prior to the recordation of the final plat.
22. Clackamas County Surveying reviews **pending subdivision plat documents for Oregon Statutes and county requirements. A subdivision final plat prepared in substantial conformance with the approved tentative plat must be submitted to the City for approval** within one year of approval of the tentative plat or formally request an extension of up to 6-months with a finding of good cause.
23. The applicant shall record the final plat at Clackamas County within 6 months of the date of the signature of the Planning Director.
24. The applicant shall assure that the city is provided with a copy of the final plat in a timely manner after it is recorded at Clackamas County, including any CC&Rs recorded in conjunction with the final plat.
25. The City shall assign addresses for each newly created subdivision lot and distribute that to the developer, and other agencies that have an interest.

Dedications

26. The applicant shall show on the final plat any appropriate R.O.W. width dedications required on SE 13th Avenue and S. Ivy Street for the full length of the subject property.

Easements

27. A 12 foot utility easement along all of the lot's street frontages shall be noted on the final plat. This easement may be combined with other easements and shall be measured from the property boundary.
28. Sidewalk easements are required along the frontage of the newly created private lots.

Street Trees

29. A Street Tree Plan shall be submitted with the final plat, and street tree fees must be paid prior to release of the final plat. The plan will allow the city to establish street trees per the Tree Regulation standards in Chapter 12.32 of the Canby Municipal Code. The total per tree fee amount is calculated at one tree per 30 linear feet of total street frontage on both sides of all internal streets and the adjacent side of external streets or as otherwise designated on an approved Street Tree Plan. A twelve foot temporary street tree easement along all lot street frontages shall be noted on the final plat.

Monumentation/Survey Accuracy Conditions

30. The county surveyor and/or city engineer shall verify that the lot, street, and perimeter monumentation shall meet the requirements set forth in Oregon Revised Statutes and conform with the additional survey and monumentation standards of 16.64.070(M)(1-3) prior to recordation of the final plat.

Residential Building Permits Conditions:

31. Construction of all required public improvements and recordation of the final subdivision plat must be completed prior to the construction of any homes.
32. The homebuilder shall apply for a City of Canby Site Plan Permit and County Building Permit for each home.
33. The homebuilder shall apply for a City of Canby Erosion Control Permit.
34. All residential construction shall be in accordance with applicable Public Works Design Standards.
35. On-site stormwater management shall be designed in compliance with the Canby Public Works Design Standards.
36. Clackamas County Building Codes Division will provide structural, electrical, plumbing, and mechanical plan review and inspection services for home construction per contract with the City. The applicable county building permits are required prior to construction of each home.
37. Per the Canby Public Works Design Standards, minimum residential driveway widths at the inside edge of the sidewalk shall be 12 feet and the maximum residential

driveways widths shall be 24 feet with an allowed exception for 28 feet for a home with 3 or more garages.

38. Sidewalks and planter strips shall be constructed by the homebuilder as shown on the approved tentative plat.
39. All usual system development fees shall be collected with each home within this development.

Procedural Conditions

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

40. 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.
41. A Sediment and Erosion Control Permit will be required from the City prior to commencing site work.
42. 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.
43. Construction plans shall be designed and stamped by a Professional Engineer registered in the State of Oregon.
44. Clackamas County will provide structural, mechanical, grading, and review of Fire & Life Safety, Plumbing, and Electrical permits for this project.
45. The applicant shall confirm conformance with the light trespass provision of Figure 16.43.1 by including a detail of the bollard pathway lighting height, and that lighting lumen output of all fixtures meets the lighting standard of Table 16.43.070.

Prior to Occupancy of the Facility:

46. 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).

Section V Attachments/Exhibits:

1. Application
2. Applicant narrative
3. Proposed Site Plan
4. Combined Plan Set
5. Pre-application Conference Summary
6. Traffic Impact Analysis/DKS review of TIA
7. Comments



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: Butch Busse Phone: 503-572-6442
 Address: P.O. Box 2375 Email: butchb@hrhomes.net
 City/State: Clackamas, OR Zip: 97015

Representative Name: Multi Tech - Brian Grenz Phone: 503-363-9227
 Address: 1155 13th St Email: bgrcnz@mtengineering.net
 City/State: Salem, OR Zip: 97302

Property Owner Name: Willamette Capital Investments, LLC Phone: 503-407-8957
 Signature: Pat Hanlin - Pat Hanlin, Member
 Address: 5700 Circle Email: phanlin@msn.com
 City/State: Woodburn, Oregon Zip: 97071

Property Owner Name: Willamette Capital Investments, LLC Phone: (503) 329-1713
 Signature: Tim Tofte - Timothy Tofte, Member
 Address: PO Box 30748D Email: ttofte@vmgusa.com
 City/State: Aurora, Oregon Zip: 97002

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, including but not limited to CMC Chapter 16.49 Site and Design Review standards.
- 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:

1300 S. Ivy St, Canby 2.59 ac 01002480
 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

- One (1) copy of this application packet. The City may request further information at any time before deeming the application complete.
- 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 *City of Canby*.
- 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.
- 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. **Ask staff for applicable Municipal Code chapters and approval criteria.**
Applicable Code Criteria for this application includes:
See Attached
- 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 (payment must be received by the City before the traffic engineer will conduct or review a traffic impact study.
Ask staff to determine if a TIS is required.
- 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.
- One (1) copy in written format of the minutes of the pre-application meeting
- 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.
- 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

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	37,013 sq. ft.	- Square footage of building footprints
2. Parking/hardscape	41,594 sq. ft.	- Square footage of all sidewalks, parking, & maneuvering areas
3. Landscaped area	33,390 sq. ft.	- Square footage of all landscaped areas
4. Total developed area	111,997 sq. ft.	- Add lines 1, 2 and 3
5. Undeveloped area	0	- Square footage of any part of the site to be left undeveloped.
6. Total site area	111,997 sq. ft.	- Total square footage of site

Required Site Landscaping (Code 16.49.080)

7. Percent of landscaping required in Zoning District	15 - 30%	- 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	16,800 sq. ft. to 33,600 sq. ft.	- Multiply line 4 and line 7
9. Proposed square footage of landscaping	33,390 sq. ft.	- 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

NA

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.

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: 26 to 28 (42.6 points required for 60%)

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

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.



City of Canby
Planning Department
222 NE 2nd Avenue
P.O. Box 930
Canby, OR 97013
Ph: 503-266-7001
Fax: 503-266-1574

LAND USE APPLICATION

Conditional Use Process Type III

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

Applicant Name: Butch Busse Phone: 503-572-6442
Address: P.O. Box 2375 Email: butchb@hrhomes.net
City/State: Clackamas, OR Zip: 97015

Representative Name: MultiTech-Brian Grenz Phone: 503-363-9227
Address: 1155 13th St Email: bgrenz@mtengineering.net
City/State: Salem, OR Zip: 97302

Property Owner Name: Willamette Capital Investments, LLC Phone: 503-407-8957
Signature: Pat Hanlin - Pat Hanlin, Member
Address: 5760 Park Circle Email: phanlin@msn.com
City/State: Woodburn, Oregon Zip: 97070

Property Owner Name: Willamette Capital Investments, LLC Phone: (503) 329-1713
Signature: Tim Tofte - Tim Tofte, Member
Address: PO Box 3097 Email: ttofte@vmgusa.com
City/State: Aurora, Oregon Zip: 97002

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, including but not limited to CMC Chapter 16.49 Site and Design Review standards.
- 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:

1300S. Ivy St, Canby, OR 2.59Ac 01002480
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

Canby Townhomes

Site and Design Review

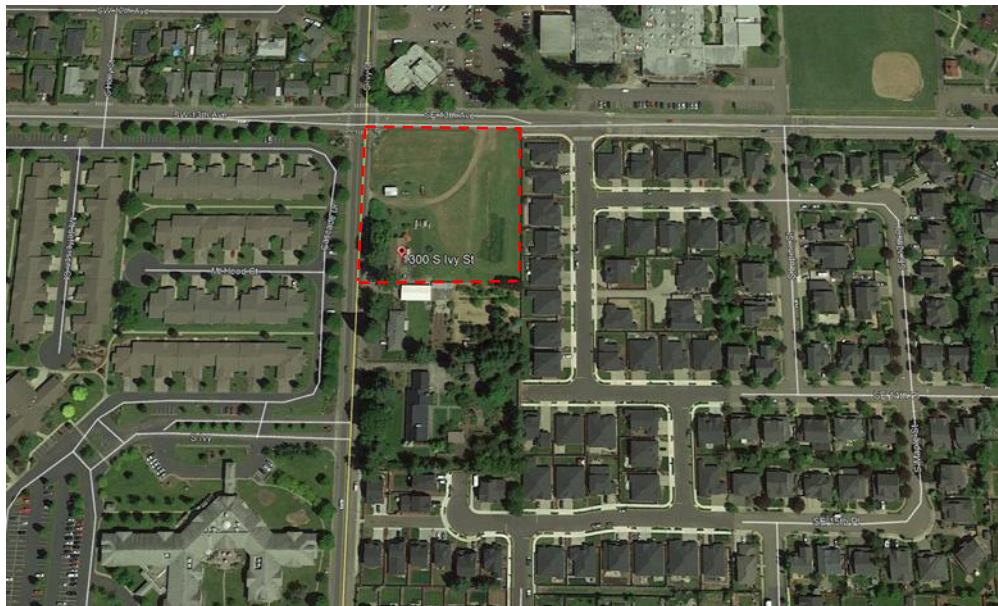
Site:

The subject property is located at 1300 S Ivy Street (41E04DA/Tax Lot 4800). The subject property is about 2.59 acres in size and are zoned C-R. The applicant is proposing to develop the site with 38 townhomes. Townhomes (single family dwellings having common wall construction) are permitted with Conditional Use approval under 16.24.020(B) in the C-R zone.

Vicinity Information:

There is an existing single-family dwelling and shed on the time that will be removed prior to development. The surrounding properties are fully developed.

- North: Across 13th Avenue, an existing adult center
- East: Existing single-family dwellings
- South: Existing single-family dwellings
- West: Across Ivy Street, existing attached single-family dwellings



Proposal:

The applicant is proposing to develop 38 townhomes on the subject property.

Canby 16.49-Site and Design Review Criteria

Site Plan Review approval will be granted if the review body finds that the application meets all of the following criteria that are applicable to the proposed development.

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***

Findings:

Minimum Density: The minimum density within the R-2 zone is 14 units per acre. The subject property is 2.59 acres in size, with lots ranging in size from 1,661 to 4,864 square feet (including access easement) in size. Therefore, all proposed lots require a minimum of 1 unit per lot. This criteria will be met with the development of a townhome on each lot. Therefore, this criteria has been met. See attached site plans.

Width and Frontage: Per 16.20.030B, the minimum width requirement is 20 feet. All lots have a minimum lot width of 22 to 28 feet. Therefore, this criteria has been met.

Yard Requirements:

Front yard setback:	20.5 to 23.71-foot setbacks
Side yard setback:	4.44 to 20-foot setbacks
Rear yard setback:	
East Property Line-	14.95 to 15-foot setbacks
South Property Line-	15 to 15.55-foot setbacks
West Property Line-	20-foot setbacks (adjacent Ivy Street)
North Property Line-	20-foot setbacks (adjacent 13th Street)

Therefore, this criteria has been met.

Building Height: The maximum building height allowed is 35 feet. All buildings are 32.1 feet in height.

Therefore, this criteria has been met.

Common Open Space/Recreational Space: The proposed development shall provide 15% of open space/recreation space. Therefore, 16,800 square feet of landscaped recreation space shall be provided on the site.

The applicant has provided landscape plans. All open space/common and private open space areas will be landscaped. Approximately 33,390 square feet of total common open space throughout the site is landscaped. The landscape plans identify street trees and landscaped areas. Therefore, 30% of the site is landscaped area. This does include yards within the individual lots.

Therefore, this criteria has been met.

2. The proposed design of the development is compatible with the design of other developments in the same general vicinity; and

Findings:

The proposal is for a 38-townhome subdivision/planned unit development development. Building height will comply with code.

Landscaping and screening will enhance the privacy of the development and provide a separation between the proposed development and existing surrounding uses. The site plan illustrates the amount of landscaping and hard-surfaced areas that are proposed. All common open space areas within the developed area will be landscaped. As indicated on the site plan, there will be 33,390 square feet of landscaped area throughout that portion of the site being developed. Therefore, 30% of the developed area will be landscaped.

There are existing attached and detached single-family dwellings surrounding the subject property. The following design standards shall be incorporated into the design of multiple family housing to create compatibility of nearby development.

Setbacks: All buildings on the site are 2-stories in height. All setbacks to property lines are met as shown on the tentative plan. Setbacks are shown on the tentative plan.

North: 20-foot setbacks; Across 13th Avenue, an existing adult center

East: 15-foot setbacks; Existing single-family dwellings

South: 15-foot setbacks; Existing single-family dwellings

West: 20-foot setbacks; Across Ivy Street, existing attached single-family dwellings

Therefore, this criterion has been met.

- 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.***

Findings:

These standards are intended to promote functional design and building details that contribute to a high-quality living environment for residents and enhance compatibility with the neighborhood.

The building design does not have long flat walls or roof lines. The buildings will have 4-foot off-sets that break up the front of the buildings and the roof lines. Balconies (decks) and dormers are incorporated in the building design to add some visual element to the buildings. All external stairways are recessed into the building. Therefore, physically and visually incorporating them into the buildings architecture design.

Therefore, the design of the buildings and materials uses will contribute positively to a sense of neighborhood and to the overall streetscape by carefully relating building mass, materials, design, landscaping, entries and yards to public streets. Therefore, this criterion has been met.

- 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.***

Findings:

The City requires that all new development extend and connect to the public sewer and water when service is available. The applicant's improvement plans identifying the required and needed connections.

The City has adopted codes regulating installation, extension and development of public facilities for streets, water, sewer and storm drainage facilities, and public utility easements. The developer is responsible for the cost of the extension of improved facilities necessary to serve the site. Internal development of public or private facilities necessary to serve individual units will occur at the building permit stage. Compliance with building code requirements satisfies this criterion.

If storm water quality and quantity are required for this development. An LID (low impact development) Storm water technique will be used to mitigate the increase in pollutants contributed from development. This system may also be used to provide storage and water quantity control. The exact system will be determined at the time of design. Any proposed technique will meet City Storm Water Management standards in means and methods to provide all aspects of Storm water management.

In conclusion, the Tentative Plat layout and the property location allow the proposed subdivision to efficiently and conveniently connect to public utilities. The proposed public utilities facilities will conform to the requirements of the Development Code.

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.

Findings: The proposed development is for a 38-lot townhome development. Therefore, some of Design Review elements and LID elements do not apply.

Parking Total=5 Points

Screening of Storage=3 Points

(trash storage will be provided for each individual unit and storage away from the property lines either behind landscaping or a fence/any equipment will be screened from view)

Access=5 Points

Tree Retention=2 Points

(there are 4 trees located on the property with 2 proposed for removal/trees will be planted per the landscape plans)

Signs=4 Points

(all signs for the development will obtain building permit approval and will meet the size and color requirements per the Code)

Building Appearance=5 to 7 Points

(balconies (decks) and dormers are incorporated in the building design to add some visual element to the buildings. Varied materials and textures are being used on the building facade. The applicant has provided building elevations to show how this is being complied with. The materials used on the front, rear, and sides of the apartments are the same; shake siding, trim board, lap siding, and stone around the pillars)

Landscaping=2 Points

LID Elements=10 Points

Total=36 to 38 Points

Site and Design Review:

Public Utilities

Findings: The site plan indicates the location of public water; sewer and storm drain lines in the street. Natural gas, telephone and electrical services are located within the public right-of-way.

The extension of water facilities necessary to provide fire service is required for development. Building addressing is required to facilitate public safety access and addresses will be assigned by the City with building permit applications. Hard-surfaced access is proposed to comply with code that requires a clear and unobstructed access. Hydrants, hydrant location, fire sprinkler systems and type of construction will be reviewed by the Fire Department when building permit applications or construction plans are submitted to the City to determine the level of water service needed. The developer is responsible for the cost of development and installation to building and fire code specifications.

Private utilities will be provided with under grounding of electrical, gas, telephone and cable lines into the site.

The City has adopted codes regulating installation, extension and development of public facilities for streets, water, sewer and storm drainage facilities, and public utility easements. The developer is responsible for the cost of extension of improved facilities necessary to serve the site. Internal development of public or private facilities necessary to serve individual units will occur at the building permit stage. Compliance with building code requirements satisfies this criterion.

Transportation

Findings: The major transportation network is in place. The subject property has frontage on Ivy Street and 13th Street. The residential development proposed will have direct access onto both Ivy Street to the west and 13th Street to the north.

The development will have adequate access to and from the already existing street system that is in place due to an existing developed neighborhood. The internal street within the proposed development will be developed to private street standards.

The subject property is located in a developing area where improved streets and sidewalks continue as required by the City. Improved access is required by code. Approval does not adversely affect the safe and healthful development of any adjoining land or access thereto. The City's adopted facility plans and construction requirements are the basis for the provision of facilities and any conditions of approval imposed on the development. Review of required construction plans and construction according to the approval provides compliance with this

criterion. Thus, the transportation system can safely accommodate the proposed 132-unit apartment development.

Parking

Findings: The proposal is for 38-townhomes within a PUD/SUB. Attached single family dwellings are required to have 2 vehicle parking spaces per dwellings (2 vehicle parking spacing on each lot provided for each dwelling). Therefore, the applicant is required to provide 76 on-site parking spaces. The development provides 81 parking spaces on-site.

There are additional parking spaces provided. These parking spaces are centrally located within the development, as shown on the site plan.

Bicycle parking spaces are not required for this type of development.

This type of development does not require a loading area.

Pedestrian Circulation:

Findings: The internal pedestrian circulation system consists of hard 5-foot wide surfaced sidewalks that provide easily identifiable and safe connections between the residential dwellings, parking, and open space areas. The sidewalks are raised above the surface of the travel lanes. Pedestrian crossings will make use of drop curbs to facilitate handicap access. This provides a clear separation between vehicles and pedestrians. Any pedestrian pathways that cross the driveways will be marked and a minimum of five feet wide. The pedestrian pathways will be lighted.

The proposed development provides safe and convenient bicycle and pedestrian access from within the development to adjacent residential areas and to neighborhood activity centers. The improved and unobstructed driveway provides emergency service access. There are no steep grades involved in the development of the subject property that would negatively impact access.

Canby Townhomes Conditional Use

SITE:

The subject property is located at 1300 S Ivy Street (41E04DA/Tax Lot 4800). The subject property is about 2.59 acres in size and are zoned C-R. The applicant is proposing to develop the site with 38 townhomes. Townhomes (single family dwellings having common wall construction) are permitted with Conditional Use approval under 16.24.020(B) in the C-R zone.

VICINITY INFORMATION:

There is an existing single-family dwelling and shed on the time that will be removed prior to development. The surrounding properties are fully developed.

- North: Across 13th Avenue, an existing adult center
- East: Existing single-family dwellings
- South: Existing single-family dwellings
- West: Across Ivy Street, existing attached single-family dwellings



PROPOSAL:

The applicant is proposing to develop 38 townhomes on the subject property.

CONDITIONAL USE CRITERIA:

A. The proposed use is consistent with the policies of the comprehensive plan.

The proposed development is consistent with the policies of the comprehensive plan. The applicable Policies of the Comprehensive Plan are addressed as follows:

The intent of the comprehensive plan is to project the goal of the most desirable pattern of land use in the area taking into account various factors such as the transportation system, location of public facilities, and the needs of the people which are important to the creation and maintenance of a healthful and pleasing urban environment. To ensure that the anticipated urban land use needs are met, the Plan map demonstrates a commitment that land for a wide variety of uses will be available at appropriate locations as needed.

Citizen Involvement Policies 1 and 2:

The City's adopted Comprehensive Plan Goals and Policies, and its adopted zone code, implement the Statewide Citizen Involvement Goal. This application will be reviewed according to the public review process established by the City of Canby. The City's Plan is acknowledged to be in compliance with this Policy. Notice of the proposal will be provided to property owners and public agencies. The notice will identify the applicable criteria. A public hearing to consider the request will be held. Through the notification and public hearing process all interested parties are afforded the opportunity to review the application, comment on the proposal, attend the public hearing, and participate in the decision.

These procedures meet the requirements of the policies for citizen involvement in the land use planning process.

Land Use Element/Residential Land Policies 1, 2, 3, 5: The subject property will be developed with 38 townhomes. The subject property is surrounded by attached single family dwellings, detached single family dwellings, and an adult center. The proposed use is a compatible use with surrounding uses. The attached single-family dwellings help to maximum density on the site while minimize the need for urban sprawl, while also developing a site that has public facilities available. Therefore, meeting the goals and polices for Residential Land development.

Environmental Policies 1-R-B, 3-R, 4-R, 8-R:

The City's adopted Comprehensive Plan, Scenic and Historic Areas, Natural Resources and Hazards, Commercial, Industrial and Transportation Goals and Policies along with adopted facilities plans implement this Policy.

Development is required to meet applicable State and Federal requirements for air and water quality. The proposal to develop the site is reviewed by the City and any applicable outside agencies for impacts on environment and compliance to applicable standards and regulations. Development is required to meet applicable water, sewer, and storm drainage system requirements. Upon development, the City is responsible for assuring that wastewater discharges are treated to meet the applicable standards for environmental quality. Prior to development, the applicant will obtain all required State, Federal, and local permits.

The City has identified the process through which water; sewer and storm drainage will be supplied to the site as stated in previous meetings with the applicant.

The major impact to air quality in the vicinity is vehicle traffic along the boundary streets. The traffic generated from the site will be minor compared to the total volume of traffic in this area, and will not create a significant additional air quality impact. At this time, a Traffic Impact Analysis is not required for this level of development.

The proposed development will have no significant impact on the quality of the land. Considering the location of the site within the city, the availability of public facilities to provide water, sewage disposal and storm drainage services, and the surrounding transportation system, the proposal will have no significant impacts to the quality of the air, water or land. The City's adopted facility plans implement Goal 6.

The City's adopted Comprehensive Plan Open Space Policies implements the Statewide Recreation Needs Goal by encouraging conservation and identification of existing and needed park resources and funding mechanisms. The subject property will be developed as a PUD which will be required to provide on-site open space areas. These areas will provide recreational areas for the residents. At the time of development, the proposal will provide improved public pedestrian connections via hard-surfaced sidewalks the will connect to the existing pedestrian circulation.

Therefore, the proposal complies with these policies.

Transportation Policies 1, 2, 3, 4, 6:

The City's adopted Comprehensive Plan Transportation Goals and Policies implements the Statewide Transportation Goal by encouraging a safe, convenient and economic transportation system. The subject property is located along Ivy Street and 13th Street. The major streets are in place due to previous development. The County will be notified of the proposal and will provide comments regarding any county roads effected by this proposal.

The development of townhomes on this site is a safer and more convenient way to develop the site. The development will provide two driveways within and throughout the site. At this time, a Traffic Impact Analysis is not required for this level of development.

All improvements will be made as required by Code and any Conditions of Approval.

Therefore, these policies have been met.

Public Facilities Policies:

The City's adopted Comprehensive Plan, residential, Transportation Goal and Polices, and adopted Storm water and Water Master Plans implement the Statewide Public Facilities and Services Goal by requiring development to be served by public services. The proposal is for revitalized urban development in an area where future extensions of those services can be provided in the most feasible, efficient and economical manner. All necessary and appropriate public services and facilities essential for development will be provided to this property at levels that are adequate to serve the proposed use.

The City maintains an infrastructure of public services that includes sewer, water, and storm drainage facilities. The City will specify any needed changes to the existing service levels at the time building permits are requested.

In order to assure compliance and prior to building permits, the applicant will work with the Fire Department and all other required agencies.

Sidewalks are or will be provided throughout the site for pedestrian circulation. The location along a major transportation corridor facilitates vehicle access, bicycle and pedestrian access, provides significant opportunity to reduce vehicle miles traveled. The vehicle, bicycle, and pedestrian circulation systems will be designed to connect to the existing street and sidewalk systems.

The education district's master plan provides for growth in the district and has options to meet the demand. The education district reviews the population factors to determine planning, funding and locating new schools or providing additional facilities on the sites of existing schools.

Other private service providers supply garbage, telephone, television, postal and internet services as needed by the development. The required public services and facilities to serve new development will be determined by the City at the time development permits are requested. By providing adequate public facilities and services for the proposed use, the requirements of these policies are met.

Economic Policies:

The proposal will have a positive impact on the economy of the City of Canby. The Conditional Use will allow the underdeveloped property to be developed, which will create employment along with a housing type that is needed and will bring in tax money to the City.

The proposal will provide a location for residential uses. The subject property is currently underutilized. The site will offer economic diversification because it will provide for the expansion of new residential. It will provide an opportunity to encourage hiring of local unemployed, skilled and unskilled local residents. The site is currently unproductive and returns little value to the City. Redevelopment contributes to the economic base of the urban area, which is consistent with the economic policies. Therefore, these policies have been met.

Housing Policies 2, 3:

This proposal will provide a needed housing type in this part of Canby. This will not be low income housing. These will be market value rental units.

The existing neighborhood consists of detached single-family housing and attached single-family dwellings. In order to provide an alternative housing pattern while being consistent with the neighborhood, the proposed development will provide a higher density of needed housing in this area. In order to maintain the character of the neighborhood, the site will be developed in compliance with required Design Standards and provide the required setbacks along property lines.

The City's adopted Comprehensive Plan, Residential, Transportation Goals and Policies and applicable adopted facilities plans implement the Statewide Housing Goal. Therefore, the Housing Policies have been met.

B. The characteristics of the site are suitable for the proposed use considering size, shape, design, location, topography, existence of improvements and natural features;

The proposed development benefits the public by permitting the site to be utilized in accordance with specific development standards that reflects the character of the existing neighborhood. The traffic impacts are minimal and the level of impacts for this development is so low it does not require a TIA (Traffic Impact Analysis) at this time. This proposal will also allow for the advantageous use of land that is currently serviced by public facilities. An 38-unit townhome development provides an excellent transition and a melding of the different types of housing in the area where there is existing well-established detached single family and attached single family housing.

The proposal will benefit the public by making use of vacant land for a low-impact development that will not affect the residential neighborhood. The proposed use will enhance an established neighborhood by developing buildings with compatible design.

The proposed buildings will only be 2-stories in height with more than adequate setbacks to provide a buffer from adjacent residential uses to the east and south. The building height and setbacks meet the standards set out in the Code. These standards are established in order to minimize impacts to adjacent uses. The building design, height, and setbacks will help minimize any impacts to the surrounding properties.

C. Public facilities and services are adequate to accommodate the proposed use.

The submitted plans show that the proposed buildings can be serviced by the infrastructure to support the development and will be designed to City standards.

Prior to construction of the site, the applicant will provide plans that identify all existing and proposed utilities. The plans will show how all required utilities will be connected to existing or relocated to provide services to the proposed development.

The applicant will obtain all required permits prior to construction.

D. The proposed use will not alter the character of the surrounding areas in a manner which substantially limits, or precludes the use of surrounding properties for the uses listed as permitted in the zone.

There is an existing single-family dwelling and shed on the time that will be removed prior to development. The surrounding properties are fully developed.

North: Across 13th Avenue, an existing adult center
East: Existing single-family dwellings
South: Existing single-family dwellings
West: Across Ivy Street, existing attached single-family dwellings

The townhomes (attached single family dwellings) will be compatible with the residential uses to the east, south, west and north. The townhomes will be required to go through Site Plan/Design Review, which requires open space and landscaping at a higher percent than what a detached single family development would be required to provide. Amenities like landscaped open space

will help with the visual appeal of this area and reduce impacts on the neighborhood. The design standards are in place to help ensure compatibility with adjacent uses.

The proposed development will provide a pedestrian circulation throughout the property and to the proposed and existing sidewalks. Therefore, increasing their livability as well.

In Conclusion: This proposed development takes an underutilized lot and will develop it with 38-townhomes that meet or exceed Code requirements. The development will create visually appealing buildings that add to the character of the neighborhood, while providing a needed housing type.

As shown above and on attached materials, the applicant's findings and site plan meet the Code requirements and therefore approval is warranted.

Canby Townhomes

Subdivision/Planned Unit Development

Site:

The subject property is located at 1300 S Ivy Street (41E04DA/Tax Lot 4800). The subject property is about 2.59 acres in size and are zoned C-R. The applicant is proposing to develop the site with 38 townhomes on 38-lots.

Vicinity Information:

There is an existing single-family dwelling and shed on the time that will be removed prior to development. The surrounding properties are fully developed.

North: Across 13th Avenue, R-1 zone; an existing adult center

East: R-1 zone; Existing single-family dwellings

South: R-1.5 zone; Existing single-family dwellings

West: R-1.5 zone; Across Ivy Street, existing attached single-family dwellings



Proposal:

The applicant is proposing to divide 2.59 acres into 38-lots for townhome development.

Chapter 16.20-R-2 Zone Review Criteria

Townhomes (single family dwellings having common wall construction) are permitted with Conditional Use approval under 16.24.020(B) in the C-R zone. Townhome development is subject to the development standards of the R-2 zone.

Development Standards

Minimum Density: The minimum density within the R-2 zone is 14 units per acre. The subject property is 2.59 acres in size, with lots ranging in size from 1,661 to 4,864 square feet (including access easement) in size. Therefore, all proposed lots require a minimum of 1 unit per lot. This criteria will be met with the development of a townhome on each lot. See attached site plans.

Width and Frontage: Per 16.20.030B, the minimum width requirement is 20 feet. All proposed lots are 22 to 28 feet in width. Therefore, meeting this requirement.

Yard Requirements:

Front yard setback: 20.5 to 23.71-foot setbacks
Side yard setback: 4.44 to 20-foot setbacks
Rear yard setback:
East Property Line- 14.95 to 15-foot setbacks
South Property Line- 15 to 15.55-foot setbacks
West Property Line- 20-foot setbacks (adjacent Ivy Street)
North Property Line- 20-foot setbacks (adjacent 13th Street)

Building Height: The maximum building height allowed is 35 feet. All buildings are 32.1 feet in height.

Therefore, this criteria has been met.

Common Open Space/Recreational Space: The proposed development shall provide 15% of open space/recreation space. Therefore, 16,800 square feet of landscaped recreation space shall be provided on the site.

The applicant has provided landscape plans. All open space/common and private open space areas will be landscaped. Approximately 33,390 square feet of total common open space throughout the site is landscaped. The landscape plans identify street trees and landscaped areas. Therefore, 30% of the site is landscaped area. This does include yards within the individual lots.

Chapter 16.64-Subdivision Design Standards

All required materials have been submitted as part of our application packet showing utilities, streets, lots layout, circulation, and improvements:

Cover Sheet: Sheet-SDR1
Existing Conditions Plan: Sheet SDR2
Lot Layout Plan: Sheet SDR3
Site Plan/Preliminary Plan: SDR4
Grading Plans: Sheet-SDR5
Utility Plans: Sheet-SDR6
Landscape Plans: Sheets-L1.1, L1.2
Building Elevation/Floor Plans: Sheet A1.1

Streets:

All streets will be designed to and approved by the City to make sure they are in compliance with Code. All streets within the proposed PUD/SUB will be private streets that will access onto the public street system. See attached site plans.

Access:

The proposed subdivision/PUD will result in the creation of 38-lots. Vehicular access to the proposed lots will be taken from proposed internal streets onto 13th Street, along with access on Ivy Street. Private internal streets have been provided throughout the site. The internal streets will provide safe and efficient access to the lots and the existing street system, by providing direct access to the site and to existing public streets to the north and west.

Pedestrian and bicycle connections are provided by the existing network of sidewalks and streets. The design of pedestrian circulation systems shall provide clear and identifiable connections within the development and to adjacent uses and public streets/sidewalks.

The internal pedestrian circulation system consists of hard 5-foot wide surfaced sidewalks that provide easily identifiable and safe connections between the residential dwellings, parking, recreation areas, the existing sidewalk system. The pedestrian system connects the front entrances of the buildings to the proposed internal sidewalk system. The sidewalks are raised above the surface of the travel lanes. Pedestrian crossings will make use of drop curbs to facilitate handicap access. This provides a clear separation between vehicles and pedestrians. Any pedestrian pathways that cross the parking area or driveways will be raised and a minimum of five feet wide. The pedestrian pathways will be lighted.

Blocks:

Block lengths shall not exceed 400 feet in residential zones. There are no blocks with in the proposed development that exceed 400 feet in length. See attached site plans.

Easements:

There is an access easement located on Lot 13 that will provide access to the street system for Lots 11, 12, and 13. All easements including solar easements will be identified on the recorded subdivision plat and recorded property deeds.

Lots:

There are no minimum lot sizes in the R-2 zone. Lot requirements are determined by density as referenced in the Code:

“Minimum residential density: New development shall achieve a minimum density of 14 units per acre. Density is calculated by dividing the number of dwelling units by the property area in acres (minus area required for street right-of-way and public park/open space areas). Decimals are rounded to the nearest whole number. The Planning Commission may modify the density standard if it cannot be met due to existing lot dimensions, road patterns, or other site characteristics.”

The proposed lots range in size from 1,661 square feet to 3,544 (excluding the 1,320-square foot access easement) square feet in size. Therefore, all proposed lots require a minimum of 1 unit per lot.

The minimum lot width requirement is 20 feet in width. All proposed lots are 22 to 28 feet in width. Therefore, meeting this requirement.

This criteria will be met with the development of a townhome on each lot. See attached site plans.

Parks and Recreation:

As shown on the site plan, there is a 6,156-square foot open space area provided within the proposed SUB/PUD. The open space area will be landscaped and provide recreation area for the residents. See attached site plans.

Grading:

Grading plans have been provided as part of this packet.

Improvements:

Public Facilities-

Transportation: All internal streets within the PUD are private streets. These streets, as shown on the site plans, have been designed to City standards.

Circulation and connectivity are shown on the site plan. The internal streets provided circulation throughout the proposed development and to the existing street system.

The Public Works Department is responsible for review and approving public facility construction and installation. No under improved streets are proposed. Sidewalk installation is generally required when building permit applications are submitted to the City. Utilities are required to be underground. Engineered construction plans will be required for final plat approval.

Public Use Areas: The proposed development provides a recreation landscaped open space areas throughout the site. The recreation open space areas are in convenient and safe areas for the residents via proposed sidewalks. The proposed development provides approximately 6,156 square feet of total common open space throughout the site, along with a 1,562-square foot paved patio area for all residents. See the site plan.

All open space and recreation areas on the site will be maintained by an HOA.

Storm Drainage: The storm water system will be designed to meet the requirements of water quality and water quantity requirements.

Water quality facilities as required and will be incorporated within the catch basin/storm manhole infrastructure prior to discharge.

Design of the storm drains will include provisions to adequately control runoff from impervious and pervious areas within and upstream of the development without exceeding capacities of the available facilities. Underground storm detention systems will be constructed within the street rights-of-way.

Plans identify the existing and proposed utilities have been provided in our submittal packet. Plans showing storm drainage have been provided in our submittal packet.

Utilities: Utility plans have been provided as part of the submittal packet.

Grading: Grading plans have been provided as part of the submittal packet.

Parking:

The proposal is for 38-townhomes within a PUD/SUB. Attached single family dwellings are required to have 2 vehicle parking spaces per dwellings (2 vehicle parking spacing on each lot provided for each dwelling). Therefore, the applicant is required to provide 76 on-site parking spaces. The development provides 81 parking spaces on-site.

There are additional parking spaces provided. These parking spaces are centrally located within the development, as shown on the site plan.

Bicycle parking spaces are not required for this type of development.

This type of development does not require a loading area.

Lighting:

Since the development is not a multi-family development, a lighting plan has not been provided. Street lights will be provided along the internal street system and within parking areas.

Section 16.76 PUD Requirements:

The proposed subdivision has been designed to meet the requirements of the zone and Code. The PUD gives flexible to some of these standards.

Minimum Requirements A and B

A. Open Space:

The code requires that PUD developments provide a minimum of 15% open space.

The proposed development provides a 6,156 square foot landscaped common open space area located in the northwest corner of the site, a 1,562 square foot paved patio area centrally located, and 33,390 square feet of landscaped areas throughout the site (this includes common and private open space areas). All open space areas are in convenient and safe areas for the residents via proposed sidewalks. The proposed development provides approximately 33,390 square feet of total open space throughout the site. Therefore, 30% open space on the site. See the site plan.

B. Lot Size:

There are no minimum lot sizes in the R-2 zone. Lot requirements are determined by density as referenced in the Code:

“Minimum residential density: New development shall achieve a minimum density of 14 units per acre. Density is calculated by dividing the number of dwelling units by the

property area in acres (minus area required for street right-of-way and public park/open space areas). Decimals are rounded to the nearest whole number. The Planning Commission may modify the density standard if it cannot be met due to existing lot dimensions, road patterns, or other site characteristics.”

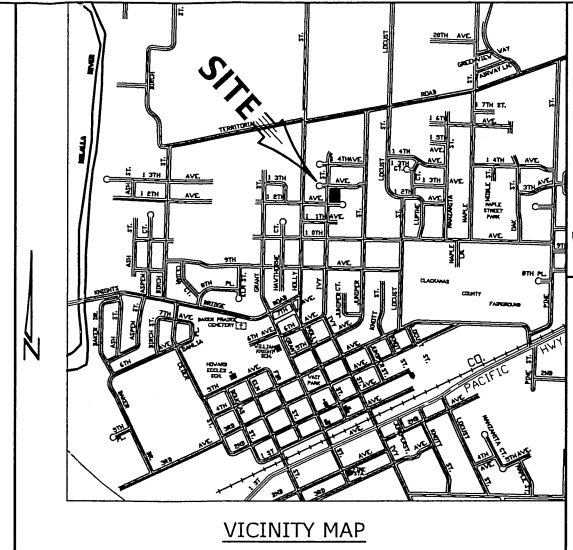
The proposed lots range in size from 1,661 square feet to 3,544 (excluding the 1,320-square foot access easement) square feet in size. Therefore, all proposed lots require a minimum of 1 unit per lot.

The minimum lot width requirement is 20 feet in width. All proposed lots are 22 to 28 feet in width. Therefore, meeting this requirement.

This criteria will be met with the development of a townhome on each lot. See attached site plans.

IVY STREET TOWNHOMES

SEC. 33, T. 3 S., R. 1 E., W.M.
CITY OF CANBY
CLACKAMAS COUNTY, OREGON



VICINITY MAP

MULTI/TECH
ENGINEERING SERVICES, INC.
1185 13TH ST. S.E. SALLIMA, OR, 97102
PH: (503) 363-9227 FAX: (503) 364-1260
www.mtengineering.net officemanager@mtengineering.net

COVER SHEET

Owner / Developer:

H&R PROPERTIES, LLC
PO BOX 2375
CLACKAMAS, OREGON 97015



SHEET INDEX

- SDR1 COVER SHEET
- SDR2 EXISTING CONDITIONS PLAN
- SDR3 PRELIMINARY LOT LAYOUT
- SDR4 PRELIMINARY SITE PLAN
- SDR5 PRELIMINARY GRADING PLAN
- SDR6 PRELIMINARY UTILITY PLAN

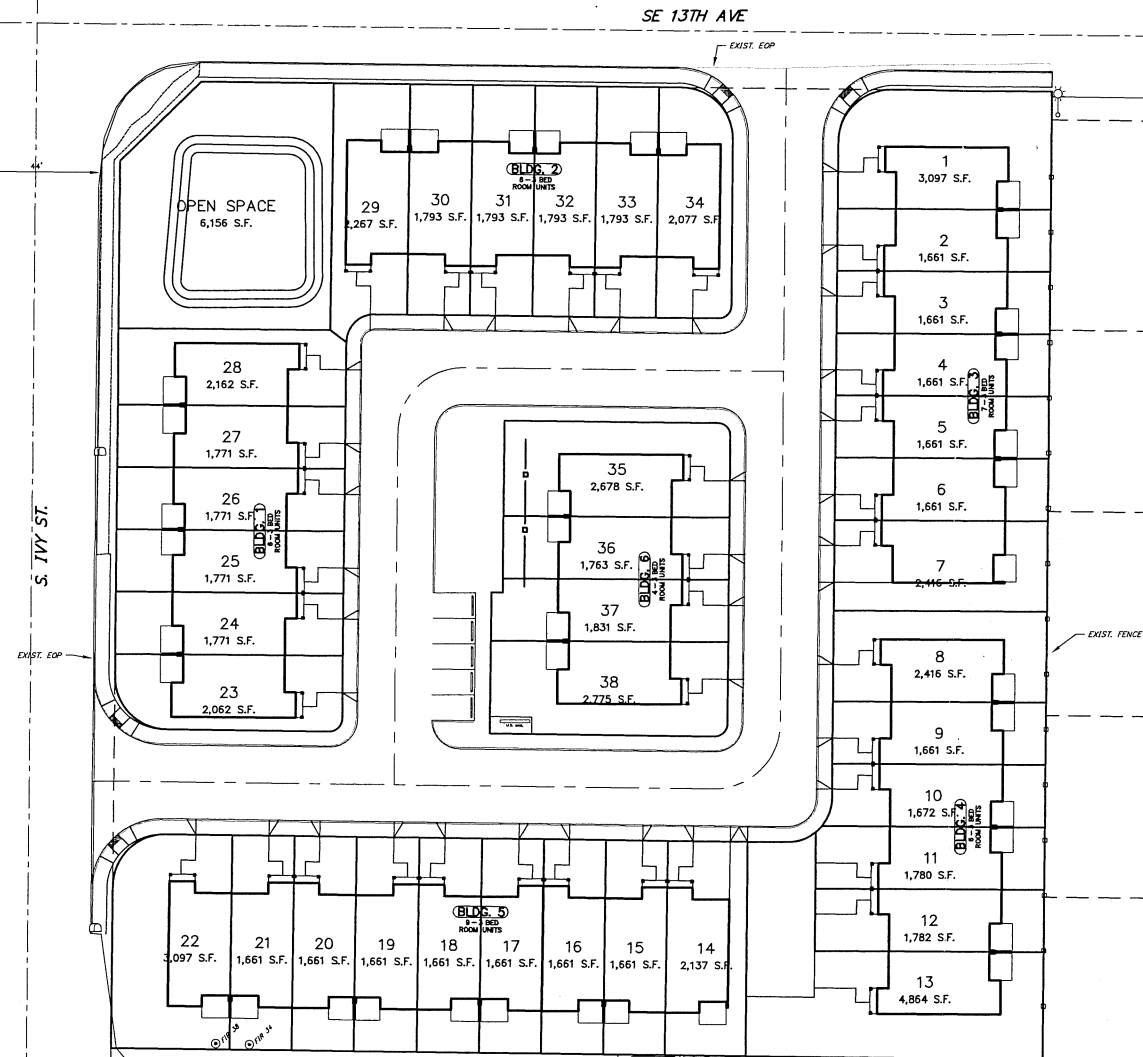
- A1.1 FLOOR PLANS AND ELEVATIONS
- LS01 SCHEMATIC LANDSCAPE PLAN
- LS02 SCHEMATIC LANDSCAPE PLAN

ABBREVIATIONS

A.C. ASPHALTIC CONCRETE	L.P. LIGHT POLE
ACHP ALUMINIZED CMP	M METER, MAIN
ASSY. ASSEMBLY	M.H. MANHOLE
B.O. BLOW OFF	MTL. METAL
B.F.V. BUTTERFLY VALVE	O.H. OVERHEAD
C & G CURB & GUTTER	P.C. POINT OF CURVE
CATV CABLE TELEVISION	P.C.C. POINT OF CONTINUING CURVE
C.B. CATCH BASIN	PED. PEDESTAL
C.B.C.O. CATCH BASIN CLEANOUT	PRC. POINT OF REVERSE CURVE
C.B.I. CATCH BASIN INLET	PROP. PROPOSED
C.L. CENTERLINE	PT. POINT OF TANGENCY
CMP CORRUGATED METAL PIPE	PUBLIC. PUBLIC
C.O. CLEANOUT	PUE. PUBLIC UTILITY EASMT.
CONC. CONCRETE	PVC. POLYVINYL CHLORIDE
CONST. CONSTRUCT	PVT. PRIVATE
D.I. DIAMETER	P.P. POWER POLE
DWG. DRAWING	P.L. PROPERTY LINE
EASMT. EASEMENT	R. RADIUS
E.G. EXIST. GRADE / GROUND	RD. ROAD
EOP, E.P. EDGE OF PAVEMENT	RIM. RIM
ELEC. ELECTRIC	R.O.W. RIGHT-OF-WAY
ELEV. or EL. ELEVATION	SAN.S. or S.S. SANITARY SEWER
EX. or EXIST. EXISTING	S. SLOPE
FT. FEET	STA. STATION
F.F. FINISH FLOOR	STD. STANDARD
F.G. FINISH GRADE	STL. STEEL
F.H. FIRE HYDRANT	STM.DRN. or S.D. STORM DRAIN
F.M. FORCE MAIN	SW. SERVICE
GUT. or GTR. GUTTER	SW. SIDEWALK
G.V. GATE VALVE	T.C. TOP OF CURB
IMP. IMPROVEMENT	TEL. TELEPHONE
INST. INSERT	TYP. TYPICAL
INV. or I- INVERT	U.G. UNDERGROUND
L. LENGTH, LINE	VL. VAULT
	W.M. WATER MAIN

SYMBOLS

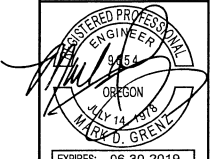
BLOW OFF ASSY.	MANHOLE SAN. SEWER
CATCH BASIN	MANHOLE STORM DRAIN
CATCH BASIN CLEANOUT	2' DIA. C.O. / M.H.
CATCH BASIN INLET	MANHOLE TELEPHONE
CATV PED. / BOX	MANHOLE WATER
CLEANOUT	REDUCER / INCREASER
ELEC. PED. / BOX	TEL. PED. / BOX
FIRE HYDRANT	TRAFFIC PED. / BOX
IMP. GAS LOCATION MARKER	UTILITY / POWER POLE
GAS VALVE	WATER METER
MAIL BOX	WATER VALVE
CABLE TELEVISION	SANITARY SEWER EXIST.
CENTERLINE	SANITARY SEWER PROP.
DITCH C.L.	STORM DRAIN EXIST.
ELECTRICAL LINE	STORM DRAIN PROP.
GAS MAIN	WATER MAIN EXIST.
TELEPHONE LINE	WATER MAIN PROP.



IVY STREET
TOWNHOMES

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DRAWN: C.D.S.
CHECKED: B.M.G.
DATE: MARCH 2018
SCALE: AS SHOWN



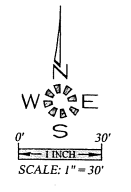
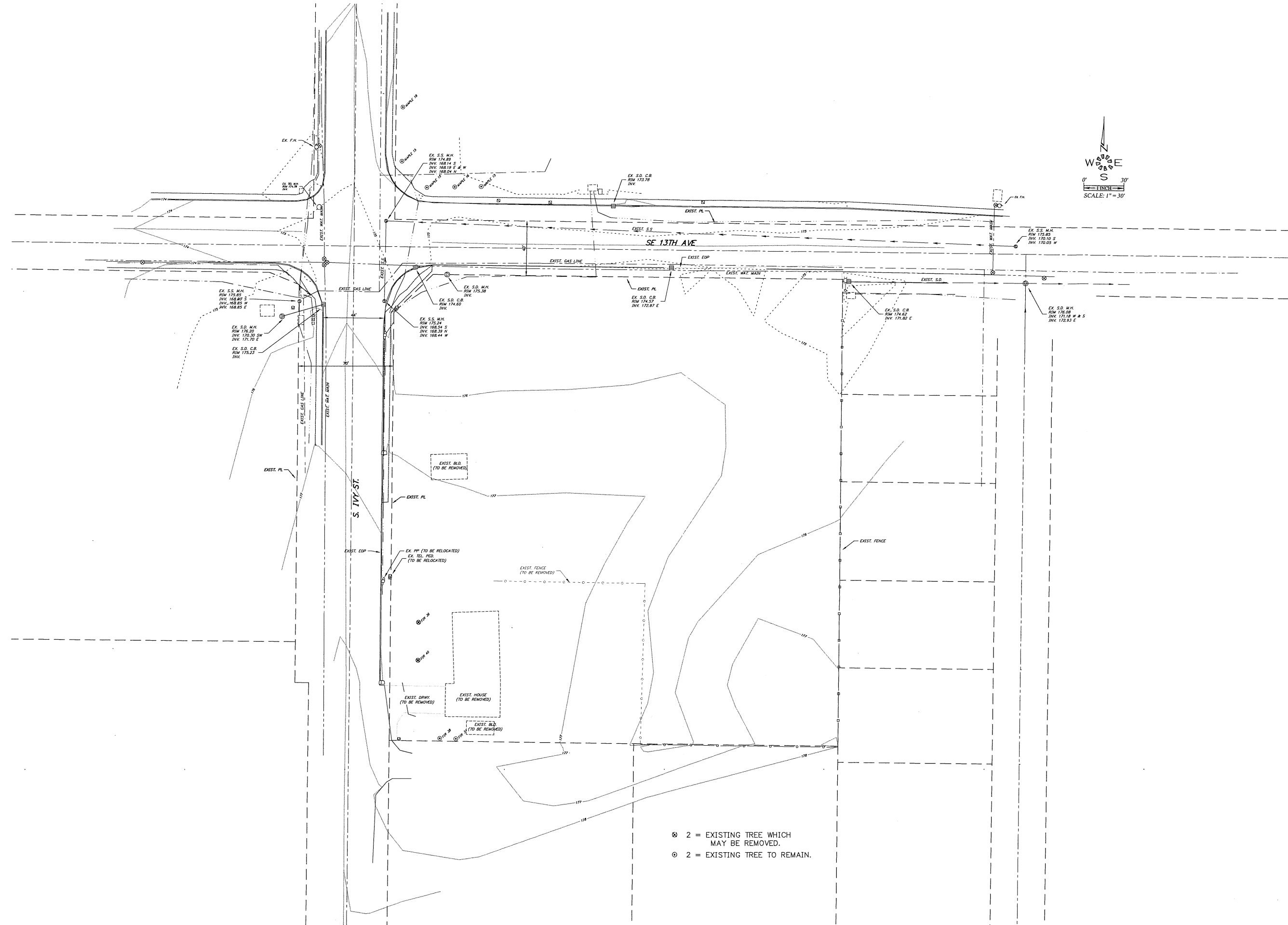
EXPIRES: 06-30-2019

JOB # 6649

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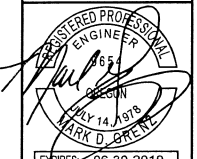


**EXISTING
 CONDITIONS
 PLAN**

**IVY STREET
 TOWNHOMES**

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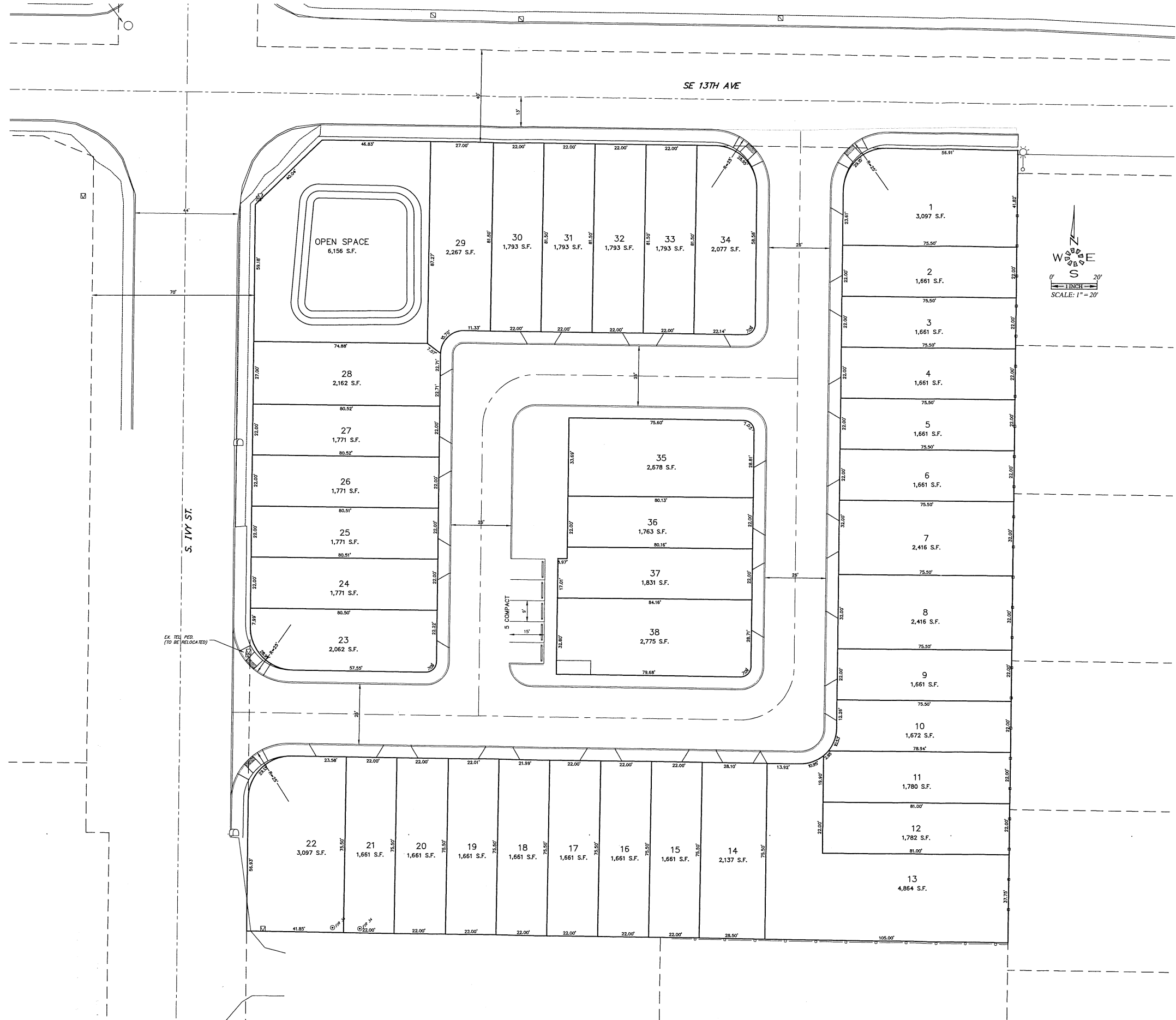


EX-885 06-30-2019
 JOB # 6649

PARCEL SIZE:
 DEVELOPABLE AREA 2.42 Ac.
 NUMBER OF UNITS 39
 DENSITY 15.7 UNITS/ACRE
 LARGEST 4,864 S.F.
 SMALLEST 1,661 S.F.
 AVERAGE 2,097 S.F.

EXISTING ZONE Single Family Residential
 COMPREHENSIVE DESG. Low Density Residential

UTILITIES:
 CABLE COMCAST CABLE SERVICES
 POWER P.G.E.
 PHONE CENTURY LINK
 GAS N.W. NATURAL
 STORM DRAIN & DOMESTIC WATER CITY OF CANBY
 SANITARY SEWER CITY OF CANBY



MULTI/TECH
 ENGINEERING SERVICES, INC.
 1185 13th St., S.E., Salem, OR, 97302
 PH. (503) 363-9227 FAX (503) 364-1260
 www.mttechinc.com office@mttechinc.com

PRELIMINARY LOT LAYOUT

IVY STREET TOWNHOMES

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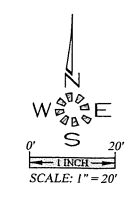
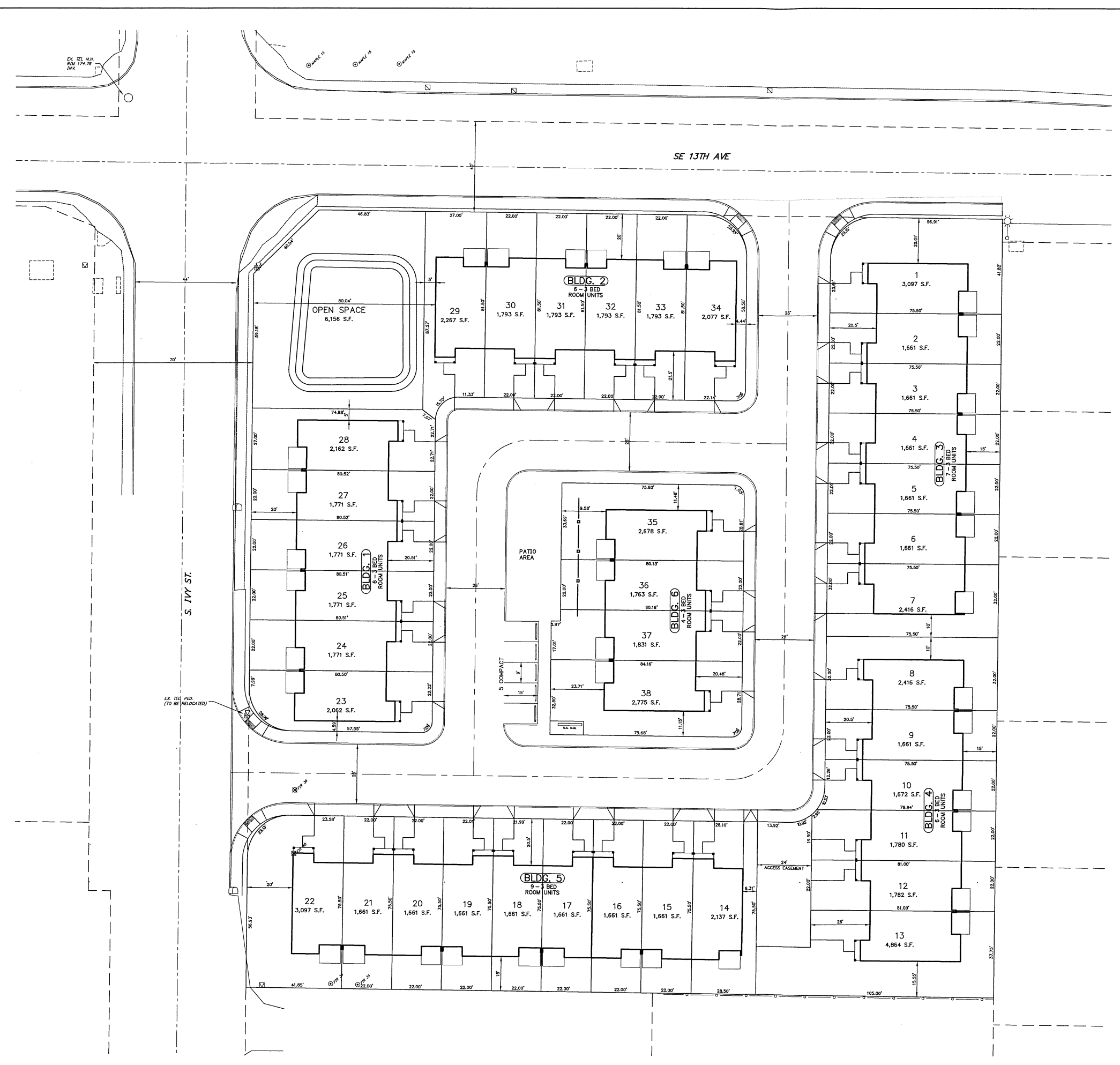


EXPIRES: 06-30-2019
 JOB # 6649

SDR3

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- 38 TOTAL TOWNHOME UNITS
- 38 TYPE "A" 3-Bd, 2-Ba SINGLE CAR GARAGE

- 81 TOTAL PARKING STALLS
- 38 STALLS GARAGES
- 38 STALLS (APRON BEHIND GARAGE)
- 5 GUEST (COMPACT)

- 1 PICNIC AREA
- 1 OPEN AREA

- SITE TOTALS:**
- TOTAL AREA _____ 111,997 S.F. (2.57C.)

- PERVIOUS AREA _____
- LANDSCAPE AREA _____ 33,390 S.F.

- TOTAL IMPERVIOUS AREA _____ 78,607 S.F.
- ASPHALT _____ 20,023 S.F.
- DRIVEWAY _____ 12,774 S.F.
- SIDEWALK _____ 8,797 S.F.
- BUILDINGS _____ 37,013 S.F.

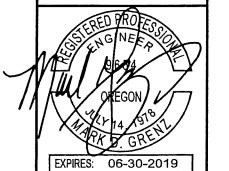
MULTI/TECH
 ENGINEERING SERVICES, INC.
 11525 13TH ST., S.E. SALEM, OH, 97302
 PH. (503) 363 - 9227 FAX (503) 364-1260
 www.mtiengineering.net office@mtiengineering.net

**PRELIMINARY
SITE
PLAN**

**IVY STREET
TOWNHOMES**

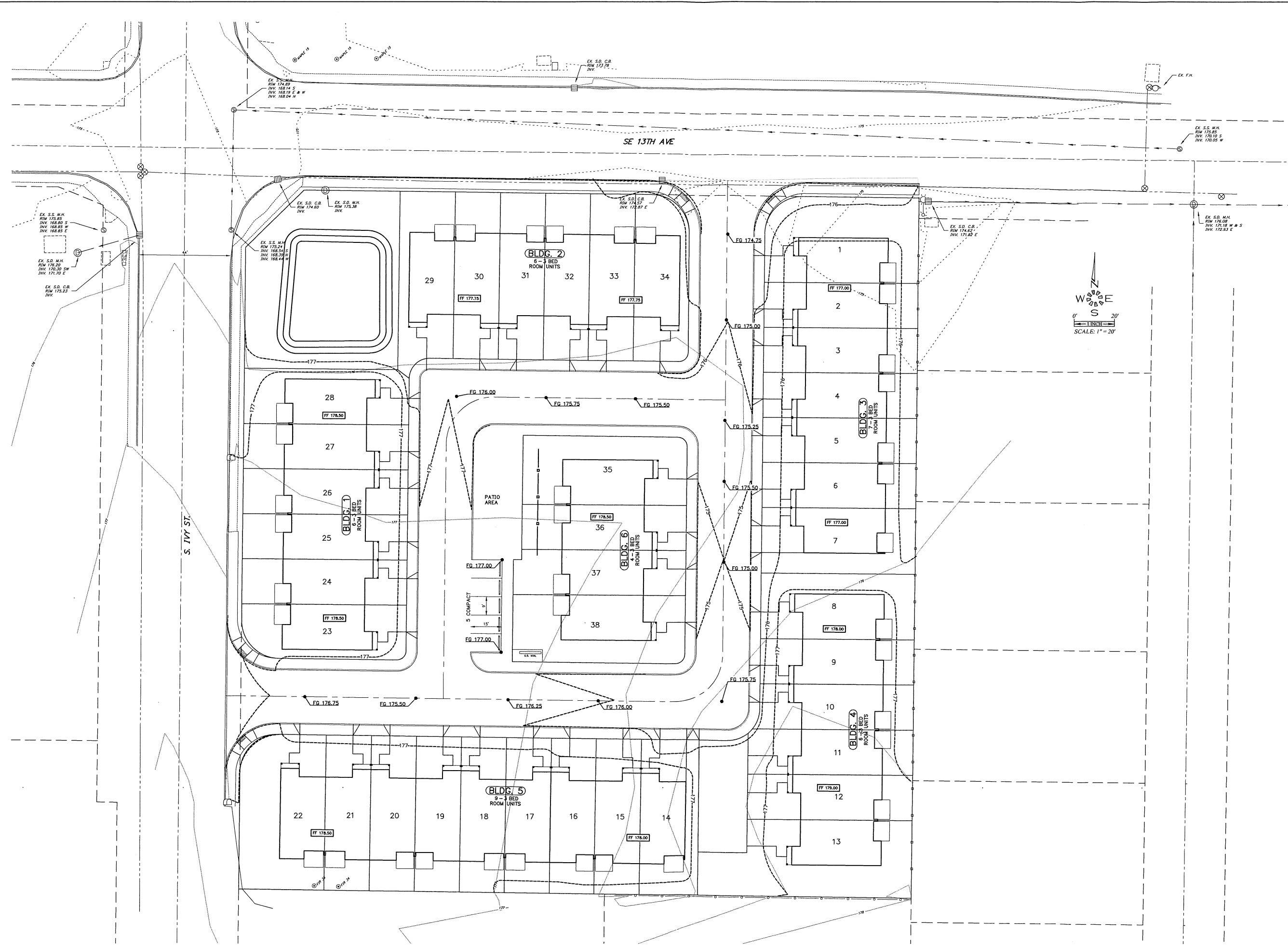
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 SCALE: AS SHOWN



EXPRES. 06-30-2019
JOB # 6649

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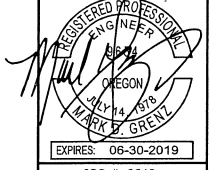


**PRELIMINARY
 GRADING & DRAINAGE
 PLAN**

**IVY STREET
 TOWNHOMES**

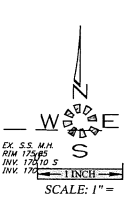
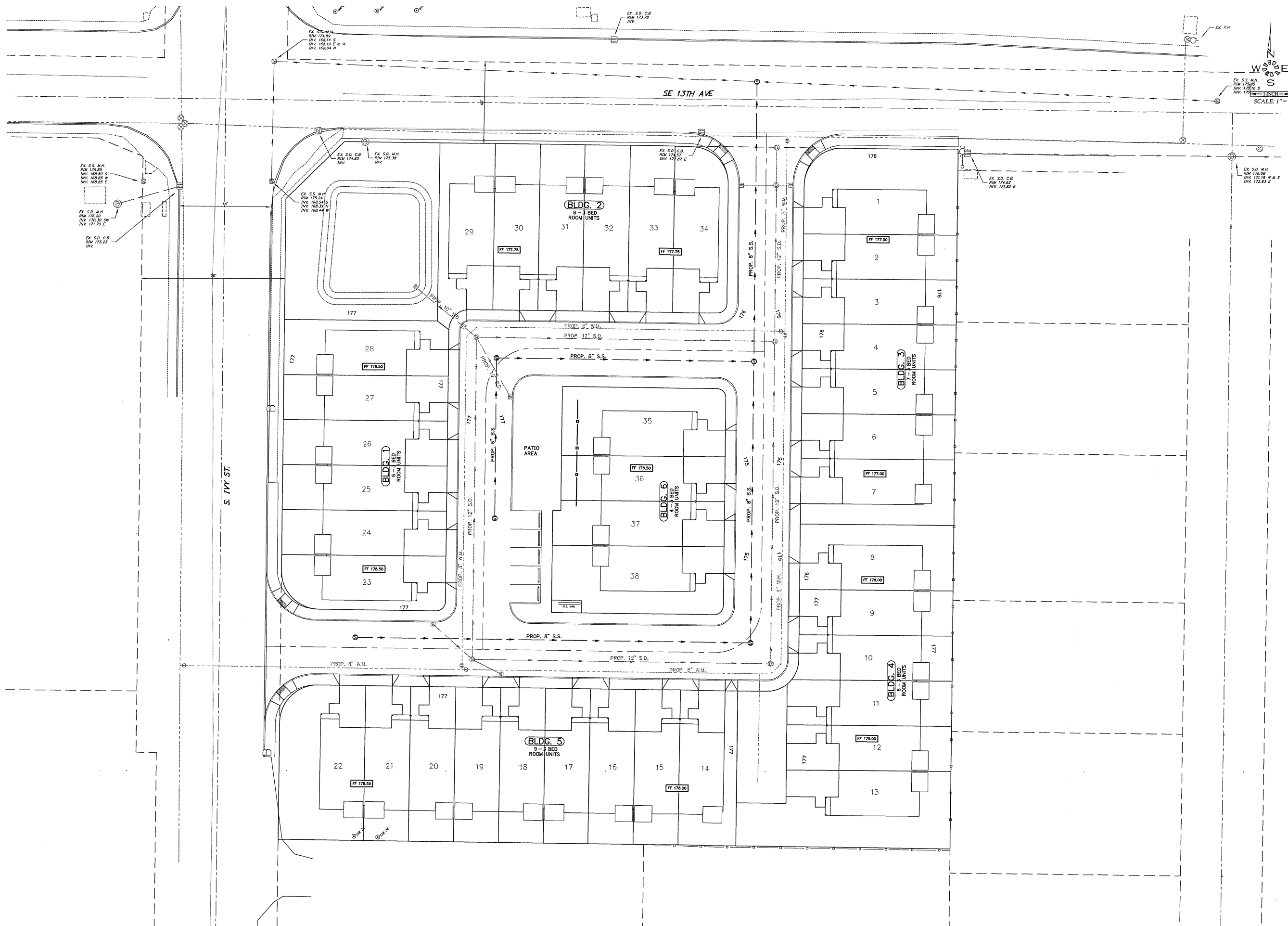
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 Checked: E.M.G.
 Date: MARCH 2018
 Scale: AS SHOWN



JOB # 6649

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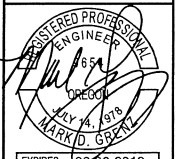
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 www.mtengineering.net office@mtengineering.net

**PRELIMINARY
 UTILITY
 PLAN**

**IVY STREET
 TOWNHOMES**

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 CHECKED: E.M.S.
 DATE: MARCH 2018
 SCALE: AS SHOWN



EXPRES. 03-30-2019
 JOB # 6649

SDR6

GENERAL LANDSCAPE NOTES:

General:

- All local, municipal, state, and federal laws regarding uses, regulations, governing or relating to any portion of the work depicted on these plans are hereby incorporated into and made part of these specifications and their provision shall be carried out by the Contractor. The Contractor shall at all times protect the public throughout the construction process.
- The Contractor shall carefully correlate construction activities with earthwork contractor and other site development.
- The Contractor shall verify drawing dimensions with actual field conditions and inspect related work and adjacent surfaces. Contractor shall verify the accuracy of all finish grades within the work area. The Contractor shall report to the Landscape Design & Consultants LLC (LDC) or Owner all conditions which prevent proper excavation of this work.
- The exact location of all existing utilities structures and underground utilities, which may not be indicated on the drawings, shall be determined by the Contractor. The Contractor shall protect existing structures and utility services and is responsible for their replacement if damaged.
- Disturbance and impacts to existing native trees/shrubs shall be minimized to the greatest extent practicable.
- The Contractor shall keep the premises free from rubbish and debris at all times and shall arrange material storage to not interfere with the operation of the project. All unused material, rubbish, and debris shall be removed from the site.
- All plant material and planting supplies shall be warranted for a period of not less than one year from the completion date of installation. All replacement stock shall be subjected to the same warranty requirement as the original stock. Any damage due to replacement operations shall be repaired by the Contractor. At the end of the warranty period, inspections shall be made by LDC, Owner/General Contractor. All plant and lawn areas not in a healthy growing condition shall be removed and replaced with plants and turf cover of a like kind and size before the close of the next planting season.

Grading/Erosion Control:

- The design and placement of the building on the site lends itself to minimal slope conditions with positive drainage being maintained around the entire building. In this case standard landscaping procedures of topsoil, lawn, and a two inch layer of bark mulch on all planting beds will be sufficient to control erosion. In the event site conditions change or there are Slopes / Bio Swale / Detention Ponds on the project with slopes greater than 30% Poly tight Jute Netting shall be installed with anchoring pins as per manufactures recommendations prior to planting. Recommend DeWitt FJN4216 Erosion Control Poly Jute Netting and DeWitt anchor pins or approved equal.
- Seed recommendation is Pro Time 700 Low Profile or approved equal over the jute netting at a rate of 2 lbs. per 1000 sq. feet. The address of Pro Time is 1712 SE Ankeny, Portland OR 97214. Phone 503-239-7518. There email is info@protimeawnseed.com
- The work limits shown on this plan shall clearly be marked in the field prior to construction. No disturbance beyond the work limits shall be permitted.
- Grading shall be performed during optimal weather conditions.
- Erosion control measures shall be constructed in conjunction with all clearing and grading activities, and in such a manner as to ensure that sediment and sediment-laden water does not enter the drainage system or violate applicable water standards.
- Prior to the commencement of construction activities, Contractor shall place erosion control fencing around perimeters of construction impact areas, and sediment fencing at downhill portions of the site. Contractor is responsible for proper installation, maintenance, replacement, and upgrading of all erosion and sediment control measures, in accordance with local, state, and federal regulations.

Plant Material:

- Contractor shall verify all plant & tree quantities with LDC or Owner prior to construction.
- In the event of a discrepancy between plants materials listed on the drawings, the drawings shall govern the plant species and quantities required.
- Plant material shall be first quality stock and shall conform to the code of standards set forth in the current edition of the American Standards for Nursery Stock sponsored by the American Association of Nurserymen, Inc. (AAN)
- Species and variety as specified on the drawings and delivered to the site shall be certified true to their genus, species and variety and as defined within the current edition International Code of Nomenclature for Cultivated Plants.
- Obtain freshly dug, healthy, vigorous plants nursery-grown under climatic conditions similar to those in the locality for the project for a minimum of two years. Plants shall have been lined out in rows, annually cultivated, sprayed, pruned, and fertilized in accordance with good horticultural practice. All container plants shall have been transplanted or root pruned at least once in the past three years. Balled and burlapped (B&B) plants must come from soil which will hold a firm root ball. Heeled in plants and plants from cold storage are not acceptable.
- Planting stock shall be well-branched and well-formed, sound, vigorous, healthy, free from disease, sun-scaled, windburn, abrasion, and harmful insects or insect eggs; and shall have healthy, normal, unbroken root systems. Deciduous trees and shrubs shall be symmetrically developed, uniform habit of growth, with straight trunks or stems, and free from objectionable disfigurements. Evergreen trees and shrubs shall have well-developed symmetrical tops with typical spread of branches for each particular species or variety. Only vines and ground cover plants well-established shall be used. Plants budding into leaf or having soft growth shall be sprayed with an anti-desiccant at the nursery before digging.
- Contractor shall not make substitutions of plant materials. If required landscape material is not obtainable, submit proof of non-availability and proposal for use of equivalent material. When authorized, adjustments of contract amount (if any) will be made by change order.
- Plant sizes and grading shall conform to the latest edition of American Standard for Nursery Stock as sponsored by the American Association of Nurserymen Inc. (AAN)
- All vegetation shown on this plan shall be maintained in a healthy and vigorous growing condition throughout the duration of the proposed use. All vegetation not so maintained shall be replaced with new vegetation at the beginning of the next growing season.

Planting:

- Planting shall be installed between February 1st and March 30th or between October 1st and November 15th. If planting is installed outside these time frames, additional measures may be needed to ensure survival and shall be pre-approved by the owner.
- Plant material shall be transported to the site in a timely manner to minimize on-site storage. Where storage is required, all plants shall be kept moist and shaded.
- Plant stock shall be handled in a manner that will not break, scrape, or twist any portion of the plant. Protect plants at all times from conditions that can damage the plant (e.g., sun, wind, freezing conditions).
- Provide the following clearance for planting of trees where applicable:

- Maintain 30 feet vision triangles at all intersections and corners
5 feet from all street/parking lot light standards
10 feet from fire hydrants
5 feet from all utility vaults, meter boxes, etc.
- No trees or shrubs shall be planted on existing or proposed utility lines.
 - All shrub beds shall receive a minimum 2" layer of bark mulch evenly applied immediately after planting is completed. All plant beds shall drain away from buildings.
 - Excavate plant pits for shrubs and trees as follows:
Container stock: width = 2 times the container diameter, depth = container depth.
Bare root stock: width = 2 times the widest diameter of the root, depth = of root system.
B & B: width = 2 times ball diameter, depth = ball depth.
Scarify sides and bottom of plant pits to roughen surfaces.
 - Place plants plants in the pit. Backfill with native soil or top soil mixture to the original plant soil line, and tap solidly around the ball and roots. Water plants immediately after planting if soil is not saturated to the surface.

Top Soil Mixture:

- A 2" to 4" layer of garden care compost, mushroom compost or similar material sterilized at 105 degrees Fahrenheit shall be incorporated into the existing soil prior to planting and seeding/seed layers.
Incorporate into existing soil prior to planting the following fertilizers at a rate specified per 1000 sq. ft. of planting area.
20 lbs. 10-6-4 50% Slow Release
30 lbs. 38-0-0 Nitroform
10 lbs. Iron Sulfate 21%
20 lbs. 0-18-0 Super Phosphate
25 lbs. Dolomite Lime
10 lbs. 13-0-11 Potassium Nitrate

Bark Mulch:

- All shrub beds shall receive a minimum 2" layer of fine hemlock or fir bark mulch evenly applied immediately after planting is completed. All plant beds shall drain away from buildings.

Poly Jute Netting for Bio Swales/Detention Ponds/Vegetated Swales/Rain Gardens:

- Tight net Poly Jute Netting shall be installed on Bio Swales/Detention Ponds/Vegetated Swales and Rain Gardens as a soil stabilizer and erosion control agent. Jute Netting shall be installed with anchoring pins as per manufactures recommendations prior to planting. Recommend DeWitt FJN4216 Erosion Control Poly Jute Netting and DeWitt anchor pins or approved equal.

Rain Gardens Bark Mulch:

- After Poly Jute Netting and Plants are installed a 2" layer of bark mulch shall be installed in rain gardens.

Bio Swales/Detention Ponds/Vegetated Swales:

- Bark Mulch shall not be applied to Bio Swales/Detention Ponds or Vegetated Swales.

Weed Control Agent:

- Apply casoron as a weed control agent after planting as per manufactures specified recommendations around building or approved equal.

Non-Native Plant Species:

- All non-native, invasive plant species shall be removed from the site.

Growing Medium for Stormwater Bio Swales/Vegetated Swales/Rain Gardens Planter Boxes:

- Furnish imported growing medium for vegetated stormwater facilities conforming to the following:
Standard Blend for Public and Private Facilities: Use this blend for all vegetated stormwater management facilities.
General Composition: The medium shall be a blend of loamy soil, sand, and compost that is 30 to 40 percent compost (by volume) and sterilized to 105 degrees Fahrenheit.
- Analysis Requirements for the Blended Material:
a. Particle Gradation: A particle gradation analysis of the blended material, including compost, shall be conducted in conformance with ASTM C117/C136 (AASHTO T1 1/27). The analysis shall include the following sieve sizes: 1 inch, 3/8 inch, #4, #10, #20, #40, #60, #100, and #200. The gradation of the blend shall meet the following gradation criteria:

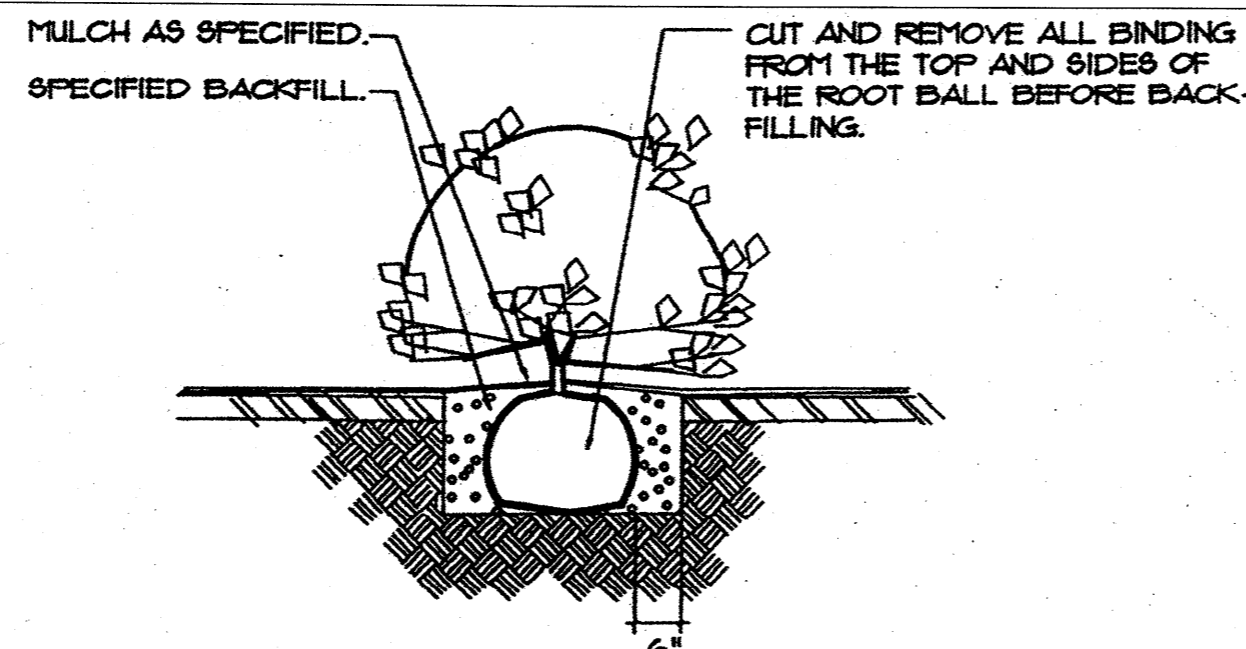
Sieve Size	Percent Passing
1 inch	100
#4	60-100
#10	40-100
#40	15-50
#100	5-25
#200	3-5
- The blend shall have a Coefficient of Uniformity (D60/D10) equal to or greater than 6 to ensure that it is well graded (has a broad range of particle sizes). The coefficient is the ratio of two particle diameters on a grain-size distribution curve; it is the particle diameter at 60 percent passing divided by the particle diameter at 10 percent passing.
- Organic Matter Content: An analysis of soil organic matter content shall be conducted in conformance with ASTM D2974 (loss on ignition test). The soil organic matter content shall be a minimum of 10 percent, as reported by that test.
- pH: The blended material shall be tested and have a pH of 5.5 to 7.
- Depth of growing medium shall be 18 inches. Growing medium shall be placed in 4 inch lifts and lightly compacted.
- Once planting is completed Bark Mulch shall not be installed in Stormwater Bio Swales.

General Requirements for the Blended Material:

- The material shall be loose and friable.
- It shall be well mixed and homogeneous.
- It shall be free of wood pieces, plastic, screened and free of stones 1 inch (25 mm) or larger in any dimension; free of roots, plants, sod, clods, clay lumps, pockets of coarse sand, paint, paint washout, concrete slurry, concrete layers or chunks, cement, plaster, building debris, oils, gasoline, diesel fuel, paint thinner, turpentine, tar, roofing compound, acid, and other extraneous materials harmful to plant growth; and free of weeds and invasive plants including but not limited to:
 - Cirsium arvense (Canadian Thistle)

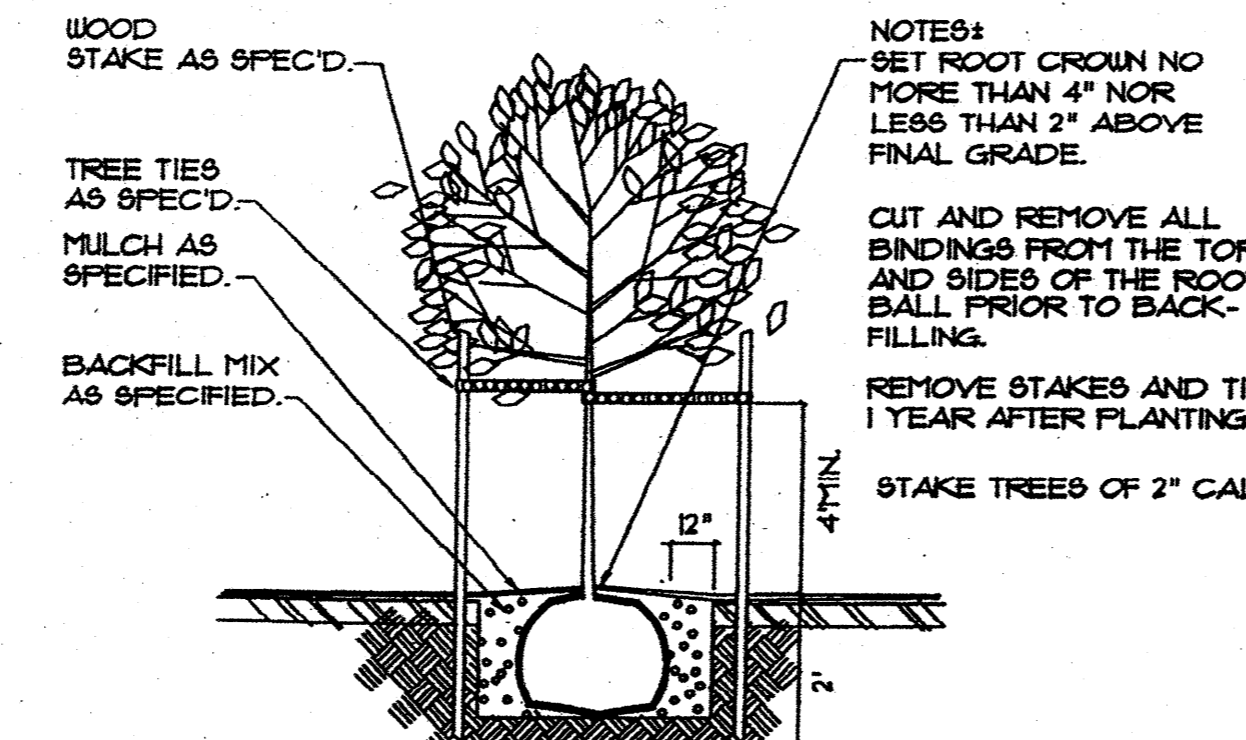
- Convolvulus spp. (Morning Glory)
- Cytisus scoparius (Scotch Broom)
- Dipsacus sylvestris (Common Teasel)
- Festuca arundinacea (Tall Fescue)
- Hedera helix (English Ivy)
- Holcus canatus (Velvet Grass)
- Lolium spp. (Rye Grasses)
- Lotus corniculatus (Bird's Foot Trefoil)
- Lythrum salicaria (Purple Loose Strife)
- Melilotus spp. (Sweet Clover)
- Myriophyllum spicatum (Eurasian Milfoil)
- Phalaris arundinacea (Reed Canary Grass)
- Rubus discolor (Himalayan Blackberry)
- Solanum spp. (Nightshade)
- Triticum spp. (Clovers)

- Compost: The compost shall be derived from plant material and provided by a member of the U.S. Composting Council Seal of Testing Assurance (STA) program. See www.compostingcouncil.org for a list of providers in Portland and surrounding area.
- The compost shall be the result of the biological degradation and transformation of plant-derived materials under conditions designed to promote aerobic decomposition. The material shall be well composted, free of viable weed seeds, and stable with regard to oxygen consumption and carbon dioxide generation. The compost shall have no visible free water and produce no dust when handled. It shall meet the following criteria, as reported by the U.S. Composting Council STA Compost Technical Data Sheet provided by the vendor.
 a. 100 percent of the material must pass through a 1/2-inch screen. The pH of the material shall be between 6 and 8.
 b. Manufactured inert material (plastic, concrete, ceramics, metal, etc.) shall be less than 1.0 percent by weight. The organic matter content shall be between 35 and 65 percent.
 c. The soluble salt content shall be less than 6.0 mmhos/cm. Germination (an indicator of maturity) shall be greater than 80 percent.
 d. The stability shall be between classes 5-7.
 e. The carbon/nitrogen ratio shall be less than 25:1.
 f. The trace metals test result = pass.
- Submittals: At least 14 working days in advance of construction, submit the following:
 a. Two 5-gallon buckets of the blended material.
 b. Documentation for the three analyses described in Section (4) of this specification (particle gradation with calculated coefficient of uniformity; organic matter content; pH). The analyses shall be performed by an accredited laboratory with certification maintained current. The date of the analyses shall be no more than 90 calendar days prior to the date of the submittal.
 The report shall include the following information:
 Name and address of the laboratory
 Phone contact and e-mail address for the laboratory
 Test data, including the date and name of the test procedure



SHRUB PLANTING DETAIL

N.T.S.



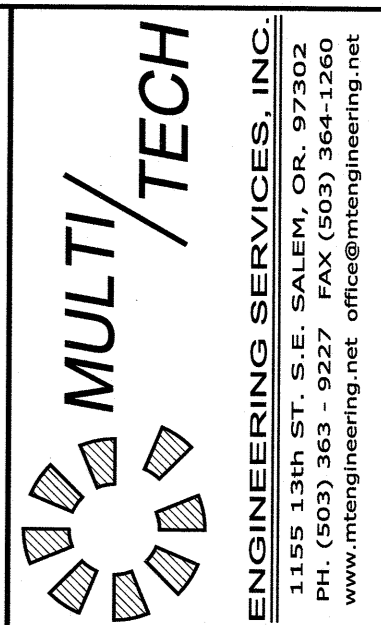
DECIDUOUS TREE PLANTING AND STAKING DETAIL

N.T.S.

PLANT PALETTE APARTMENTS

QTY.	SYM	BOTANICAL NAME	COMMON NAME	SIZE	CONDITION	REMARKS
7	T-1	Acer rubrum 'Armstrong'	Armstrong Red Maple	1 1/2" - 2" cal.	B & B	6' Standard
25	T-2	Fagus sylvatica 'Dawycyk Purple' Columnar	Columnar Dawycyk Purple Leaf Beech	1 1/2" - 2" cal.	B & B	4' Standard
26	T-3	Pyrus calleryana 'Capital'	Capital Flowering Pear	1 1/2" - 2" cal.	B & B	6' Standard
SHRUBS						
S-1		Abelia grandiflora 'Ed Goucher'	Edward Goucher Abelia	2 gal.	cont.	Full
S-2		Berberis thunbergii 'Crimson Pygmy'	Crimson Pygmy Japanese Barberry	2 gal.	cont.	Full
S-3		Calamagrostis x acutiflora 'Avalanche'	Avalanche Feather Reed Grass	2 gal.	cont.	Full
S-4		Cornus stolonifera 'Kelsey'	Kelsey Dwarf Redwing Dogwood	2 gal.	cont.	Full
S-5		Cornus sericea Arctic Fire 'Farrow'	Arctic Fire Redwing Dogwood	2 gal.	cont.	Full
S-7		Daphne odora 'Marginata'	Marginata Daphne	2 gal.	cont.	Full
S-8		Euonymus alatus 'Compacta'	Burning Bush Winged Euonymus	2 gal.	cont.	Full
S-9		Euonymus fortunei 'Moonshadow'	Moonshadow Euonymus	2 gal.	cont.	Full
S-10		Festuca glauca Elijah Blue	Elijah Blue Festuca Grass	1 gal.	cont.	Full
S-11		Mahonia aquifolium 'Compacta'	Compact Oregon Grape	2 gal.	cont.	Full
S-12		Ligustrum japonicum Texanum	Texas Wax-Leaf Privet	5 gal.	cont.	Full
S-13		Pennisetum alopecuroides Hameln	Dwarf Fountain Grass	2 gal.	cont.	Full
S-14		Pieris japonica 'Astrid' Compacta	Astrid Japanese Andromeda Compacta	5 gal.	cont.	Full
S-15		Rhododendron 'Yaku Princess'	Yaku Princess Rhododendron	24"-30"	w/buds	Full
S-16		Rhododendron 'Daphnoides'	Daphnoides Rhododendron	24"-30"	w/buds	Full
S-17		Rhododendron 'PJM'	PJM Rhododendron	24"-30"	w/buds	Full
S-18		Rosa 'prostrata red'	Red Prostrata Rose	2 gal.	cont.	Full
S-19		Spiraea japonica 'Magic Carpet'	Magic Carpet Spirea	2 gal.	cont.	Full
S-20		Spiraea japonica 'Double Pink'	Double Pink Spirea	2 gal.	cont.	Full
S-21		Viburnum tinus 'Spring Bouquet'	Laurustinus 'Spring Bouquet'	5 gal.	cont.	Full

CONTRACTOR TO VERIFY ALL QUANTITIES OF PLANT MATERIALS WITH LANDSCAPE DESIGN & CONSULTANTS PRIOR TO INSALLATION PLANT MATERIAL SUBSTITUTIONS MAY BE MADE BY THE OWNER FOR PLANT MATERIALS OF SIMILAR HABIT, FLOWERING CHARACTERISTIC AND/OR STRUCTURE OF GROWTH DUE TO AVAILABILITY, WATER, SOIL, AND SUN REQUIREMENTS.



LANDSCAPE DETAILS & NOTES

IVY STREET TOWNHOUSES

NO CHANGES, MODIFICATIONS OR REPRODUCTIONS TO BE MADE TO THESE DRAWINGS WITHOUT WRITTEN AUTHORIZATION FROM THE DESIGN ENGINEER.
DIMENSIONS & NOTES TAKE PRECEDENCE OVER GRAPHICAL REPRESENTATION.

Design: T.E.K.
Drawn: C.D.S.
Checked: M.D.G.
Date: MARCH 2018
Scale: AS SHOWN

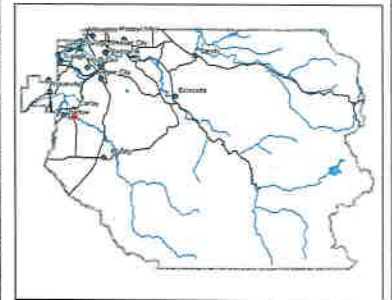


LANDSCAPE & IRRIGATION DESIGN BY:
LANDSCAPE DESIGN & CONSULTANTS LLC
Doing business since 1985

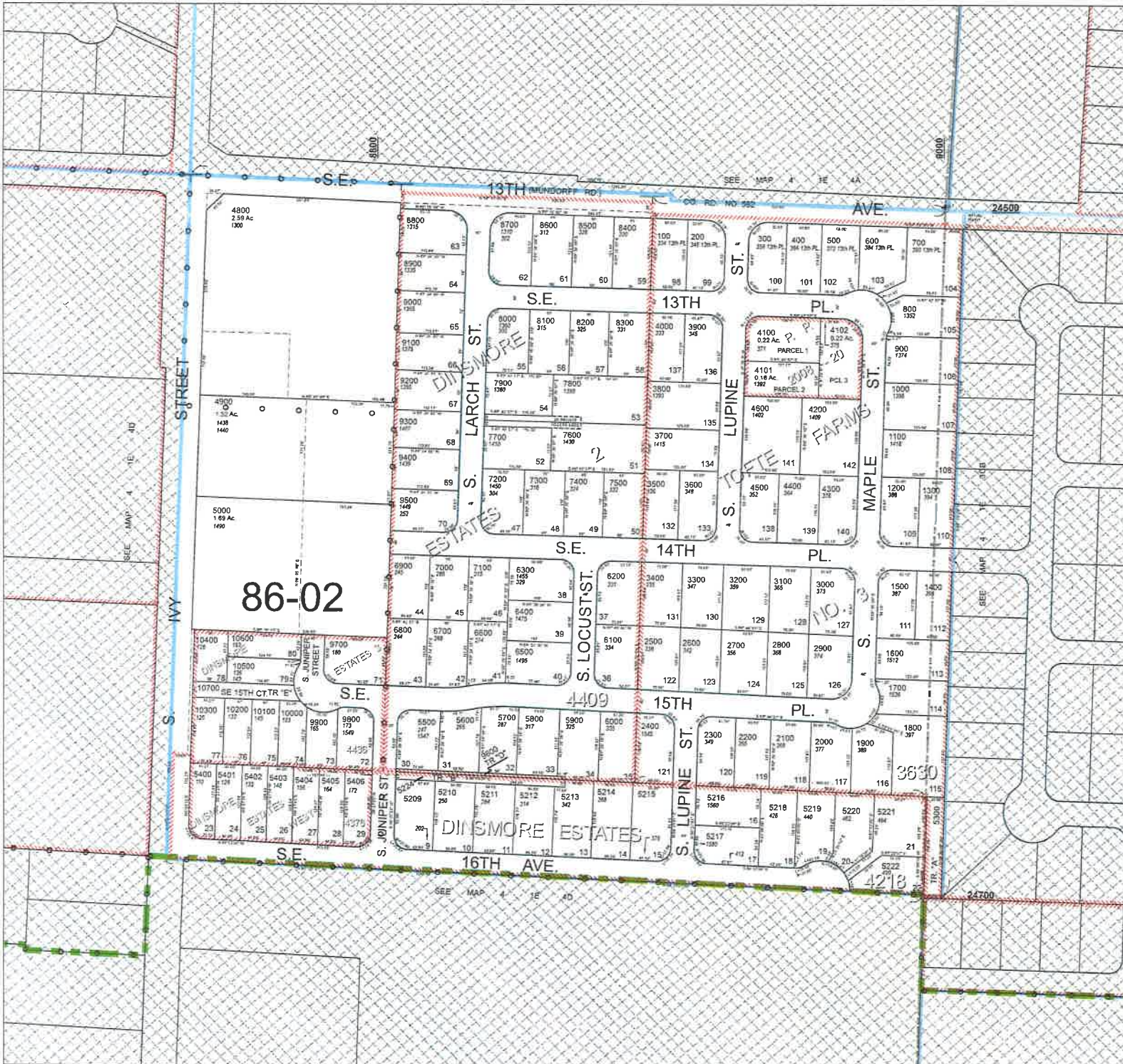
Cancelled Taxlots

- 5302
- 5307
- 5204
- 5223
- 5201
- 5206
- 5203
- 5208
- 5205
- 10700
- 4731
- 5200
- 4700
- 5100
- 5407

- Parcel Boundary
- - - Private Road ROW
- - - Historical Boundary
- - - Railroad Centerline
- TaxCodeLines
- Map Index
- WaterLines
- Land Use Zoning
- Plats
- Water
- ⊙ Corner
- Section Corner
- 1/16th Line
- Govt Lot Line
- DLC Line
- Meander Line
- PLSS Section Line
- ⊕ Historic Corridor 40'
- ⊙ Historic Corridor 20'



THIS MAP IS FOR ASSESSMENT
PURPOSES ONLY



Untitled Map

Write a description for your map.

Legend

-  Commercial @ Fairway
-  Courthouse Athletic Club
-  Robins Lane Apartment Complex



Google Earth

© 2018 Google

500 ft



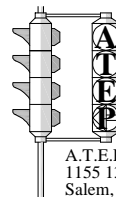
Revised
Traffic Impact Analysis
Ivy St Townhomes

Canby, Oregon

June 15, 2018

completed with
MultiTech Engineering Services, Inc
Salem, Oregon

Prepared by:
Associated Transportation Engineering & Planning, Inc.
Salem, Oregon
18-387 - June 14, 2018



ASSOCIATED
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Traffic Impact Analysis

Ivy St Townhomes

Canby, Oregon



Introduction and Summary:

The intent of this transportation impact study is to identify potential transportation system impacts created by the proposed Ivy St Townhomes project. The site, south of 13th Ave and east of Ivy St, is 2.6 acres and will provide 38 new townhomes (ITE 220) for residents of Canby. It is noted the City might limit the development to 30 townhomes. The parcel is tax lot 4800 of tax map 4S1E04DA and is currently has a single family home and undeveloped farmland. The site zoned Residential Commercial(C-R). Background traffic from Beck Pond (69 Homes) and the Mayberry Group (89 Homes) southwest of the site have been included in the computer modeling for this study.

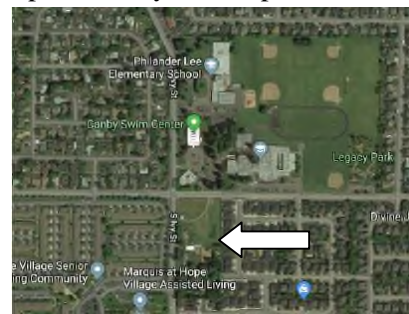


Figure 1 - Aerial View of Site

This report finds Ivy St Townhomes would not have significant off-site traffic impacts. No off-site mitigation is recommended for the proposed project as a result of traffic impacts. There are several site-access and circulation related conditions recommended to improve traffic flow and safety, including:

- Continue the no parking policy along the project frontage on both Ivy St and 13th Ave.
- Site driveways shall be kept clear of visual obstructions (e.g. landscaping, objects, etc.) that could potentially limit vehicle sight distance for drivers leaving Ivy St Townhomes and/or drivers on 13th Ave.

This analysis will consider the traffic impacts at the intersections of:

- Ivy St at 13th Ave.
- 13th Ave at the Site Access
- Ivy St at Site Access (for future queuing analysis)

Existing and Background Conditions:

Ivy St and 13th Ave are both minor arterials in the City of Canby and designed to serve as connections between local streets and collector streets and highways and freeways. Traffic at the intersection is traffic signal controlled. The Canby Adult Center and Hope Village Retirement Community are across the street from the Ivy St Townhomes site. The access to the Senior Center is across 13th Ave from the proposed

access to the site. Ackerman Middle School is north and east of the site on 13th Ave. It is anticipated the project will construct sidewalks along its frontage of Ivy St and 13th Ave, improving pedestrian travel in the vicinity. There are bike lanes on both Ivy St and 13th Ave along the project frontage. Canby Area Transit (CAT) provides general public Dial-A-Ride service for anyone traveling to or from destinations within the Canby Urban Growth Boundary. Service is provided for this operation between 8 a.m. and 6 p.m.

Turning movement counts were entered into a computer model to determine the transportation performance metrics for the studied intersections. Traffic expected from Beck Pond and Mayberry Group Development was added to the computer model as background traffic. All of the studied intersections are performing within accepted performance standards in the City of Canby with current and background traffic volumes.

Impacts:

The Institute of Transportation Engineers (ITE) publishes the Trip Generation Manual (10th Edition) to estimate the trip generation of different uses. It is developed from numerous trip generation studies in the past years. The development of the planned 38 (30) units in Ivy St Townhomes (ITE 220) is estimated to generate 17 trips in the AM Peak hour and 21 trips in the PM Peak hour. (30 units would generate 14 AM Peak hour trips and 17 PM Peak hour trips). Traffic from the planned townhomes will affect performance metrics at the studied intersections. However, both Ivy St and 13th Ave are minor arterials, designed and intended to carry large volumes of traffic in the City. The studied intersections will continue to function within the performance metrics the City assumed to develop their Transportation System Plan with traffic from the Ivy St Townhomes. The performance metric the City of Canby uses for its signalized intersections is LOS D or better. The intersection will continue to function at LOS B.

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Ivy St at 13th Ave	Signalized	HCM 6th Edition	EB Left	0.386	14.3	B

Existing AM Peak Hour Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Ivy St at 13th Ave	Signalized	HCM 6th Edition	WB Left	0.374	15.4	B

Existing PM Peak Hour Summary

Figure 2 - Existing Traffic Conditions

Two subdivisions are in planning stages southwest of the Ivy St Townhomes site. Beck Pond will add 69 homes west of Fir St at 16th Ave and the Mayberry Group will add 89 homes west of Ivy and north of the Molalla River. Anticipated traffic from these homes was added to the computer model without the Ivy St Townhomes to estimate the Background Traffic Conditions in Figure 3

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Ivy St at 13th Ave	Signalized	HCM 6th Edition	EB Left	0.408	14.1	B

Background AM Peak Hour Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Ivy St at 13th Ave	Signalized	HCM 6th Edition	WB Left	0.397	14.0	B

Background PM Peak Hour Summary

Figure 3 - Background Traffic Conditions

Crash data was obtained from ODOT for the studied intersections for the 5 year period including 2012 through 2016. There were 4 reported injury crashes and 2 property damage crashes at the intersection of Ivy St at 13th Ave SE in the analyzed time period. There were no fatal crashes.

Intersection	Fatal Crashes	Injury Only	Property Damage Only	Total
Ivy St at 13th Ave SE	0	4	2	6

Figure 4 – 2012 to 2016 ODOT Crash Data

There were 1224 vehicles entering the Ivy at 13th intersection in the PM Peak hour for this study. If one assumes the PM Peak hour is 10% of the daily traffic, the crash rate is estimated to be 0.269 crashes /Mev, below the ODOT intersection crash rate mean for 4 legged urban signalized intersections (0.477 crashes/Mev)

This analysis will assume that 35% of the traffic from the Ivy St Townhomes will travel to and from the west on 13th Ave, 20% to and from the east on 13th Ave, 15% south on Ivy St, and 30% will travel to and from the north on Ivy St. The analysis assumed there will be 30 or 38 townhomes build and both scenarios were modeled for this study.

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Ivy St at 13th Ave	Signalized	HCM 6th Edition	EB Left	0.414	14.2	B
2	13th St Access	Two-way stop	HCM 6th Edition	NB Left	0.025	13.6	B

2018 AM Peak Hour Summary with 30 Ivy St Townhomes

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Ivy St at 13th Ave	Signalized	HCM 6th Edition	WB Left	0.400	14.0	B
2	13th St Access	Two-way stop	HCM 6th Edition	NB Left	0.012	13.6	B

2018 PM Peak Hour Summary with 30 Ivy St Townhomes
Figure 5 – 2018 Traffic Conditions with 30 Ivy St Townhomes

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Ivy St at 13th Ave	Signalized	HCM 6th Edition	EB Left	0.415	14.2	B
2	13th St Access	Two-way stop	HCM 6th Edition	NB Left	0.028	13.6	B

2018 AM Peak Hour Summary with 38 Ivy St Townhomes

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Ivy St at 13th Ave	Signalized	HCM 6th Edition	WB Left	0.401	14.0	B
2	13th St Access	Two-way stop	HCM 6th Edition	NB Left	0.017	13.7	B

2018 PM Peak Hour Summary with 38 Ivy St Townhomes
Figure 6 – 2018 Traffic Conditions with 38 Ivy St Townhomes

Future Traffic Conditions and Queuing Analysis:

The computer model was run to estimate the performance metrics at the studied intersections 20 years in the future (2038) with a focus on the traffic queuing at 13th at Ivy. The model assumed there will be 38 homes (30 homes would have less impact), traffic will increase 2.3% per year for 20 years (x1.46). The intersection of Ivy St at 13th Ave will function at LOS B with v/c between 0.489 and 0.605 depending on the time of day and the number of access points for the Ivy St Townhomes.

There are two queues at the intersection of Ivy at 13th Ave signal that be more affected by adding a second access to the site from Ivy St (in addition to the proposed 13th Ave access). Assuming 38 homes and 1 access (onto 13th Ave) the 95th %ile NBT (northbound thru) lane queue is estimated to be 209' (AM) and 107' (PM) and the WBT 95th %ile queue is estimated to be 230' (AM) and 108' (PM). Assuming 38 homes and 2 accesses to the site (1 on 13th Ave and 1 on Ivy St), the NBT queue is stimated to be 209' (AM) and 82' (PM) and the WBT queue 228' (AM) and 115' (PM). None of the queues will extend to the proposed accesses where they are proposed. Allowing a 2nd access (on Ivy St) will reduce the longest queue, reduce the wait time for drivers at the intersection, improve access for residents of the project, allow higher housing density in the City, distribute site access to two points rather than 1and provide additional convinience to the residents of the City of Canby living in the Ivy St Townhomes.

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Ivy St at 13th Ave	Signalized	HCM 6th Edition	EB Left	0.605	16.3	B
2	13th St Access	Two-way stop	HCM 6th Edition	NB Left	0.041	17.7	C
9	Ivy St Access	Two-way stop	HCM 6th Edition	WB Left	0.000	16.9	C

2038 AM Peak Hour Summary with 38 Ivy St Townhomes and 1 Access

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Ivy St at 13th Ave	Signalized	HCM 6th Edition	WB Left	0.575	17.1	B
2	13th St Access	Two-way stop	HCM 6th Edition	NB Left	0.025	18.0	C
9	Ivy St Access	Two-way stop	HCM 6th Edition	WB Left	0.000	23.4	C

2038 PM Peak Hour Summary with 38 Ivy St Townhomes and 1 Access

Figure 7 - 2038 Traffic Conditions with 38 Ivy St Townhomes

Traffic volumes and performance metrics at the intersection(s) for the various scenarios (Existing, Background, 30 Townhomes and 38 Townhomes) are shown in Figures 7 through 14.

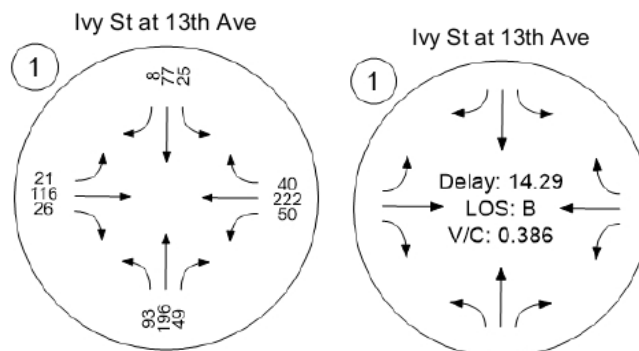


Figure 8 - Existing AM Peak hour Counts and Metrics

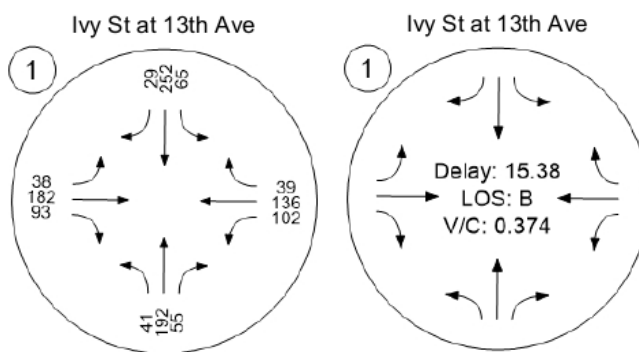


Figure 9 - Existing PM Peak hour Counts and Metrics

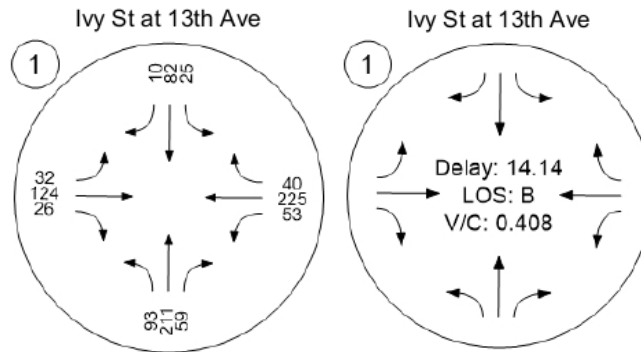


Figure 10 - 2018 AM Peak hour Counts and Metrics with Background Traffic

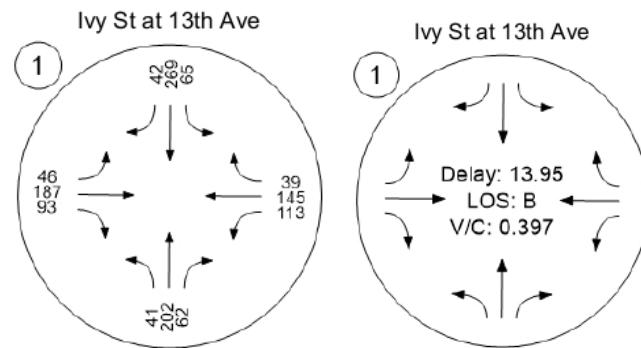


Figure 11 - 2018 PM Peak hour Counts and Metrics with Background Traffic

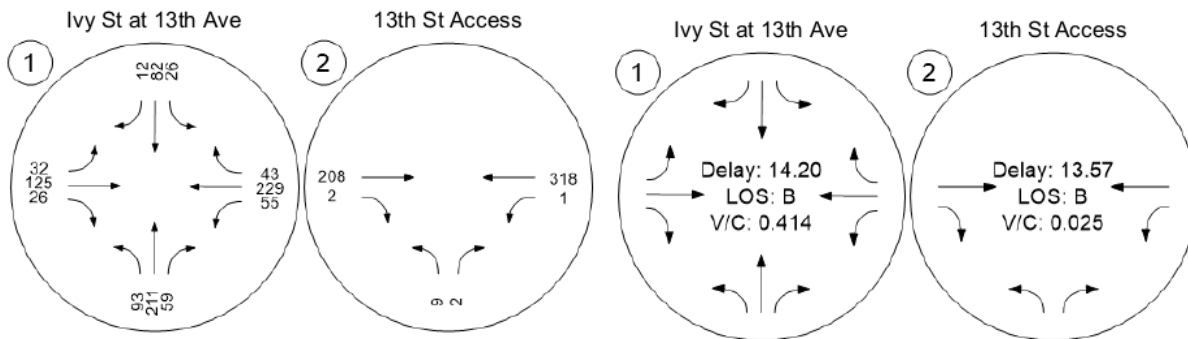


Figure 12 - 2018 AM Peak hour Counts and Metrics with 30 Ivy St Townhomes

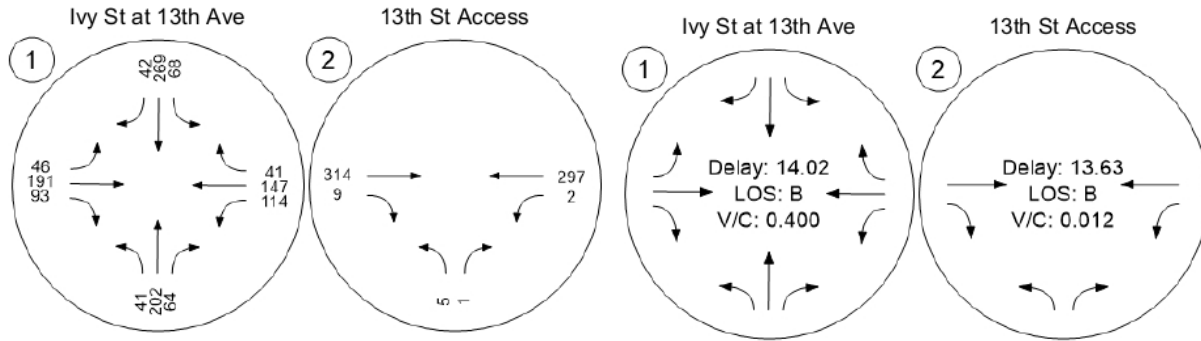


Figure 13 - 2018 PM Peak hour Counts and Metrics with 30 Ivy St Townhomes

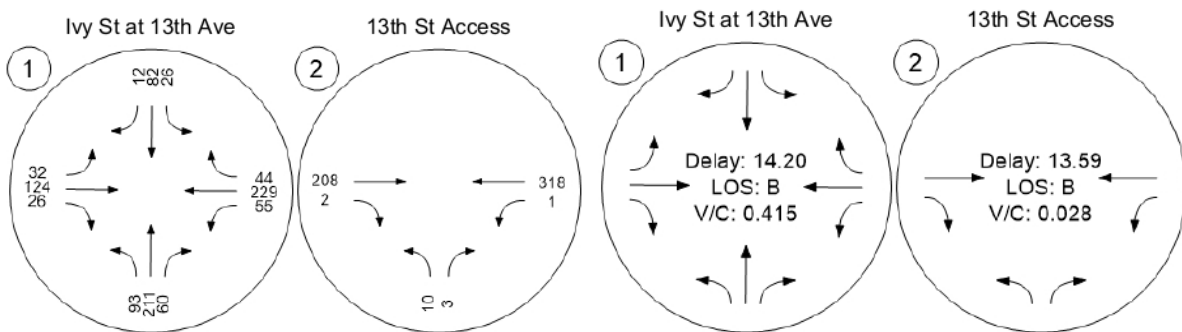


Figure 14 - 2038 AM Peak hour Counts and Metrics with 38 Ivy St Townhomes

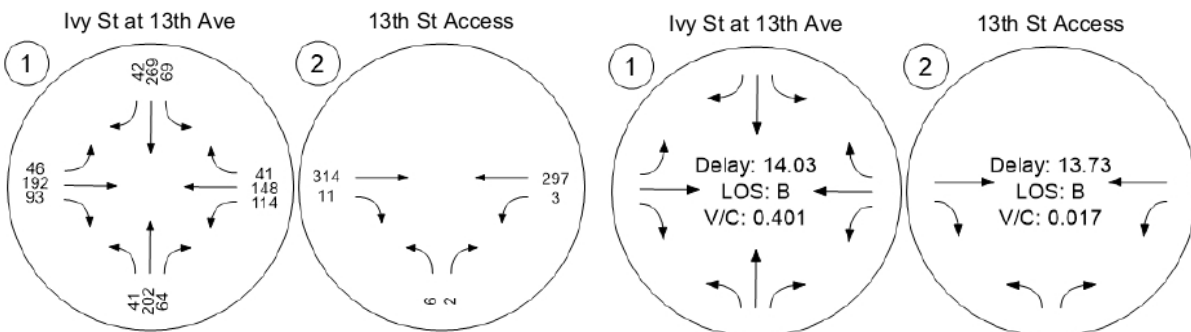


Figure 15 - 2018 PM Peak hour Counts and Metrics with 38 Ivy St Townhomes

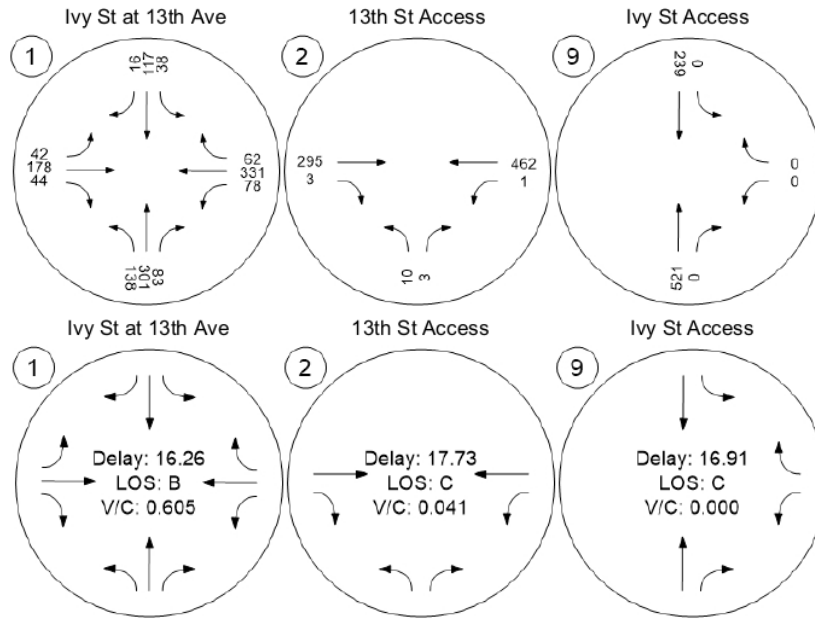


Figure 16 - 2038 AM Peak hour Counts and Metrics with 38 homes and 1 Access

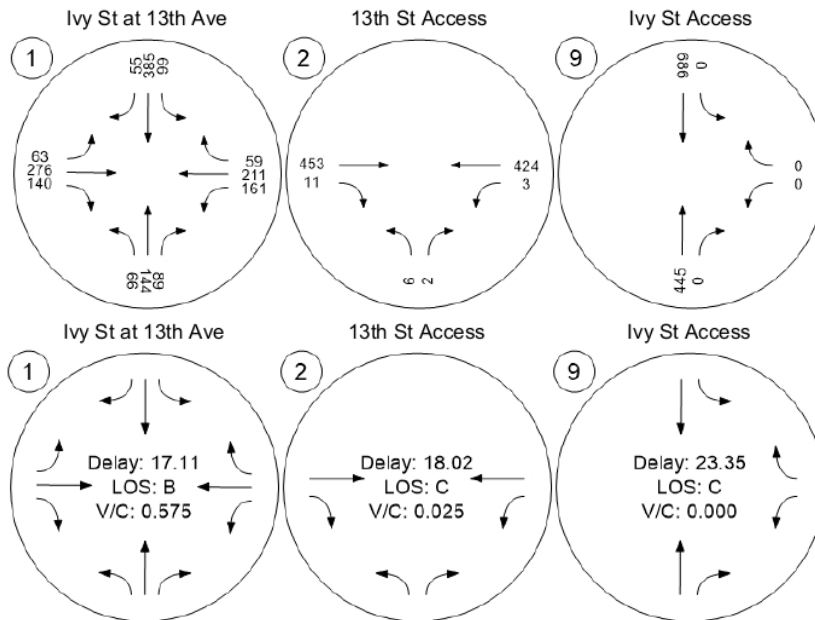


Figure 17 - 2038 PM Peak hour Counts and Metrics with 38 homes and 1 Access

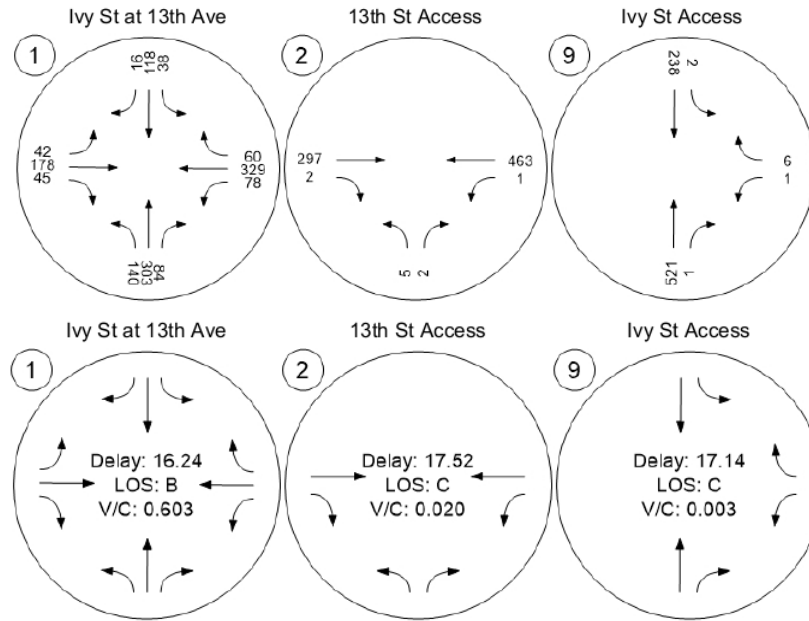


Figure 18 - 2038 AM Peak hour Counts and Metrics with 38 homes & 2 Accesses

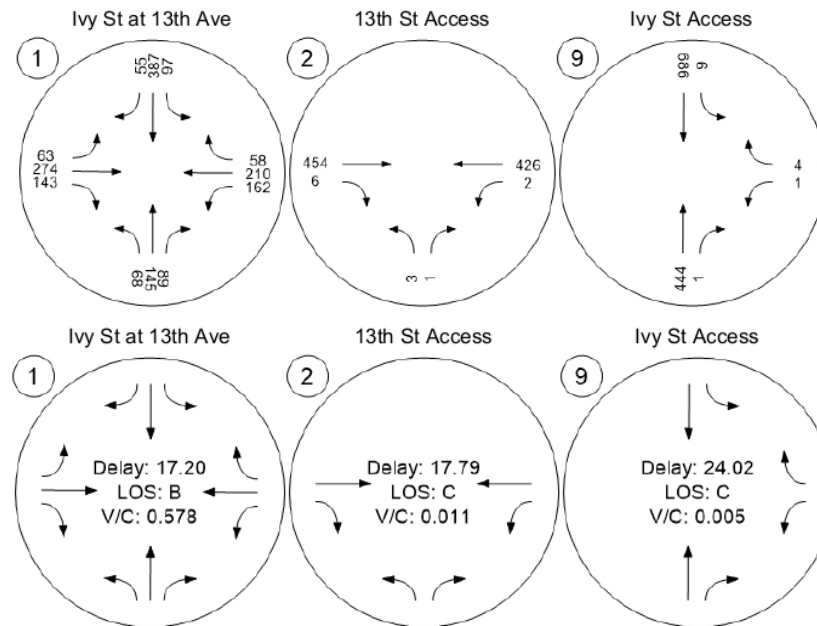


Figure 19 - 2038 AM Peak hour Counts and Metrics with 38 homes & 2 Accesses

Mitigation, Parking, and Spacing:

All studied intersections will function within established performance standards. No mitigation is required, though the no parking policy along the project site frontage of 13th Ave and Ivy St should continue. The site driveways should be kept clear of visual obstructions (e.g. landscaping, objects, etc.) that could potentially limit vehicle sight distance at the new intersections. The access(es) to the site

should be located as far from Ivy St at 13th Ave intersection as reasonably possible. It is noted that no access to the site can meet the current spacing standards (330' for the City of Canby and 400' for Clackamas County) and a spacing variance can be granted without compromising safety at the intersections.

Preliminary plans for the Ivy St Townhomes include a garage at each home and an additional 20' driveway to accommodate parking a vehicle off the street. Additional parking is available on interior streets for guests. The City of Canby requires 2 parking spaces per dwelling and this standard is met.

The internal streets in the project are designed to meet current City of Canby design standards and to provide circulation and access for vehicles entering the site. Making turns in the site should not be problem even for trucks if parking is not permitted along the curb at corners in the site.

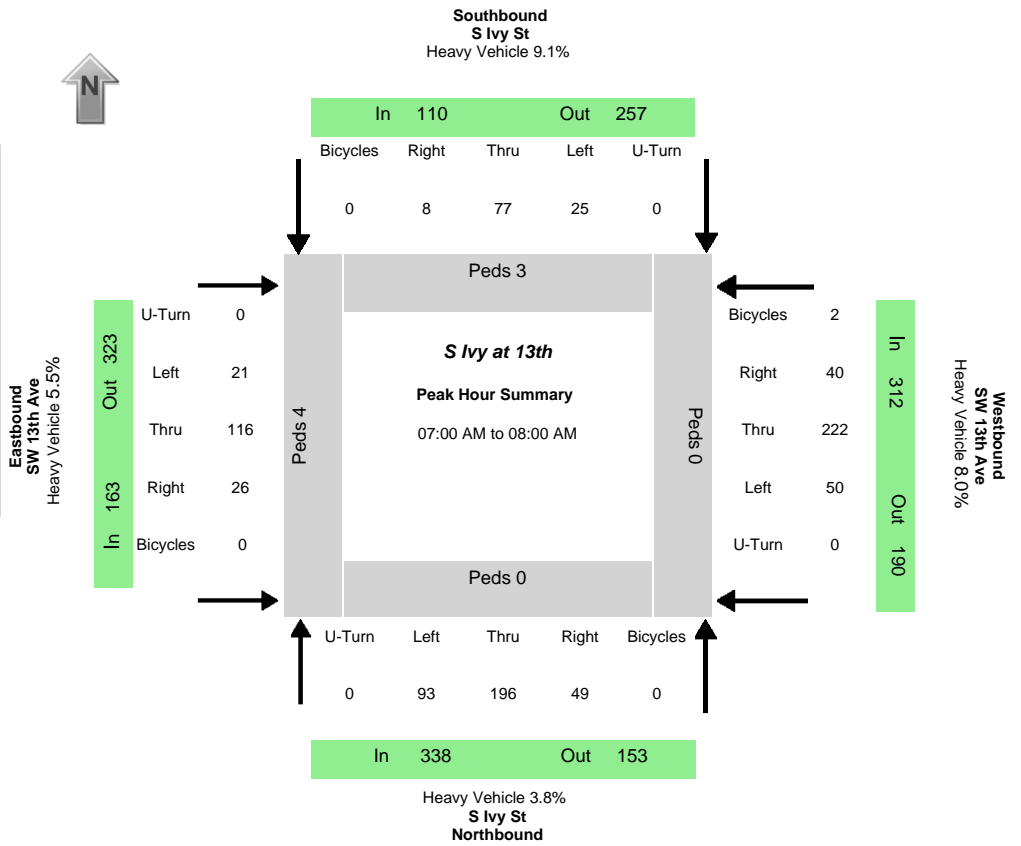
Ivy St south of 13th Ave is in the jurisdiction of Clackamas County. 13th Ave is a City of Canby street. The City standard for spacing is 330' for a driveway onto an arterial street. Vehicles queue at the traffic signal at Ivy St at 13th Ave waiting for the light to turn green. Excessive queues can be problematic at busy intersections. The year 2038 95th %ile queue estimated for the westbound right/thru approach lane at the intersection in this study will 230' during the AM Peak hour. A 230' queue is estimated to store 9.2 vehicles and is not expected to block any existing (or proposed) driveways.

Appendix:

Turning movement counts, ODOT Crash Data and technical analysis are included on the pages following this report.

Data Provided by K-D-N.com 503-594-4224

N/S street	S Ivy St
E/W street	SW 13th Ave
City, State	Canby OR
Site Notes	
Location	45.252159 - -122.686956
Start Date	Wednesday, May 16, 2018
Start Time	07:00:00 AM
Weather	
Study ID #	
Peak Hour Start	07:00:00 AM
Peak 15 Min Start	07:20:00 AM
PHF (15-Min Int)	0.83



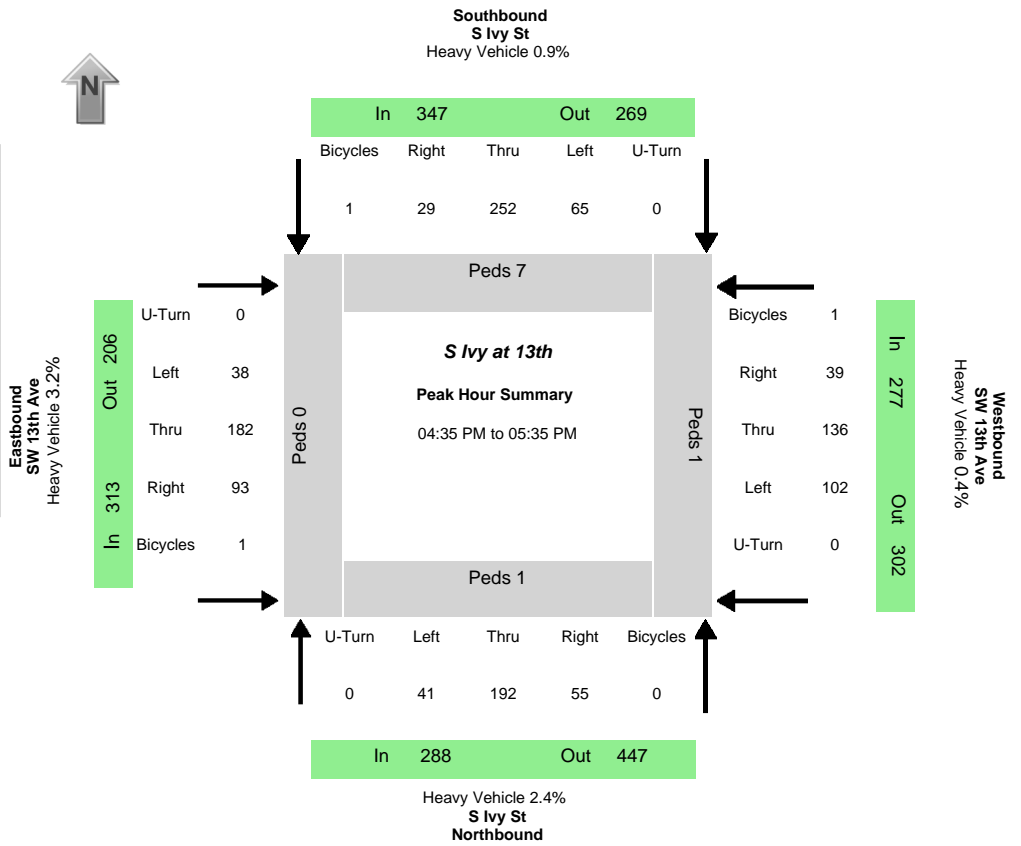
Peak-Hour Volumes (PHV)																							
Northbound				Southbound				Eastbound				Westbound				Entering				Leaving			
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	NB	SB	EB	WB	NB	SB	EB	WB
93	196	49	0	25	77	8	0	21	116	26	0	50	222	40	0	338	110	163	312	153	257	323	190
Percent Heavy Vehicles																							
5.4%	3.1%	4.1%	0.0%	0.0%	9.1%	37.5%	0.0%	0.0%	6.0%	7.7%	0.0%	10.0%	7.2%	10.0%	0.0%	3.8%	9.1%	5.5%	8.0%	9.2%	3.9%	7.4%	4.7%

PHV - Bicycles																PHV - Pedestrians					
Northbound				Southbound				Eastbound				Westbound				Sum	in Crosswalk				Sum
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn		NB	SB	EB	WB	
0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	3	4	0	7

Time	Northbound S Ivy St				Southbound S Ivy St				Eastbound SW 13th Ave				Westbound SW 13th Ave				15 Min Sum	1 HR Sum
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn		
	07:00:00 AM	8	26	2	0	0	6	1	0	1	4	1	0	7	23	4		
07:05:00 AM	5	12	3	0	2	5	0	0	1	3	1	0	3	16	4	0		
07:10:00 AM	5	16	2	0	3	7	1	0	2	9	1	0	3	18	4	0	209	
07:15:00 AM	10	15	8	0	3	4	1	0	1	17	2	0	3	20	2	0	212	
07:20:00 AM	16	13	5	0	2	6	0	0	0	9	1	0	4	27	3	0	243	
07:25:00 AM	10	20	6	0	2	4	1	0	3	13	2	0	2	33	2	0	270	
07:30:00 AM	10	12	9	0	6	6	1	0	2	7	1	0	7	29	4	0	278	
07:35:00 AM	3	13	8	0	2	11	1	0	0	11	3	0	5	18	3	0	270	
07:40:00 AM	2	15	2	0	1	7	0	0	0	16	3	0	4	10	2	0	234	
07:45:00 AM	10	23	1	0	1	5	1	0	2	11	5	0	7	9	4	0	219	
07:50:00 AM	8	17	2	0	3	9	1	0	7	8	2	0	3	9	2	0	212	
07:55:00 AM	6	14	1	0	0	7	0	0	2	8	4	0	2	10	6	0	210	923
08:00:00 AM	3	20	4	0	1	7	1	0	4	6	3	0	4	3	6	0	193	902
08:05:00 AM	8	11	4	0	1	13	1	0	0	7	2	0	1	7	1	1	179	904
08:10:00 AM	5	18	4	0	2	8	2	0	1	4	3	0	1	6	3	0	176	890
08:15:00 AM	4	12	2	0	3	8	0	0	2	6	5	0	2	14	1	0	173	863
08:20:00 AM	3	12	5	0	1	12	2	0	4	5	1	0	2	9	4	0	176	837
08:25:00 AM	4	22	2	0	2	9	1	0	2	11	0	0	2	7	5	0	186	806
08:30:00 AM	4	17	2	0	2	6	0	0	1	1	0	0	3	11	4	0	178	763
08:35:00 AM	5	18	6	0	4	9	3	0	9	5	4	0	8	11	4	0	204	771
08:40:00 AM	4	12	6	0	4	12	1	0	8	7	0	0	5	15	5	0	216	788
08:45:00 AM	7	17	4	0	3	9	0	0	10	7	2	0	4	11	11	0	250	794
08:50:00 AM	6	24	3	0	5	8	2	0	6	9	3	0	2	13	13	0	258	817
08:55:00 AM	6	15	1	0	4	17	1	0	9	11	5	0	4	14	13	0	279	857

Data Provided by K-D-N.com 503-594-4224

N/S street	S Ivy St
E/W street	SW 13th Ave
City, State	Canby OR
Site Notes	
Location	45.252159 - -122.686956
Start Date	Wednesday, May 16, 2018
Start Time	04:00:00 PM
Weather	
Study ID #	
Peak Hour Start	04:35:00 PM
Peak 15 Min Start	05:10:00 PM
PHF (15-Min Int)	0.92



Peak-Hour Volumes (PHV)

Northbound				Southbound				Eastbound				Westbound				Entering				Leaving			
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	NB	SB	EB	WB	NB	SB	EB	WB
41	192	55	0	65	252	29	0	38	182	93	0	102	136	39	0	288	346	313	277	447	269	206	302

Percent Heavy Vehicles

4.9%	1.0%	5.5%	0.0%	0.0%	1.2%	0.0%	0.0%	0.0%	3.8%	3.2%	0.0%	0.0%	0.7%	0.0%	0.0%	2.4%	0.9%	3.2%	0.4%	1.3%	0.7%	1.5%	3.3%
------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------

PHV - Bicycles

PHV - Bicycles																PHV - Pedestrians					
Northbound				Southbound				Eastbound				Westbound				Sum	in Crosswalk				Sum
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	NB	SB	EB	WB	Sum
0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	3	1	7	0	1	9

All Vehicle Volumes

Time	Northbound S Ivy St				Southbound S Ivy St				Eastbound SW 13th Ave				Westbound SW 13th Ave				15 Min Sum	1 HR Sum
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn		
04:00:00 PM	3	14	5	0	9	17	3	0	0	14	10	0	6	15	6	0		
04:05:00 PM	5	17	6	0	3	15	1	0	5	15	10	0	9	14	5	0		
04:10:00 PM	3	21	7	0	5	16	5	0	2	13	7	0	8	7	5	0	306	
04:15:00 PM	5	19	5	0	3	15	4	0	1	12	6	0	8	8	3	0	293	
04:20:00 PM	13	20	6	0	1	16	2	0	0	18	9	0	5	7	1	0	286	
04:25:00 PM	8	19	6	0	2	14	1	0	2	18	8	0	5	16	3	0	289	
04:30:00 PM	3	11	4	0	3	17	2	0	5	21	11	0	7	14	4	0	302	
04:35:00 PM	7	15	7	0	7	21	0	0	3	20	7	0	4	15	1	0	311	
04:40:00 PM	8	19	9	0	6	21	2	0	3	8	5	0	8	13	2	0	313	
04:45:00 PM	4	14	5	0	1	21	3	0	3	18	6	0	12	11	3	0	312	
04:50:00 PM	2	22	4	0	1	18	5	0	6	8	6	0	7	5	4	0	293	
04:55:00 PM	2	11	3	0	4	24	2	0	5	15	5	0	5	12	0	0	277	1185
05:00:00 PM	2	25	2	0	0	23	3	0	1	13	2	0	15	15	2	0	279	1186
05:05:00 PM	1	14	3	0	3	19	5	0	3	18	9	0	8	11	1	0	286	1176
05:10:00 PM	1	15	4	0	7	26	1	0	3	11	11	0	17	9	3	0	306	1185
05:15:00 PM	2	16	5	0	11	24	1	0	3	15	12	0	5	13	4	0	314	1207
05:20:00 PM	5	17	5	0	11	18	3	0	3	13	10	0	7	10	11	0	332	1222
05:25:00 PM	1	9	4	0	4	23	4	0	4	21	7	0	6	11	4	0	322	1218
05:30:00 PM	6	15	4	0	10	14	0	0	1	22	13	0	8	11	4	0	319	1224
05:35:00 PM	6	18	6	0	9	18	2	0	4	14	5	0	9	7	3	0	307	1218
05:40:00 PM	4	14	10	0	6	12	1	0	4	19	13	0	4	6	2	0	304	1209
05:45:00 PM	0	8	4	0	6	15	2	0	5	20	9	0	6	5	3	0	279	1191
05:50:00 PM	2	15	9	0	10	12	2	0	1	13	6	0	5	8	5	0	266	1191
05:55:00 PM	5	14	5	0	7	11	3	0	4	15	8	0	9	7	3	0	262	1194

05/29/2018

TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT

CRASH SUMMARIES BY YEAR BY COLLISION TYPE

SE 13TH AVE at IVY 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	INTER- SECTION RELATED	OFF- ROAD
YEAR: 2016														
SIDESWIPE - MEETING	0	0	1	1	0	0	0	1	0	1	0	1	0	0
TURNING MOVEMENTS	0	1	1	2	0	2	0	1	1	1	1	2	0	0
YEAR 2016 TOTAL	0	1	2	3	0	2	0	2	1	2	1	3	0	0
YEAR: 2015														
ANGLE	0	2	0	2	0	2	0	1	1	0	2	2	0	0
YEAR 2015 TOTAL	0	2	0	2	0	2	0	1	1	0	2	2	0	0
YEAR: 2012														
ANGLE	0	1	0	1	0	1	0	0	1	1	0	1	0	0
YEAR 2012 TOTAL	0	1	0	1	0	1	0	0	1	1	0	1	0	0
FINAL TOTAL	0	4	2	6	0	5	0	3	3	3	3	6	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.

Ivy St Townhomes TIA - 18-387

Vistro File: J:\...\18-387 Ivy St Townhomes.vistro

Scenario 1 AM Existing

Report File: J:\...\18-387 - AM Existing.pdf

6/5/2018

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Ivy St at 13th Ave	Signalized	HCM 6th Edition	EB Left	0.386	14.3	B

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. for all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Ivy St at 13th Ave

Control Type: Signalized
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 14.3
 Level Of Service: B
 Volume to Capacity (v/c): 0.386

Intersection Setup

Name	Ivy St			13th Ave			13th Ave					
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	⇌			⇌			⇌			⇌		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	125.00	100.00	100.00	125.00	100.00	100.00	125.00	100.00	100.00	125.00	100.00	100.00
Speed [mph]	30.00			30.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Ivy St			13th Ave			13th Ave					
Base Volume Input [veh/h]	93	196	49	25	77	8	21	116	26	50	222	40
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	3.80	3.80	3.80	9.10	9.10	9.10	5.50	5.50	5.50	8.00	8.00	8.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	93	196	49	25	77	8	21	116	26	50	222	40
Peak Hour Factor	0.8300	0.8300	0.8300	0.8300	0.8300	0.8300	0.8300	0.8300	0.8300	0.8300	0.8300	0.8300
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	28	59	15	8	23	2	6	35	8	15	67	12
Total Analysis Volume [veh/h]	112	236	59	30	93	10	25	140	31	60	267	48
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	5	0	0	5	0	0	5	0	0	5	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	19	0	0	19	0	0	41	0	0	41	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	L	C
C, Cycle Length [s]	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	2.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	35	35	35	35	17	17	17	17
g / C, Green / Cycle	0.59	0.59	0.59	0.59	0.28	0.28	0.28	0.28
(v / s)_j Volume / Saturation Flow Rate	0.10	0.18	0.03	0.07	0.03	0.11	0.06	0.20
s, saturation flow rate [veh/h]	1145	1602	920	1560	931	1585	1040	1560
c, Capacity [veh/h]	727	941	550	917	173	442	279	435
d1, Uniform Delay [s]	7.34	6.26	8.79	5.46	27.41	17.48	22.82	19.54
k, delay calibration	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.45	0.87	0.19	0.25	0.38	0.55	0.38	2.29
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.15	0.31	0.05	0.11	0.14	0.39	0.21	0.72
d, Delay for Lane Group [s/veh]	7.79	7.13	8.98	5.71	27.79	18.03	23.20	21.83
Lane Group LOS	A	A	A	A	C	B	C	C
Critical Lane Group	No	Yes	No	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	0.70	1.67	0.21	0.50	0.35	1.86	0.76	3.98
50th-Percentile Queue Length [ft]	17.59	41.66	5.36	12.55	8.85	46.59	18.99	99.38
95th-Percentile Queue Length [veh]	1.27	3.00	0.39	0.90	0.64	3.35	1.37	7.16
95th-Percentile Queue Length [ft]	31.66	74.99	9.64	22.59	15.93	83.86	34.18	178.88

Movement, Approach, & Intersection Results

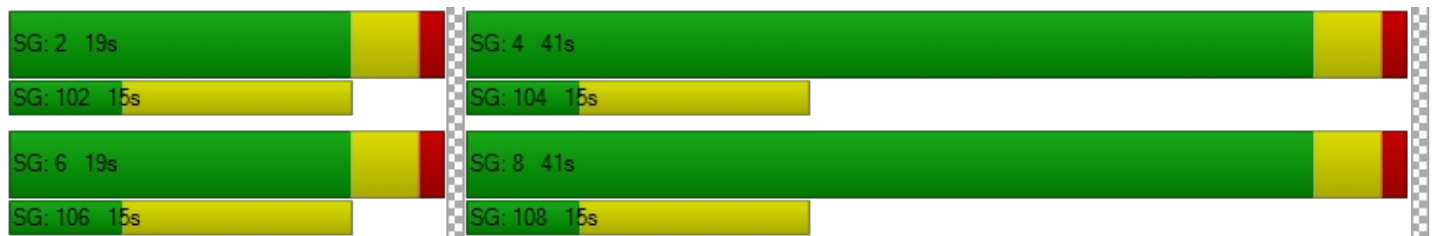
d_M, Delay for Movement [s/veh]	7.79	7.13	7.13	8.98	5.71	5.71	27.79	18.03	18.03	23.20	21.83	21.83
Movement LOS	A	A	A	A	A	A	C	B	B	C	C	C
d_A, Approach Delay [s/veh]	7.31			6.45			19.28			22.05		
Approach LOS	A			A			B			C		
d_I, Intersection Delay [s/veh]	14.29											
Intersection LOS	B											
Intersection V/C	0.386											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	21.68			21.68			21.68			21.68		
I_p,int, Pedestrian LOS Score for Intersection	2.198			2.100			2.239			2.127		
Crosswalk LOS	B			B			B			B		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	500			500			1233			1233		
d_b, Bicycle Delay [s]	16.88			16.88			4.41			4.41		
I_b,int, Bicycle LOS Score for Intersection	2.782			2.330			2.617			2.913		
Bicycle LOS	C			B			B			C		

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Ivy St Townhomes TIA - 18-387

Vistro File: J:\...\18-387 Ivy St Townhomes.vistro

Scenario 1 AM Existing

Report File: J:\...\18-387 - AM Existing.pdf

6/5/2018

Turning Movement Volume: Summary

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
1	Ivy St at 13th Ave	93	196	49	25	77	8	21	116	26	50	222	40	923

Ivy St Townhomes TIA - 18-387

Vistro File: J:\...\18-387 Ivy St Townhomes.vistro

Scenario 1 AM Existing

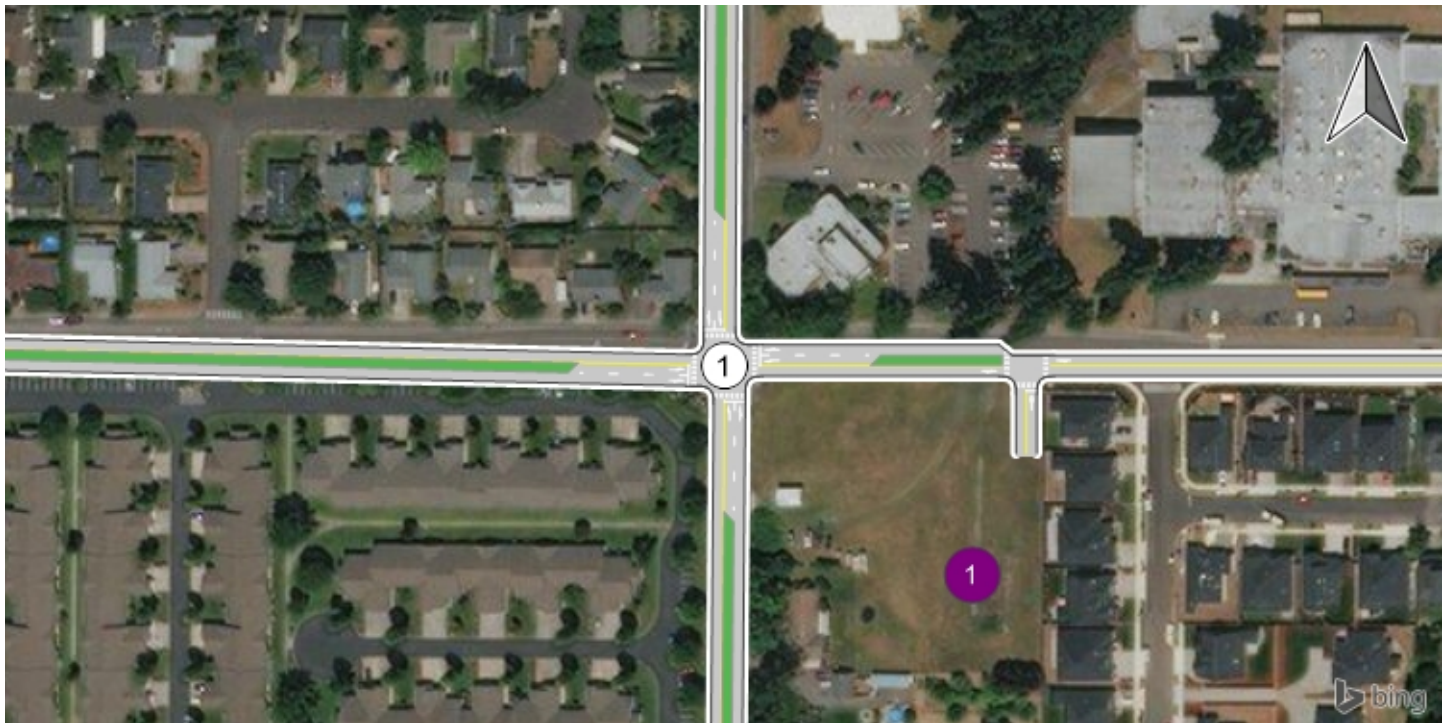
Report File: J:\...\18-387 - AM Existing.pdf

6/5/2018

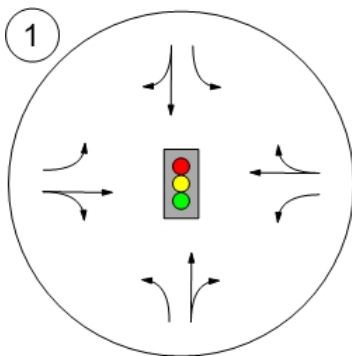
Turning Movement Volume: Detail

ID	Intersection Name	Volume Type	Northbound			Southbound			Eastbound			Westbound			Total Volume
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
1	Ivy St at 13th Ave	Final Base	93	196	49	25	77	8	21	116	26	50	222	40	923
		Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	-
		In Process	0	0	0	0	0	0	0	0	0	0	0	0	0
		Net New Trips	0	0	0	0	0	0	0	0	0	0	0	0	0
		Other	0	0	0	0	0	0	0	0	0	0	0	0	0
		Future Total	93	196	49	25	77	8	21	116	26	50	222	40	923

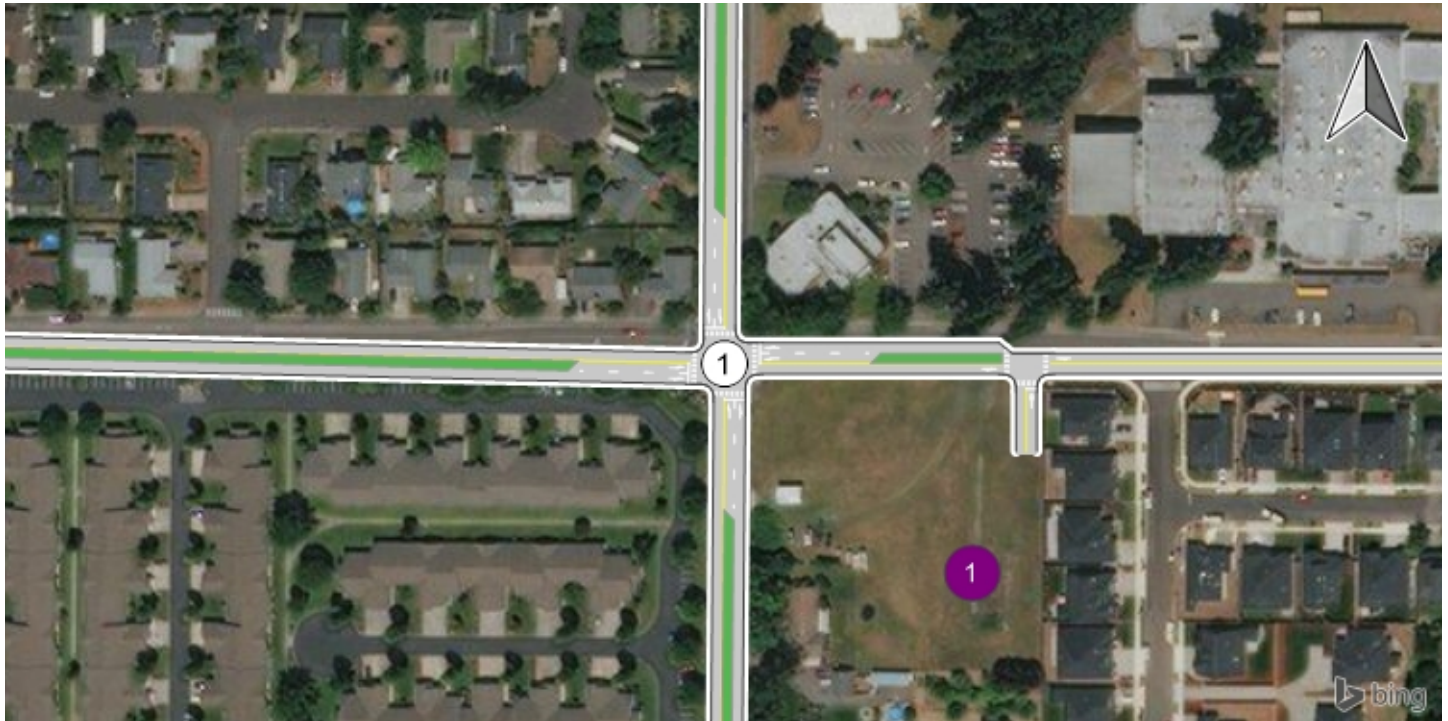
Report Figure 1: Lane Configuration and Traffic Control



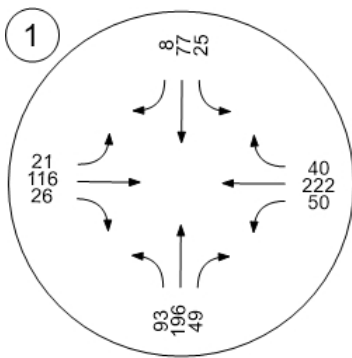
Ivy St at 13th Ave



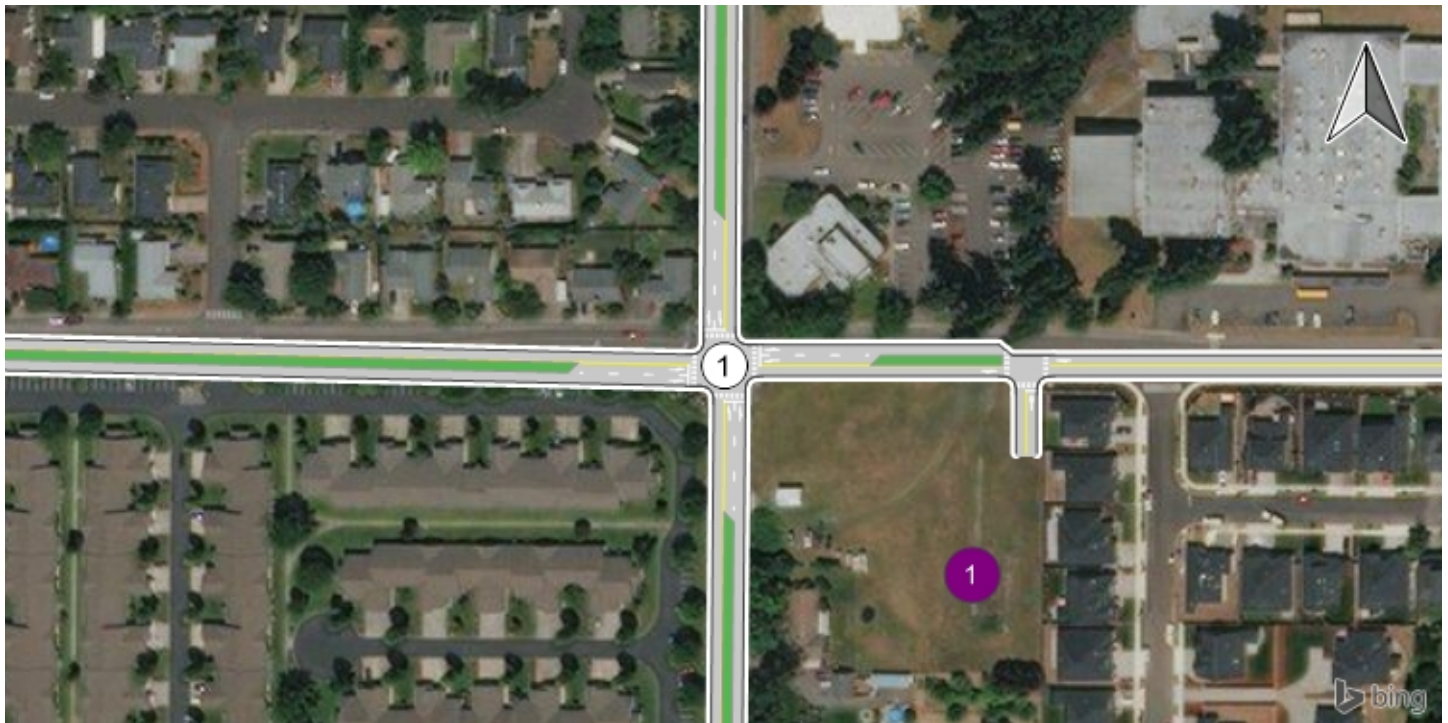
Report Figure 2a: Traffic Volume - Base Volume



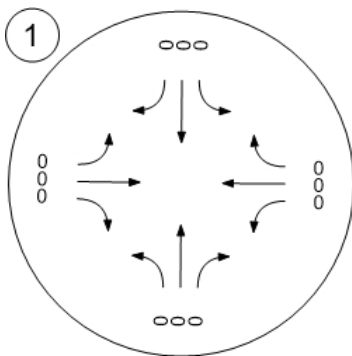
Ivy St at 13th Ave



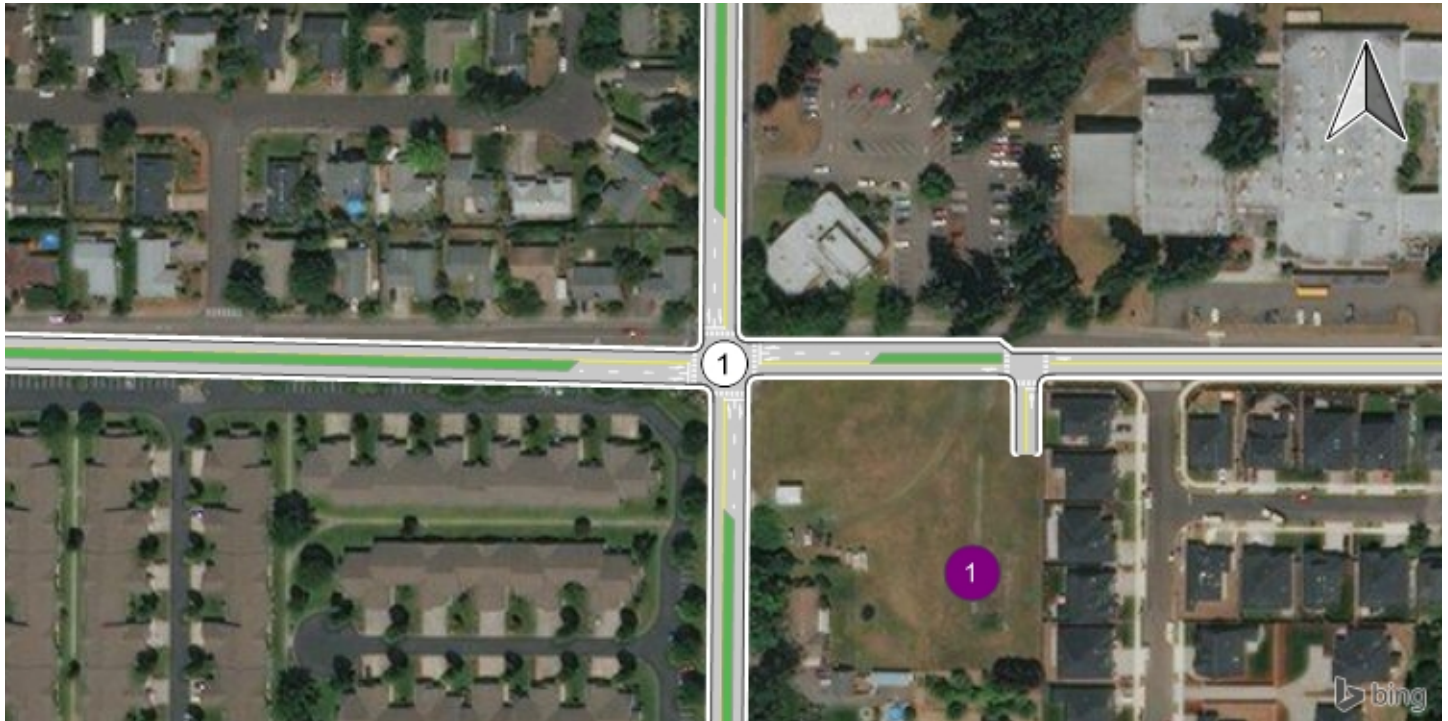
Report Figure 2d: Traffic Volume - Net New Site Trips



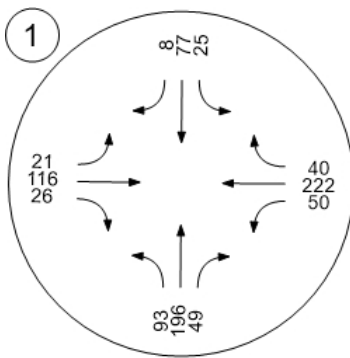
Ivy St at 13th Ave



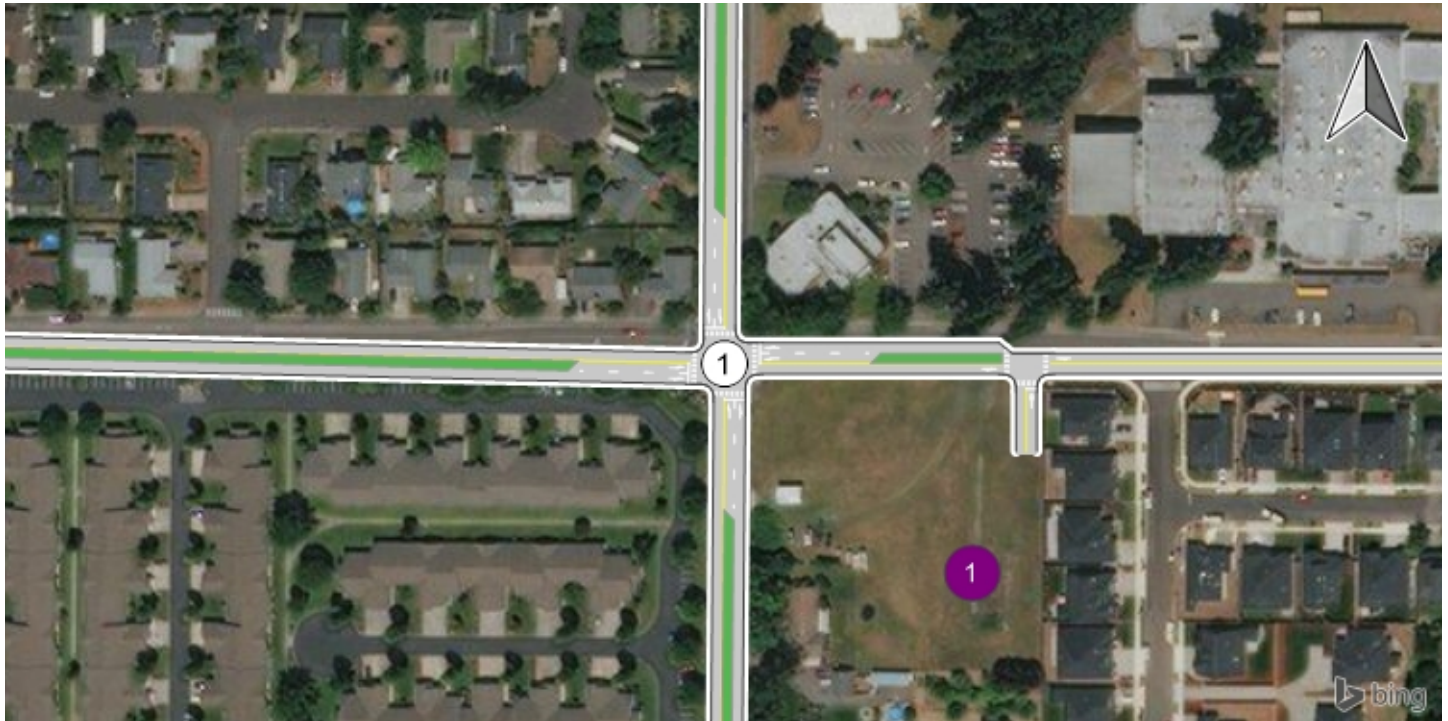
Report Figure 2f: Traffic Volume - Future Total Volume



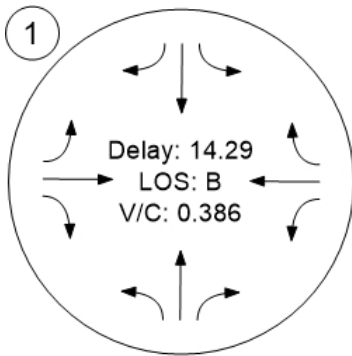
Ivy St at 13th Ave



Report Figure 3: Traffic Conditions



Ivy St at 13th Ave



Ivy St Townhomes TIA - 18-387

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Report File: J:\...\18-387 - AM Background.pdf

Scenario 3 AM Background
6/5/2018

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Ivy St at 13th Ave	Signalized	HCM 6th Edition	EB Left	0.408	14.1	B

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. for all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Ivy St at 13th Ave

Control Type:	Signalized	Delay (sec / veh):	14.1
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.408

Intersection Setup

Name	Northbound			Southbound			Eastbound			Westbound		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	125.00	100.00	100.00	125.00	100.00	100.00	125.00	100.00	100.00	125.00	100.00	100.00
Speed [mph]	30.00			30.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Northbound			Southbound			Eastbound			Westbound		
Base Volume Input [veh/h]	93	196	49	25	77	6	21	116	26	50	222	40
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	3.80	3.80	3.80	9.10	9.10	9.10	5.50	5.50	5.50	8.00	8.00	8.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	15	10	0	5	4	11	8	0	3	3	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	93	211	59	25	82	10	32	124	26	53	225	40
Peak Hour Factor	0.8300	0.8300	0.8300	0.8300	0.8300	0.8300	0.8300	0.8300	0.8300	0.8300	0.8300	0.8300
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	28	64	18	8	25	3	10	37	8	16	68	12
Total Analysis Volume [veh/h]	112	254	71	30	99	12	39	149	31	64	271	48
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	5	0	0	5	0	0	5	0	0	5	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	19	0	0	19	0	0	41	0	0	41	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	L	C
C, Cycle Length [s]	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	2.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	34	34	34	34	18	18	18	18
g / C, Green / Cycle	0.57	0.57	0.57	0.57	0.30	0.30	0.30	0.30
(v / s)_j Volume / Saturation Flow Rate	0.10	0.20	0.03	0.07	0.04	0.11	0.06	0.20
s, saturation flow rate [veh/h]	1137	1597	895	1557	928	1587	1031	1560
c, Capacity [veh/h]	701	907	510	885	189	474	292	466
d1, Uniform Delay [s]	7.97	7.03	9.88	6.03	26.86	16.65	22.23	18.56
k, delay calibration	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.49	1.10	0.22	0.29	0.54	0.50	0.37	1.79
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.16	0.36	0.06	0.13	0.21	0.38	0.22	0.68
d, Delay for Lane Group [s/veh]	8.46	8.13	10.10	6.32	27.40	17.15	22.61	20.34
Lane Group LOS	A	A	B	A	C	B	C	C
Critical Lane Group	No	Yes	No	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	0.75	2.04	0.23	0.59	0.55	1.90	0.80	3.85
50th-Percentile Queue Length [ft]	18.77	51.03	5.84	14.70	13.70	47.47	19.92	96.28
95th-Percentile Queue Length [veh]	1.35	3.67	0.42	1.06	0.99	3.42	1.43	6.93
95th-Percentile Queue Length [ft]	33.79	91.86	10.52	26.47	24.66	85.44	35.86	173.30

Movement, Approach, & Intersection Results

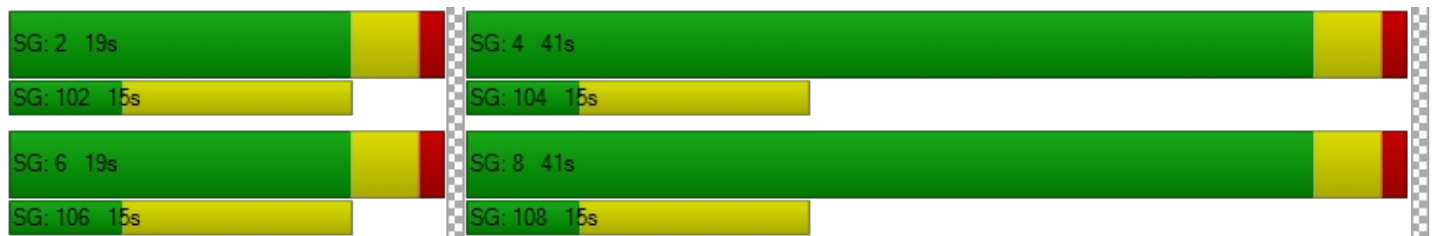
d_M, Delay for Movement [s/veh]	8.46	8.13	8.13	10.10	6.32	6.32	27.40	17.15	17.15	22.61	20.34	20.34
Movement LOS	A	A	A	B	A	A	C	B	B	C	C	C
d_A, Approach Delay [s/veh]	8.22			7.12			18.98			20.72		
Approach LOS	A			A			B			C		
d_I, Intersection Delay [s/veh]	14.14											
Intersection LOS	B											
Intersection V/C	0.408											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	21.68			21.68			21.68			21.68		
I_p,int, Pedestrian LOS Score for Intersection	2.217			2.133			2.246			2.135		
Crosswalk LOS	B			B			B			B		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	500			500			1233			1233		
d_b, Bicycle Delay [s]	16.88			16.88			4.41			4.41		
I_b,int, Bicycle LOS Score for Intersection	2.831			2.343			2.655			2.926		
Bicycle LOS	C			B			B			C		

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Ivy St Townhomes TIA - 18-387

Vistro File: J:\...\18-387 Ivy St Townhomes.vistro

Scenario 3 AM Background

Report File: J:\...\18-387 - AM Background.pdf

6/5/2018

Turning Movement Volume: Summary

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
1	Ivy St at 13th Ave	93	211	59	25	82	10	32	124	26	53	225	40	980

Ivy St Townhomes TIA - 18-387

Vistro File: J:\...\18-387 Ivy St Townhomes.vistro

Scenario 3 AM Background

Report File: J:\...\18-387 - AM Background.pdf

6/5/2018

Turning Movement Volume: Detail

ID	Intersection Name	Volume Type	Northbound			Southbound			Eastbound			Westbound			Total Volume
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
1	Ivy St at 13th Ave	Final Base	93	196	49	25	77	6	21	116	26	50	222	40	921
		Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	-
		In Process	0	0	0	0	0	0	0	0	0	0	0	0	0
		Net New Trips	0	15	10	0	5	4	11	8	0	3	3	0	59
		Other	0	0	0	0	0	0	0	0	0	0	0	0	0
		Future Total	93	211	59	25	82	10	32	124	26	53	225	40	980

Ivy St Townhomes TIA - 18-387

Vistro File: J:\...\18-387 Ivy St Townhomes.vistro

Scenario 3 AM Background

Report File: J:\...\18-387 - AM Background.pdf

6/5/2018

Trip Generation summary

Added Trips

Zone ID: Name	Land Use variables	Code	Ind. Var.	Rate	Quantity	% In	% Out	Trips In	Trips Out	Total Trips	% of Total Trips
7: Mayberry Group	Homes	ITE 210	Homes	0.740	89.000	25.00	75.00	16	50	66	56.41
8: Beck Pond	Homes	ite 210	Homes	0.740	69.000	25.00	75.00	13	38	51	43.59
Added Trips Total								29	88	117	100.00

Ivy St Townhomes TIA - 18-387

Vistro File: J:\...\18-387 Ivy St Townhomes.vistro

Scenario 3 AM Background

Report File: J:\...\18-387 - AM Background.pdf

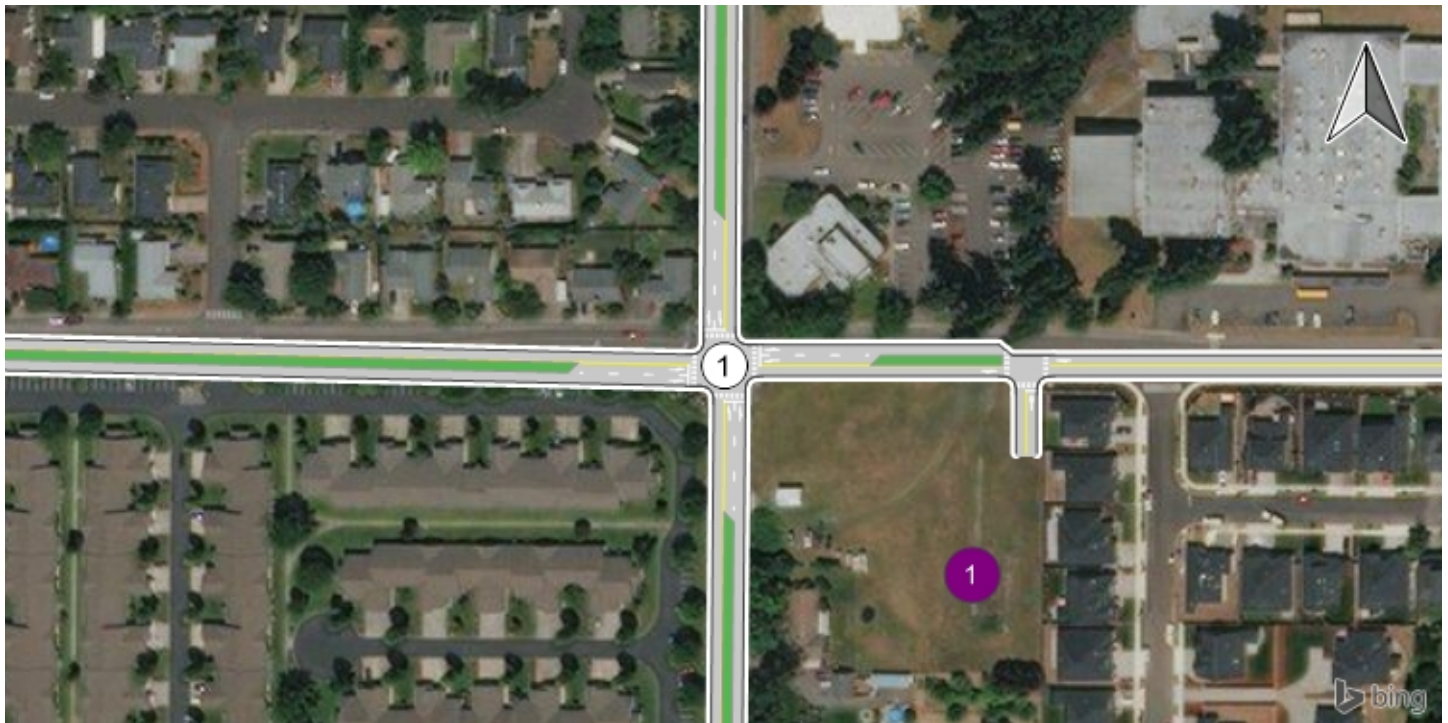
6/5/2018

Trip Distribution summary

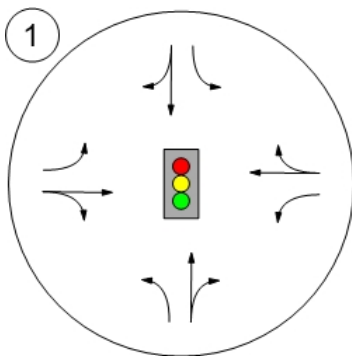
Zone / Gate	Zone 7: Mayberry Group			
	To Mayberry Group:		From Mayberry Group:	
	Share %	Trips	Share %	Trips
1: Ivy St Townhouses	0.00	0	0.00	0
8: Beck Pond	0.00	0	0.00	0
2: Gate	35.00	6	35.00	17
3: Gate	30.00	5	30.00	15
4: Gate	20.00	3	20.00	10
5: Gate	15.00	2	15.00	8
6: Gate	0.00	0	0.00	0
Total	100.00	16	100.00	50

Zone / Gate	Zone 8: Beck Pond			
	To Beck Pond:		From Beck Pond:	
	Share %	Trips	Share %	Trips
1: Ivy St Townhouses	0.00	0	0.00	0
7: Mayberry Group	0.00	0	0.00	0
2: Gate	35.00	5	35.00	13
3: Gate	30.00	4	30.00	11
4: Gate	20.00	3	20.00	8
5: Gate	15.00	2	15.00	6
6: Gate	0.00	0	0.00	0
Total	100.00	14	100.00	38

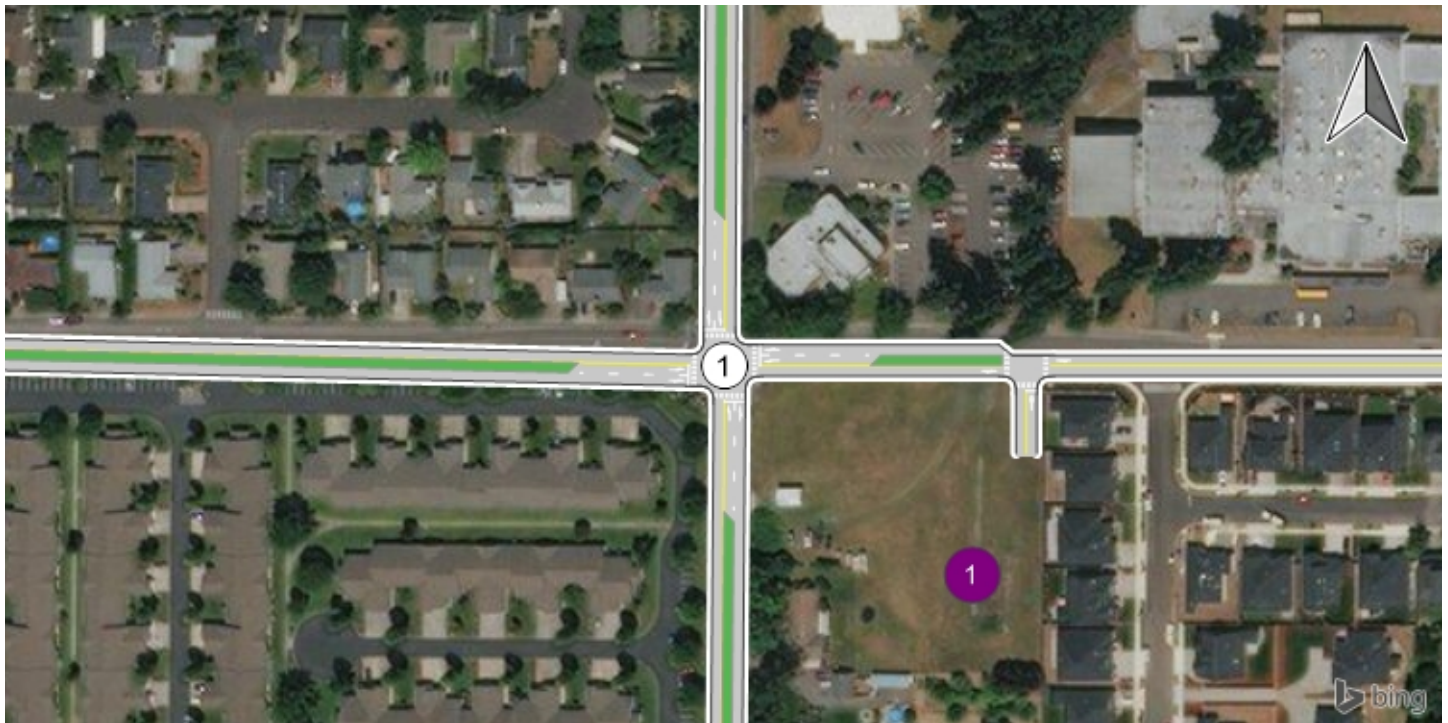
Report Figure 1: Lane Configuration and Traffic Control



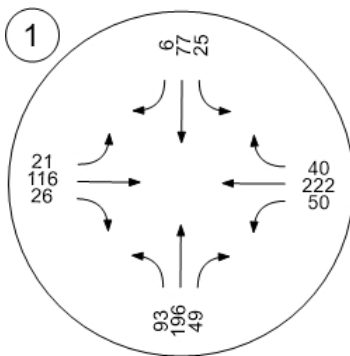
Ivy St at 13th Ave



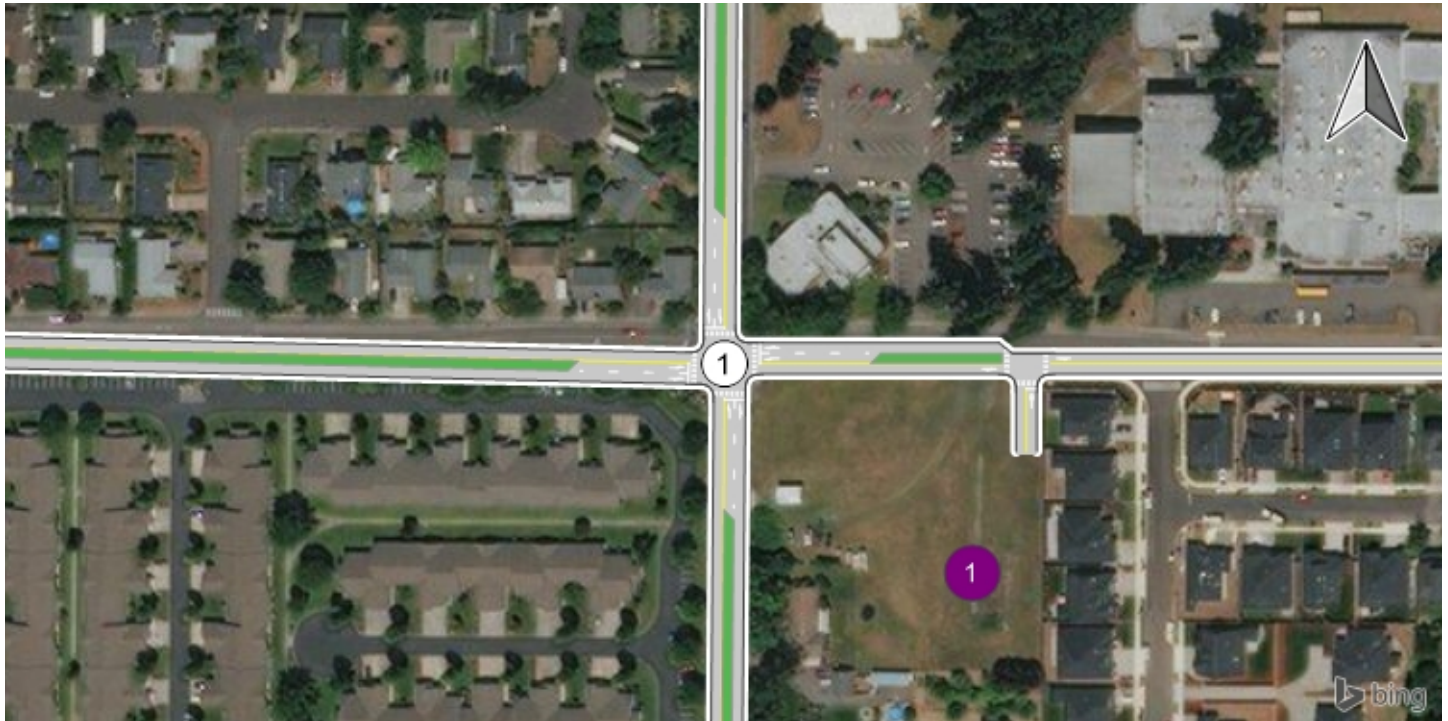
Report Figure 2a: Traffic Volume - Base Volume



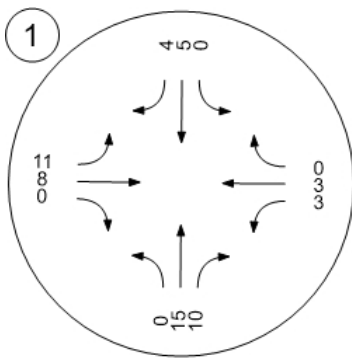
Ivy St at 13th Ave



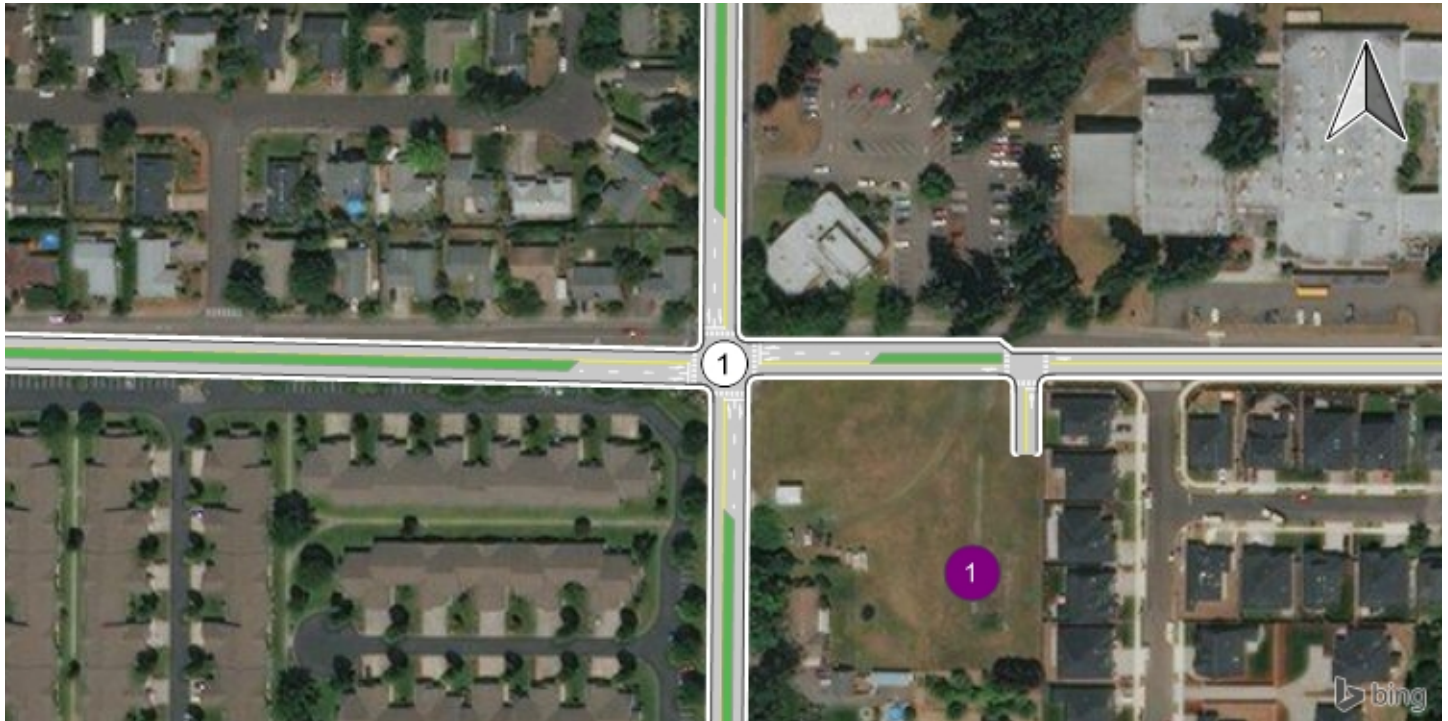
Report Figure 2d: Traffic Volume - Net New Site Trips



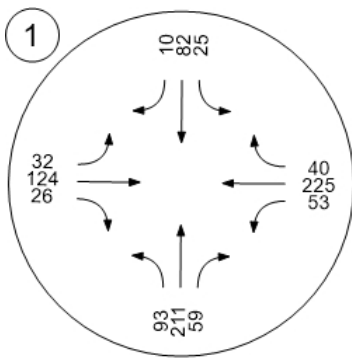
Ivy St at 13th Ave



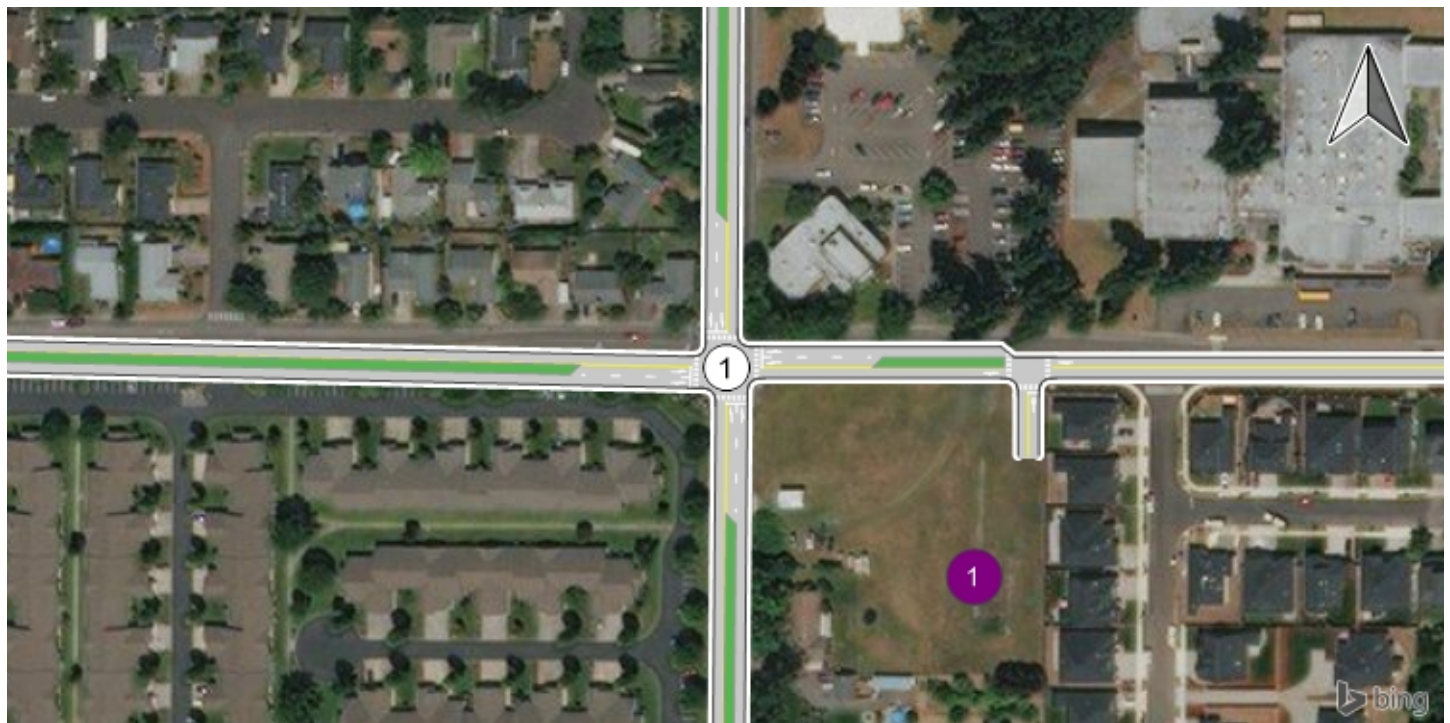
Report Figure 2f: Traffic Volume - Future Total Volume



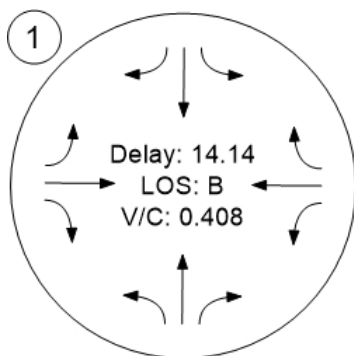
Ivy St at 13th Ave



Report Figure 3: Traffic Conditions



Ivy St at 13th Ave



Ivy St Townhomes TIA - 18-387

Vistro File: J:\...\18-387 Ivy St Townhomes.vistro

Scenario 5 AM Developed - 30 Homes

Report File: J:\...\18-387 - AM Dev - 30 Homes.pdf

6/5/2018

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Ivy St at 13th Ave	Signalized	HCM 6th Edition	EB Left	0.414	14.2	B
2	13th St Access	Two-way stop	HCM 6th Edition	NB Left	0.025	13.6	B

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. for all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Ivy St at 13th Ave

Control Type:	Signalized	Delay (sec / veh):	14.2
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.414

Intersection Setup

Name	Ivy St			13th Ave			13th Ave					
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	↔			↔			↔			↔		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	125.00	100.00	100.00	125.00	100.00	100.00	125.00	100.00	100.00	125.00	100.00	100.00
Speed [mph]	30.00			30.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Ivy St			13th Ave			13th Ave					
Base Volume Input [veh/h]	93	196	49	25	77	8	21	116	26	50	222	40
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	3.80	3.80	3.80	9.10	9.10	9.10	5.50	5.50	5.50	8.00	8.00	8.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	15	10	1	5	4	11	9	0	5	7	3
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	93	211	59	26	82	12	32	125	26	55	229	43
Peak Hour Factor	0.8300	0.8300	0.8300	0.8300	0.8300	0.8300	0.8300	0.8300	0.8300	0.8300	0.8300	0.8300
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	28	64	18	8	25	4	10	38	8	17	69	13
Total Analysis Volume [veh/h]	112	254	71	31	99	14	39	151	31	66	276	52
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	5	0	0	5	0	0	5	0	0	5	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	19	0	0	19	0	0	41	0	0	41	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	L	C
C, Cycle Length [s]	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	2.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	34	34	34	34	18	18	18	18
g / C, Green / Cycle	0.56	0.56	0.56	0.56	0.30	0.30	0.30	0.30
(v / s)_j Volume / Saturation Flow Rate	0.10	0.20	0.03	0.07	0.04	0.11	0.06	0.21
s, saturation flow rate [veh/h]	1135	1597	895	1553	920	1588	1029	1558
c, Capacity [veh/h]	691	898	503	873	189	484	297	475
d1, Uniform Delay [s]	8.22	7.23	10.16	6.21	26.82	16.39	21.97	18.38
k, delay calibration	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.50	1.13	0.23	0.31	0.54	0.48	0.37	1.81
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.16	0.36	0.06	0.13	0.21	0.38	0.22	0.69
d, Delay for Lane Group [s/veh]	8.72	8.36	10.40	6.51	27.35	16.87	22.35	20.18
Lane Group LOS	A	A	B	A	C	B	C	C
Critical Lane Group	No	Yes	No	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	0.77	2.09	0.25	0.61	0.55	1.90	0.82	3.95
50th-Percentile Queue Length [ft]	19.19	52.14	6.16	15.32	13.69	47.52	20.41	98.70
95th-Percentile Queue Length [veh]	1.38	3.75	0.44	1.10	0.99	3.42	1.47	7.11
95th-Percentile Queue Length [ft]	34.53	93.86	11.09	27.58	24.65	85.53	36.73	177.67

Movement, Approach, & Intersection Results

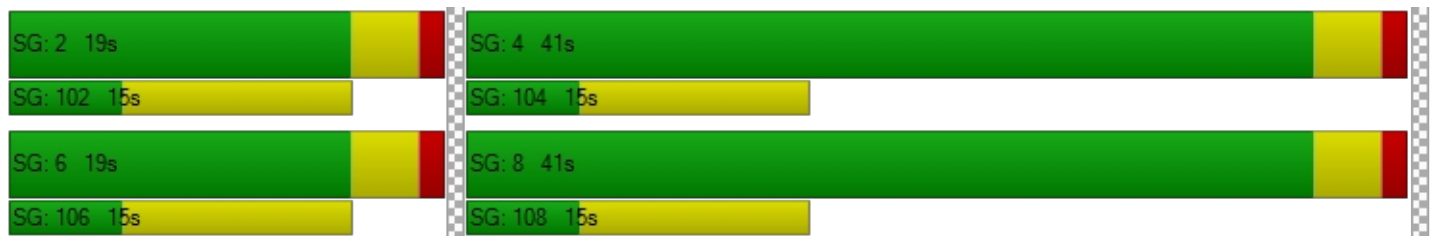
d_M, Delay for Movement [s/veh]	8.72	8.36	8.36	10.40	6.51	6.51	27.35	16.87	16.87	22.35	20.18	20.18
Movement LOS	A	A	A	B	A	A	C	B	B	C	C	C
d_A, Approach Delay [s/veh]	8.45			7.35			18.72			20.55		
Approach LOS	A			A			B			C		
d_I, Intersection Delay [s/veh]	14.20											
Intersection LOS	B											
Intersection V/C	0.414											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	21.68			21.68			21.68			21.68		
I_p,int, Pedestrian LOS Score for Intersection	2.220			2.135			2.249			2.140		
Crosswalk LOS	B			B			B			B		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	500			500			1233			1233		
d_b, Bicycle Delay [s]	16.88			16.88			4.41			4.41		
I_b,int, Bicycle LOS Score for Intersection	2.831			2.348			2.659			2.944		
Bicycle LOS	C			B			B			C		

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 2: 13th St Access**

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 13.6
 Level Of Service: B
 Volume to Capacity (v/c): 0.025

Intersection Setup

Name	Northbound		Eastbound		Westbound	
Approach						
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name	Northbound		Eastbound		Westbound	
Base Volume Input [veh/h]	0	0	190	0	0	312
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	8.00	8.00	8.00	8.00	8.00	8.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	9	2	18	2	1	6
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	9	2	208	2	1	318
Peak Hour Factor	0.8300	0.8300	0.8300	0.8300	0.8300	0.8300
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	1	63	1	0	96
Total Analysis Volume [veh/h]	11	2	251	2	1	383
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	13.57	9.89	0.00	0.00	7.82	0.00
Movement LOS	B	A	A	A	A	A
95th-Percentile Queue Length [veh]	0.09	0.09	0.00	0.00	1.27	1.27
95th-Percentile Queue Length [ft]	2.16	2.16	0.00	0.00	31.85	31.85
d_A, Approach Delay [s/veh]	13.00		0.00		0.02	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.27					
Intersection LOS	B					

Ivy St Townhomes TIA - 18-387

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Scenario 5 AM Developed - 30 Homes

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6/5/2018

Turning Movement Volume: Summary

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
1	Ivy St at 13th Ave	93	211	59	26	82	12	32	125	26	55	229	43	993

ID	Intersection Name	Northbound		Eastbound		Westbound		Total Volume
		Left	Right	Thru	Right	Left	Thru	
2	13th St Access	9	2	208	2	1	318	540

Ivy St Townhomes TIA - 18-387

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6/5/2018

Turning Movement Volume: Detail

ID	Intersection Name	Volume Type	Northbound			Southbound			Eastbound			Westbound			Total Volume
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
1	Ivy St at 13th Ave	Final Base	93	196	49	25	77	8	21	116	26	50	222	40	923
		Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	-
		In Process	0	0	0	0	0	0	0	0	0	0	0	0	0
		Net New Trips	0	15	10	1	5	4	11	9	0	5	7	3	70
		Other	0	0	0	0	0	0	0	0	0	0	0	0	0
		Future Total	93	211	59	26	82	12	32	125	26	55	229	43	993

ID	Intersection Name	Volume Type	Northbound		Eastbound		Westbound		Total Volume
			Left	Right	Thru	Right	Left	Thru	
2	13th St Access	Final Base	0	0	190	0	0	312	502
		Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	-
		In Process	0	0	0	0	0	0	0
		Net New Trips	9	2	18	2	1	6	38
		Other	0	0	0	0	0	0	0
		Future Total	9	2	208	2	1	318	540

Ivy St Townhomes TIA - 18-387

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6/5/2018

Trip Generation summary**Added Trips**

Zone ID: Name	Land Use variables	Code	Ind. Var.	Rate	Quantity	% In	% Out	Trips In	Trips Out	Total Trips	% of Total Trips
1: Ivy St Townhouses	Apts	ITE 220	Units	0.460	30.000	23.00	77.00	3	11	14	10.69
7: Mayberry Group	Homes	ITE 210	Homes	0.740	89.000	25.00	75.00	16	50	66	50.38
8: Beck Pond	Homes	ite 210	Homes	0.740	69.000	25.00	75.00	13	38	51	38.93
Added Trips Total								32	99	131	100.00

Ivy St Townhomes TIA - 18-387

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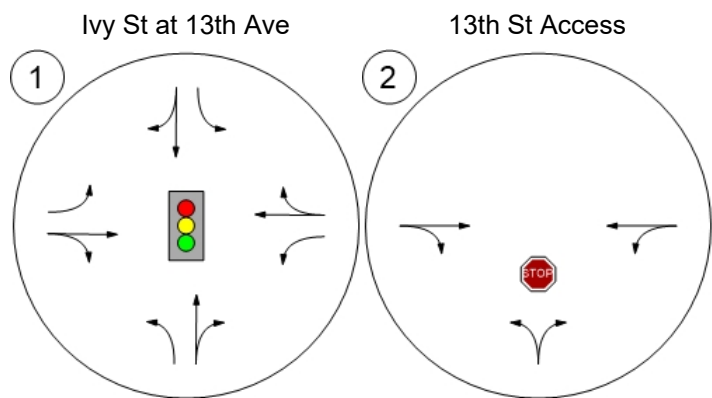
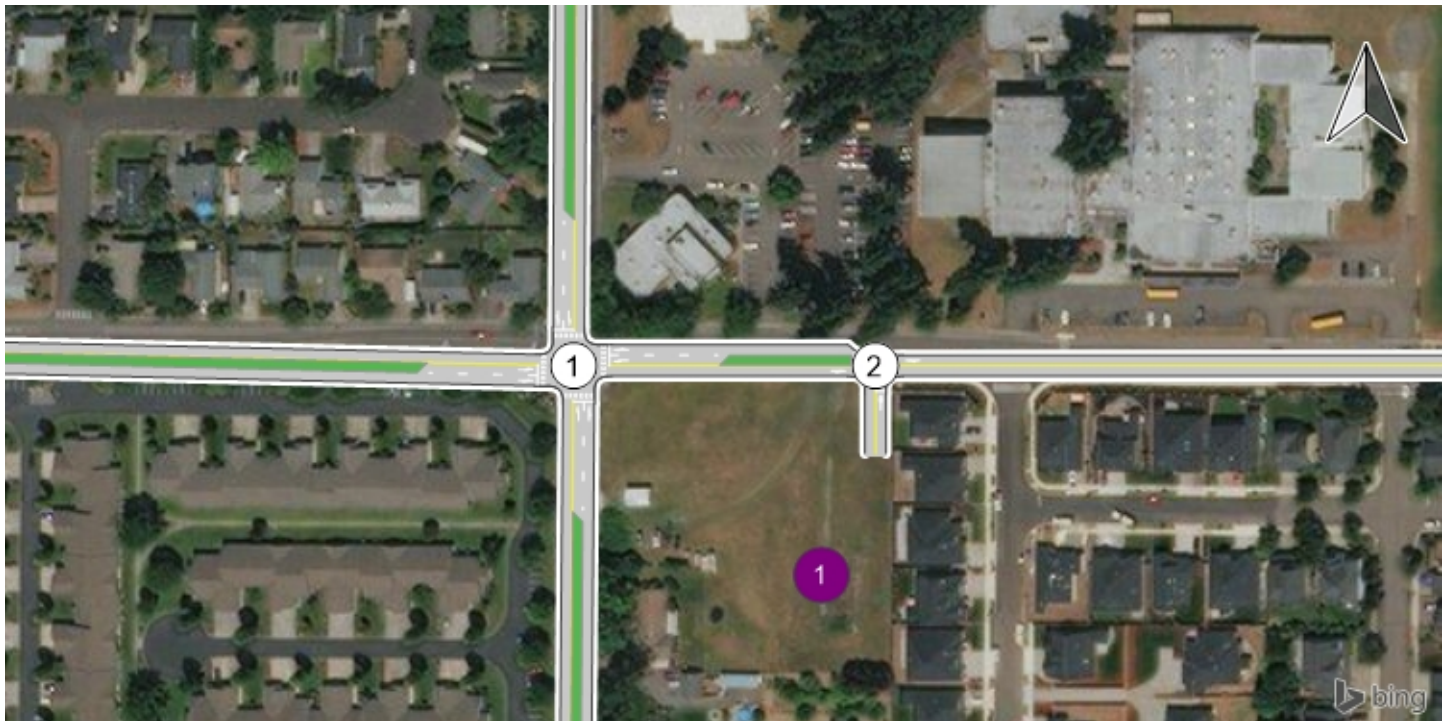
Trip Distribution summary

Zone / Gate	Zone 1: Ivy St Townhouses			
	To Ivy St Townhouses:		From Ivy St Townhouses:	
	Share %	Trips	Share %	Trips
7: Mayberry Group	0.00	0	0.00	0
8: Beck Pond	0.00	0	0.00	0
2: Gate	35.00	1	35.00	4
3: Gate	30.00	1	30.00	3
4: Gate	20.00	1	20.00	2
5: Gate	15.00	0	15.00	2
6: Gate	0.00	0	0.00	0
Total	100.00	3	100.00	11

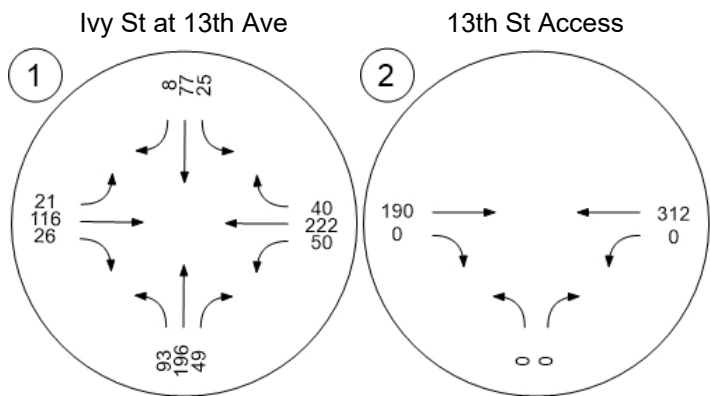
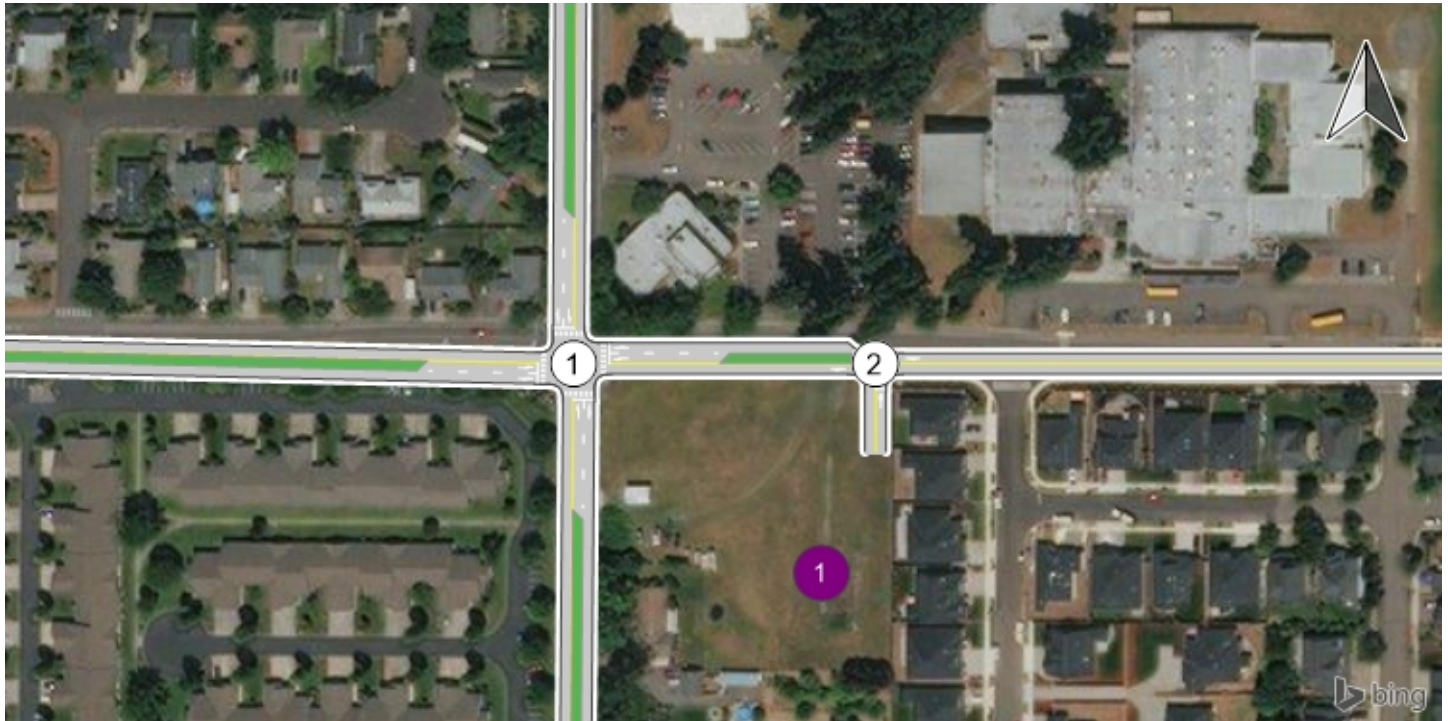
Zone / Gate	Zone 7: Mayberry Group			
	To Mayberry Group:		From Mayberry Group:	
	Share %	Trips	Share %	Trips
1: Ivy St Townhouses	0.00	0	0.00	0
8: Beck Pond	0.00	0	0.00	0
2: Gate	35.00	6	35.00	17
3: Gate	30.00	5	30.00	15
4: Gate	20.00	3	20.00	10
5: Gate	15.00	2	15.00	8
6: Gate	0.00	0	0.00	0
Total	100.00	16	100.00	50

Zone / Gate	Zone 8: Beck Pond			
	To Beck Pond:		From Beck Pond:	
	Share %	Trips	Share %	Trips
1: Ivy St Townhouses	0.00	0	0.00	0
7: Mayberry Group	0.00	0	0.00	0
2: Gate	35.00	5	35.00	13
3: Gate	30.00	4	30.00	11
4: Gate	20.00	3	20.00	8
5: Gate	15.00	2	15.00	6
6: Gate	0.00	0	0.00	0
Total	100.00	14	100.00	38

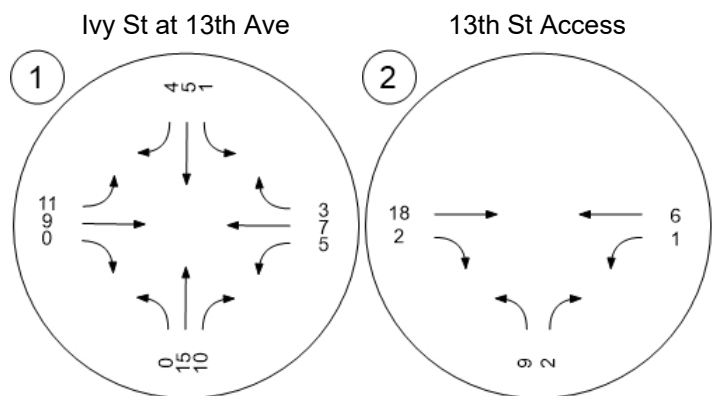
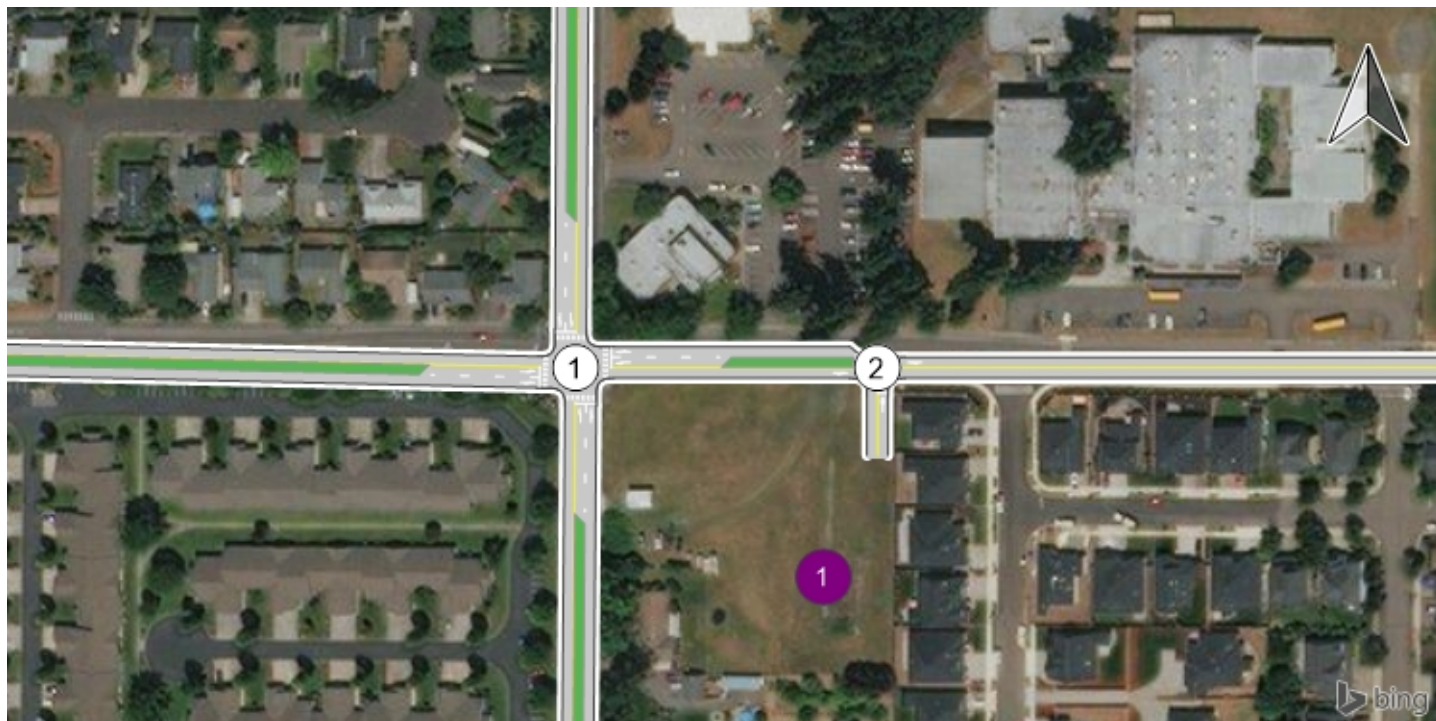
Report Figure 1: Lane Configuration and Traffic Control



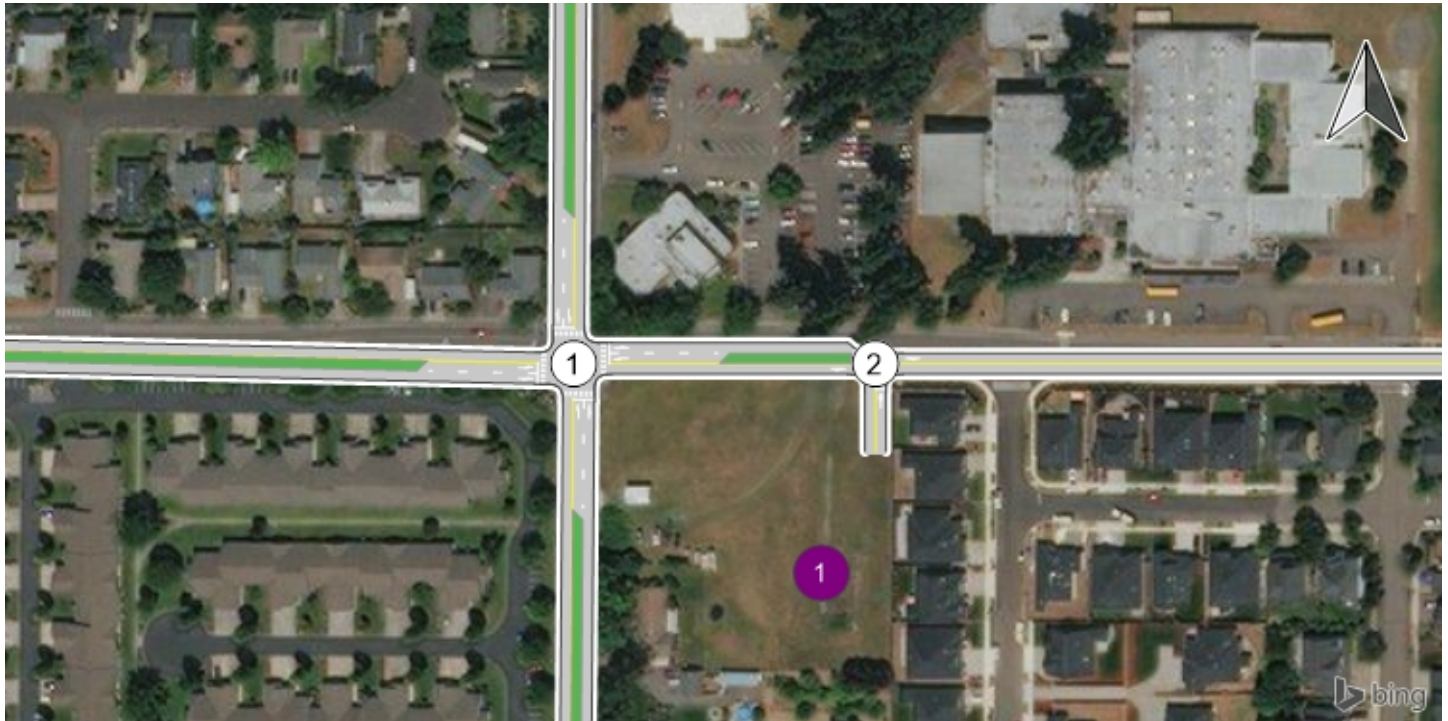
Report Figure 2a: Traffic Volume - Base Volume



Report Figure 2d: Traffic Volume - Net New Site Trips

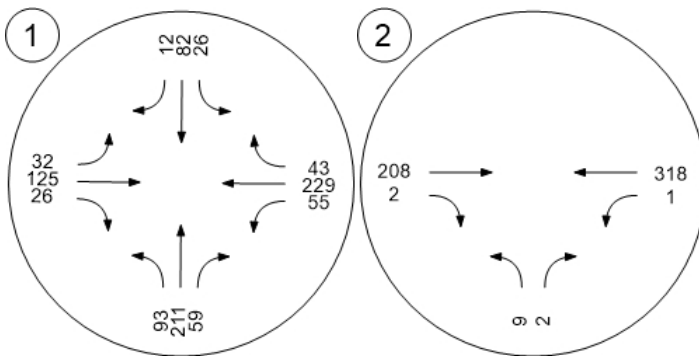


Report Figure 2f: Traffic Volume - Future Total Volume

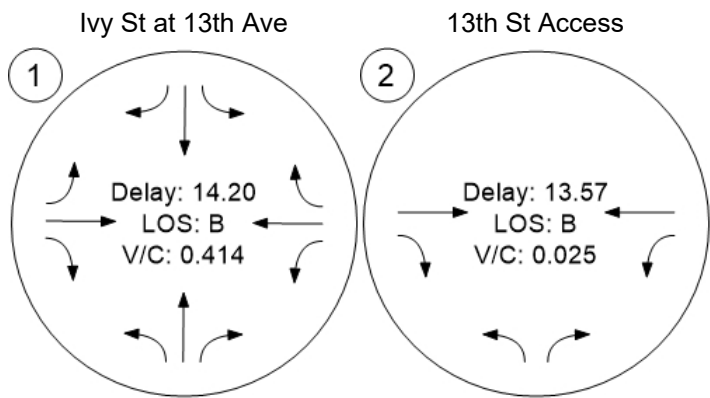
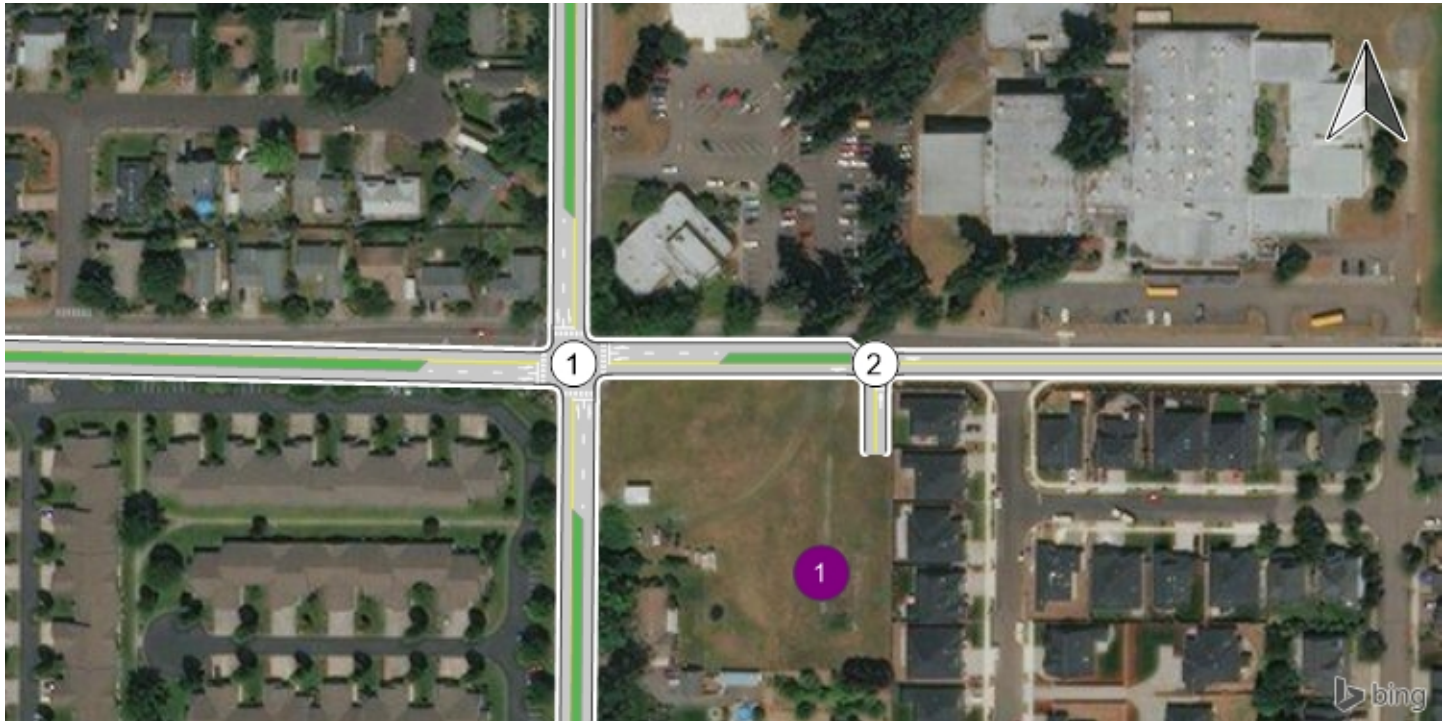


Ivy St at 13th Ave

13th St Access



Report Figure 3: Traffic Conditions



Ivy St Townhomes TIA - 18-387

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Scenario 7 AM Developed - 38 Homes

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6/5/2018

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Ivy St at 13th Ave	Signalized	HCM 6th Edition	EB Left	0.415	14.2	B
2	13th St Access	Two-way stop	HCM 6th Edition	NB Left	0.028	13.6	B

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. for all other control types, they are taken for the whole intersection.

**Intersection Level Of Service Report
Intersection 1: Ivy St at 13th Ave**

Control Type:	Signalized	Delay (sec / veh):	14.2
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.415

Intersection Setup

Name	Ivy St			13th Ave			13th Ave					
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	↔			↔			↔			↔		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	125.00	100.00	100.00	125.00	100.00	100.00	125.00	100.00	100.00	125.00	100.00	100.00
Speed [mph]	30.00			30.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Ivy St			13th Ave			13th Ave					
Base Volume Input [veh/h]	93	196	49	25	77	8	21	116	26	50	222	40
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	3.80	3.80	3.80	9.10	9.10	9.10	5.50	5.50	5.50	8.00	8.00	8.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	15	11	1	5	4	11	8	0	5	7	4
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	93	211	60	26	82	12	32	124	26	55	229	44
Peak Hour Factor	0.8300	0.8300	0.8300	0.8300	0.8300	0.8300	0.8300	0.8300	0.8300	0.8300	0.8300	0.8300
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	28	64	18	8	25	4	10	37	8	17	69	13
Total Analysis Volume [veh/h]	112	254	72	31	99	14	39	149	31	66	276	53
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	5	0	0	5	0	0	5	0	0	5	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	19	0	0	19	0	0	41	0	0	41	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	L	C
C, Cycle Length [s]	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	2.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	34	34	34	34	18	18	18	18
g / C, Green / Cycle	0.56	0.56	0.56	0.56	0.31	0.31	0.31	0.31
(v / s)_j Volume / Saturation Flow Rate	0.10	0.20	0.03	0.07	0.04	0.11	0.06	0.21
s, saturation flow rate [veh/h]	1135	1596	894	1553	919	1587	1031	1558
c, Capacity [veh/h]	691	897	502	872	188	484	299	475
d1, Uniform Delay [s]	8.23	7.24	10.20	6.22	26.84	16.35	21.89	18.37
k, delay calibration	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.50	1.14	0.24	0.31	0.54	0.47	0.37	1.82
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.16	0.36	0.06	0.13	0.21	0.37	0.22	0.69
d, Delay for Lane Group [s/veh]	8.73	8.39	10.43	6.52	27.38	16.82	22.26	20.19
Lane Group LOS	A	A	B	A	C	B	C	C
Critical Lane Group	No	Yes	No	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	0.77	2.10	0.25	0.61	0.55	1.88	0.81	3.96
50th-Percentile Queue Length [ft]	19.21	52.43	6.17	15.34	13.70	46.89	20.35	99.05
95th-Percentile Queue Length [veh]	1.38	3.78	0.44	1.10	0.99	3.38	1.47	7.13
95th-Percentile Queue Length [ft]	34.58	94.38	11.11	27.61	24.66	84.40	36.64	178.29

Movement, Approach, & Intersection Results

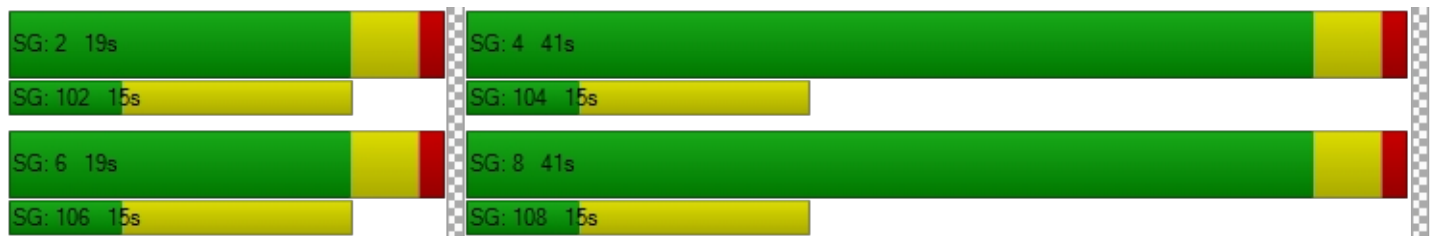
d_M, Delay for Movement [s/veh]	8.73	8.39	8.39	10.43	6.52	6.52	27.38	16.82	16.82	22.26	20.19	20.19
Movement LOS	A	A	A	B	A	A	C	B	B	C	C	C
d_A, Approach Delay [s/veh]	8.48			7.37			18.70			20.54		
Approach LOS	A			A			B			C		
d_I, Intersection Delay [s/veh]	14.20											
Intersection LOS	B											
Intersection V/C	0.415											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	21.68			21.68			21.68			21.68		
I_p,int, Pedestrian LOS Score for Intersection	2.221			2.136			2.248			2.140		
Crosswalk LOS	B			B			B			B		
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000		
c_b, Capacity of the bicycle lane [bicycles/h]	500			500			1233			1233		
d_b, Bicycle Delay [s]	16.88			16.88			4.41			4.41		
I_b,int, Bicycle LOS Score for Intersection	2.833			2.348			2.655			2.946		
Bicycle LOS	C			B			B			C		

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 2: 13th St Access**

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 13.6
 Level Of Service: B
 Volume to Capacity (v/c): 0.028

Intersection Setup

Name	Northbound		Eastbound		Westbound	
Approach						
Lane Configuration	↔		↗		↖	
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name	Northbound		Eastbound		Westbound	
Base Volume Input [veh/h]	0	0	190	0	0	312
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	8.00	8.00	8.00	8.00	8.00	8.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	10	3	18	2	1	6
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	10	3	208	2	1	318
Peak Hour Factor	0.8300	0.8300	0.8300	0.8300	0.8300	0.8300
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	1	63	1	0	96
Total Analysis Volume [veh/h]	12	4	251	2	1	383
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.01	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	13.59	9.91	0.00	0.00	7.82	0.00
Movement LOS	B	A	A	A	A	A
95th-Percentile Queue Length [veh]	0.10	0.10	0.00	0.00	1.27	1.27
95th-Percentile Queue Length [ft]	2.55	2.55	0.00	0.00	31.85	31.85
d_A, Approach Delay [s/veh]	12.67		0.00		0.02	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.32					
Intersection LOS	B					

Ivy St Townhomes TIA - 18-387

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Scenario 7 AM Developed - 38 Homes

Report File: J:\...\18-387 - AM Dev - 38 Homes.pdf

6/5/2018

Turning Movement Volume: Summary

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
1	Ivy St at 13th Ave	93	211	60	26	82	12	32	124	26	55	229	44	994

ID	Intersection Name	Northbound		Eastbound		Westbound		Total Volume
		Left	Right	Thru	Right	Left	Thru	
2	13th St Access	10	3	208	2	1	318	542

Ivy St Townhomes TIA - 18-387

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Scenario 7 AM Developed - 38 Homes

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6/5/2018

Turning Movement Volume: Detail

ID	Intersection Name	Volume Type	Northbound			Southbound			Eastbound			Westbound			Total Volume
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
1	Ivy St at 13th Ave	Final Base	93	196	49	25	77	8	21	116	26	50	222	40	923
		Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	-
		In Process	0	0	0	0	0	0	0	0	0	0	0	0	0
		Net New Trips	0	15	11	1	5	4	11	8	0	5	7	4	71
		Other	0	0	0	0	0	0	0	0	0	0	0	0	0
		Future Total	93	211	60	26	82	12	32	124	26	55	229	44	994

ID	Intersection Name	Volume Type	Northbound		Eastbound		Westbound		Total Volume
			Left	Right	Thru	Right	Left	Thru	
2	13th St Access	Final Base	0	0	190	0	0	312	502
		Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	-
		In Process	0	0	0	0	0	0	0
		Net New Trips	10	3	18	2	1	6	40
		Other	0	0	0	0	0	0	0
		Future Total	10	3	208	2	1	318	542

Ivy St Townhomes TIA - 18-387

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6/5/2018

Trip Generation summary

Added Trips

Zone ID: Name	Land Use variables	Code	Ind. Var.	Rate	Quantity	% In	% Out	Trips In	Trips Out	Total Trips	% of Total Trips
1: Ivy St Townhouses	Apts	ITE 220	Units	0.460	38.000	23.00	77.00	4	13	17	12.69
7: Mayberry Group	Homes	ITE 210	Homes	0.740	89.000	25.00	75.00	16	50	66	49.25
8: Beck Pond	Homes	ite 210	Homes	0.740	69.000	25.00	75.00	13	38	51	38.06
Added Trips Total								33	101	134	100.00

Ivy St Townhomes TIA - 18-387

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6/5/2018

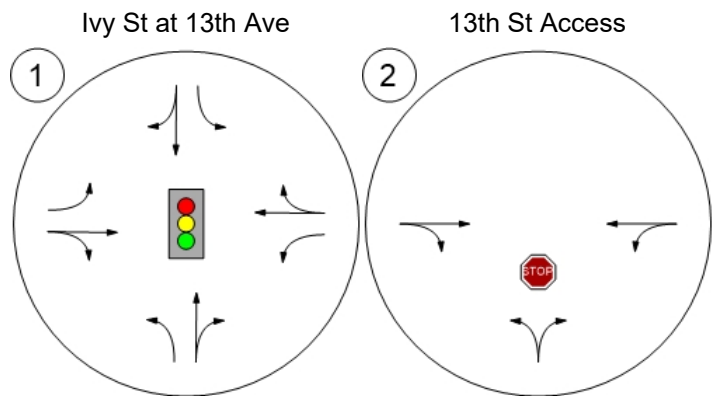
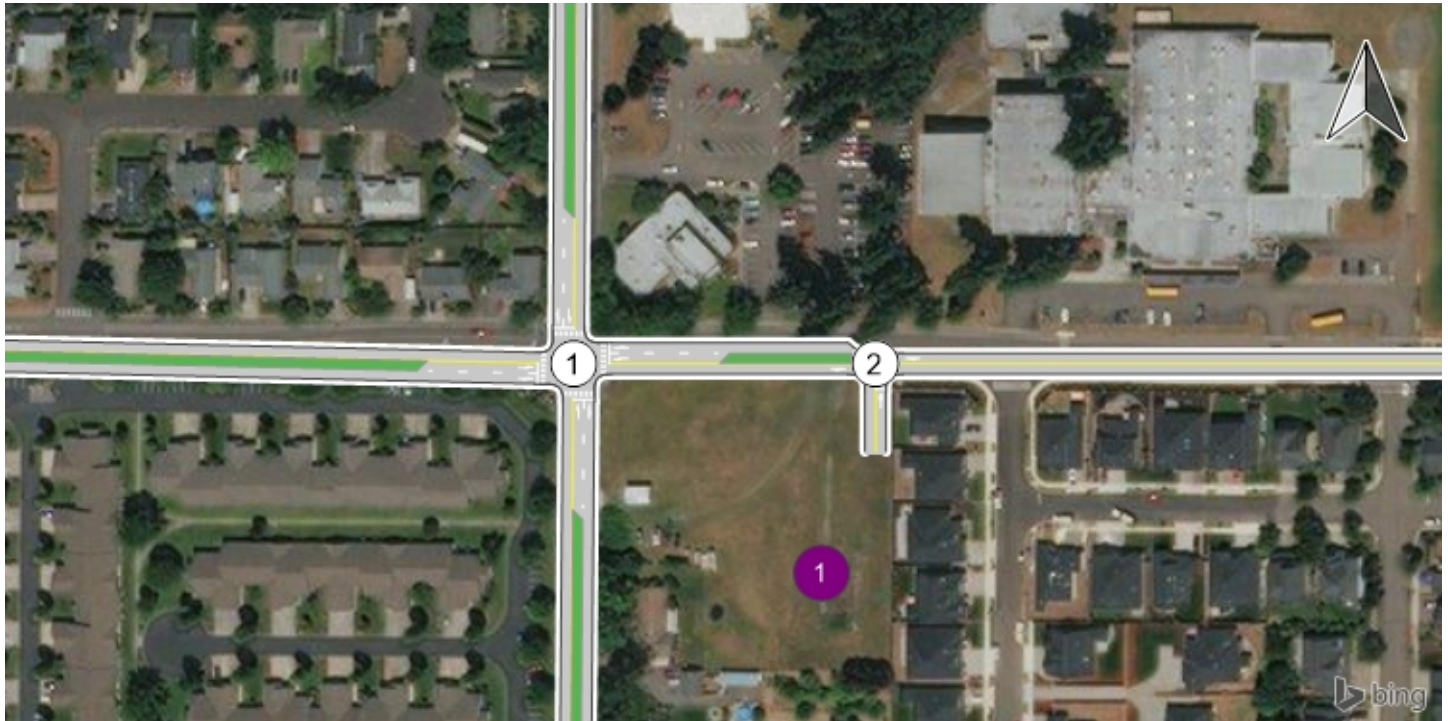
Trip Distribution summary

Zone / Gate	Zone 1: Ivy St Townhouses			
	To Ivy St Townhouses:		From Ivy St Townhouses:	
	Share %	Trips	Share %	Trips
7: Mayberry Group	0.00	0	0.00	0
8: Beck Pond	0.00	0	0.00	0
2: Gate	35.00	1	35.00	4
3: Gate	30.00	1	30.00	4
4: Gate	20.00	1	20.00	3
5: Gate	15.00	1	15.00	2
6: Gate	0.00	0	0.00	0
Total	100.00	4	100.00	13

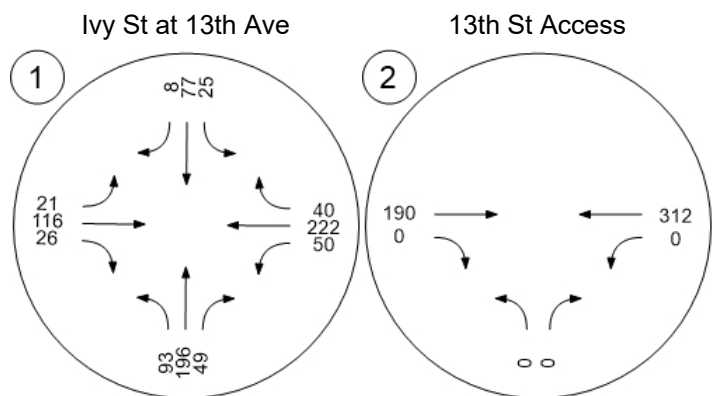
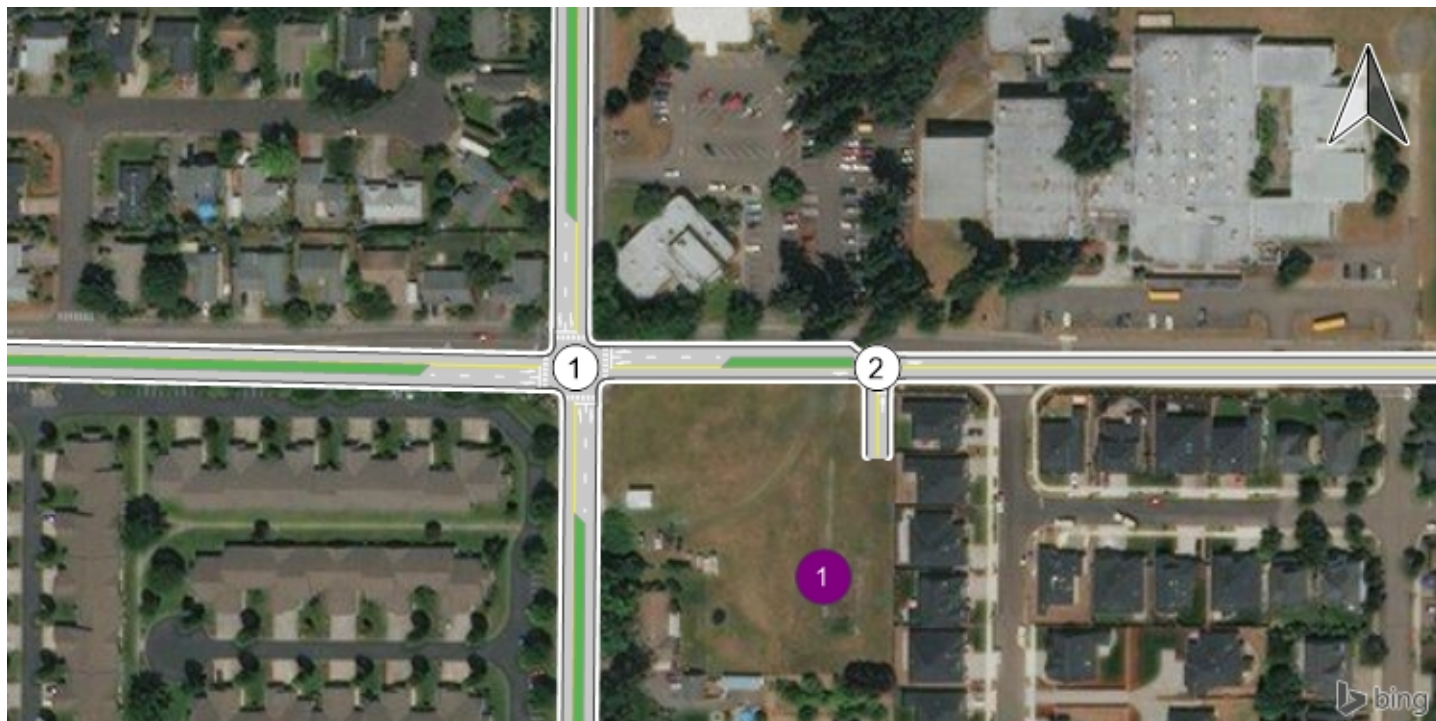
Zone / Gate	Zone 7: Mayberry Group			
	To Mayberry Group:		From Mayberry Group:	
	Share %	Trips	Share %	Trips
1: Ivy St Townhouses	0.00	0	0.00	0
8: Beck Pond	0.00	0	0.00	0
2: Gate	35.00	6	35.00	17
3: Gate	30.00	5	30.00	15
4: Gate	20.00	3	20.00	10
5: Gate	15.00	2	15.00	8
6: Gate	0.00	0	0.00	0
Total	100.00	16	100.00	50

Zone / Gate	Zone 8: Beck Pond			
	To Beck Pond:		From Beck Pond:	
	Share %	Trips	Share %	Trips
1: Ivy St Townhouses	0.00	0	0.00	0
7: Mayberry Group	0.00	0	0.00	0
2: Gate	35.00	5	35.00	13
3: Gate	30.00	4	30.00	11
4: Gate	20.00	3	20.00	8
5: Gate	15.00	2	15.00	6
6: Gate	0.00	0	0.00	0
Total	100.00	14	100.00	38

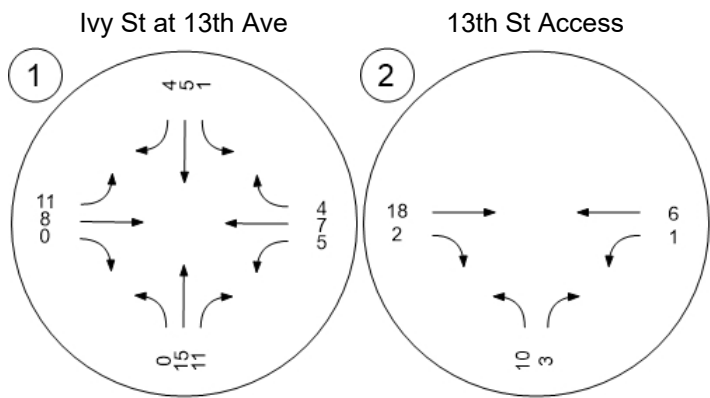
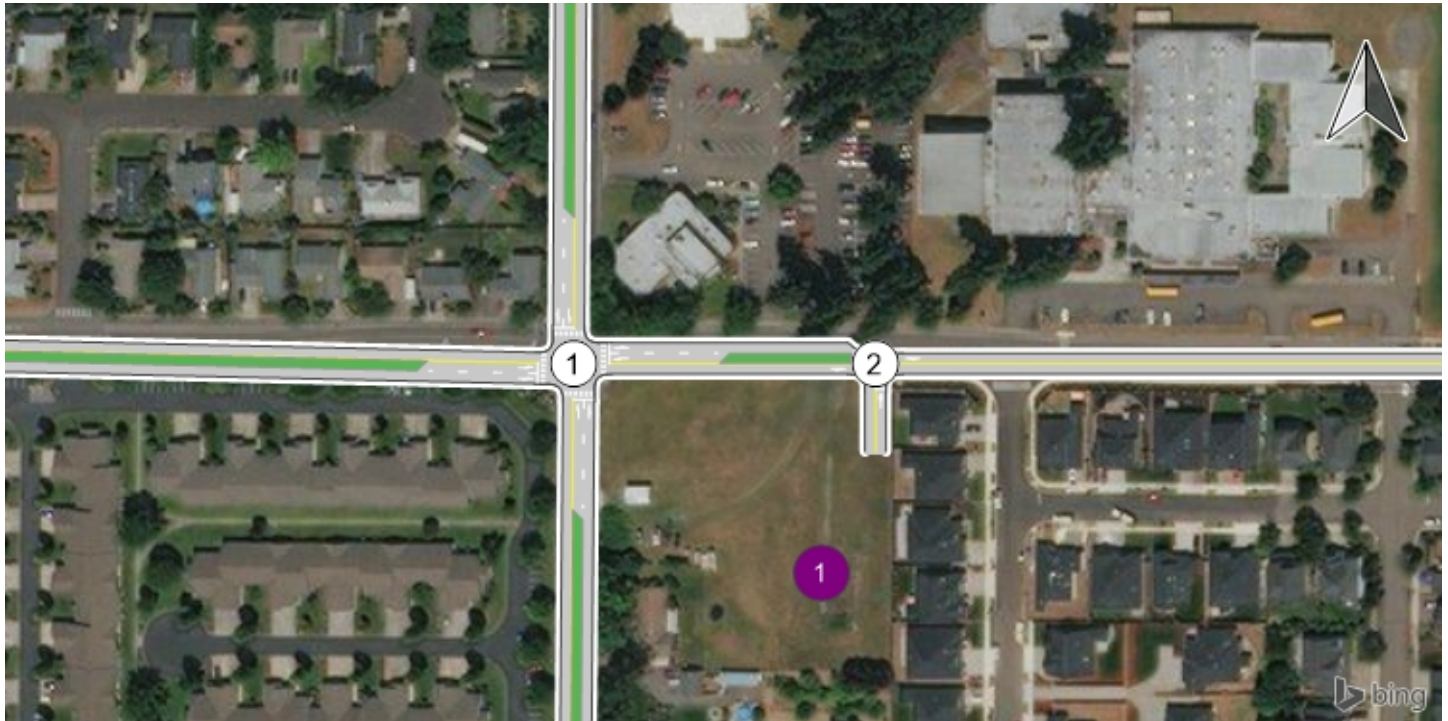
Report Figure 1: Lane Configuration and Traffic Control



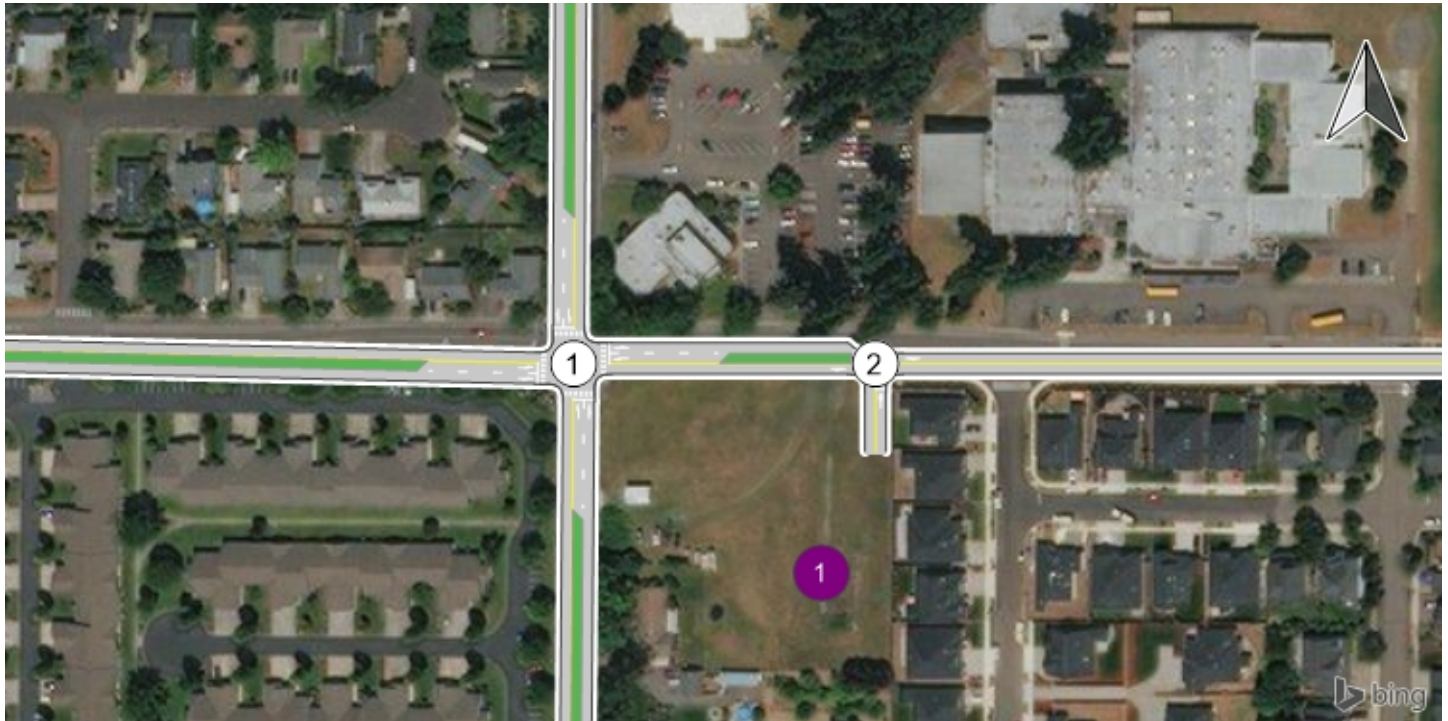
Report Figure 2a: Traffic Volume - Base Volume



Report Figure 2d: Traffic Volume - Net New Site Trips

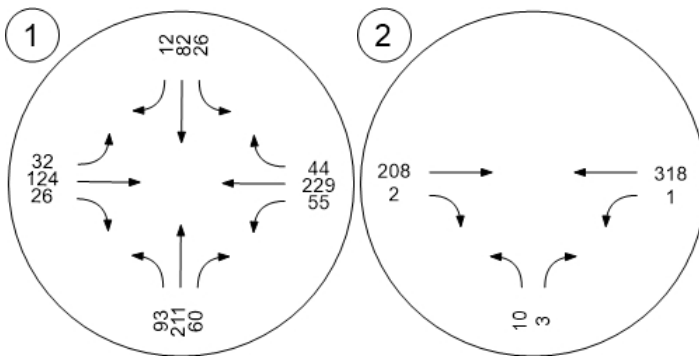


Report Figure 2f: Traffic Volume - Future Total Volume

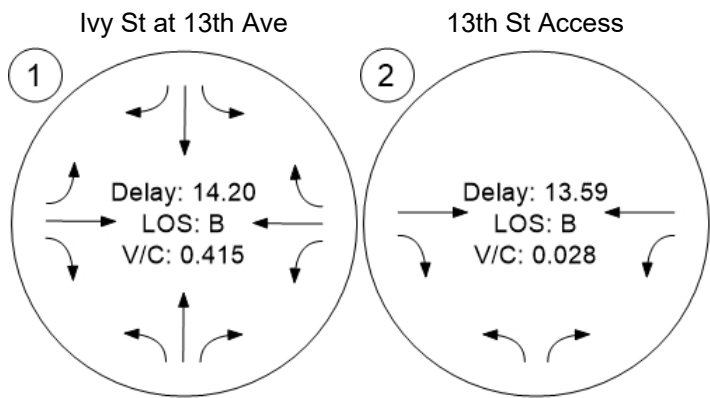
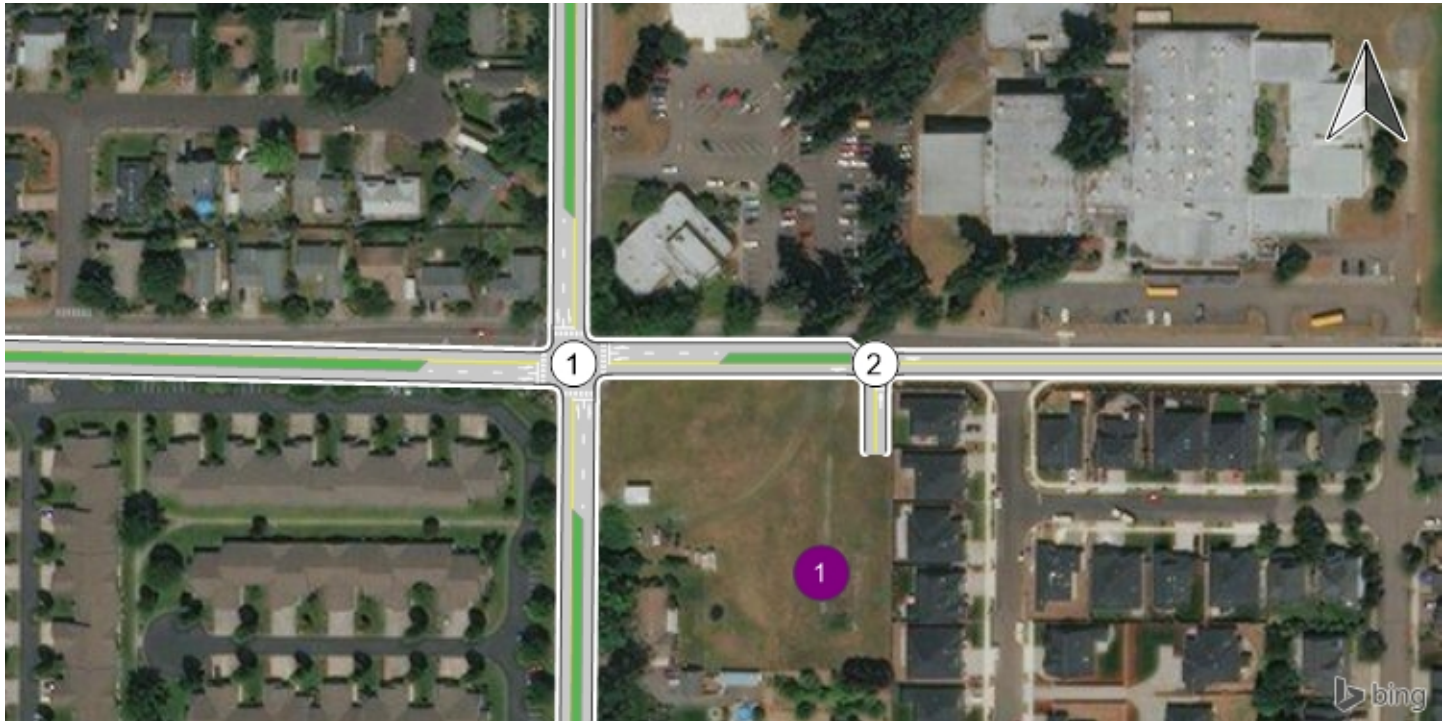


Ivy St at 13th Ave

13th St Access



Report Figure 3: Traffic Conditions



Ivy St Townhomes TIA - 18-387

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Report File: J:\...\18-387 - PM Existing.pdf

Scenario 2 PM Existing
6/5/2018

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Ivy St at 13th Ave	Signalized	HCM 6th Edition	WB Left	0.316	15.1	B

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. for all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Ivy St at 13th Ave

Control Type: Signalized
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 15.1
 Level Of Service: B
 Volume to Capacity (v/c): 0.316

Intersection Setup

Name	Ivy St			13th Ave			13th Ave					
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	↔			↔			↔			↔		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	125.00	100.00	100.00	125.00	100.00	100.00	125.00	100.00	100.00	125.00	100.00	100.00
Speed [mph]	30.00			30.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Ivy St			13th Ave			13th Ave					
Base Volume Input [veh/h]	41	192	55	65	252	29	38	182	93	102	136	39
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.40	2.40	2.40	0.90	0.90	0.90	3.20	3.20	3.20	0.40	0.40	0.40
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	41	192	55	65	252	29	38	182	93	102	136	39
Peak Hour Factor	1.0000	1.0000	1.0000	0.9200	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.9200
Other Adjustment Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Total 15-Minute Volume [veh/h]	9	44	13	16	58	7	9	42	21	23	31	10
Total Analysis Volume [veh/h]	38	177	51	65	232	27	35	167	86	94	125	39
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	5	0	0	5	0	0	5	0	0	5	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	32	0	0	32	0	0	38	0	0	38	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	L	C
C, Cycle Length [s]	70	70	70	70	70	70	70	70
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	2.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	42	42	42	42	20	20	20	20
g / C, Green / Cycle	0.60	0.60	0.60	0.60	0.29	0.29	0.29	0.29
(v / s)_j Volume / Saturation Flow Rate	0.04	0.14	0.06	0.16	0.03	0.16	0.09	0.10
s, saturation flow rate [veh/h]	1005	1614	1046	1667	1089	1572	1027	1636
c, Capacity [veh/h]	598	967	627	999	301	451	231	469
d1, Uniform Delay [s]	9.35	6.55	9.29	6.66	24.20	21.23	29.50	19.80
k, delay calibration	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.20	0.57	0.33	0.63	0.17	1.10	1.15	0.45
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.06	0.24	0.10	0.26	0.12	0.56	0.41	0.35
d, Delay for Lane Group [s/veh]	9.55	7.12	9.63	7.29	24.37	22.33	30.64	20.25
Lane Group LOS	A	A	A	A	C	C	C	C
Critical Lane Group	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	0.31	1.45	0.53	1.68	0.49	3.52	1.56	2.10
50th-Percentile Queue Length [ft]	7.72	36.34	13.23	41.89	12.35	88.09	39.02	52.62
95th-Percentile Queue Length [veh]	0.56	2.62	0.95	3.02	0.89	6.34	2.81	3.79
95th-Percentile Queue Length [ft]	13.89	65.41	23.82	75.40	22.23	158.56	70.23	94.72

Movement, Approach, & Intersection Results

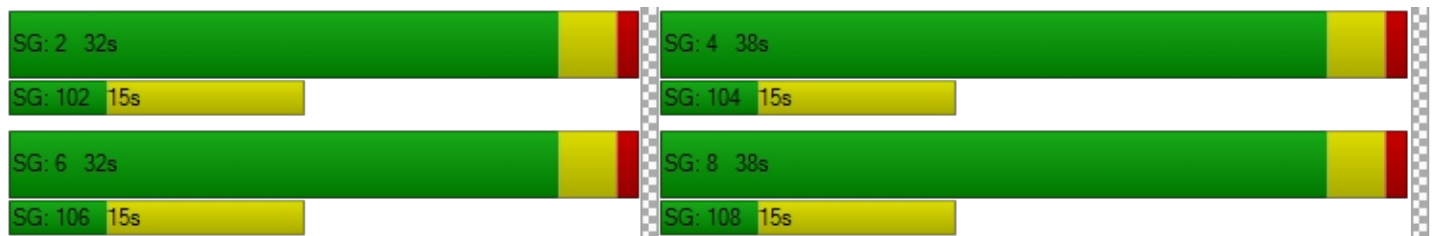
d_M, Delay for Movement [s/veh]	9.55	7.12	7.12	9.63	7.29	7.29	24.37	22.33	22.33	30.64	20.25	20.25
Movement LOS	A	A	A	A	A	A	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	7.47			7.76			22.58			24.03		
Approach LOS	A			A			C			C		
d_I, Intersection Delay [s/veh]	15.14											
Intersection LOS	B											
Intersection V/C	0.316											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	26.58	26.58	26.58	26.58
I_p,int, Pedestrian LOS Score for Intersection	2.283	2.166	2.113	2.168
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	800	800	971	971
d_b, Bicycle Delay [s]	12.60	12.60	9.26	9.26
I_b,int, Bicycle LOS Score for Intersection	2.549	2.645	2.769	2.720
Bicycle LOS	B	B	C	B

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Ivy St Townhomes TIA - 18-387

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Scenario 2 PM Existing

Report File: J:\...\18-387 - PM Existing.pdf

6/5/2018

Turning Movement Volume: Summary

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
1	Ivy St at 13th Ave	41	192	55	65	252	29	38	182	93	102	136	39	1224

Ivy St Townhomes TIA - 18-387

Vistro File: J:\...\18-387 Ivy St Townhomes.vistro

Scenario 2 PM Existing

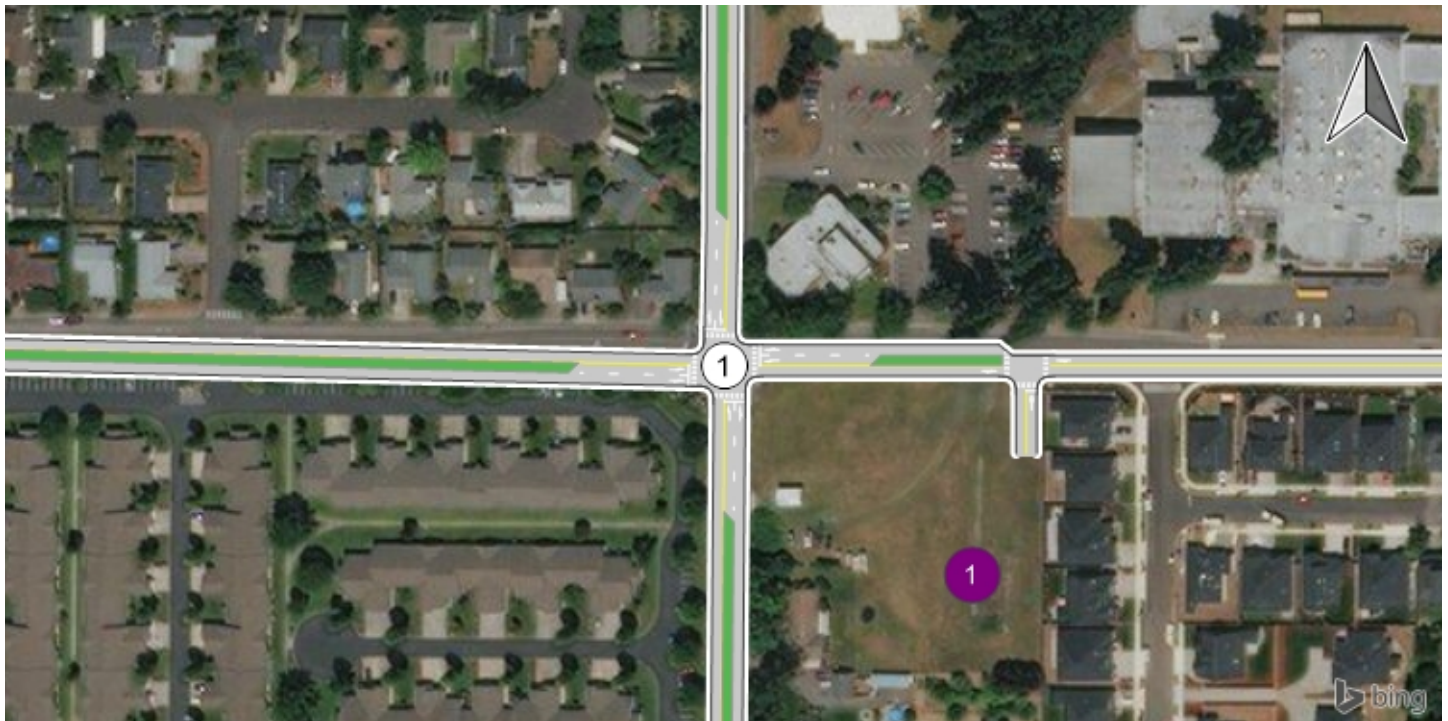
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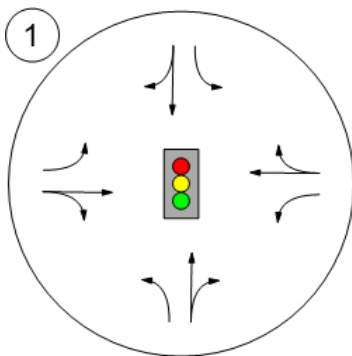
Turning Movement Volume: Detail

ID	Intersection Name	Volume Type	Northbound			Southbound			Eastbound			Westbound			Total Volume
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
1	Ivy St at 13th Ave	Final Base	41	192	55	65	252	29	38	182	93	102	136	39	1224
		Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	-
		In Process	0	0	0	0	0	0	0	0	0	0	0	0	0
		Net New Trips	0	0	0	0	0	0	0	0	0	0	0	0	0
		Other	0	0	0	0	0	0	0	0	0	0	0	0	0
		Future Total	41	192	55	65	252	29	38	182	93	102	136	39	1224

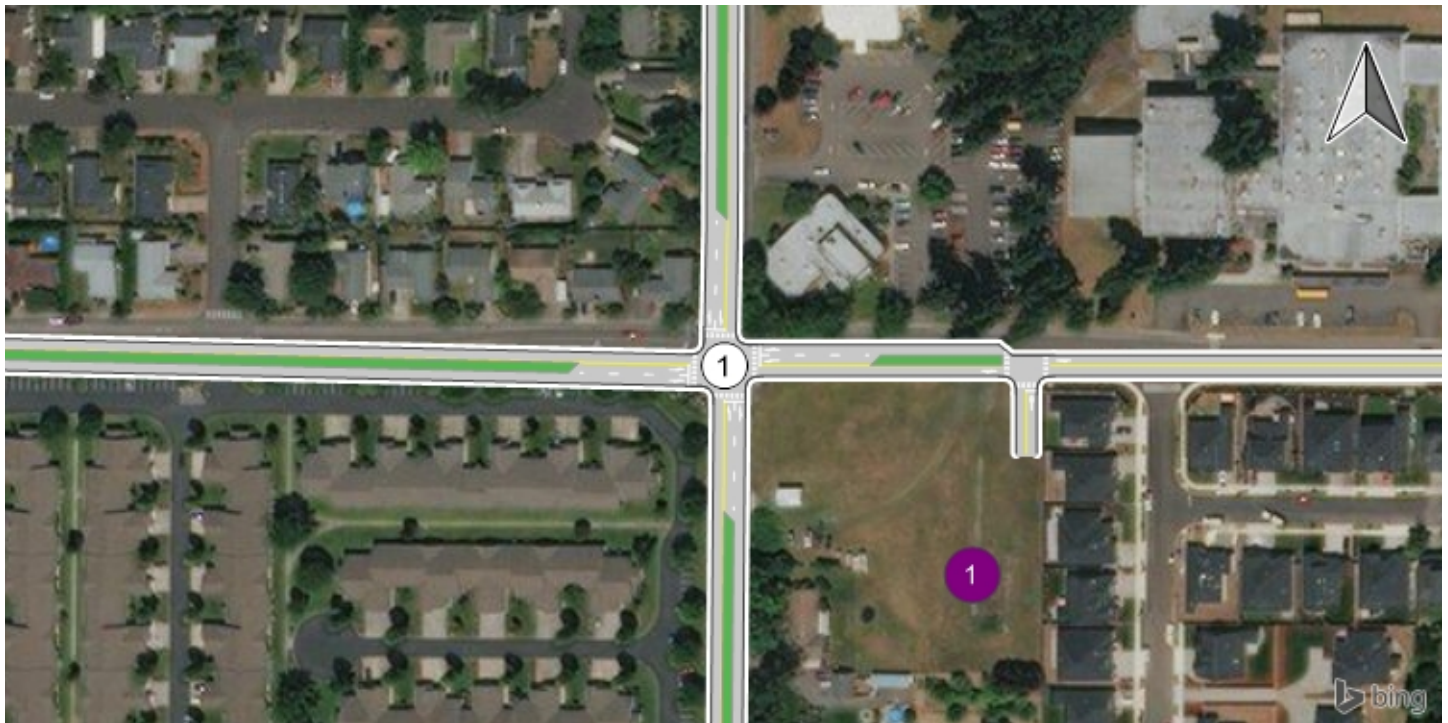
Report Figure 1: Lane Configuration and Traffic Control



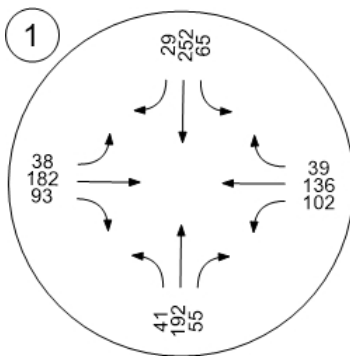
Ivy St at 13th Ave



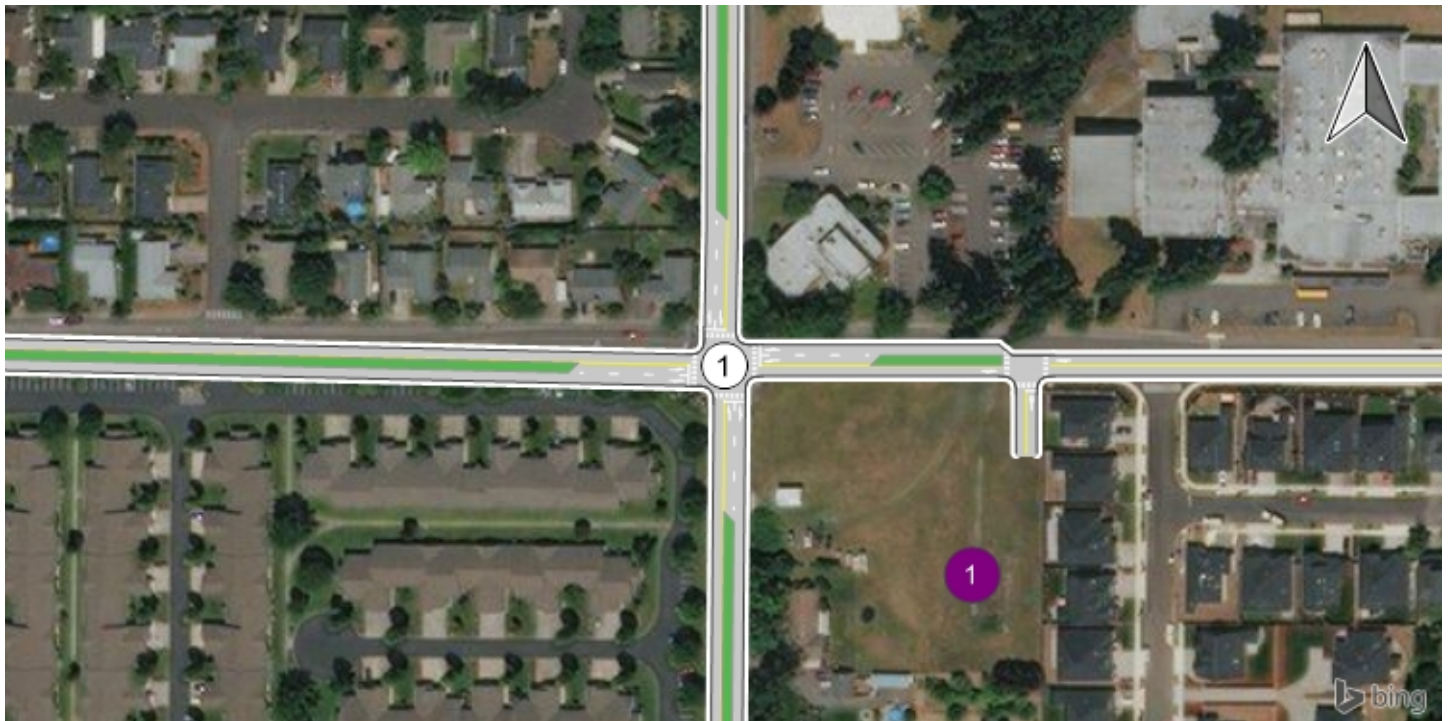
Report Figure 2a: Traffic Volume - Base Volume



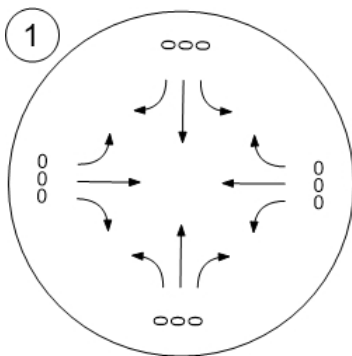
Ivy St at 13th Ave



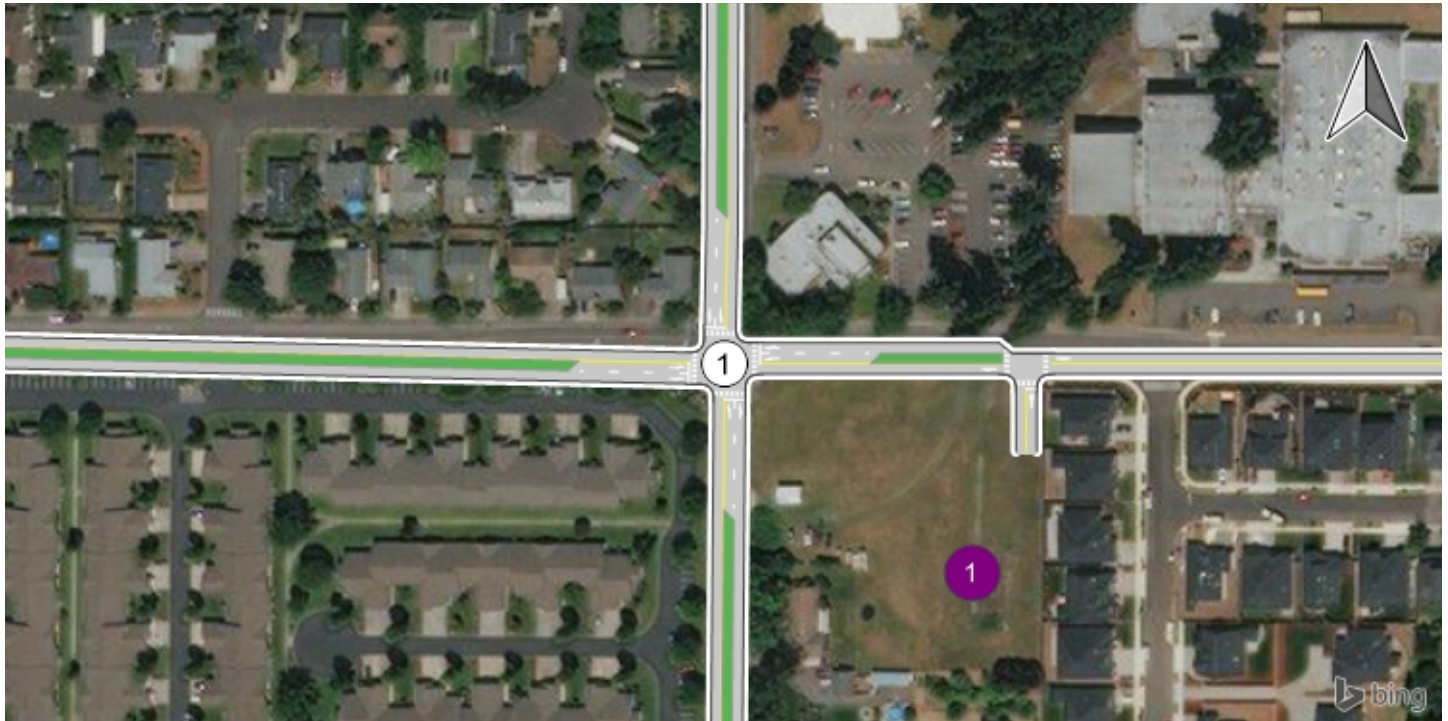
Report Figure 2d: Traffic Volume - Net New Site Trips



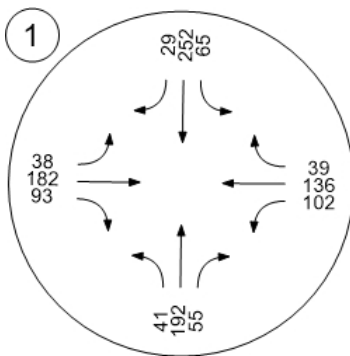
Ivy St at 13th Ave



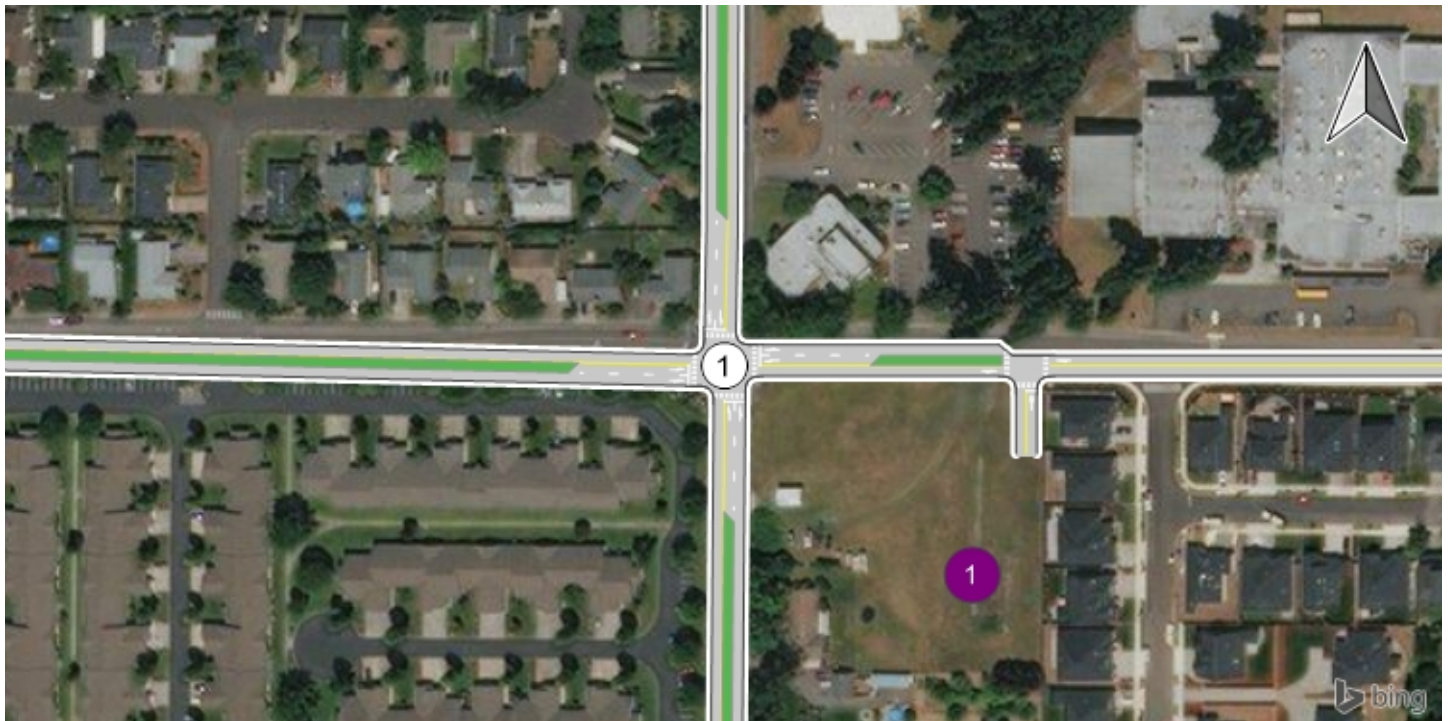
Report Figure 2f: Traffic Volume - Future Total Volume



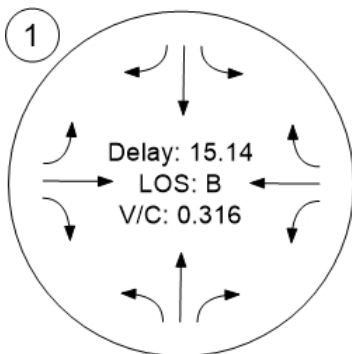
Ivy St at 13th Ave



Report Figure 3: Traffic Conditions



Ivy St at 13th Ave



Ivy St Townhomes TIA - 18-387

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Report File: J:\...\18-387 - PM Background.pdf

Scenario 4 PM Background
6/5/2018

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Ivy St at 13th Ave	Signalized	HCM 6th Edition	WB Left	0.397	14.0	B

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. for all other control types, they are taken for the whole intersection.

**Intersection Level Of Service Report
Intersection 1: Ivy St at 13th Ave**

Control Type:	Signalized	Delay (sec / veh):	14.0
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.397

Intersection Setup

Name	Ivy St			13th Ave			13th Ave					
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	↔			↔			↔			↔		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	125.00	100.00	100.00	125.00	100.00	100.00	125.00	100.00	100.00	125.00	100.00	100.00
Speed [mph]	30.00			30.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Ivy St			13th Ave			13th Ave					
Base Volume Input [veh/h]	41	192	55	65	252	29	38	182	93	102	136	39
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.40	2.40	2.40	0.90	0.90	0.90	3.20	3.20	3.20	0.40	0.40	0.40
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	10	7	0	17	13	8	5	0	11	9	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	41	202	62	65	269	42	46	187	93	113	145	39
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	55	17	18	73	11	13	51	25	31	39	11
Total Analysis Volume [veh/h]	45	220	67	71	292	46	50	203	101	123	158	42
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	5	0	0	5	0	0	5	0	0	5	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	29	0	0	29	0	0	31	0	0	31	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	L	C
C, Cycle Length [s]	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	2.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	31	31	31	31	21	21	21	21
g / C, Green / Cycle	0.51	0.51	0.51	0.51	0.36	0.36	0.36	0.36
(v / s)_j Volume / Saturation Flow Rate	0.05	0.18	0.07	0.20	0.05	0.19	0.13	0.12
s, saturation flow rate [veh/h]	935	1611	991	1658	1054	1574	980	1644
c, Capacity [veh/h]	455	818	494	842	361	565	280	590
d1, Uniform Delay [s]	12.97	8.86	12.52	9.14	18.72	15.28	24.04	14.03
k, delay calibration	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.43	1.19	0.61	1.43	0.17	0.80	1.09	0.34
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.10	0.35	0.14	0.40	0.14	0.54	0.44	0.34
d, Delay for Lane Group [s/veh]	13.40	10.04	13.13	10.57	18.90	16.07	25.12	14.37
Lane Group LOS	B	B	B	B	B	B	C	B
Critical Lane Group	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	0.42	2.12	0.66	2.59	0.55	3.16	1.68	1.89
50th-Percentile Queue Length [ft]	10.57	53.03	16.38	64.64	13.84	78.92	41.90	47.19
95th-Percentile Queue Length [veh]	0.76	3.82	1.18	4.65	1.00	5.68	3.02	3.40
95th-Percentile Queue Length [ft]	19.03	95.46	29.48	116.35	24.91	142.05	75.42	84.94

Movement, Approach, & Intersection Results

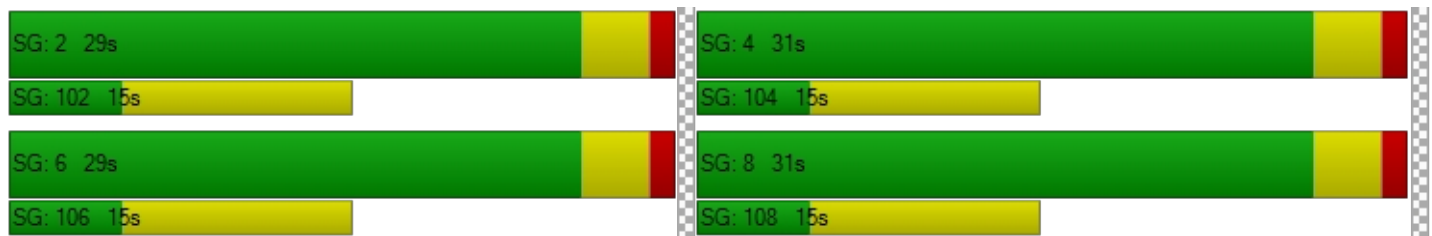
d_M, Delay for Movement [s/veh]	13.40	10.04	10.04	13.13	10.57	10.57	18.90	16.07	16.07	25.12	14.37	14.37
Movement LOS	B	B	B	B	B	B	B	B	B	C	B	B
d_A, Approach Delay [s/veh]	10.50			11.01			16.47			18.47		
Approach LOS	B			B			B			B		
d_I, Intersection Delay [s/veh]	13.95											
Intersection LOS	B											
Intersection V/C	0.397											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	21.68	21.68	21.68	21.68
I_p,int, Pedestrian LOS Score for Intersection	2.371	2.226	2.148	2.202
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	833	833	900	900
d_b, Bicycle Delay [s]	10.21	10.21	9.08	9.08
I_b,int, Bicycle LOS Score for Intersection	2.658	2.785	2.878	2.827
Bicycle LOS	B	C	C	C

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Ivy St Townhomes TIA - 18-387

Vistro File: J:\...\18-387 Ivy St Townhomes.vistro

Scenario 4 PM Background

Report File: J:\...\18-387 - PM Background.pdf

6/5/2018

Turning Movement Volume: Summary

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
1	Ivy St at 13th Ave	41	202	62	65	269	42	46	187	93	113	145	39	1304

Ivy St Townhomes TIA - 18-387

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Scenario 4 PM Background

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6/5/2018

Turning Movement Volume: Detail

ID	Intersection Name	Volume Type	Northbound			Southbound			Eastbound			Westbound			Total Volume
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
1	Ivy St at 13th Ave	Final Base	41	192	55	65	252	29	38	182	93	102	136	39	1224
		Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	-
		In Process	0	0	0	0	0	0	0	0	0	0	0	0	0
		Net New Trips	0	10	7	0	17	13	8	5	0	11	9	0	80
		Other	0	0	0	0	0	0	0	0	0	0	0	0	0
		Future Total	41	202	62	65	269	42	46	187	93	113	145	39	1304

Ivy St Townhomes TIA - 18-387

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Scenario 4 PM Background

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6/5/2018

Trip Generation summary

Added Trips

Zone ID: Name	Land Use variables	Code	Ind. Var.	Rate	Quantity	% In	% Out	Trips In	Trips Out	Total Trips	% of Total Trips
7: Mayberry Group	Homes	ITE 210	Homes	0.990	89.000	63.00	37.00	55	33	88	56.41
8: Beck Pond	Homes	ite 210	Homes	0.990	69.000	63.00	37.00	43	25	68	43.59
Added Trips Total								98	58	156	100.00

Ivy St Townhomes TIA - 18-387

Vistro File: J:\...\18-387 Ivy St Townhomes.vistro

Scenario 4 PM Background

Report File: J:\...\18-387 - PM Background.pdf

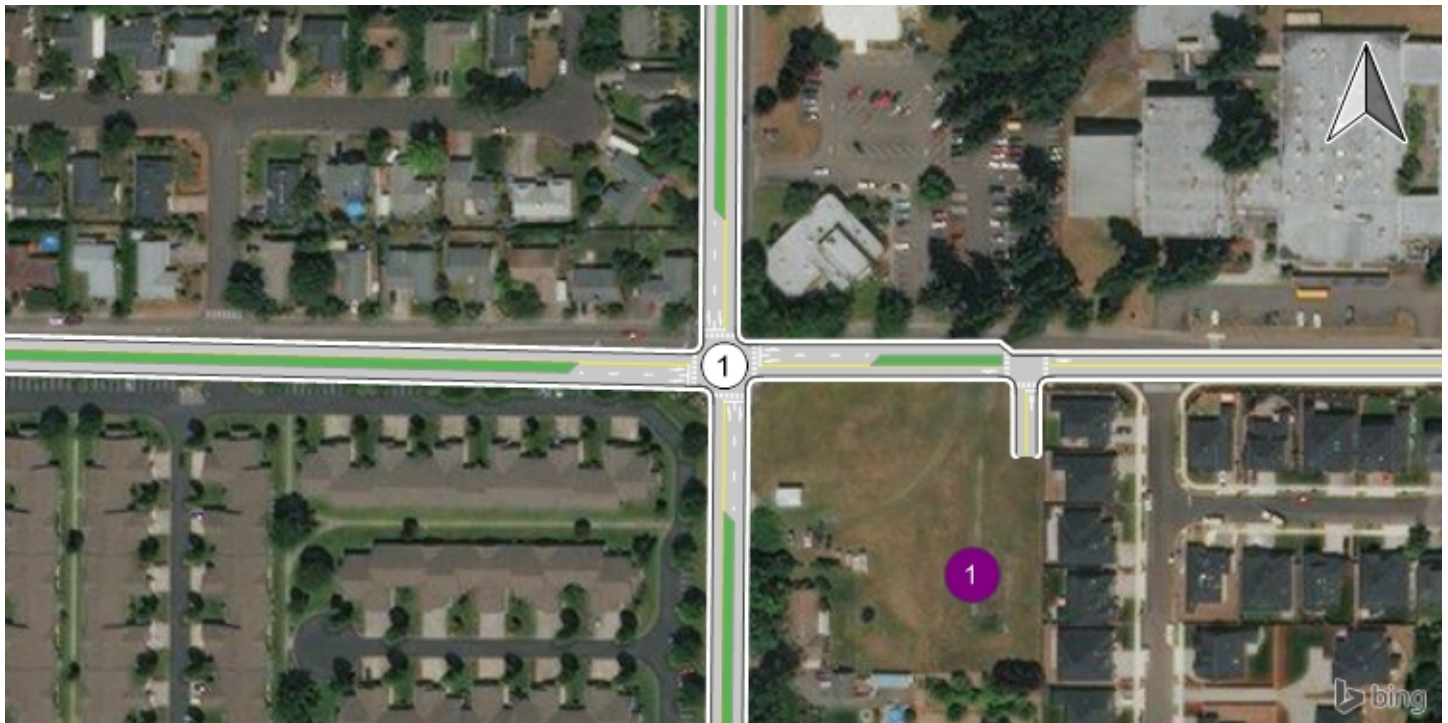
6/5/2018

Trip Distribution summary

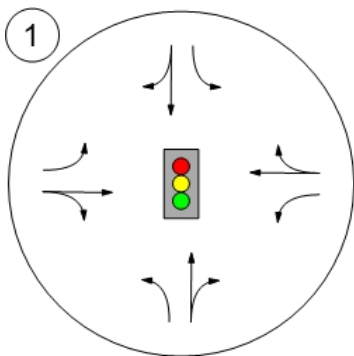
Zone / Gate	Zone 7: Mayberry Group			
	To Mayberry Group:		From Mayberry Group:	
	Share %	Trips	Share %	Trips
1: Ivy St Townhouses	0.00	0	0.00	0
8: Beck Pond	0.00	0	0.00	0
2: Gate	35.00	19	35.00	11
3: Gate	30.00	17	30.00	10
4: Gate	20.00	11	20.00	7
5: Gate	15.00	8	15.00	5
6: Gate	0.00	0	0.00	0
Total	100.00	55	100.00	33

Zone / Gate	Zone 8: Beck Pond			
	To Beck Pond:		From Beck Pond:	
	Share %	Trips	Share %	Trips
1: Ivy St Townhouses	0.00	0	0.00	0
7: Mayberry Group	0.00	0	0.00	0
2: Gate	35.00	15	35.00	8
3: Gate	30.00	13	30.00	8
4: Gate	20.00	9	20.00	5
5: Gate	15.00	6	15.00	4
6: Gate	0.00	0	0.00	0
Total	100.00	43	100.00	25

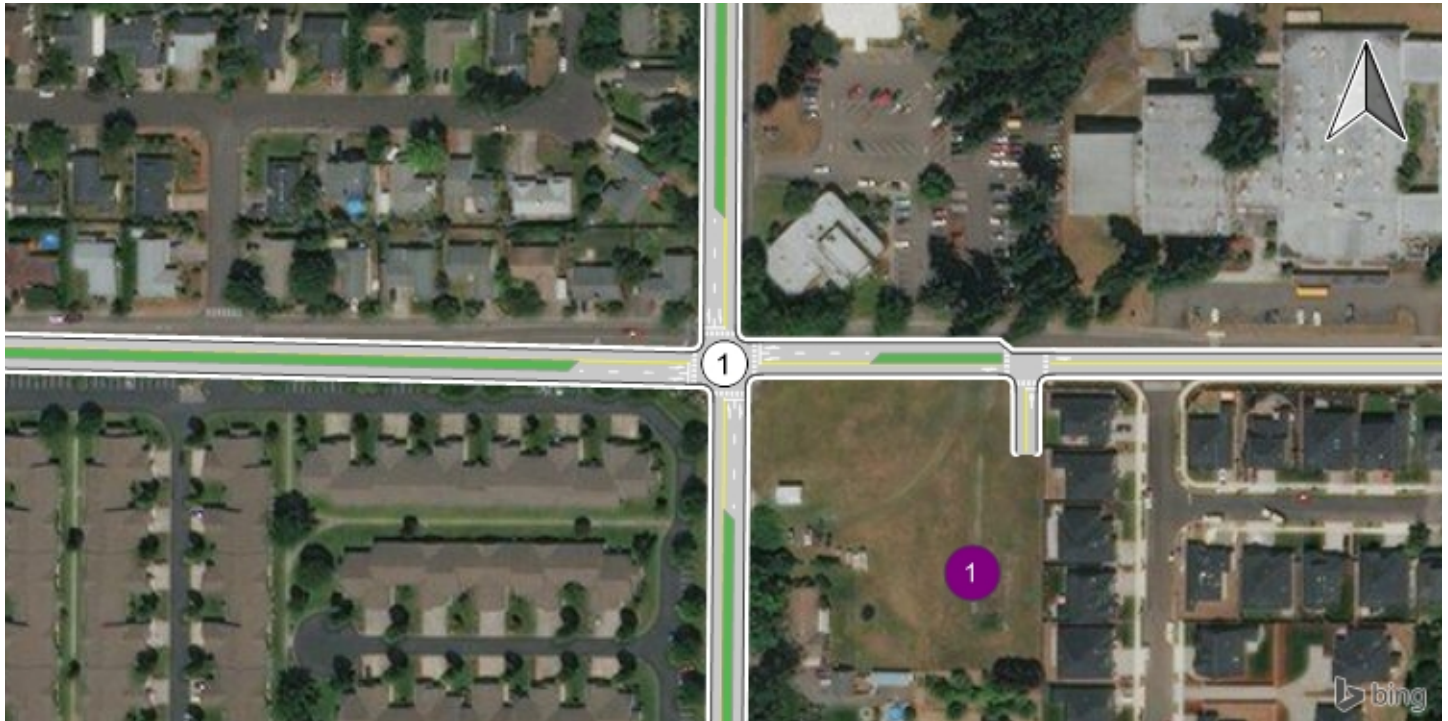
Report Figure 1: Lane Configuration and Traffic Control



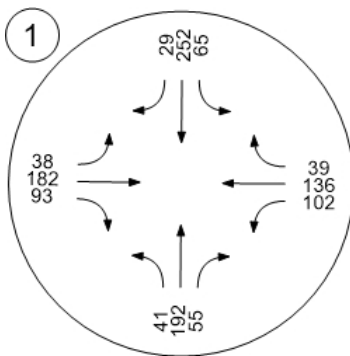
Ivy St at 13th Ave



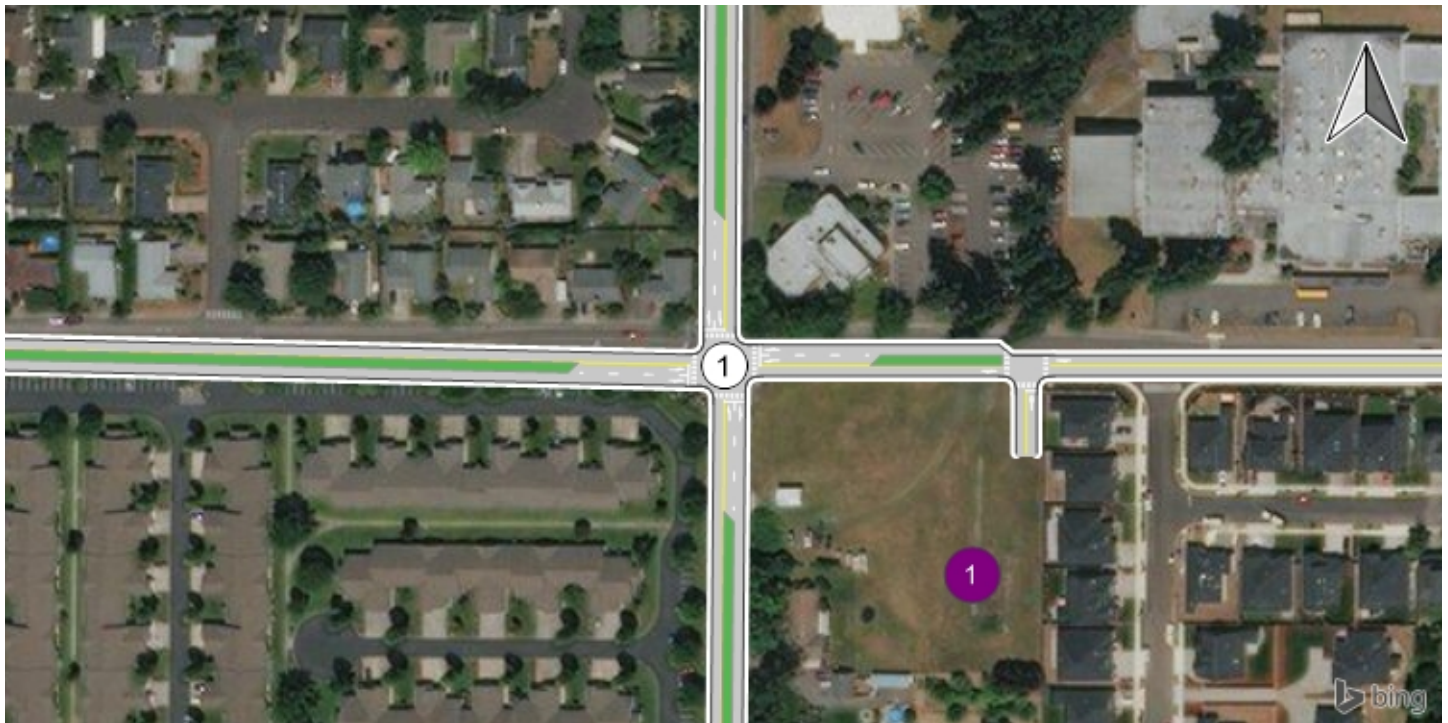
Report Figure 2a: Traffic Volume - Base Volume



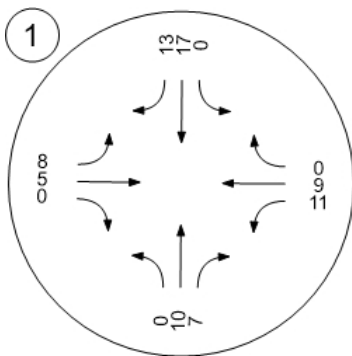
Ivy St at 13th Ave



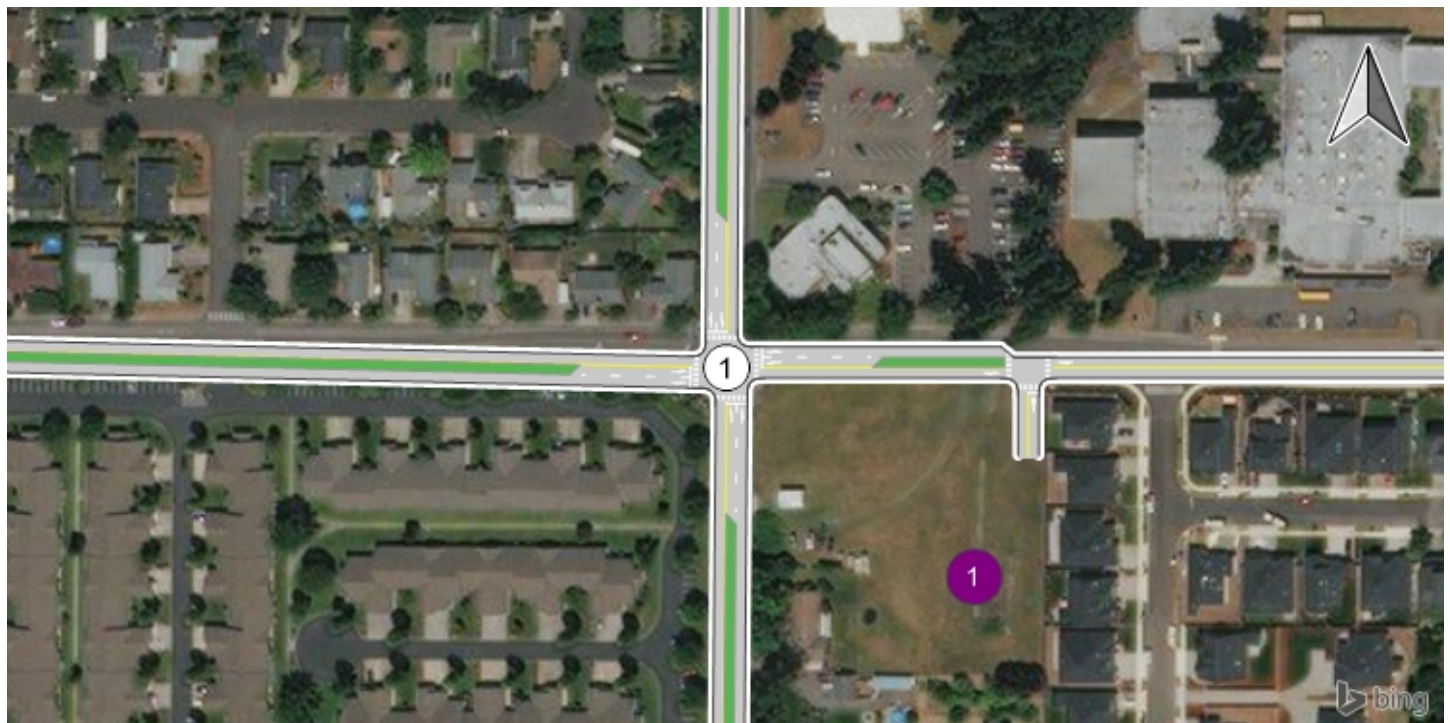
Report Figure 2d: Traffic Volume - Net New Site Trips



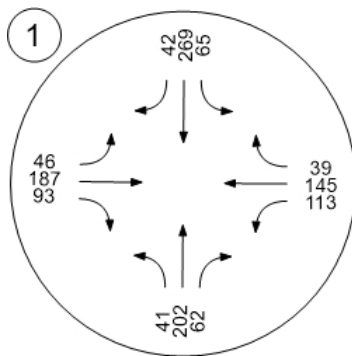
Ivy St at 13th Ave



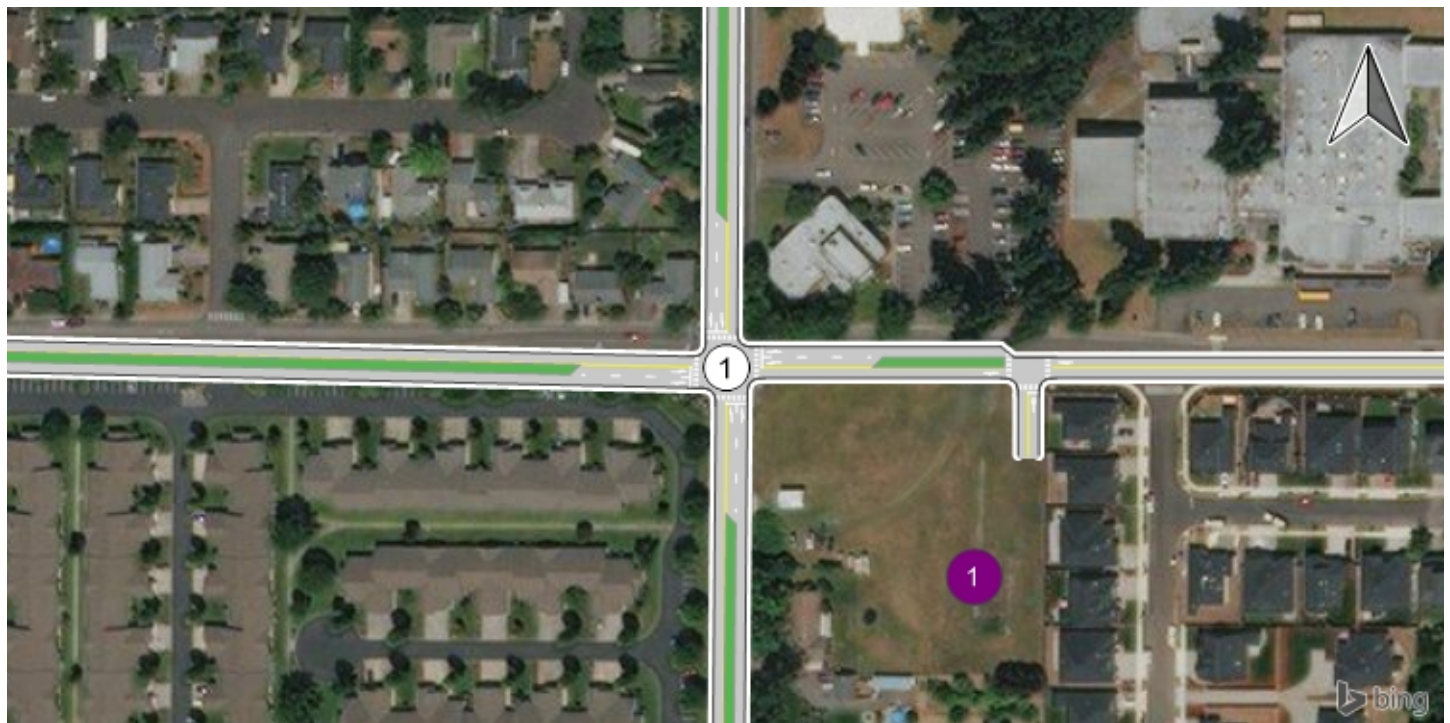
Report Figure 2f: Traffic Volume - Future Total Volume



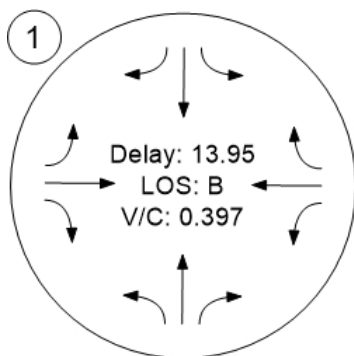
Ivy St at 13th Ave



Report Figure 3: Traffic Conditions



Ivy St at 13th Ave



Ivy St Townhomes TIA - 18-387

Vistro File: J:\...\18-387 Ivy St Townhomes.vistro

Scenario 6 PM Developed - 30 Homes

Report File: J:\...\18-387 - PM Dev - 30 Homes.pdf

6/5/2018

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Ivy St at 13th Ave	Signalized	HCM 6th Edition	WB Left	0.400	14.0	B
2	13th St Access	Two-way stop	HCM 6th Edition	NB Left	0.012	13.6	B

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. for all other control types, they are taken for the whole intersection.

**Intersection Level Of Service Report
Intersection 1: Ivy St at 13th Ave**

Control Type:	Signalized	Delay (sec / veh):	14.0
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.400

Intersection Setup

Name	Ivy St			13th Ave			13th Ave					
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	↔			↔			↔			↔		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	125.00	100.00	100.00	125.00	100.00	100.00	125.00	100.00	100.00	125.00	100.00	100.00
Speed [mph]	30.00			30.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Ivy St			13th Ave			13th Ave					
Base Volume Input [veh/h]	41	192	55	65	252	29	38	182	93	102	136	39
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.40	2.40	2.40	0.90	0.90	0.90	3.20	3.20	3.20	0.40	0.40	0.40
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	10	9	3	17	13	8	9	0	12	11	2
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	41	202	64	68	269	42	46	191	93	114	147	41
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	55	17	18	73	11	13	52	25	31	40	11
Total Analysis Volume [veh/h]	45	220	70	74	292	46	50	208	101	124	160	45
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	5	0	0	5	0	0	5	0	0	5	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	29	0	0	29	0	0	31	0	0	31	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	L	C
C, Cycle Length [s]	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	2.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	30	30	30	30	22	22	22	22
g / C, Green / Cycle	0.51	0.51	0.51	0.51	0.36	0.36	0.36	0.36
(v / s)_j Volume / Saturation Flow Rate	0.05	0.18	0.07	0.20	0.05	0.20	0.13	0.12
s, saturation flow rate [veh/h]	935	1609	989	1658	1049	1576	976	1641
c, Capacity [veh/h]	451	811	487	836	362	572	281	595
d1, Uniform Delay [s]	13.17	9.01	12.82	9.28	18.64	15.16	23.97	13.93
k, delay calibration	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.44	1.23	0.66	1.46	0.17	0.80	1.09	0.34
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.10	0.36	0.15	0.40	0.14	0.54	0.44	0.34
d, Delay for Lane Group [s/veh]	13.61	10.24	13.48	10.73	18.82	15.96	25.06	14.27
Lane Group LOS	B	B	B	B	B	B	C	B
Critical Lane Group	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	0.43	2.17	0.70	2.61	0.55	3.20	1.69	1.93
50th-Percentile Queue Length [ft]	10.68	54.35	17.38	65.36	13.81	79.93	42.21	48.20
95th-Percentile Queue Length [veh]	0.77	3.91	1.25	4.71	0.99	5.75	3.04	3.47
95th-Percentile Queue Length [ft]	19.23	97.83	31.29	117.64	24.85	143.87	75.97	86.77

Movement, Approach, & Intersection Results

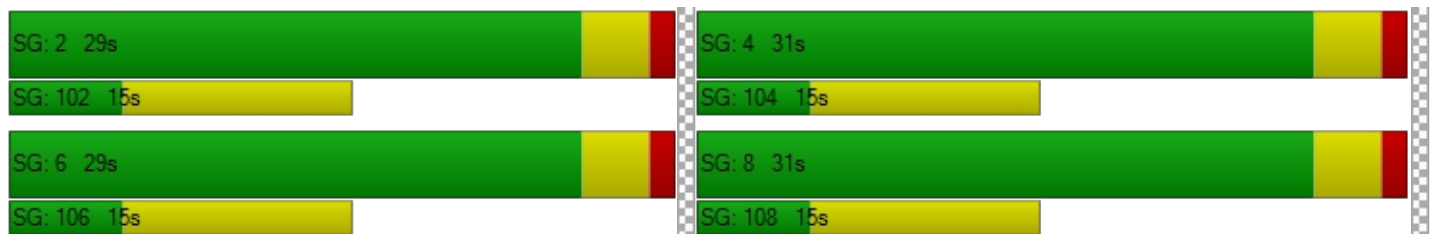
d_M, Delay for Movement [s/veh]	13.61	10.24	10.24	13.48	10.73	10.73	18.82	15.96	15.96	25.06	14.27	14.27
Movement LOS	B	B	B	B	B	B	B	B	B	C	B	B
d_A, Approach Delay [s/veh]	10.69			11.23			16.36			18.34		
Approach LOS	B			B			B			B		
d_I, Intersection Delay [s/veh]	14.02											
Intersection LOS	B											
Intersection V/C	0.400											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	21.68	21.68	21.68	21.68
I_p,int, Pedestrian LOS Score for Intersection	2.374	2.228	2.150	2.211
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	833	833	900	900
d_b, Bicycle Delay [s]	10.21	10.21	9.08	9.08
I_b,int, Bicycle LOS Score for Intersection	2.663	2.790	2.886	2.837
Bicycle LOS	B	C	C	C

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 2: 13th St Access**

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 13.6
 Level Of Service: B
 Volume to Capacity (v/c): 0.012

Intersection Setup

Name	Northbound		Eastbound		Westbound	
Approach						
Lane Configuration	↔		↗		↖	
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name	Northbound		Eastbound		Westbound	
Base Volume Input [veh/h]	0	0	302	0	0	277
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.40	0.40	0.40	0.40	0.40	0.40
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	5	1	12	9	2	20
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	5	1	314	9	2	297
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	0	85	2	1	81
Total Analysis Volume [veh/h]	5	1	341	10	2	323
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	13.63	10.25	0.00	0.00	7.96	0.00
Movement LOS	B	B	A	A	A	A
95th-Percentile Queue Length [veh]	0.04	0.04	0.00	0.00	1.08	1.08
95th-Percentile Queue Length [ft]	1.01	1.01	0.00	0.00	27.07	27.07
d_A, Approach Delay [s/veh]	13.07		0.00		0.05	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.14					
Intersection LOS	B					

Ivy St Townhomes TIA - 18-387

Vistro File: J:\...\18-387 Ivy St Townhomes.vistro

Scenario 6 PM Developed - 30 Homes

Report File: J:\...\18-387 - PM Dev - 30 Homes.pdf

6/5/2018

Turning Movement Volume: Summary

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
1	Ivy St at 13th Ave	41	202	64	68	269	42	46	191	93	114	147	41	1318

ID	Intersection Name	Northbound		Eastbound		Westbound		Total Volume
		Left	Right	Thru	Right	Left	Thru	
2	13th St Access	5	1	314	9	2	297	628

Ivy St Townhomes TIA - 18-387

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Scenario 6 PM Developed - 30 Homes

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6/5/2018

Turning Movement Volume: Detail

ID	Intersection Name	Volume Type	Northbound			Southbound			Eastbound			Westbound			Total Volume	
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right		
1	Ivy St at 13th Ave	Final Base	41	192	55	65	252	29	38	182	93	102	136	39	1224	
		Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	-
		In Process	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Net New Trips	0	10	9	3	17	13	8	9	0	12	11	2	94	
		Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Future Total	41	202	64	68	269	42	46	191	93	114	147	41	1318	

ID	Intersection Name	Volume Type	Northbound		Eastbound		Westbound		Total Volume
			Left	Right	Thru	Right	Left	Thru	
2	13th St Access	Final Base	0	0	302	0	0	277	579
		Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	-
		In Process	0	0	0	0	0	0	0
		Net New Trips	5	1	12	9	2	20	49
		Other	0	0	0	0	0	0	0
		Future Total	5	1	314	9	2	297	628

Ivy St Townhomes TIA - 18-387

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Trip Generation summary**Added Trips**

Zone ID: Name	Land Use variables	Code	Ind. Var.	Rate	Quantity	% In	% Out	Trips In	Trips Out	Total Trips	% of Total Trips
1: Ivy St Townhouses	Apts	ITE 220	Units	0.560	30.000	63.00	37.00	11	6	17	9.83
7: Mayberry Group	Homes	ITE 210	Homes	0.990	89.000	63.00	37.00	55	33	88	50.87
8: Beck Pond	Homes	ite 210	Homes	0.990	69.000	63.00	37.00	43	25	68	39.31
Added Trips Total								109	64	173	100.00

Ivy St Townhomes TIA - 18-387

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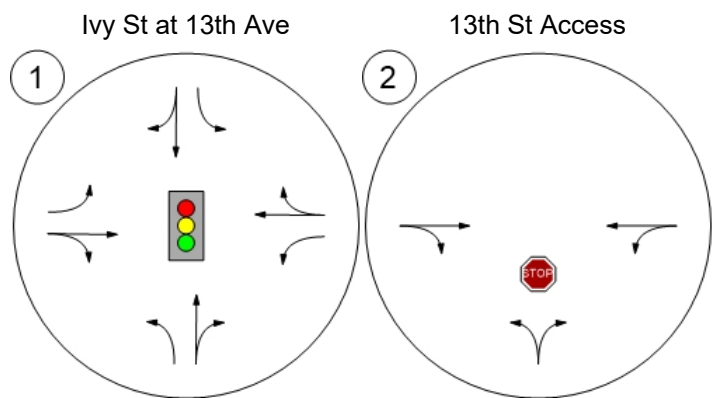
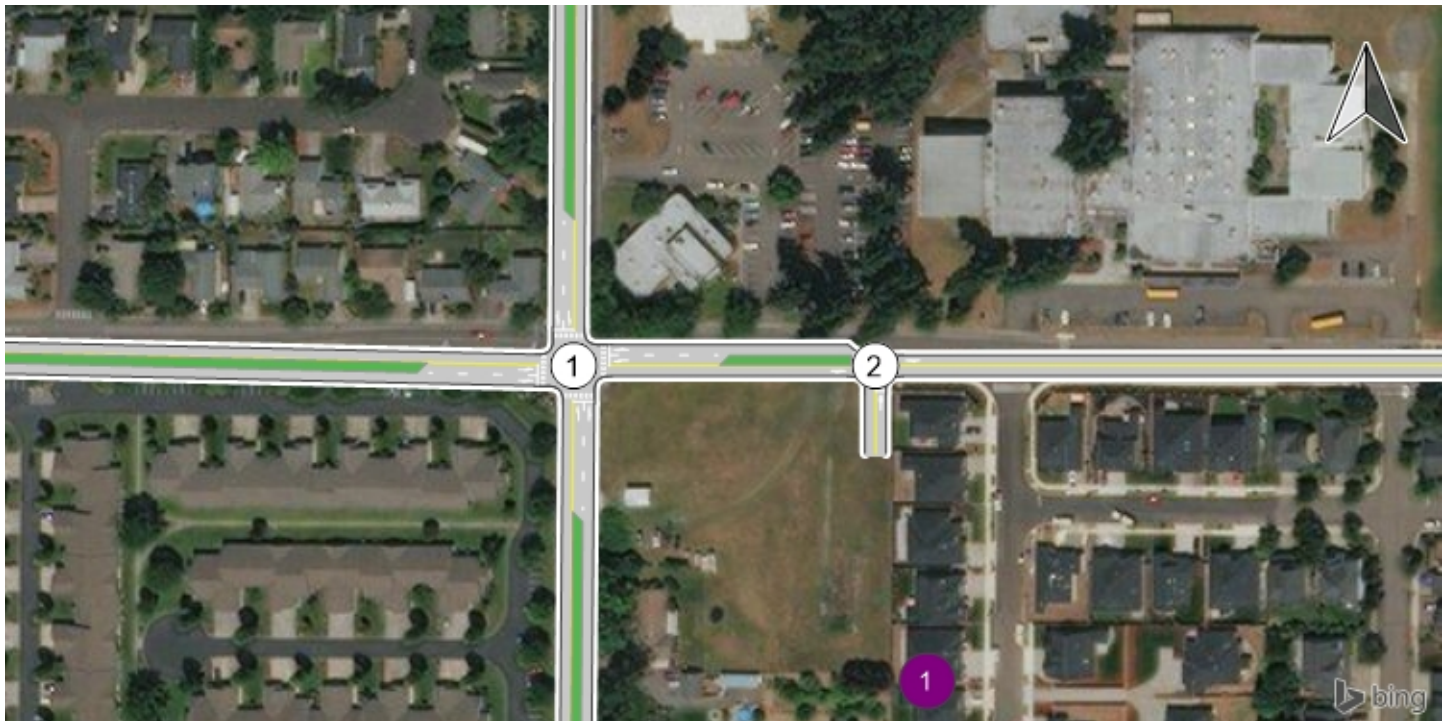
Trip Distribution summary

Zone / Gate	Zone 1: Ivy St Townhouses			
	To Ivy St Townhouses:		From Ivy St Townhouses:	
	Share %	Trips	Share %	Trips
7: Mayberry Group	0.00	0	0.00	0
8: Beck Pond	0.00	0	0.00	0
2: Gate	35.00	4	35.00	2
3: Gate	30.00	3	30.00	2
4: Gate	20.00	2	20.00	1
5: Gate	15.00	2	15.00	1
6: Gate	0.00	0	0.00	0
Total	100.00	11	100.00	6

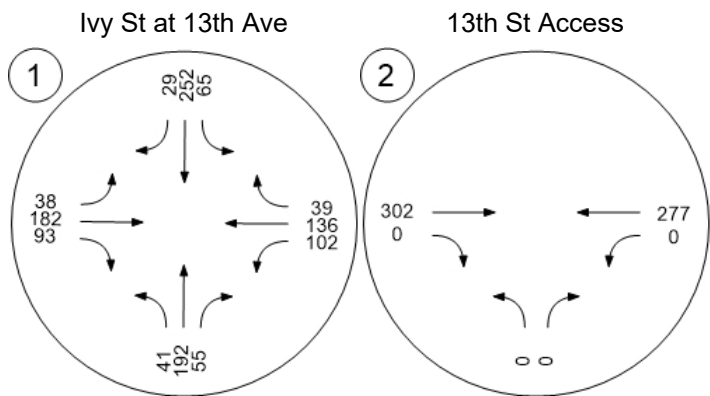
Zone / Gate	Zone 7: Mayberry Group			
	To Mayberry Group:		From Mayberry Group:	
	Share %	Trips	Share %	Trips
1: Ivy St Townhouses	0.00	0	0.00	0
8: Beck Pond	0.00	0	0.00	0
2: Gate	35.00	19	35.00	11
3: Gate	30.00	17	30.00	10
4: Gate	20.00	11	20.00	7
5: Gate	15.00	8	15.00	5
6: Gate	0.00	0	0.00	0
Total	100.00	55	100.00	33

Zone / Gate	Zone 8: Beck Pond			
	To Beck Pond:		From Beck Pond:	
	Share %	Trips	Share %	Trips
1: Ivy St Townhouses	0.00	0	0.00	0
7: Mayberry Group	0.00	0	0.00	0
2: Gate	35.00	15	35.00	8
3: Gate	30.00	13	30.00	8
4: Gate	20.00	9	20.00	5
5: Gate	15.00	6	15.00	4
6: Gate	0.00	0	0.00	0
Total	100.00	43	100.00	25

Report Figure 1: Lane Configuration and Traffic Control



Report Figure 2a: Traffic Volume - Base Volume

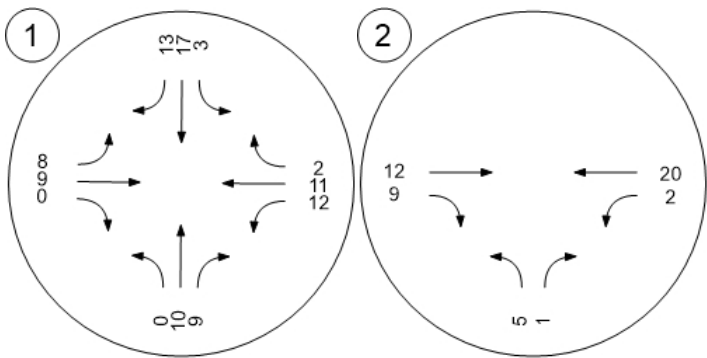


Report Figure 2d: Traffic Volume - Net New Site Trips

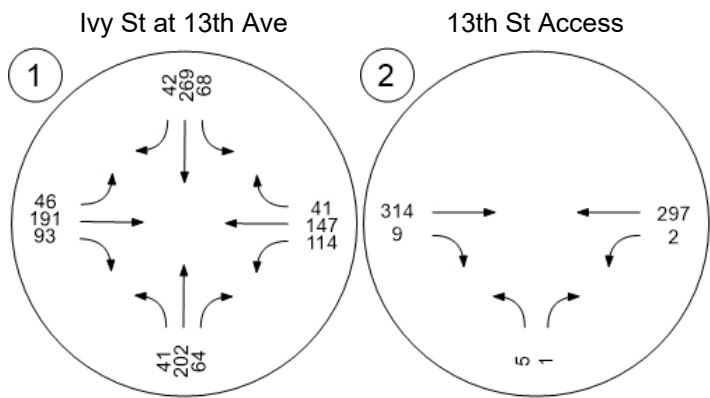


Ivy St at 13th Ave

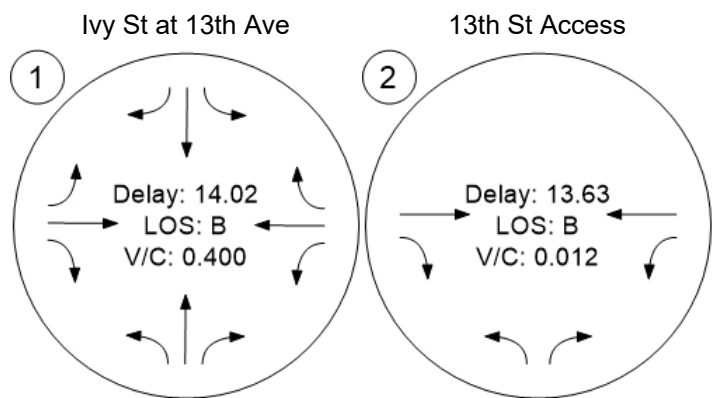
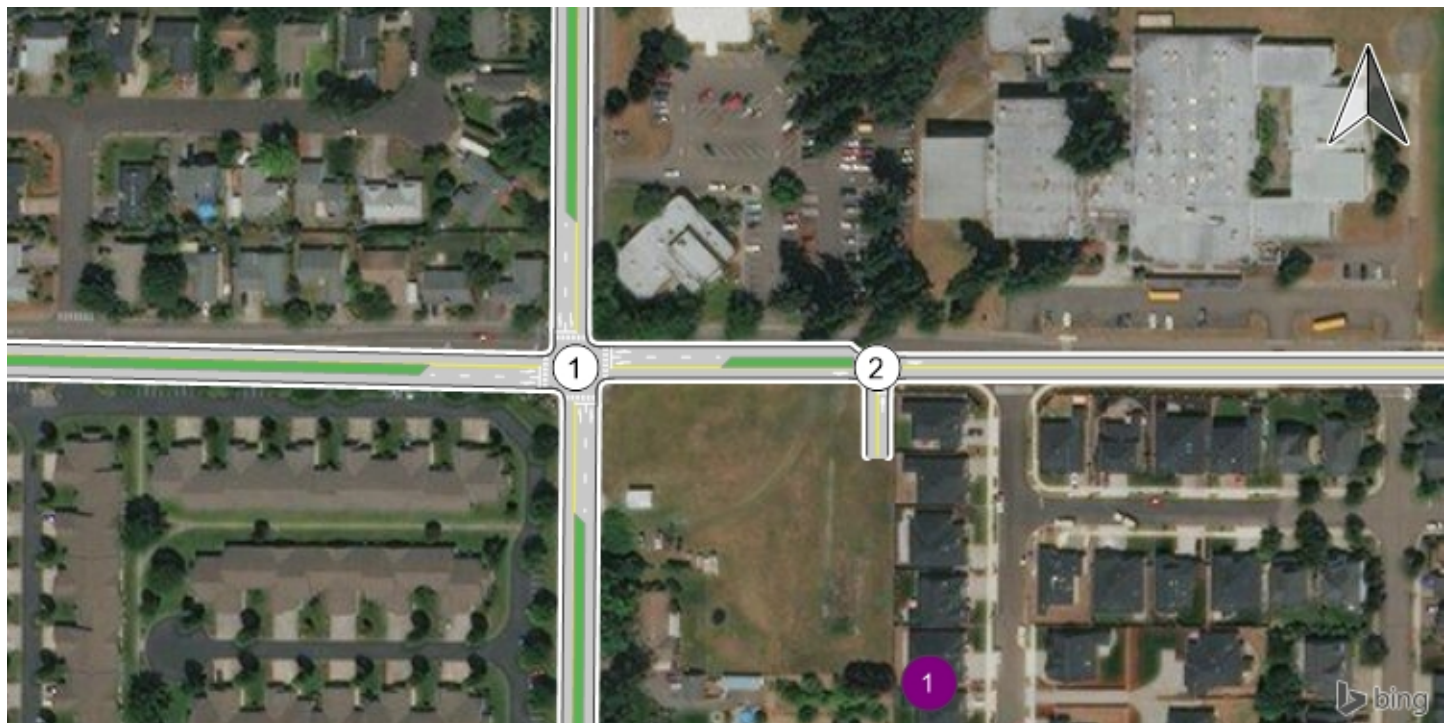
13th St Access



Report Figure 2f: Traffic Volume - Future Total Volume



Report Figure 3: Traffic Conditions



Ivy St Townhomes TIA - 18-387

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6/5/2018

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Ivy St at 13th Ave	Signalized	HCM 6th Edition	WB Left	0.401	14.0	B
2	13th St Access	Two-way stop	HCM 6th Edition	NB Left	0.017	13.7	B

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. for all other control types, they are taken for the whole intersection.

**Intersection Level Of Service Report
Intersection 1: Ivy St at 13th Ave**

Control Type:	Signalized	Delay (sec / veh):	14.0
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.401

Intersection Setup

Name	Ivy St			13th Ave			13th Ave					
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	↔			↔			↔			↔		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	125.00	100.00	100.00	125.00	100.00	100.00	125.00	100.00	100.00	125.00	100.00	100.00
Speed [mph]	30.00			30.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Ivy St			13th Ave			13th Ave					
Base Volume Input [veh/h]	41	192	55	65	252	29	38	182	93	102	136	39
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.40	2.40	2.40	0.90	0.90	0.90	3.20	3.20	3.20	0.40	0.40	0.40
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	10	9	4	17	13	8	10	0	12	12	2
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	41	202	64	69	269	42	46	192	93	114	148	41
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	55	17	19	73	11	13	52	25	31	40	11
Total Analysis Volume [veh/h]	45	220	70	75	292	46	50	209	101	124	161	45
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	5	0	0	5	0	0	5	0	0	5	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	29	0	0	29	0	0	31	0	0	31	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	L	C
C, Cycle Length [s]	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	2.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	30	30	30	30	22	22	22	22
g / C, Green / Cycle	0.50	0.50	0.50	0.50	0.36	0.36	0.36	0.36
(v / s)_j Volume / Saturation Flow Rate	0.05	0.18	0.08	0.20	0.05	0.20	0.13	0.13
s, saturation flow rate [veh/h]	935	1609	989	1658	1048	1576	975	1641
c, Capacity [veh/h]	450	810	486	835	362	573	281	596
d1, Uniform Delay [s]	13.20	9.03	12.87	9.30	18.64	15.14	23.97	13.91
k, delay calibration	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.44	1.23	0.67	1.46	0.17	0.80	1.09	0.34
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.10	0.36	0.15	0.40	0.14	0.54	0.44	0.35
d, Delay for Lane Group [s/veh]	13.65	10.26	13.54	10.76	18.81	15.94	25.05	14.26
Lane Group LOS	B	B	B	B	B	B	C	B
Critical Lane Group	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	0.43	2.18	0.71	2.62	0.55	3.21	1.69	1.94
50th-Percentile Queue Length [ft]	10.70	54.45	17.67	65.47	13.80	80.16	42.20	48.42
95th-Percentile Queue Length [veh]	0.77	3.92	1.27	4.71	0.99	5.77	3.04	3.49
95th-Percentile Queue Length [ft]	19.26	98.00	31.80	117.85	24.84	144.28	75.96	87.15

Movement, Approach, & Intersection Results

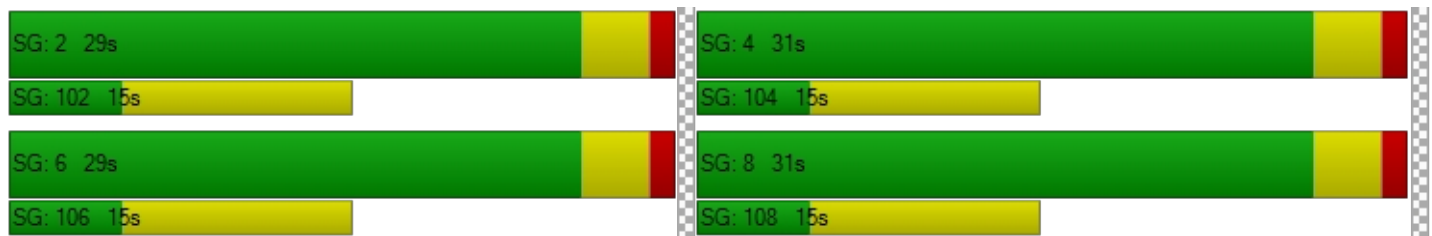
d_M, Delay for Movement [s/veh]	13.65	10.26	10.26	13.54	10.76	10.76	18.81	15.94	15.94	25.05	14.26	14.26
Movement LOS	B	B	B	B	B	B	B	B	B	C	B	B
d_A, Approach Delay [s/veh]	10.72			11.26			16.34			18.31		
Approach LOS	B			B			B			B		
d_I, Intersection Delay [s/veh]	14.03											
Intersection LOS	B											
Intersection V/C	0.401											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	21.68	21.68	21.68	21.68
I_p,int, Pedestrian LOS Score for Intersection	2.374	2.229	2.151	2.213
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	833	833	900	900
d_b, Bicycle Delay [s]	10.21	10.21	9.08	9.08
I_b,int, Bicycle LOS Score for Intersection	2.663	2.792	2.888	2.839
Bicycle LOS	B	C	C	C

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report
Intersection 2: 13th St Access**

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 15 minutes

Delay (sec / veh): 13.7
 Level Of Service: B
 Volume to Capacity (v/c): 0.017

Intersection Setup

Name	Northbound		Eastbound		Westbound	
Approach						
Lane Configuration	↔		↗		↖	
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name	Northbound		Eastbound		Westbound	
Base Volume Input [veh/h]	0	0	302	0	0	277
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.40	0.40	0.40	0.40	0.40	0.40
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	6	2	12	11	3	20
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	6	2	314	11	3	297
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	1	85	3	1	81
Total Analysis Volume [veh/h]	7	2	341	12	3	323
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	13.73	10.30	0.00	0.00	7.97	0.00
Movement LOS	B	B	A	A	A	A
95th-Percentile Queue Length [veh]	0.06	0.06	0.00	0.00	1.09	1.09
95th-Percentile Queue Length [ft]	1.49	1.49	0.00	0.00	27.24	27.24
d_A, Approach Delay [s/veh]	12.96		0.00		0.07	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.20					
Intersection LOS	B					

Ivy St Townhomes TIA - 18-387

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Turning Movement Volume: Summary

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
1	Ivy St at 13th Ave	41	202	64	69	269	42	46	192	93	114	148	41	1321

ID	Intersection Name	Northbound		Eastbound		Westbound		Total Volume
		Left	Right	Thru	Right	Left	Thru	
2	13th St Access	6	2	314	11	3	297	633

Ivy St Townhomes TIA - 18-387

Vistro File: J:\...\18-387 Ivy St Townhomes.vistro

Scenario 8 PM Developed - 38 Homes

Report File: J:\...\18-387 - PM Dev - 38 Homes.pdf

6/5/2018

Turning Movement Volume: Detail

ID	Intersection Name	Volume Type	Northbound			Southbound			Eastbound			Westbound			Total Volume
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
1	Ivy St at 13th Ave	Final Base	41	192	55	65	252	29	38	182	93	102	136	39	1224
		Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	-
		In Process	0	0	0	0	0	0	0	0	0	0	0	0	0
		Net New Trips	0	10	9	4	17	13	8	10	0	12	12	2	97
		Other	0	0	0	0	0	0	0	0	0	0	0	0	0
		Future Total	41	202	64	69	269	42	46	192	93	114	148	41	1321

ID	Intersection Name	Volume Type	Northbound		Eastbound		Westbound		Total Volume
			Left	Right	Thru	Right	Left	Thru	
2	13th St Access	Final Base	0	0	302	0	0	277	579
		Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	-
		In Process	0	0	0	0	0	0	0
		Net New Trips	6	2	12	11	3	20	54
		Other	0	0	0	0	0	0	0
		Future Total	6	2	314	11	3	297	633

Ivy St Townhomes TIA - 18-387

Vistro File: J:\...\18-387 Ivy St Townhomes.vistro

Scenario 8 PM Developed - 38 Homes

Report File: J:\...\18-387 - PM Dev - 38 Homes.pdf

6/5/2018

Trip Generation summary

Added Trips

Zone ID: Name	Land Use variables	Code	Ind. Var.	Rate	Quantity	% In	% Out	Trips In	Trips Out	Total Trips	% of Total Trips
1: Ivy St Townhouses	Apts	ITE 220	Units	0.560	38.000	63.00	37.00	13	8	21	11.86
7: Mayberry Group	Homes	ITE 210	Homes	0.990	89.000	63.00	37.00	55	33	88	49.72
8: Beck Pond	Homes	ite 210	Homes	0.990	69.000	63.00	37.00	43	25	68	38.42
Added Trips Total								111	66	177	100.00

Ivy St Townhomes TIA - 18-387

Vistro File: J:\...\18-387 Ivy St Townhomes.vistro

Scenario 8 PM Developed - 38 Homes

Report File: J:\...\18-387 - PM Dev - 38 Homes.pdf

6/5/2018

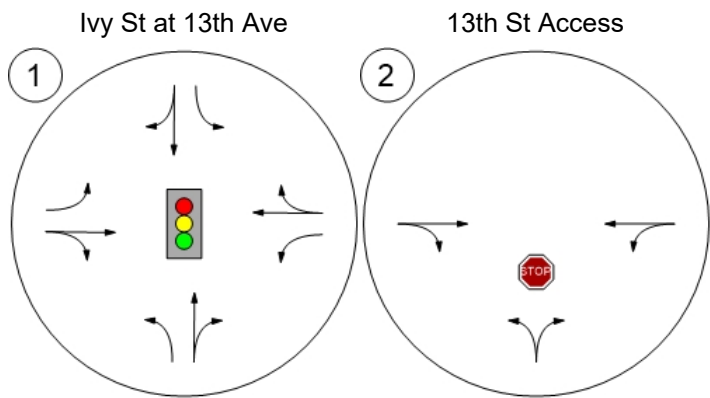
Trip Distribution summary

Zone / Gate	Zone 1: Ivy St Townhouses			
	To Ivy St Townhouses:		From Ivy St Townhouses:	
	Share %	Trips	Share %	Trips
7: Mayberry Group	0.00	0	0.00	0
8: Beck Pond	0.00	0	0.00	0
2: Gate	35.00	5	35.00	3
3: Gate	30.00	4	30.00	2
4: Gate	20.00	3	20.00	2
5: Gate	15.00	2	15.00	1
6: Gate	0.00	0	0.00	0
Total	100.00	14	100.00	8

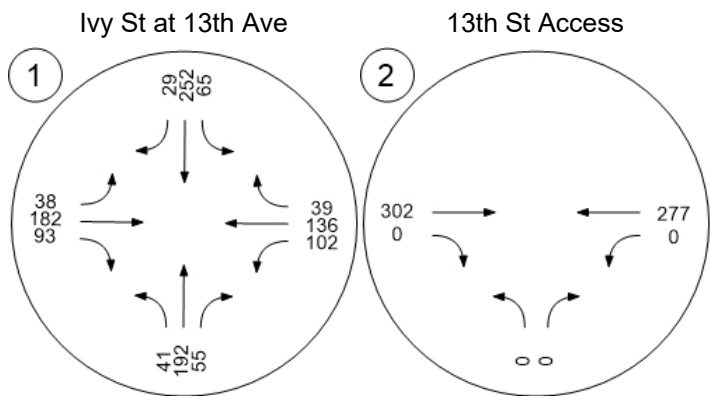
Zone / Gate	Zone 7: Mayberry Group			
	To Mayberry Group:		From Mayberry Group:	
	Share %	Trips	Share %	Trips
1: Ivy St Townhouses	0.00	0	0.00	0
8: Beck Pond	0.00	0	0.00	0
2: Gate	35.00	19	35.00	11
3: Gate	30.00	17	30.00	10
4: Gate	20.00	11	20.00	7
5: Gate	15.00	8	15.00	5
6: Gate	0.00	0	0.00	0
Total	100.00	55	100.00	33

Zone / Gate	Zone 8: Beck Pond			
	To Beck Pond:		From Beck Pond:	
	Share %	Trips	Share %	Trips
1: Ivy St Townhouses	0.00	0	0.00	0
7: Mayberry Group	0.00	0	0.00	0
2: Gate	35.00	15	35.00	8
3: Gate	30.00	13	30.00	8
4: Gate	20.00	9	20.00	5
5: Gate	15.00	6	15.00	4
6: Gate	0.00	0	0.00	0
Total	100.00	43	100.00	25

Report Figure 1: Lane Configuration and Traffic Control



Report Figure 2a: Traffic Volume - Base Volume

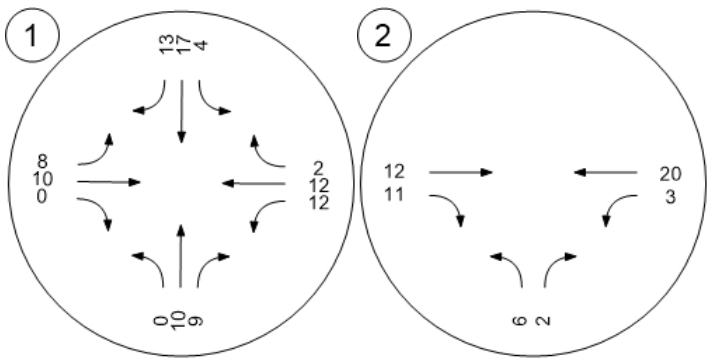


Report Figure 2d: Traffic Volume - Net New Site Trips

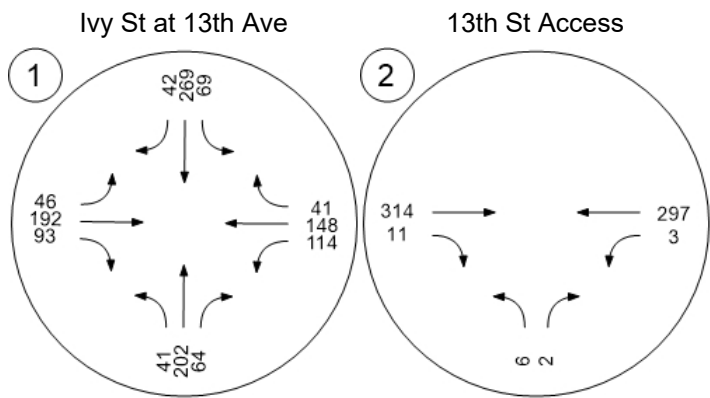


Ivy St at 13th Ave

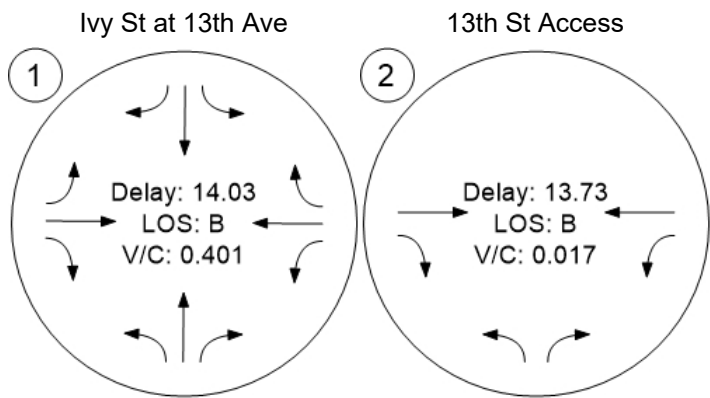
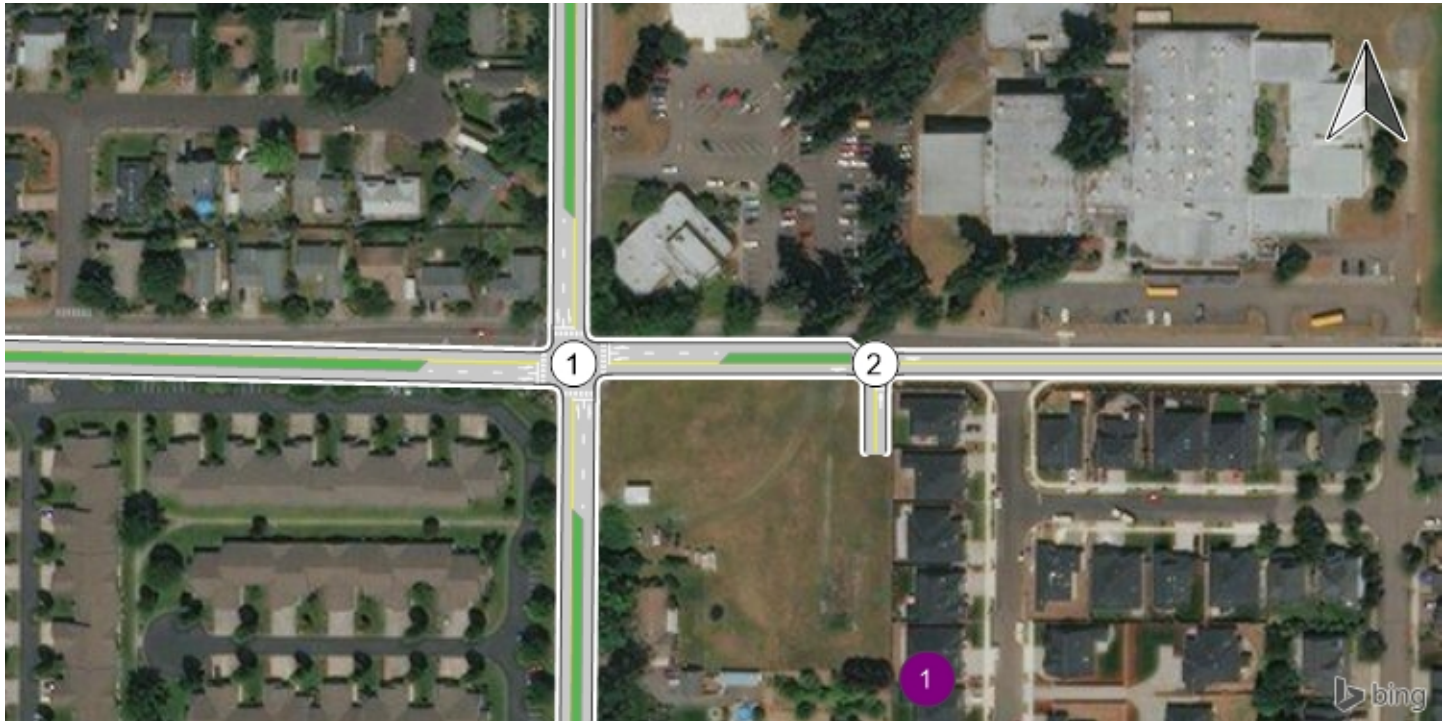
13th St Access



Report Figure 2f: Traffic Volume - Future Total Volume



Report Figure 3: Traffic Conditions



Canby Townhomes-Neighborhood Meeting

May 15, 2018

- 1) Will it be left turn only onto 13th Street?
-No, it will be a two-way entrance and exist for the development
- 2) Is there a TIA?
-Yes, one is currently being prepared
- 3) Will these be rentals?
-We do not know at this time if they will be renter or owner occupied
- 4) What are the rear yard setbacks?
-15 feet as shown on the site plans
- 5) Only one access onto the site?
-Yes. Because the County will not allow us access onto Ivy Street
- 6) Zone of property?
C-R (Commercial/Residential)
- 7) Height of buildings?
-All buildings are two stories in height, about 33 feet in height
- 8) HOA?
Yes, there will be an HOA for the development
- 9) Parking?
-There are 2 parking spaces per unit provided and 5 guest parking spaces. Each townhome has a one or two car garage
- 10) Landscaping?
-Landscaping will be provided through-out the development as shown on the landscape plans
- 11) Who is maintaining the property now?
-The current owner is maintaining the property
- 12) What is the timeline for development?
-building in 2019

13) Will it be the same mailing list for the PC Hearing?

-Yes

14) Fire hazard w/tall grass in the summer

-The property owner will take care of the property. If not, contact the City

15) Parking overflow?

-Parking should stay within the development

16) Property Values?

-The City does not regulate property values

-This will have no effect on your property values



Fidelity National Title
Company of Oregon

PRELIMINARY REPORT

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

The printed Exceptions and Exclusions from the coverage of said policy or policies are set forth in Exhibit One. The policy to be issued may contain an arbitration clause. When the Amount of Insurance is less than that set forth in the arbitration clause, all arbitrable matters shall be arbitrated at the option of either the Company or the Insured as the exclusive remedy of the parties. Copies of the policy forms should be read. They are available from the office which issued this report.

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

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

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

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

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

Countersigned



Fidelity National Title[®]

Company of Oregon

5400 SW Meadows Road, Suite 100, Lake Oswego, OR 97035
(503)684-9236 FAX (503)684-7274

PRELIMINARY REPORT

ESCROW OFFICER: Kathi Lawrence
kathi.lawrence@fnf.com
503-684-9236

ORDER NO.: 45141801559

TITLE OFFICER: Sheri Schriver

TO: Fidelity National Title Company of Oregon
5400 SW Meadows Road, Suite 100
Lake Oswego, OR 97035

ESCROW LICENSE NO.: 850600361

OWNER/SELLER: Willamette Capital Inv LLC

BUYER/BORROWER: H&R Properties LLC and/or assigns

PROPERTY ADDRESS: 1300 S Ivy Street, Canby, OR 97013

EFFECTIVE DATE: January 18, 2018, 08:00 AM

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

	<u>AMOUNT</u>	<u>PREMIUM</u>
ALTA Owner's Policy 2006	\$ 745,000.00	\$ 1,718.00
Owner's Standard		

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

A Fee

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

Willamette Capital Investments, LLC, an Oregon limited liability Company

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

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

EXHIBIT "A"
Legal Description

Beginning at the Northwest corner of the Northeast quarter of the Southeast quarter of section 4 in Township 4 South, Range 1 East of the Willamette Meridian, running thence East 5.48 chains; thence South 5.48 chains; thence West 5.48 chains; thence North 5.48 chains to the place of beginning.

Excepting Therefrom that portion conveyed to Clackamas County for right-of-way by Deed recorded April 2, 1997 at Recording No. 97-023971, Records pf Clackamas County, Oregon.

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

GENERAL EXCEPTIONS:

1. Taxes or assessments which are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the public records; proceedings by a public agency which may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the public records.
2. Facts, rights, interests or claims which are not shown by the public records but which could be ascertained by an inspection of the land or by making inquiry of persons in possession thereof.
3. Easements, or claims of easement, not shown by the public records; reservations or exceptions in patents or in Acts authorizing the issuance thereof; water rights, claims or title to water.
4. Any encroachment (of existing improvements located on the subject land onto adjoining land or of existing improvements located on adjoining land onto the subject land), encumbrance, violation, variation or adverse circumstance affecting the title that would be disclosed by an accurate and complete land survey of the subject land.
5. Any lien or right to a lien for services, labor, material, equipment rental or workers compensation heretofore or hereafter furnished, imposed by law and not shown by the public records.

SPECIFIC ITEMS AND EXCEPTIONS

6. Unpaid Property Taxes with partial payment are as follows:

Fiscal Year:	2017-2018
Original Amount:	\$4,998.77
Unpaid Balance:	\$1666.26, plus interest, if any
Levy Code:	086-002
Account No.:	01002480
Map No.:	41E04DA04800

Prior to close of escrow, please contact the Tax Collector's Office to confirm all amounts owing, including current fiscal year taxes, supplemental taxes, escaped assessments and any delinquencies.

7. City Liens, if any, in favor of the City of Canby.

Purpose : AFD Logging Road Industrial Park
Amount : Call Canby for Payoff
Reference : 301482

NOTE: We are informed of a past due Sewer/Street Maintenance Fee, billing regarding the above district or municipality. For inquiries, contact City of Canby 503-266-0747 .

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

9. Easement(s) for the purpose(s) shown below and rights incidental thereto, as granted in a document:

Granted to: Clackamas County
Purpose: Installation and maintenance of storm drainage facilities and appurtenances
Recording Date: April 2, 1997
Recording No.: 97-023968
Affects: Northwest corner
Reference is hereby made to said document for full particulars

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

11. The Company will require the following documents for review prior to the issuance of any title insurance predicated upon a conveyance or encumbrance from the entity named below.

Limited Liability Company: Willamette Capital Investments, LLC, an Oregon limited liability company

- a. A copy of its operating agreement, if any, and any and all amendments, supplements and/or modifications thereto, certified by the appropriate manager or member.
- b. If a domestic Limited Liability Company, a copy of its Articles of Organization and all amendment thereto with the appropriate filing stamps.
- c. If the Limited Liability Company is member-managed a full and complete current list of members certified by the appropriate manager or member.
- d. A current dated certificate of good standing from the proper governmental authority of the state in which the entity was created
- e. If less than all members, or managers, as appropriate, will be executing the closing documents, furnish evidence of the authority of those signing.

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

12. If requested to issue an extended coverage ALTA loan policy, the following matters must be addressed:
- a) The rights of tenants holding under unrecorded leases or tenancies
 - b) Matters disclosed by a statement as to parties in possession and as to any construction, alterations or repairs to the Land within the last 75 days. The Company must be notified in the event that any funds are to be used for construction, alterations or repairs.
 - c) Any facts which would be disclosed by an accurate survey of the Land

ADDITIONAL REQUIREMENTS/NOTES:

- A. In addition to the standard policy exceptions, the exceptions enumerated above shall appear on the final 2006 ALTA policy unless removed prior to issuance.
- B. The Company will require the following documents for review prior to the issuance of any title insurance predicated upon a conveyance or encumbrance from the entity named below:
- Limited Liability Company: H&R Properties LLC, an Oregon limited liability company
- a) A copy of its operating agreement, if any, and any and all amendments, supplements and/or modifications thereto, certified by the appropriate manager or member
 - b) If a domestic Limited Liability Company, a copy of its Articles of Organization and all amendments thereto with the appropriate filing stamps
 - c) If the Limited Liability Company is member-managed, a full and complete current list of members certified by the appropriate manager or member
 - d) A current dated certificate of good standing from the proper governmental authority of the state in which the entity was created
 - e) If less than all members, or managers, as appropriate, will be executing the closing documents, furnish evidence of the authority of those signing.
- The Company reserves the right to add additional items or make further requirements after review of the requested documentation.
- C. Note: There are no matters against the party(ies) shown below which would appear as exceptions to coverage in a title insurance product:
- Parties: H&R Properties LLC, an Oregon limited liability company
- D. Notice: Please be aware that due to the conflict between federal and state laws concerning the cultivation, distribution, manufacture or sale of marijuana, the Company is not able to close or insure any transaction involving Land that is associated with these activities.
- E. Note: There are NO conveyances affecting said Land recorded within 24 months of the date of this report.

F. Note: Effective January 1, 2008, Oregon law (ORS 314.258) mandates withholding of Oregon income taxes from sellers who do not continue to be Oregon residents or qualify for an exemption. Please contact your Escrow Closer for further information.

G. Note: No search has been made or will be made for water, sewer, or storm drainage charges unless the city/service district claims them as liens (i.e., foreclosable) and reflects them on its lien docket at the date of closing. Buyers should check with the appropriate city bureau or water/service district and obtain a billing cutoff. Such charges must be adjusted outside of escrow.

H. THE FOLLOWING NOTICE IS REQUIRED BY STATE LAW: YOU WILL BE REVIEWING, APPROVING AND SIGNING IMPORTANT DOCUMENTS AT CLOSING. LEGAL CONSEQUENCES FOLLOW FROM THE SELECTION AND USE OF THESE DOCUMENTS. YOU MAY CONSULT AN ATTORNEY ABOUT THESE DOCUMENTS. YOU SHOULD CONSULT AN ATTORNEY IF YOU HAVE QUESTIONS OR CONCERNS ABOUT THE TRANSACTION OR ABOUT THE DOCUMENTS. IF YOU WISH TO REVIEW TRANSACTION DOCUMENTS THAT YOU HAVE NOT SEEN, PLEASE CONTACT THE ESCROW AGENT.

I. Recording Charge (Per Document) is the following:

County	First Page	Each Additional Page
Multnomah	\$42.00	\$5.00
Washington	\$41.00	\$5.00
Clackamas	\$53.00	\$5.00

Note: When possible the company will record electronically. An additional charge of \$5.00 applies to each document that is recorded electronically.

J. Note: This map/plat is being furnished as an aid in locating the herein described Land in relation to adjoining streets, natural boundaries and other land. Except to the extent a policy of title insurance is expressly modified by endorsement, if any, the Company does not insure dimensions, distances or acreage shown thereon.

EXHIBIT ONE

2006 AMERICAN LAND TITLE ASSOCIATION LOAN POLICY (06-17-06) EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy and the Company will not pay loss or damage, costs, attorneys' fees or expenses that arise by reason of:

- (a) Any law, ordinance or governmental regulation (including but not limited to building and zoning) restricting, regulating, prohibiting or relating to
 - the occupancy, use, or enjoyment of the Land;
 - the character, dimensions or location of any improvement erected on the land;
 - the subdivision of land; or
 - environmental protection;or the effect of any violation of these laws, ordinances or governmental regulations. This Exclusion 1(a) does not modify or limit the coverage provided under Covered Risk 5.
 - (b) Any governmental police power. This Exclusion 1(b) does not modify or limit the coverage provided under Covered Risk 6.
- Rights of eminent domain. This Exclusion does not modify or limit the coverage provided under Covered Risk 7 or 8.
 - Defects, liens, encumbrances, adverse claims, or other matters
 - created, suffered, assumed or agreed to by the Insured Claimant;
 - not known to the Company, not recorded in the Public Records at Date of Policy, but known to the Insured Claimant and not disclosed in writing to the Company by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;

- resulting in no loss or damage to the Insured Claimant;
 - attaching or created subsequent to Date of Policy (however, this does not modify or limit the coverage provided under Covered Risk 11, 13, or 14); or
 - resulting in loss or damage that would not have been sustained if the Insured Claimant had paid value for the Insured Mortgage.
- Unenforceability of the lien of the Insured Mortgage because of the inability or failure of an Insured to comply with the applicable doing-business laws of the state where the Land is situated.
 - Invalidity or unenforceability in whole or in part of the lien of the Insured Mortgage that arises out of the transaction evidenced by the Insured Mortgage and is based upon usury or any consumer credit protection or truth-in-lending law.
 - Any claim, by reason of the operation of federal bankruptcy, state insolvency or similar creditors' rights laws, that the transaction creating the lien of the Insured Mortgage, is
 - a fraudulent conveyance or fraudulent transfer, or
 - a preferential transfer for any reason not stated in the Covered Risk 13(b) of this policy.
 - Any lien on the Title for real estate taxes or assessments imposed by governmental authority and created or attaching between Date of Policy and the date of recording of the Insured Mortgage in the Public Records. This Exclusion does not modify or limit the coverage provided under Covered Risk 11(b).

The above policy form may be issued to afford either Standard Coverage or Extended Coverage. In addition to the above Exclusions from Coverage, the Exceptions from Coverage in a Standard Coverage policy will also include the following Exceptions from Coverage.

SCHEDULE B - GENERAL EXCEPTIONS FROM COVERAGE

This policy does not insure against loss or damage (and the Company will not pay costs, attorneys' fees or expenses) which arise by reason of:

- Taxes or assessments which are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the Public Records; proceedings by a public agency which may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the Public Records.
- Facts, rights, interests or claims which are not shown by the Public Records but which could be ascertained by an inspection of the Land or by making inquiry of persons in possession thereof.
- Easements, or claims of easement, not shown by the Public Records; reservations or exceptions in patents or in Acts authorizing the issuance thereof, water rights, claims or title to water.
- Any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the Title that would be disclosed by an accurate and complete land survey of the Land. The term "encroachment" includes encroachments of existing improvements located on the Land onto adjoining land, and encroachments onto the Land of existing improvements located on adjoining land.
- Any lien for services, labor or material heretofore or hereafter furnished, or for contributions due to the State of Oregon for unemployment compensation or worker's compensation, imposed by law and not shown by the Public Records.

2006 AMERICAN LAND TITLE ASSOCIATION OWNER'S POLICY (06-17-06) EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy and the Company will not pay loss or damage, costs, attorneys' fees or expenses that arise by reason of:

- (a) Any law, ordinance or governmental regulation (including but not limited to building and zoning) restricting, regulating, prohibiting or relating to
 - the occupancy, use, or enjoyment of the Land;
 - the character, dimensions or location of any improvement erected on the land;
 - the subdivision of land; or
 - environmental protection;or the effect of any violation of these laws, ordinances or governmental regulations. This Exclusion 1(a) does not modify or limit the coverage provided under Covered Risk 5.
 - (b) Any governmental police power. This Exclusion 1(b) does not modify or limit the coverage provided under Covered Risk 6.
- Rights of eminent domain. This Exclusion does not modify or limit the coverage provided under Covered Risk 7 or 8.
 - Defects, liens, encumbrances, adverse claims, or other matters
 - created, suffered, assumed or agreed to by the Insured Claimant;
 - not known to the Company, not recorded in the Public Records at Date of Policy, but known to the Insured Claimant and not disclosed in writing to the Company by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;

- resulting in no loss or damage to the Insured Claimant;
 - attaching or created subsequent to Date of Policy (however, this does not modify or limit the coverage provided under Covered Risk 9 and 10); or
 - resulting in loss or damage that would not have been sustained if the Insured Claimant had paid value for the Title.
- Any claim, by reason of the operation of federal bankruptcy, state insolvency or similar creditors' rights laws, that the transaction creating the lien of the Insured Mortgage, is
 - a fraudulent conveyance or fraudulent transfer, or
 - a preferential transfer for any reason not stated in the Covered Risk 9 of this policy.
 - Any lien on the Title for real estate taxes or assessments imposed by governmental authority and created or attaching between Date of Policy and the date of recording of the deed or other instrument of transfer in the Public Records that vests Title as shown in Schedule A.

The above policy form may be issued to afford either Standard Coverage or Extended Coverage. In addition to the above Exclusions from Coverage, the Exceptions from Coverage in a Standard Coverage policy will also include the following Exceptions from Coverage.

SCHEDULE B - GENERAL EXCEPTIONS FROM COVERAGE

This policy does not insure against loss or damage (and the Company will not pay costs, attorneys' fees or expenses) which arise by reason of:

- Taxes or assessments which are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the Public Records; proceedings by a public agency which may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the Public Records.
- Facts, rights, interests or claims which are not shown by the Public Records but which could be ascertained by an inspection of the Land or by making inquiry of persons in possession thereof.
- Easements, or claims of easement, not shown by the Public Records; reservations or exceptions in patents or in Acts authorizing the issuance thereof, water rights, claims or title to water.
- Any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the Title that would be disclosed by an accurate and complete land survey of the Land. The term "encroachment" includes encroachments of existing improvements located on the Land onto adjoining land, and encroachments onto the Land of existing improvements located on adjoining land.
- Any lien for services, labor or material heretofore or hereafter furnished, or for contributions due to the State of Oregon for unemployment compensation or worker's compensation, imposed by law and not shown by the Public Records.

**FIDELITY NATIONAL FINANCIAL
PRIVACY NOTICE**

Effective: May 1, 2015; Last Updated: March 1, 2017

At Fidelity National Financial, Inc., we respect and believe it is important to protect the privacy of consumers and our customers. This Privacy Notice explains how we collect, use, and protect any information that we collect from you, when and to whom we disclose such information, and the choices you have about the use of that information. A summary of the Privacy Notice is below, and we encourage you to review the entirety of the Privacy Notice following this summary. You can opt-out of certain disclosures by following our opt-out procedure set forth at the end of this Privacy Notice.

<p><u>Types of Information Collected.</u> You may provide us with certain personal information about you, like your contact information, address demographic information, social security number (SSN), driver's license, passport, other government ID numbers and/or financial information. We may also receive browsing information from your Internet browser, computer and/or mobile device if you visit or use our websites or applications.</p>	<p><u>How Information is Collected.</u> We may collect personal information from you via applications, forms, and correspondence we receive from you and others related to our transactions with you. When you visit our websites from your computer or mobile device, we automatically collect and store certain information available to us through your Internet browser or computer equipment to optimize your website experience.</p>
<p><u>Use of Collected Information.</u> We request and use your personal information to provide products and services to you, to improve our products and services, and to communicate with you about these products and services. We may also share your contact information with our affiliates for marketing purposes.</p>	<p><u>When Information Is Disclosed.</u> We may disclose your information to our affiliates and/or nonaffiliated parties providing services for you or us, to law enforcement agencies or governmental authorities, as required by law, and to parties whose interest in title must be determined.</p>
<p><u>Choices With Your Information.</u> Your decision to submit information to us is entirely up to you. You can opt-out of certain disclosure or use of your information or choose to not provide any personal information to us.</p>	<p><u>Information From Children.</u> We do not knowingly collect information from children who are under the age of 13, and our website is not intended to attract children.</p>
<p><u>Privacy Outside the Website.</u> We are not responsible for the privacy practices of third parties, even if our website links to those parties' websites.</p>	<p><u>International Users.</u> By providing us with your information, you consent to its transfer, processing and storage outside of your country of residence, as well as the fact that we will handle such information consistent with this Privacy Notice.</p>
<p><u>The California Online Privacy Protection Act.</u> Some FNF companies provide services to mortgage loan servicers and, in some cases, their websites collect information on behalf of mortgage loan servicers. The mortgage loan servicer is responsible for taking action or making changes to any consumer information submitted through those websites.</p>	
<p><u>Your Consent To This Privacy Notice.</u> By submitting information to us or by using our website, you are accepting and agreeing to the terms of this Privacy Notice.</p>	<p><u>Access and Correction; Contact Us.</u> If you desire to contact us regarding this notice or your information, please contact us at privacy@fnf.com or as directed at the end of this Privacy Notice.</p>

**FIDELITY NATIONAL FINANCIAL
PRIVACY NOTICE**

Effective: May 1, 2015; Last Updated: March 1, 2017

Fidelity National Financial, Inc. and its majority-owned subsidiary companies providing title insurance, real estate- and loan-related services (collectively, "FNF", "our" or "we") respect and are committed to protecting your privacy. We will take reasonable steps to ensure that your Personal Information and Browsing Information will only be used in compliance with this Privacy Notice and applicable laws. This Privacy Notice is only in effect for Personal Information and Browsing Information collected and/or owned by or on behalf of FNF, including Personal Information and Browsing Information collected through any FNF website, online service or application (collectively, the "Website").

Types of Information Collected

We may collect two types of information from you: Personal Information and Browsing Information.

Personal Information. FNF may collect the following categories of Personal Information:

- contact information (e.g., name, address, phone number, email address);
- demographic information (e.g., date of birth, gender, marital status);
- social security number (SSN), driver's license, passport, and other government ID numbers;
- financial account information; and
- other personal information needed from you to provide title insurance, real estate- and loan-related services to you.

Browsing Information. FNF may collect the following categories of Browsing Information:

- Internet Protocol (or IP) address or device ID/UDID, protocol and sequence information;
- browser language and type;
- domain name system requests;
- browsing history, such as time spent at a domain, time and date of your visit and number of clicks;
- http headers, application client and server banners; and
- operating system and fingerprinting data.

How Information is Collected

In the course of our business, we may collect *Personal Information* about you from the following sources:

- applications or other forms we receive from you or your authorized representative;
- the correspondence you and others send to us;
- information we receive through the Website;
- information about your transactions with, or services performed by, us, our affiliates or nonaffiliated third parties; and
- information from consumer or other reporting agencies and public records maintained by governmental entities that we obtain directly from those entities, our affiliates or others.

If you visit or use our Website, we may collect *Browsing Information* from you as follows:

- Browser Log Files. Our servers automatically log each visitor to the Website and collect and record certain browsing information about each visitor. The Browsing Information includes generic information and reveals nothing personal about the user.
- Cookies. When you visit our Website, a "cookie" may be sent to your computer. A cookie is a small piece of data that is sent to your Internet browser from a web server and stored on your computer's hard drive. When you visit a website again, the cookie allows the website to recognize your computer. Cookies may store user preferences and other information. You can choose whether or not to accept cookies by changing your Internet browser settings, which may impair or limit some functionality of the Website.

Use of Collected Information

Information collected by FNF is used for three main purposes:

- To provide products and services to you or any affiliate or third party who is obtaining services on your behalf or in connection with a transaction involving you.
- To improve our products and services.
- To communicate with you and to inform you about our, our affiliates' and third parties' products and services, jointly or independently.

When Information Is Disclosed

We may provide your Personal Information (excluding information we receive from consumer or other credit reporting agencies) and Browsing Information to various individuals and companies, as permitted by law, without obtaining your prior authorization. Such laws do not allow consumers to restrict these disclosures. Please see the section "Choices With Your Personal Information" to learn how to limit the discretionary disclosure of your Personal Information and Browsing Information.

Disclosures of your Personal Information may be made to the following categories of affiliates and nonaffiliated third parties:

- to third parties to provide you with services you have requested, and to enable us to detect or prevent criminal activity, fraud, material misrepresentation, or nondisclosure;
- to our affiliate financial service providers for their use to market their products or services to you;
- to nonaffiliated third party service providers who provide or perform services on our behalf and use the disclosed information only in connection with such services;
- to nonaffiliated third party service providers with whom we perform joint marketing, pursuant to an agreement with them to market financial products or services to you;
- to law enforcement or other governmental authority in connection with an investigation, or civil or criminal subpoena or court order;
- to lenders, lien holders, judgment creditors, or other parties claiming an interest in title whose claim or interest must be determined, settled, paid, or released prior to closing; and
- other third parties for whom you have given us written authorization to disclose your Personal Information.

We may disclose Personal Information and/or Browsing Information when required by law or in the good-faith belief that such disclosure is necessary to:

- comply with a legal process or applicable laws;
- enforce this Privacy Notice;
- investigate or respond to claims that any material, document, image, graphic, logo, design, audio, video or any other information provided by you violates the rights of a third party; or
- protect the rights, property or personal safety of FNF, its users or the public.

We maintain reasonable safeguards to keep your Personal Information secure. When we provide Personal Information to our affiliates or third party service providers as discussed in this Privacy Notice, we expect that these parties process such information in compliance with our Privacy Notice or in a manner that is in compliance with applicable privacy laws. The use of your information by a business partner may be subject to that party's own Privacy Notice. Unless permitted by law, we do not disclose information we collect from consumer or credit reporting agencies with our affiliates or others without your consent.

We reserve the right to transfer your Personal Information, Browsing Information, and any other information, in connection with the sale or other disposition of all or part of the FNF business and/or assets, or in the event of our bankruptcy, reorganization, insolvency, receivership or an assignment for the benefit of creditors. You expressly agree and consent to the use and/or transfer of the foregoing information in connection with any of the above described proceedings. We cannot and will not be responsible for any breach of security by a third party or for any actions of any third party that receives any of the information that is disclosed to us.

Choices With Your Information

Whether you submit Personal Information or Browsing Information to FNF is entirely up to you. If you decide not to submit Personal Information or Browsing Information, FNF may not be able to provide certain services or products to you. The uses of your Personal Information and/or Browsing Information that, by law, you cannot limit, include:

- for our everyday business purposes – to process your transactions, maintain your account(s), to respond to law enforcement or other governmental authority in connection with an investigation, or civil or criminal subpoenas or court orders, or report to credit bureaus;
- for our own marketing purposes;
- for joint marketing with financial companies; and
- for our affiliates' everyday business purposes – information about your transactions and experiences.

You may choose to prevent FNF from disclosing or using your Personal Information and/or Browsing Information under the following circumstances ("opt-out"):

- for our affiliates' everyday business purposes – information about your creditworthiness; and
- for our affiliates to market to you.

To the extent permitted above, you may opt-out of disclosure or use of your Personal Information and Browsing Information by notifying us by one of the methods at the end of this Privacy Notice. We do not share your personal information with non-affiliates for their direct marketing purposes.

For California Residents: We will not share your Personal Information and Browsing Information with nonaffiliated third parties, except as permitted by California law. Currently, our policy is that we do not recognize "do not track" requests from Internet browsers and similar devices.

For Nevada Residents: You may be placed on our internal Do Not Call List by calling (888) 934-3354 or by contacting us via the information set forth at the end of this Privacy Notice. Nevada law requires that we also provide you with the following contact information: Bureau of Consumer Protection, Office of the Nevada Attorney General, 555 E. Washington St., Suite 3900, Las Vegas, NV 89101; Phone number: (702) 486-3132; email: BCPINFO@ag.state.nv.us.

For Oregon Residents: We will not share your Personal Information and Browsing Information with nonaffiliated third parties for marketing purposes, except after you have been informed by us of such sharing and had an opportunity to indicate that you do not want a disclosure made for marketing purposes.

For Vermont Residents: We will not share your Personal Information and Browsing Information with nonaffiliated third parties, except as permitted by Vermont law, such as to process your transactions or to maintain your account. In addition, we will not share information about your creditworthiness with our affiliates except with your authorization. For joint marketing in Vermont, we will only disclose your name, contact information and information about your transactions.

Information From Children

The Website is meant for adults and is not intended or designed to attract children under the age of thirteen (13). We do not collect Personal Information from any person that we know to be under the age of thirteen (13) without permission from a parent or guardian. By using the Website, you affirm that you are over the age of 13 and will abide by the terms of this Privacy Notice.

Privacy Outside the Website

The Website may contain links to other websites. FNF is not and cannot be responsible for the privacy practices or the content of any of those other websites.

International Users

FNF's headquarters is located within the United States. If you reside outside the United States or are a citizen of the European Union, please note that we may transfer your Personal Information and/or Browsing Information outside of your country of residence or the European Union for any of the purposes described in this Privacy Notice. By providing FNF with your Personal Information and/or Browsing Information, you consent to our collection and transfer of such information in accordance with this Privacy Notice.

The California Online Privacy Protection Act

For some FNF websites, such as the Customer CareNet ("CCN"), FNF is acting as a third party service provider to a mortgage loan servicer. In those instances, we may collect certain information on behalf of that mortgage loan servicer via the website. The information which we may collect on behalf of the mortgage loan servicer is as follows:

- first and last name;
- property address;
- user name and password;
- loan number;
- social security number - masked upon entry;
- email address;
- three security questions and answers; and
- IP address.

The information you submit through the website is then transferred to your mortgage loan servicer by way of CCN.

The mortgage loan servicer is responsible for taking action or making changes to any consumer information submitted through this website. For example, if you believe that your payment or user information is incorrect, you must contact your mortgage loan servicer.

CCN does not share consumer information with third parties, other than (1) those with which the mortgage loan servicer has contracted to interface with the CCN application, or (2) law enforcement or other governmental authority in connection with an investigation, or civil or criminal subpoenas or court orders. All sections of this Privacy Notice apply to your interaction with CCN, except for the sections titled "Choices with Your Information" and "Access and Correction." If you have questions regarding the choices you have with regard to your personal information or how to access or correct your personal information, you should contact your mortgage loan servicer.

Your Consent To This Privacy Notice

By submitting Personal Information and/or Browsing Information to FNF, you consent to the collection and use of the information by us in compliance with this Privacy Notice. Amendments to the Privacy Notice will be posted on the Website. Each time you provide information to us, or we receive information about you, following any amendment of this Privacy Notice will signify your assent to and acceptance of its revised terms for all previously collected information and information collected from you in the future. We may use comments, information or feedback that you submit to us in any manner that we may choose without notice or compensation to you.

Accessing and Correcting Information; Contact Us

If you have questions, would like to access or correct your Personal Information, or want to opt-out of information sharing with our affiliates for their marketing purposes, please send your requests to privacy@fnf.com or by mail or phone to:

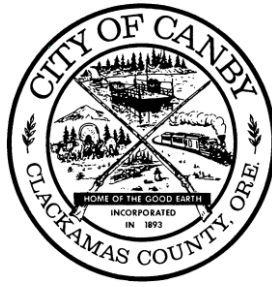
Fidelity National Financial, Inc.
601 Riverside Avenue
Jacksonville, Florida 32204
Attn: Chief Privacy Officer
(888) 934-3354

SIGN-IN SHEET

Name	E-mail	Phone	Comments
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SIGN-IN SHEET

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DON STONE	HV		
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Jason Montecucco	jasonmontecucco@canby.com		



Pre-Application Meeting

Residential Multi-Family Apartments

December 13, 2017

10:30 am

Attended by:

Pat Hanlin, Owner, 503-407-8957

Bryan Brown, Planning, 503-266-0702

Jim Stuart, Canby Utility, Operations Manager, 503-263-4322

Gary Stockwell, Canby Utility, Electric, 503-263-4307

Jessica Iselin, Iselin Architects, 503-656-1942

Jerry Nelzen, Public Works, 503-266-0759

Doug Quan, Canby Utility, Water, 971-563-6314

Hassan Ibrahim, Curran-McLeod Engineering, 503-684-3478

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

ISELIN ARCHITECTS, Jessica Iselin

- At this point we are looking at getting feasibility of the property. Pat owns the property and he is not sure if he will develop it, but he is just trying to determine what he can do with the property. Basically we are looking at apartments and the proposal would be townhome style apartments, not condos or zero lot line. Based on the information we have on this zone and looking at what is feasible and this being our first proposal we are trying to maximize the potential of the site. This is a little tough because the density is high and there are some limitations we are finding with roads, access and additional dedication.
- How do you propose moving forward with the county on the spacing and the access standards? We would like to have some input from you first and Bryan said if you press the issue and we will make contact and explain there is no access which will make the standards. I doubt they will bend on the access onto S Ivy Street and I would like to evaluate both of them and see what works best with our standards since we will eventually take over S Ivy Street. If we think there will be some preference to which access then we would argue it and Jerry said it would be the school and Hassan agreed because both streets are arterial. Bryan said you will need to do a google map and present it to us with the nearby properties showing streets and driveways giving us the information and the distances to make the assessment and decide if it is worth arguing with the county on which driveway we would prefer. Discussion ensued. Jessica said we will discuss this issue and get back you on the accesses.
- The way we laid out this project fronting SE 13th Avenue and S Ivy Street with the units do you see anything that shows red flags and Bryan said no, we rather like it and it is tolerable because it is two-stories.

CURRAN-MCLEOD ENGINEERING, Hassan Ibrahim

- I received the comments from Clackamas County on S Ivy Street and it is under their jurisdiction and they are stating there is a 400 ft access spacing standard and you are showing approximately 240 ft. The only option they will allow is just an emergency access and your

primary access will have to be off of SE 13th Avenue, unless they grant an exception and you apply for a variance with the county to let you have another access point. My thoughts are it would be an emergency access for the fire department.

- The curb line on S Ivy Street has to be 25 ft from center line and it contradicts what we have done further south at approximately 23 ft. Now it creates a problem with the way the signal post is sitting right now. I do not know if you have seen the curb line coming from SE 13th Avenue and it is about 8 ft wider on SE 13th Avenue than where the existing curb line is located and there may be an issue with the signal post having to be relocated to a different location to meet the new standards. Jessica asked if the burden of relocating this signal would be on the developer and Hassan said possibly with some system development charges (SDC) involved and it is a big undertaking for the developer to do that and Bryan asked why it needs to be moved. Hassan said because the county wants the curb line to be 25 ft from centerline and right now it does not meet the requirement. There could be a solution with having a right turn only here, but it would have to be determined by the traffic study and this is just my opinion. Gary said similar to Berg Parkway and the answer was yes.
- Storm drainage will have to remain on site and you can use private drywells since it will be a private street and they will need to be rule authorized by the Department of Environmental Quality (DEQ).
- SE 13th Avenue is also an arterial roadway and is under the jurisdiction of the City of Canby. Our access spacing is a minimum of 330 ft and you are showing 242 ft and does not meet the criteria and we cannot deny you an access to your site. You will have to do a variance with the city and to justify why you cannot meet the requirement of the 330 ft spacing in the staff report. Jessica asked if it would technically require a variance to do it and Bryan said he has not determined it for certain, but there may be some other language in spacing standards regarding the city administrator would have to make the exceptions or you might have to do an access management exception plan to show us a document of why there is no other option and this is the best option available rather than apply for a variance. Our variance criteria is ridiculous when you are trying to do something like this and I think there will be a traffic analysis or access management plan to justify. We have to discuss this issue with the county and see why they get to win and we lose.
- The curb location will have to match the existing development of Dinsmore Estates to the east and we set the curb line at 22 ft from center line ROW and Jessica said she looked at the maps and we have not had a survey done yet. Hassan said an additional 10 ft dedication will be required on S Ivy Street.
- There are distinguishing differences between public and private roads and you will need to have a commercial driveway approach, minimum 6 inch concrete with reinforcements.
- The sanitary sewer is available on both SE 13th Avenue and S Ivy Street. Hassan told Jessica you will stub it from the existing main line and the existing main line is on the north side of SE 13th Avenue and you will come in somewhere in the public ROW, terminate it with a manhole and from that manhole you will supply the entire property with a private sewer system. Jessica asked where the sewer main was on S Ivy Street and Jerry stated it was in the planter strip across S Ivy Street. Jessica asked what the depth of both sewer mains were at and Jerry said 8 ft on both mains. Jessica inquired which one would be the better to tap and Jerry said SE 13th Avenue because S Ivy Street is under the jurisdiction of Clackamas County

and their mandates are more stringent than ours and both sewer mains are plastic. You will have a lot of utilities to cross on S Ivy Street.

- The sidewalks on SE 13th Avenue are curb tight with a large planter strip behind the sidewalk and you will match the same configuration. The county is asking for a 5 ft planter strip on S Ivy Street.
- The county is asking for 8 ft ROW and we typically ask for 12 ft ROW. Jessica asked for clarification on S Ivy Street, the county is requiring the 10 ft dedication and an 8 ft easement and will the city require any additional easement on SE 13th Avenue. Gary stated our standard is a 12 ft easement on the street sides and the driveways, planter strips, walkways are an acceptable use of the easement and they do not encumber it.
- Since there is an existing house it will require a demo permit at that time.
- Is this existing house on septic or sewer and the answer was septic. Hassan said it will have to be decommissioned in conformance with DEQ and Clackamas County requirements. You will need to send us all the documentation on the decommissioning.
- It was brought up there was a water well on the property and Hassan said it will need to be decommissioned as well by DEQ and Clackamas County requirements.

CITY OF CANBY, PUBLIC WORKS DEPARTMENT, Jerry Nelzen

- We will try to match the existing street trees on SE 13th Avenue and if they were going to do a planter strip here I would entertain doing a planter strip around here and fade it in for pedestrian safety. If you decide to do this project we can revisit this idea again and Jessica said that would be fine. Bryan asked if they were considering a wall and Jessica said no.
- Jerry asked if there was another property between this land and Scott Sassy's property and the answer was no. We were hoping we could supply him with city sewer off of this project. Hassan said you would have to make it a public sewer line to accommodate it and Jerry said this project is going in a different direction than what we were thinking. Hassan asked if the Sassy property could go out into S Ivy Street and Jerry said yes, they could have and right now they have a pressure line pumping into Dinsmore Estates. I was just checking to see if there was an option we could give him for a gravity line and it does not look like it is going to work.
- The Sassy property to the south is on a water well and you will need to make sure you are at a 267 ft radius away if you decide to do any drywells on your property. Jessica asked if we knew where it is located and the answer was on the backside of the new shop he just built.

CANBY UTILITY, WATER DEPARTMENT, Doug Quan

- There is a 14 inch line in SE 13th Avenue on the south side, short connection and there is a 10 inch line on the west side of S Ivy Street. If you want to avoid the county, the best option is SE 13th Avenue. Apartment complexes are a single meter and your SDC's will be based on the number of dwelling units. Everything will be private from the meter vault and Pat asked what he meant and Doug said after the meter you have the ability to sub-meter all of the units. If you have the thought you are going to subdivide and sell these things individually in the future, it changes everything. Depending on what you decide on which street you would like to get your water off of, there is water available and off the 14 inch you could get as much as you want.

- If you are doing private roads the water system will be private. If you are required to have fire service, all the fire hydrants on the inside of the property will be private and maintained by the property owner. A double check will be located on the property side of the public utility easement (PUE). Jessica asked if anyone knew where the nearest fire hydrant is located and do you anticipate we would be required to place a hydrant on the property. Doug said you are 250 ft in, which is the maximum they will go, so more than likely you will need some. If you did public streets it would be different, but with a private complex it is different because we do not have public water on private property.

CANBY UTILITY, OPERATIONS MANAGER, Jim Stuart

- We will need all the documentation for the decommissioning of the water well. Doug said the decommissioning by state standards means it is done by a licensed well driller and they fill it with bentonite and cap it.

CANBY UTILITY, ELECTRIC DEPARTMENT, Gary Stockwell

- One of my questions were public or private streets, individual property lines and it is more or less just an apartment complex. Jessica said yes. Gary said it makes it a lot easier on my part.
- We no longer offer leased lighting for the interior lighting, either the complex or home owner's association whatever the case may be. I am assuming 4 to 5 street lights on the perimeter and would be covered under your development fees and the city would take ownership of those lights.
- I will have to see how this lays out for my conductor. The main line primary most likely will require an easement. Jessica asked would this be an addition of the two easements already asked for and Gary said the easements will be on SE 13th Avenue and S Ivy Street, but my primary as I come into the development, the main line will require an easement and could possibly serve properties beyond you and it is just the nature of our looped system.
- There is a pole line out here and you do not have to worry about any relocations of those poles through the development. Jessica said do we assume the lines will be underground and Gary said the development would be underground and as we build the system out I will remove the poles.
- Here is our scope of work and it describes basically you will supply the trenches, grades, staking and back fill. We will provide and install the conduit, vaults and it is a little bit different from the other places around the area. Jessica said once we move forward we will have a civil engineer on board that will get more details, but for right now I am just trying to get the basics.
- When we serve each building with a meter pack on the wall versus the townhome style where each unit would get a meter.

OWNER, Pat Hanlin

- Will the access on S Ivy Street be gated and the answer was yes. Gary said a lot of people do the grass area access.
- If the stormwater is contained on site is there still an SDC and Bryan said yes, because it is our adopted methodology and we have all of the on site storm for a 25 year event and we

have the detention facilities for the community. Hassan said Canby is exceptional for drainage and ultimately all the water goes into a public system and that is why they charge an SDC.

CITY OF CANBY, PLANNING DEPARTMENT, Bryan Brown

- We talked about the complex being townhome style right now and the code states the only way you can get apartments on a CR zoning is through approval of a conditional use permit. I do not necessarily see that as an issue, but you need to know it will be one of the applications you will need. Jessica said she read about the conditional use permit and it was pretty straight forward, but there was also a provision for a PUD and I did not know if it would apply and in this case one makes sense more than the other. Bryan said he did not study the detail, but I am not thinking a PUD is necessary and I am not quite sure there is any reason to use a PUD and Jessica stated a conditional use would be straight forward and Bryan said yes.
- Follow the development standards for the R-2 zone and I brought you a copy of those regulations.
- You will need a site and design review application. Any new buildings require it and they are both type III applications done together and go through the same process and Jessica asked if it was two fees and Bryan said yes. There are two separate fees, but we do actually give you the lowest cost one at half price. I am also giving you the review criteria for both applications.
- You are proposing a substantial development and we will need to do a traffic study. The traffic study is begun by you supply us with a \$500 dollar deposit and our traffic consultant engineer, DKS Associates and I will determine what tasks need to be studied. They will give you an estimate of the cost of an actual study with the tasks we feel necessary. At that point you can choose whether you use your own traffic engineer or use DKS. If you choose your own it will be whatever you can negotiate with them to complete the scope of work tasks we are demanding the study to do and our traffic engineer will charge you for them to review their results and that your engineers did all the tasks required. It takes approximately three weeks to do scope of work and four to five weeks to do a study. If we know it is well on its way and about done we will let you submit your land use applications. The cost could be approximately \$3,000 dollars minimum.
- We already discussed the spacing from the intersection and I do not believe it meets the spacing standard on SE 13th Avenue from the next street and you would need to know that spacing distance.
- I brought a spreadsheet with our SDC fees and I made an estimate, I am fairly confident the formulas on this sheet are correct. We have stormwater, parks, wastewater and transportation and at the bottom of the spreadsheet are other city fees that are applicable. We have the plan review fee associated with your final building and there are minimal fees for connecting to the city. The only fee not on there is an engineering construction plan review fee and it is .02% of the onsite construction costs other than the buildings and it has a cap on it of \$3,000 dollars. Pat said if we lose units based on some of the setbacks and Bryan said you have 39 units on the sheet and you can just change the number and it will recalculate.

- I have your acreage of your property at 2.39 and if you are dedicating ROW you would need to change it because it would lower your soil erosion control fees.
- I put in an average square footage of your individual units at 800 sq ft and this was the easiest way to get the city's construction excise tax. It is based upon the square footage on new living units.
- Looks like you meet the parking standard as designed and will also meet the landscape standard.
- You can fill out both applications on our website and send them to us via email with a prepared narrative for both land use applications. If you have any questions, you can contact me.

Date: June 26, 2018
To: Canby Planning Commission
From: Bill Hill, President and Resident
Dinsmore Estates 2 Homeowners Association
331 S.E. 13th Place
Re: Canby Townhome Development
1300 S Ivy Avenue

Comments Regarding Proposed Development Project

Community Safety – The vehicular traffic up and down 13th Avenue and South Ivy is a concern with regard to public safety for potential townhome resident families, school children that cross 13th Avenue over to Ackerman Middle School and area residents going to and from the Canby Adult Center and Swim Center across from the proposed development site. With Hope Village directly across the Avenue on Ivy and the daily caravan of school buses that traverse in and out along 13th Avenue (Canby and North Marion Schools) the roadway is always extremely busy. Add to the mix trucks and farm equipment that use Ivy to enter Canby from Molalla. First Responders would have difficulty accommodating the Townhome residents on the very small space given 38 units with garages getting equipment in and out. Parking is another issue in that there is often over-flow parking within the school grounds, along 13th Avenue and even in Dinsmore Estate 2 residential streets. The owners and guests of the townhomes are likely to find it necessary to park within our neighborhood which would be very inconvenient for our homeowners.

Property Alignment – It is my understanding that the development applicants are seeking to reduce the property line set back from the standard 20' to 15'. If approved, this would virtually put townhomes in the backyards of Dinsmore Estate 2 homes that sit along the development zone. A sound barrier should be required to protect our homeowner properties and a brick street wall that matches the others along Ivy and 13th Avenue should also be installed to be consistent with others living in Tofte Farm homes as well.

Dwelling Consistency – For the entire length of 13th Avenue from one end of Canby to the other, there are only single-family homes. The residents here strongly support either building single-family homes appropriate for the given lot size or for spill-over parking for the many activities that constantly use the Swim, Adult and Middle School facilities and grounds.

In conclusion – This type of housing is not in keeping with the types of existing area homes. Safety comes first with regard to current residents, including school children and senior citizens.

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, June 27, 2018. Written and oral comments can be submitted up to the time of the Public Hearing and may also be delivered in person during the Public Hearings.

Application: DR 18-03/CUP 18-03/PUD 18-01/SUB 18-02 Canby Townhomes

COMMENTS:

We are mostly concerned about the TRAFFIC Impact at the intersection of SW. 13th Ave and SW. Tully. We live on the corner of these two and already have been almost rear-ended backing out. Also the high volume of Truck traffic and people speeding. The Speed limit is way to high for a residential

NAME: Brian & Valerie Newberg
EMAIL: _____
ORGANIZATION/BUSINESS/AGENCY: _____
ADDRESS: 110 SW 13th Ave. Canby
PHONE # (optional): 503-651-6475
DATE: 6-27-18

PLEASE EMAIL COMMENTS TO
PublicComments@canbyoregon.gov

Thank You!

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

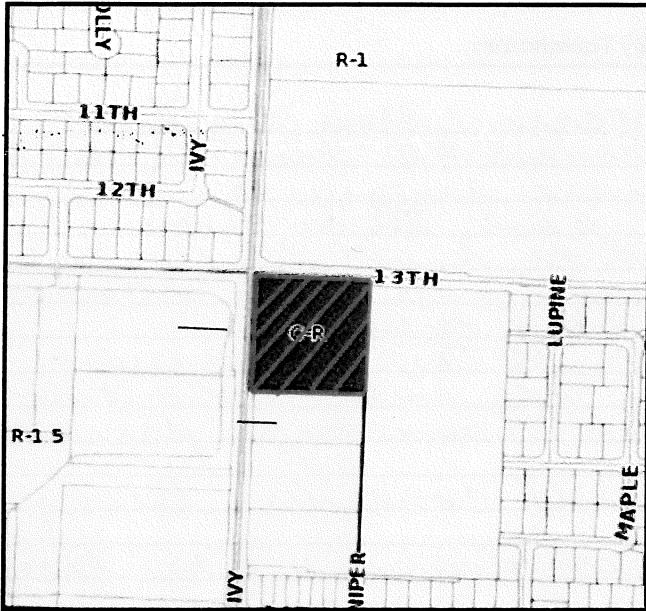
NAME: _____
AGENCY: _____
DATE: _____



City of Canby

PUBLIC HEARING NOTICE & REQUEST FOR COMMENTS
City File No.: **DR 18-03/CUP 18-03/PUD 18-01/SUB 18-02**
Project Name: **CANBY TOWNHOMES**
PLANNING COMMISSION PUBLIC HEARING DATE:
MONDAY, July 9, 2018 AT 7 PM, 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), Conditional Use Permit (Type III), Planned Unit Development (Type III), and Subdivision (Type III) application (**DR 18-03/CUP 18-03/PUD 18-01/SUB 18-02**). Applicant proposes to develop a 2.59 acre site, zoned CR (Residential- Commercial) with 30 townhomes (single-family dwellings with common-wall construction) at the corner of SE 13th Avenue and S Ivy Street.



Location: 1300 S Ivy Street (See property hatched in red on map at left).

Tax Lots: 41E04DA04800

Lot Size & Zoning: 112,280.4 SF (2.59 acres), C-R Residential-Commercial

Property Owners: Willamette Capital Investments, LLC

Applicant: Butch Busse

Application Type: Site & Design Review (Type III), Conditional Use Permit (Type III), Planned Unit Development (Type III), and Subdivision (Type III)

City File Number: DR 18-03/CUP 18-03/PUD 18-01/SUB 18-02

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

Comments due – If you would like your comments to be incorporated into the City’s Staff Report, please return the Comment Form by Wednesday, June 27, 2018. Written and oral comments can also be submitted up to the time of the Public Hearing and may also 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, June 29, 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
- 16.20 R-2 High Density Residential Zone
- 16.24 C-R Residential-Commercial Zone
- 16.36 Planned Unit Development
- 16.42 Signs
- 16.43 Outdoor Lighting Standards
- 16.46 Access Limitations on Project Density
- 16.49 Site & Design Review
- 16.50 Conditional Uses
- 16.62 Subdivision Applications
- 16.64 Subdivision Design Standards
- 16.72 PUD Applications
- 16.89 Application & Review Procedures
- 16.120 Parks, Open Space, & Recreation Land

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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By mail: Planning Department, PO Box 930, Canby, OR 97013
In person: Planning Department at 222 NE Second Street
E-mail: PublicComments@canbyoregon.gov

RECEIVED

JUN 21 2018

CITY OF CANBY

Written comments to be included in Planning Commission packet are due by Wednesday, June 27, 2018.

Written and oral comments can be submitted up to the time of the Public Hearing and may also be delivered in person during the Public Hearings.

Application: DR 18-03/CUP 18-03/PUD 18-01/SUB 18-02 Canby Townhomes

COMMENTS:

This property being across from a school and ball field should be considered. Then across sug. street are people who are seniors as well as the senior center and pool. By the school considering you want to build 30 units which will mean 60-100 people with 30-60 cars. School is a busy place with lots of traffic. It does not seem fair to the people who live there as well as the ones who live near buy Hope Village has its own traffic problems we don't need more. It seems to me you should consider being able to find property in area where there won't be so much congestion. Please don't build there.

NAME: Maeg Gossen
 EMAIL: maeggossen@canby.com
 ORGANIZATION/BUSINESS/AGENCY: _____
 ADDRESS: 1441 S Ivy St unit 712
 PHONE # (optional): 503 266 2335
 DATE: June 19 2018

PLEASE EMAIL COMMENTS TO
PublicComments@canbyoregon.gov

Thank You!

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: _____

May 25, 2018

FROM: Judith D Keeney
jbkeeney@canby.com
503-516-0368

TO: City of Canby – Mayor and City Council
City of Canby – Administrator
City of Canby – Planning Director

RE: Townhome Development by Multi/Tech Engineering Services, Inc.
SE Ivy St and SE 13th Avenue in Canby, OR 97013

The proposed townhome development for the property located at SE Ivy St. and SE 13th Ave. in Canby, Oregon demonstrates lack of consideration for current citizens/property owners and foresight by the City of Canby and its land use planning agencies. The concerns expressed in the May 23rd edition of the Canby Herald by the Dinsmore Estates 2 HOA are both accurate and alarming. Locating 38 multi-family two-story units on this piece of property will greatly change this neighborhood, lower property values of surrounding homes and significantly destroy the quality of life currently enjoyed by the tax-paying citizens and property owners in this neighborhood. No park area is planned within this development. No allowances for increased traffic and increased demand for parking appear to have been considered.

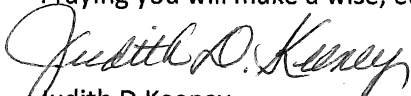
This property is located in the heart of the Canby Swim Center, Canby Adult Center, Ackerman School, playing fields, and Legacy Park which already generate increased traffic at certain times of the day on a constant basis. Additionally, the nearby Hope Village campus includes several age-related facilities that often requires access for emergency vehicles. First responders could be greatly impacted and hindered by this development and their ability to provide efficient life-threatening services to the population already located within this area of the city of Canby.

Next, the issue of farm equipment accessing S. Ivy Street and S 13th Avenue is significant – especially in the spring, summer and fall seasons. Increased population and traffic in this area will most certainly have a negative impact upon jobs, income and future agricultural land use in this portion of the community.

Also, think of the added impact of the 90 single family home subdivision proposed nearby off of S Fir Street – you're very quickly creating a traffic nightmare!!

Please reconsider this development! It is not too late for the mayor, city council, and land use planners to recognize the many and various negative aspects of this proposed townhome development and deny the ability to move it forward. Please give consideration for the area's home owners, Hope Village residents, patrons of the Canby Swim Center and Canby Adult Center, users of the playing fields, Ackerman School, and Legacy Park.

Praying you will make a wise, educated, and well-thought-out decision.


Judith D Keeney

Date: May 18, 2018

To: City of Canby Council and Planning Committee

From: Bill Hill – Resident and President of Dinsmore Estates 2 HOA

331 S.E. 13th Place

Canby, Oregon 97013

503-657-1986

Re: Proposed 38 unit townhome development – 13th & Ivy, Canby, Oregon

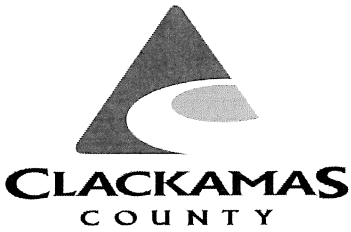
I attended the developer meeting regarding a proposed housing development located at 1300 S. Ivy Street, (corner of 13th and Ivy) this past Tuesday, May 15, 2018. The meeting was held at the library at Ackerman Middle School at the invitation from Multi/Tech Engineering Services, Inc. from Salem, Oregon.

My wife and I live at 331 S.E. 13th Place, Canby, Oregon and I am the president of the Dinsmore Estates 2 HOA. Part of our community rests next to the proposed development. Hope Village is just across Ivy. Directly across 13th Avenue sits the Canby Adult Center and Ackerman Middle School. Ivy and 13th Avenue converge into a very busy intersection with heavy traffic that include school buses, cars, trucks, farming equipment, bicyclists, pedestrians and school children every day.

The Developer is proposing 38 multi-family townhomes on a postage stamp size lot that has no safe entrance or exit from either busy street. First responders will be severely incumbered and the potential residents and their guests will not have adequate parking which will lead to over-flow onto our residential neighborhood plus that of the Adult Center and Middle School across the road.

Many events are held at the Canby Adult Center, Swim Center and Ackerman School including the playing fields and children's play area. Sometimes overflow parking from those events use the lot currently up for development. The impact from the proposed high-density housing will greatly detract from the existing quality of life sought by those living in and using the facilities adjacent. The consensus of the homeowners (Tofte Farms Estates, Dinsmore Estates 1 and 2, Hope Village and others) feel the impact from this high-density housing will greatly detract from the existing quality of life here and also for those using the center, pool, school and fields. This type of housing is incongruous with the existing single-family homes running the length of 13th Avenue.

I appeal to the leaders of our City to step up and stop this inappropriate development before it begins. Thirty-eight two story townhomes jammed onto a lot with inadequate access is not only a fire and safety hazard, it also causes parking and traffic problems that are dangerous so close to a four-way stop in an already busy intersection. It was suggested that the City consider, instead, purchasing the property for future city use and repurpose it now for over-flow parking for the many activities that take place at the Adult, Swim and School facilities.



MEMORANDUM

TO: Bryan Brown
FROM: Kenneth Kent, Development Engineering
DATE: December 13, 2017
RE: Pre-Application, 39-Unit Townhouse Apartments
4-1E-4DA-4800

This office has the following comments pertaining to this proposal:

1. The proposed 39-unit multi-family development is located on a property located at the southeast corner of SE 13th Street and S Ivy Street. SE 13th Street is under the jurisdiction of the City of Canby. S Ivy Street is under the jurisdiction of Clackamas County and is classified as a major arterial roadway. It appears the city has a single arterial roadway classification, indicating both SE 13th Street and S Ivy Street as arterial roads. However, Clackamas County designates S Ivy Street a major arterial. Access spacing standards on a major arterial restrict access within 400 feet of a signalized intersection. The project frontage is approximately 342 feet in length. Access on the S Ivy street frontage will not be permitted for the proposed development. If required by the fire department, a gated emergency vehicle access is acceptable on S Ivy Street.
2. The minimum improvement on the S Ivy Street frontage includes right-of-way and paved width for a 3-lane arterial street section.
3. The applicant shall dedicate approximately 10 feet of right-of-way along the entire site frontage on S Ivy Street and verify by a professional survey that a 40-foot wide, one-half right-of-way width exists.
4. The applicant shall grant an 8-foot wide public easement for sign, slope and public utilities along the entire frontage of S Ivy Street.
5. The applicant shall design and construct improvements along the entire site frontage of S Ivy Street to arterial roadway standards, per Clackamas County Roadway Standards, Standard Drawing C140. These improvements shall consist of:

- a. A one half-street improvement with a minimum paved width of 25 feet from the centerline of the right-of-way. The structural section shall be designed and constructed per Standard Drawing C100 for an arterial roadway.
- b. Inbound and outbound tapers shall be provided per Section 250.6.4 of the Clackamas County Roadway Standards.
- c. Standard curb, or curb and gutter if curblin slope is less than one percent, with the curb face located 18 feet from the centerline of the right-of-way.
- d. A 5-foot wide sidewalk behind a 5-foot wide landscape strip, including street trees shall be constructed along the entire site frontage. Where the sidewalk does not connect to sidewalk on adjacent property, the end of the sidewalk requires a concrete ADA compliant curb ramp, providing a transition from the new sidewalk to the edge of pavement.
- e. Dual curb ramps shall be provided at the SE 13th Street and S Ivy Street intersection, constructed per Standard Drawing S910. The designer shall complete the county ADA Assessment Checklist and provide a copy with the improvement plans. The county has adopted the following curb ramp design and construction standards:

Feature	Design Standard	Construction Standard
Ramp Slope	7.5%	8.33%
Ramp Cross Slope	1.5%	2.0%
Landing (turning space) Cross Slope	1.5%	2.0%

- f. Storm drainage facilities in conformance with City of Canby Standards and *Clackamas County Roadway Standards* Chapter 4. Any surface water runoff from the site to the S Ivy Street right-of-way shall be detained outside of the right-of-way in conformance with *Clackamas Roadway Standards*.

CITY OF CANBY –COMMENT FORM

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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, June 27, 2018. Written and oral comments can be submitted up to the time of the Public Hearing and may also be delivered in person during the Public Hearings.

Application: DR 18-03/CUP 18-03/PUD 18-01/SUB 18-02 Canby Townhomes

COMMENTS:

Some laws allow citizens to make decisions that are legal, but not right. A decision that diminishes the quality of life in a community needs to be examined closely.

Our water system and infrastructure (schools, traffic flow, etc.) are already problematic. Why make them worse?

The development of 30 townhomes on 2.59 acres at 1300 S Ivy serves no purpose other than monetary profit.

NAME: KATHERINE LOSCH
 EMAIL: NO COMPUTER
 ORGANIZATION/BUSINESS/AGENCY: N/A
 ADDRESS: 1441 S. IVY UNIT 402
 PHONE # (optional): _____
 DATE: 6-26-18

PLEASE EMAIL COMMENTS TO
PublicComments@canbyoregon.gov

Thank You!

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: _____

Laney Fouse

From: blke90@yahoo.com
Sent: Monday, June 25, 2018 9:26 PM
To: PublicComments; phi nguyen
Subject: CANBY TOWNHOMES

Amy & Phi Nguyen
1355 S Larch St
Canby, OR 97013

This letter is to frustrate my concerns for the proposal to build townhomes behind my property. I moved to Canby in 2016 to get away from a congested and over populated Portland and live in a more peaceful and quiet Canby area. So far, life have been great and peaceful until this recent news of a townhouse proposing to be to built right behind my backyard. Not only will I have no more privacy at all anymore, they will be more noise, congestion and tons of traffic. I'm sure others in the neighborhood feel the same. There is also a middle school in the area where kids attend and we wouldn't want to increase traffic in the area for kids safety sake. Please take this into consideration before moving forward.

Thank you,

-Phi Nguyen
blke90@yahoo.com


CURRAN-McLEOD, INC.
CONSULTING ENGINEERS

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

June 25, 2018

MEMORANDUM

TO: Public Comments
City of Canby

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

RE: **CITY OF CANBY**
CANBY TOWNHOMES (DR 18-03/CUP 18-03/PUD 18-01/SUB 18-02)

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

1. SE 13th Avenue is a City arterial street, the existing half street right-of-way width along the site frontage is 20 feet, additional 10 feet of right-of-way dedications will be required to match the adjoining properties. Half street improvements will be required along the entire site frontage to include curbs placed at 22 feet from ROW centerline and 6-foot wide curb tight concrete sidewalks, street lights and landscaping 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. S Ivy Street is a County arterial street, all of the required half street improvements and right of way dedications shall be in conformance with Clackamas County Design Standards.
3. All interior streets are private and shall have a commercial driveway approaches at the access point with the public streets (SE 13th Avenue and S Ivy Street) consisting of 6" concrete thickness over 4" of crushed rock and reinforcements or Mesh wire welded wire fabric.
4. The proposed access point on SE 13th Avenue does not meet the required access spacing of 330 feet from any driveway or public road as per the City Transportation System Plan (TSP). The submitted plan shows the proposed access location to be 280 feet more or less as calculated. Given the geometry of this site, there is no feasible option to meet the required access spacing and we recommend the City approves the access location via a variance and without compromising the safety at the intersections.

5. The private street geometric configuration shall allow for the fire truck turning movements and parking requirements as determined by Canby Fire District.
6. Street trees shall be selected from the City approved tree list. The street tree ordinance requires the developer to pay the City \$200 per tree for installation and one (1) year period maintenance, the property owners will take over all of the responsibilities after that date.
6. A demolition permit will be required from Clackamas County prior to demoing the existing structures on-site.
7. Sanitary sewer lines exist on SE 13th Avenue and S Ivy Street. An 8-inch public sanitary sewer line will be acceptable within the private street. However, the City requires a minimum of 15-foot wide public sewer easement dedicated to the City of Canby.
8. 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.
9. Storm drainage analysis 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.
10. 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.
11. 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.

12. The traffic impact analysis prepared by Associated Transportation Engineering & Planning, Inc. dated June 15, 2018 concludes that SE 13th Avenue and S Ivy Street intersection will continue to function at Level of Service B as a result of this development. No mitigations are needed.

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

Laney Fouse

From: Joshua Eleen <jteleen@aol.com>
Sent: Sunday, June 24, 2018 9:40 PM
To: PublicComments
Subject: Lot Line Adjustment 661 NW 4th Ave City File# LLA 18-01

The city should not allow this lot line adjustment to occur. The houses in these few blocks have been around well over 80 years. The lot line on the property hasn't been a concern since the house was built in 1946. So why is it now? This is just the first step to for allowing another duplex or triplex to be built in an older neighborhood. This is not only going to create another eye sore in a old neighborhood, but it's going to kill the property value of all the other homes in the area. We need to keep some of this old small town together. Please do not allow this lot line adjustment. Thank you

Joshua Eleen

Laney Fouse

From: Laude Hill <laudehill@canby.com>
Sent: Friday, June 22, 2018 10:45 AM
To: PublicComments
Subject: Application DR 18-03/CUP 18-03?PUD18-01?Sub 18-02
Canby Townhomes

The traffic at this intersection is heavy now. There are the traffic in and out of the swim center and adult center, the school walking and vehicle traffic as well as the normal street traffic from heavily traveled routes in and out and through Canby. Putting townhouses at this corner without providing safe entry and exit that does not impede the highly used intersection seems impossible.

Laney Fouse

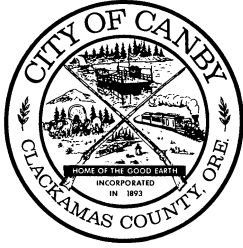
From: Micki A Paul <micmac@canby.com>
Sent: Thursday, June 21, 2018 5:44 PM
To: Micki A Paul
Cc: PublicComments
Subject: Project Name: CANBY TOWNHOMES

Proposing to build Town Homes at one of the busiest intersections in Canby just doesn't seem feasible. The State DTD won't allow access off Highway 170 (Ivy St.) knowing what chaos that would create so why doesn't the City realize it would be no different on 13th St.? The intersection is already clogged in the morning and evening with Commercial traffic, School buses for three schools, the Public Pool and the Adult Center.

We need more parking and Town Homes wouldn't alleviate that problem but add to the need. The spot where they are proposed is used quite frequently for overflow from numerous functions at the Schools, Adult Center and Pool.

A Church would be more conducive to the neighborhood.

Location: 1300 S Ivy Street
City File # DR 18-03/CUP 18-03/PUD 18-01/SUB 18-02



**BEFORE THE PLANNING COMMISSION
OF THE CITY OF CANBY**

A REQUEST FOR SITE AND DESIGN)	FINDINGS, CONCLUSION & FINAL ORDER
REVIEW, CONDITIONAL USE)	DR 18-03/CUP 18-03/PUD 18-01/SUB 18-02
PERMIT, PLANNED UNIT)	CANBY TOWNHOMES
DEVELOPMENT, SUBDIVISION)	
FOR TOWNHOUSE DEVELOPMENT)	
1300 S. IVY STREET)	

NATURE OF THE APPLICATION

The Applicant has sought an approval for a Site and Design Review DR 18-03, a Conditional Use Permit CUP 18-03, Planned Unit Development PUD 18-01, and a Subdivision SUB 18-02 Application to construct a 30-unit townhome (common wall) development on a 2.59 acre parcel, otherwise described as Tax Lot 41E04DA04800, City of Canby, Clackamas County, Oregon. The property is zoned Residential/Commercial (C-R) zone under the Canby Municipal Code (“CMC”).

HEARINGS

The Planning Commission considered application **DR 18-03/ CUP 18-03/PUD 18-01/SUB 18-02 Willamette Capital Investment** after the duly noticed hearing on July 9, 2018 during which the Planning Commission by a ___/___ vote approved **DR 18-03/CUP 18-03/PUD 18-01/SUB 18-02**. These findings are entered to document the specifics of the approval.

CRITERIA AND STANDARDS

In judging whether or not a Site and Design Review and Conditional Use Permit 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, 16.50 Conditional Uses, 16.76 Planned Unit Development, and 16.64 Subdivisions other applicable code criteria and standards reviewed in the Staff Report prepared for and presented at the July 9, 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 and Conditional Use Permit applications (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 and Conditional Use Permit application meets all applicable approval criteria, and recommended that File DR 18-03/CUP 18-03/PUD 18-01/SUB 18-02 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 and Conditional Use Permit approval. Therefore, **IT IS ORDERED BY THE PLANNING COMMISSION** of the City of Canby that **DR 18-03/CUP 18-03/PUD 18-01/SUB 18-02** 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 and conditional use permit 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 submit a revised tentative plat that delineates a total of 30 lots within the subdivision and establishes a single access onto SE 13th Avenue and one gated, grasscrete surfaced emergency exist onto S. Ivy Street with a mountable curb and driveway drop as noted in the City Engineer's email dated April 30, 2018.
2. The project must be in conformance with the applicable findings and suggestions outlined by the City Engineer in his memorandum dated June 25, 2018 unless otherwise specified by the Planning Commission.
3. The project must be in conformance with the applicable findings and suggestions outlined by Clackamas County Engineering in the memorandum dated December 13, 2017 unless otherwise specified by the Planning Commission. The conditions are as follows:
 1. The proposed 39-unit multi-family development is located on a property located at the southeast corner of SE 13th Street and S Ivy Street. SE 13th Street is under the jurisdiction of the City of Canby. S Ivy Street is under the jurisdiction of Clackamas County and is classified as a major arterial roadway. It appears the city has a single arterial roadway classification, indicating both SE 13th Street and S Ivy Street as arterial roads. However, Clackamas County designates S Ivy Street a major arterial. Access spacing standards on a major arterial restrict access within 400 feet of a signalized intersection. The project frontage is approximately 342 feet in length. Access on the S Ivy street frontage will not be permitted for the proposed

development. If required by the fire department, a gated emergency vehicle access is acceptable on S Ivy Street.

2. The minimum improvement on the S Ivy Street frontage includes right-of-way and paved width for a 3-lane arterial street section.
3. The applicant shall dedicate approximately 10 feet of right-of-way along the entire site frontage on S Ivy Street and verify by a professional survey that a 40-foot wide, one-half right-of-way width exists.
4. The applicant shall grant an 8-foot wide public easement for sign, slope and public utilities along the entire frontage of S Ivy Street.
5. The applicant shall design and construct improvements along the entire site frontage of S Ivy Street to arterial roadway standards, per Clackamas County Roadway Standards, Standard Drawing C140. These improvements shall consist of:
 - a. A one half-street improvement with a minimum paved width of 25 feet from the centerline of the right-of-way. The structural section shall be designed and constructed per Standard Drawing C100 for an arterial roadway.
 - b. Inbound and outbound tapers shall be provided per Section 250.6.4 of the Clackamas County Roadway Standards.
 - c. Standard curb, or curb and gutter if curblin slope is less than one percent, with the curb face located 18 feet from the centerline of the right-of-way.
 - d. A 5-foot wide sidewalk behind a 5-foot wide landscape strip, including street trees shall be constructed along the entire site frontage. Where the sidewalk does not connect to sidewalk on adjacent property, the end of the sidewalk requires a concrete ADA compliant curb ramp, providing a transition from the new sidewalk to the edge of pavement.
 - e. Dual curb ramps shall be provide at the SE 13th Street and S Ivy Street intersection, constructed per Standard Drawing S910. The designer shall complete the county ADA Assessment Checklist and provide a copy with the improvement plans. The county has adopted the following curb ramp design and construction standards:

Feature	Design Standard	Construction Standard
Ramp Slope	7.5%	8.33%
Ramp Cross Slope	1.5%	2.0%
Landing (turning space) Cross Slope	1.5%	2.0%
 - f. Storm drainage facilities in conformance with City of Canby Standards and Clackamas County Roadway Standards Chapter 4. Any surface water runoff from the site to the S Ivy Street right-of-way shall be detained outside of the right-of-way in conformance with Clackamas Roadway Standards.
4. A Demolition Permit from Clackamas County is required along with a Site Plan Review Application (Type I) from the City of Canby prior to demolition of the existing structure on the property.

5. The applicant must submit detailed elevations of the project that reveals how the proposal meets the design standards listed in Section 16.49.040.

Fees/Assurances:

6. All public improvements are normally installed prior to the recordation of the final plat. If the applicant wishes to forgo construction of any portion of the public improvements until after the recordation of the final plat, then the applicant shall provide the City with appropriate performance security (subdivision performance bond or cash escrow) in the amount of 110% of the cost of the remaining public improvements to be installed.
7. If the applicant chooses to provide a subdivision performance bond for some or all of the required public improvements, the applicant shall obtain a certificate from the city engineer that states:
 - a. The applicant has complied with the requirements for bonding or otherwise assured completion of required public improvements.
 - b. The total cost or estimate of the total cost for the development of the subdivision. This is to be accompanied by a final bid estimate of the subdivider's contractor, if there is a contractor engaged to perform the work, and the certificate of the total cost estimate must be approved by the city engineer.

The applicant must guarantee or warranty all public improvement work with a 1 year subdivision maintenance bond in accordance with 16.64.070(P).
8. The applicant must pay the city Master Fee authorized Site Plan Engineering plan review fee and Public Improvement Engineering Plan review fee prior to beginning the construction of site improvements.

Streets, Signage & Striping:

9. The street improvement plans for SE 13th Avenue and S. Ivy Street frontage and the interior street shall conform to the TSP and Public Works standards as indicated by the city engineer and Clackamas County.
10. A roadway striping plan shall be submitted by the applicant and shall be approved by city engineer and by the Public Works street department prior to the construction of public improvements.
11. A roadway signage plan shall be submitted by the applicant and shall be approved by the city engineer and by the Public Works street department prior to the construction of public improvements.
12. The applicant shall be responsible for installing all required street signage and striping at the time of construction of public improvements, unless other arrangements are agreed to by the City.
13. The private streets shall be designated as a common tract for street and sidewalk provision to be cared for and maintained by the HOA.

Sewer:

14. The applicant shall submit documentation of DEQ approval of the sewer plans to the City Engineer prior to the construction of this public improvement.

Stormwater:

15. The applicant shall submit a Storm Drainage Plan associated with the subdivision. Stormwater systems shall be designed in compliance with the Canby Public Works Design Standards as determined by the City Engineer.

Grading/Erosion Control:

16. The applicant shall submit grading and erosion control plans for approval by Canby Public Works in conjunction with construction plan approval prior to the installation of public improvements and start of grading.
17. The applicant shall grade all areas of the site, including the proposed lots, to minimize the amount of soil to be removed or brought in for home construction.

Final plat conditions:

General Final Plat Conditions:

18. The applicant shall apply for final plat approval at the city and pay any applicable city fees to gain approval of the final partition and subdivision plat. Prior to the recordation of the final plat at Clackamas County, it must be approved by the city and all other applicable agencies. The city will distribute the final plat to applicable agencies for comment prior to signing off on the final plat if deemed necessary.
19. All public improvements or submittal of necessary performance security assurance shall be made prior to the signing and release of the final plat for filing of record.
20. The final plat shall conform to the necessary information requirements of CMC 16.68.030, 16.68.040(B), and 16.68.050. The city engineer or county surveyor shall verify that these standards are met prior to the recordation of the subdivision plat.
21. All "as-builts" of public improvements, including: curbing and sidewalks; planter strips; streets; street lighting; street signage; street striping; storm; sewer; electric; water/fire hydrants; cable; underground telephone lines; CATV lines; and natural gas lines, shall be filed at the Canby Public Works and the Canby Planning Department within sixty days of the completion of improvements and prior to the recordation of the final plat.
22. Clackamas County Surveying reviews **pending subdivision plat documents for Oregon Statutes and county requirements. A subdivision final plat prepared in substantial conformance with the approved tentative plat must be submitted to the City for approval** within one year of approval of the tentative plat or formally request an extension of up to 6-months with a finding of good cause.
23. The applicant shall record the final plat at Clackamas County within 6 months of the date of the signature of the Planning Director.
24. The applicant shall assure that the city is provided with a copy of the final plat in a timely manner after it is recorded at Clackamas County, including any CC&Rs recorded in conjunction with the final plat.
25. The City shall assign addresses for each newly created subdivision lot and distribute that to the developer, and other agencies that have an interest.

Dedications

26. The applicant shall show on the final plat any appropriate R.O.W. width dedications required on SE 13th Avenue and S. Ivy Street for the full length of the

subject property.

Easements

27. A 12 foot utility easement along all of the lot's street frontages shall be noted on the final plat. This easement may be combined with other easements and shall be measured from the property boundary.
28. Sidewalk easements are required along the frontage of the newly created private lots.

Street Trees

29. A Street Tree Plan shall be submitted with the final plat, and street tree fees must be paid prior to release of the final plat. The plan will allow the city to establish street trees per the Tree Regulation standards in Chapter 12.32 of the Canby Municipal Code. The total per tree fee amount is calculated at one tree per 30 linear feet of total street frontage on both sides of all internal streets and the adjacent side of external streets or as otherwise designated on an approved Street Tree Plan. A twelve foot temporary street tree easement along all lot street frontages shall be noted on the final plat.

Monumentation/Survey Accuracy Conditions

30. The county surveyor and/or city engineer shall verify that the lot, street, and perimeter monumentation shall meet the requirements set forth in Oregon Revised Statutes and conform with the additional survey and monumentation standards of 16.64.070(M)(1-3) prior to recordation of the final plat.

Residential Building Permits Conditions:

31. Construction of all required public improvements and recordation of the final subdivision plat must be completed prior to the construction of any homes.
32. The homebuilder shall apply for a City of Canby Site Plan Permit and County Building Permit for each home.
33. The homebuilder shall apply for a City of Canby Erosion Control Permit.
34. All residential construction shall be in accordance with applicable Public Works Design Standards.
35. On-site stormwater management shall be designed in compliance with the Canby Public Works Design Standards.
36. Clackamas County Building Codes Division will provide structural, electrical, plumbing, and mechanical plan review and inspection services for home construction per contract with the City. The applicable county building permits are required prior to construction of each home.
37. Per the Canby Public Works Design Standards, minimum residential driveway widths at the inside edge of the sidewalk shall be 12 feet and the maximum residential driveways widths shall be 24 feet with an allowed exception for 28 feet for a home with 3 or more garages.
38. Sidewalks and planter strips shall be constructed by the homebuilder as shown on

the approved tentative plat.

39. All usual system development fees shall be collected with each home within this development.

Procedural Conditions

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

40. 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.
41. A Sediment and Erosion Control Permit will be required from the City prior to commencing site work.
42. 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.
43. Construction plans shall be designed and stamped by a Professional Engineer registered in the State of Oregon.
44. Clackamas County will provide structural, mechanical, grading, and review of Fire & Life Safety, Plumbing, and Electrical permits for this project.
45. The applicant shall confirm conformance with the light trespass provision of Figure 16.43.1 by including a detail of the bollard pathway lighting height, and that lighting lumen output of all fixtures meets the lighting standard of Table 16.43.070.

Prior to Occupancy of the Facility:

46. 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).

I CERTIFY THAT THIS ORDER approving **DR 18-03/CUP 18-03/PUD 18-01/SUB 18-02 CANBY TOWNHOMES**

which was presented to and **APPROVED** by the Planning Commission of the City of Canby.

DATED this 9th day of July, 2018.

John Savory
Planning Commission Chair

Bryan Brown
Planning Director

Laney Fouse, Attest
Recording Secretary

ORAL DECISION: July 9, 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: July 9 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>				