AGENDA
CANBY PLANNING COMMISSION
Meetings can be viewed on CTV Channel 5 or Canby YouTube
Monday, March 8, 2021
7:00 PM (Virtual Zoom Meeting)

(Commissioner John Savory (Chair)

Commissioner Larry Boatright (Vice Chair)
Commissioner Jeff Mills
Commissioner (Vacant)
Commissioner Jennifer Trundy
Commissioner Michael Hutchinson
Commissioner (Vacant)

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1. **CALL TO ORDER**
   - **a.** Invocation
   - **b.** 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. Staff and the Planning Commission will make every effort to respond to questions raised during citizens input before the meeting ends or as quickly as possible thereafter. ***If you would like to speak on non-agenda items, please email or call the Recording Secretary no later than 3 pm on the meeting date and provide your name, the topic you'd like to speak on, and your email address. Email: fousel@canbyoregon.gov or call: 503-266-0685. Once your information is received, you will be sent instructions for signing into Zoom. Commissioners and Staff will be attending this meeting virtually.
3. **MINUTES –** Planning Commission Minutes for February 8, 2021.
4. **NEW BUSINESS –** None
5. **PUBLIC HEARING** To testify, please email or call the Recording Secretary no later than 3 pm on the meeting date and provide your name and email address. Email: fousel@canbyoregon.gov or Call: 503-266-0685. Once your information is received, you will be sent instructions for signing into Zoom. Commissioners and Staff will be attending this meeting virtually.
   - **a.** To consider a request to construct an emergency fire and medical station at 1460 NE Territorial Road (subject property) on a 1-acre site (project site) adjacent to the City of Canby's Public Works shops complex. The station would allow the agency to better serve the north side of Canby with emergency services. **(DR 20-06/CUP 20-04 Canby Fire Emergency Fire and Medical Station).**
   - **b.** To consider a request to subdivide a 6.68-acre parcel located at N Pine Street between NE 16th and NE 18th Avenues into 42 separate legal lots. **(SUB 20-03/VAR 20-01 Beckwood Place Subdivision).**
6. **FINAL DECISIONS –**
   - **a.** DR 20-06/CUP 20-04 Canby Fire Emergency Fire and Medical Station
   - **b.** SUB 20-03/VAR 20-01 Beckwood Place Subdivision
7. **ITEMS OF INTEREST/REPORT FROM PLANNING STAFF–**
   - **a.** Next regularly scheduled Planning Commission meeting – Monday, March 22, 2021.
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 www.canbyoregon.gov . City Council and Planning Commission Meetings are broadcast live and can be viewed on CTV Channel 5. For a schedule of the playback times, please call 503-263-6287.

PLANNING COMMISSION
MARCH 8, 2021 MEETING

TABLE OF CONTENTS

TABLE OF CONTENTS

MINUTES
CANBY PLANNING COMMISSION
Monday, February 8, 2021

PRESENT: Commissioners John Savory, Larry Boatright, Jennifer Trundy, Jeff Mills, and Michael Hutchinson

ABSENT: Commissioner Jason Taylor

STAFF: Don Hardy, Planning Director, Erik Forsell, Associate Planner, Brianna Addotta, Associate Planner, and Laney Fouse Lawrence, Recording Secretary

OTHERS: Rick Givens, Bruce Goldson, Darren Gusdorf, Mark Handris, and Allen Manuel

CALL TO ORDER

Chair Savory called the meeting to order at 7:00 p.m.

CITIZEN INPUT ON NON-AGENDA ITEMS – None

MINUTES

a. Approval of Planning Commission Minutes for January 11, 2021

Commissioner Mills suggested a change in the wording under *Questions* to read, "*Commissioner Mills requested that staff always try to define an acronym when it is first used in a document*."

Motion: A motion was made by Commissioner Boatright and seconded by Commissioner Hutchinson to approve the January 11, 2021 Planning Commission minutes as amended. Motion approved 5/0.

NEW BUSINESS - None

PUBLIC HEARINGS

a. **THIS PUBLIC HEARING WILL BE CONTINUED TO A DATE CERTAIN OF FEBRUARY 22, 2021.** To consider a request to build a two-story, 56,000 SF assisted living facility building with 102 units with a memory care endorsement, and 8 cottages on site for Independent Living that will be in separate 1-story, 700 SF duplexes, at the corner of 1300 S Ivy St. **(DR 20-03, CUP 20-02 Memory Care Facility).**

Brianna Addotta, Associate Planner, said the applicant had requested more time to get the proposal together.

Motion: A motion was made by Commissioner Trundy and seconded by Commissioner Boatright to continue the hearing to a date certain of Monday, February 22, 2021. Motion approved 5/0.

b. To consider a request to subdivide three parcels consisting of approximately 4.59 acres into 44 separate legal lots located on N Redwood St. **(SUB 20-04 Redwood Landing III Subdivision).**

Chair Savory opened the public hearing and read the hearing statement. He asked if any Commissioner had ex parte contacts or conflicts of interest to declare. There were none.

Staff Report: Erik Forsell, Associate Planner, entered his staff report into the record. This was a request to subdivide three parcels into a 44 lot subdivision on N Redwood Street. This was Redwood Landing Phase 3 and was zoned R-1.5, medium density residential, and R-2, high density residential. There were three existing dwellings on the property. Two would be demolished and the third would remain and be subject to the non-conforming use criteria. The site was generally flat, sloping downward to the eastern portion of the parcel near the Willow Creek wetland/drainage area. The mixture of lots was proposed to contain 11 single family detached dwellings, 32 single family attached dwellings, and 1 existing oversized lot to remain, subject to non-conforming use standards. Public improvements would be required including local street infrastructure, sidewalks, power, water, and sewer as well as frontage improvements along N Redwood Street as required by Clackamas County. He reviewed the N Redwood Development Concept Plan and applicant's preliminary site plan. He then discussed the approval criteria. Regarding the split zone concept, the layout of the street and lots conformed to the zoning boundaries. The transportation impact analysis included two intersections: OR 99E/N Redwood/Sequoia Parkway and NE Territorial/N Redwood. Approximately 31 a.m. peak hour trips, 42 p.m. peak hour trips, and 396 daily trips would be generated from the proposed site. Trips from approved but not fully occupied developments were added to the study intersections to account for trips that were not counted in the original traffic count data but would be added to area roadways as the individual developments built out. A 1% compound annual growth rate was applied to all movements at study intersections to capture other background regional trip growth not related to city wide development. No safety issues were identified. Crash rates at study intersections indicated the frequency of collisions was typical for the volume of traffic served. No intersection capacity issues were identified. None of the study intersections were identified as having an impacted based on projected growth from the proposed project. He discussed the staff findings and conditions. Special conditions for Planning Commission consideration included a condition that had to do with the future extension of streets for a cul-de-sac and another had to do with alternative permeable surfaces and getting approval from the Public Works Department. Staff did not recommend adding these two conditions, however they were available for deliberation. Agency comments were received from the City Engineer, Canby Fire, DirectLink, and Clackamas County Transportation Planning. No public comments had been received. Staff recommended approval of the application.

Questions by the Hearing Body: Commissioner Mills asked about the configuration of the turnarounds. Mr. Forsell said they were hammerhead turnarounds. Canby Fire would have to approve of the turnarounds.

Commissioner Mills asked if all of the private streets would be no parking. Mr. Forsell said that was correct due to the width of the road and access for fire trucks.

Commissioner Mills asked if there was a need for additional parking for visitors. Mr. Forsell said at the building permit phase the development would be reviewed for parking. It was difficult to know until the applicant constructed the structures as to how they would meet the parking requirements.

Commissioner Mills asked about access to Lot 100, the cul-de-sac. Mr. Forsell said the plan specifically said that future developments might not be consistent with the exact map in the plan. They did not have to be a carbon copy of what ended up being developed. The applicant made the argument that this was not a good location for a cul-de-sac due to topography and sewer pumping issues. A significant portion wasn't on the subject property's boundary and they would be creating a stub to a cul-de-sac and he did not see value in that for the City or developer. That was why they did not recommend it as a condition of approval.

Commissioner Mills wanted to make sure they did not preclude development of the land for residential use in the future. Mr. Forsell said the current trajectory of the roads in this area was to intersect at that tax lot which would provide access to the property. The current owners of the property did not want to annex and develop at this time, but there would be access to allow future residential development.

Chair Savory was also concerned about parking. He did not think there would be adequate parking for the development.

Commissioner Mills thought it was an unrealistic expectation that there would be enough parking. He supported encouraging solar easements and installation of rear access on alleyways for six or more units. Mr. Forsell said if Canby Fire was comfortable with the drive aisles as they were, an alleyway would not be required.

Applicant: Rick Givens, representing the applicant, said this was a mixed use development for 12 single family detached new lots on the north side of the property, 31 single family attached lots on the south side of the property, and one lot for the existing residence that would be retained. The turnarounds were per Fire District standards. The no parking on the street was a new requirement from the Fire District. He thought they would be able to meet the standard in the code for two parking spaces per unit by providing parking in garages and on driveways. Regarding access to lot 100, he explained the grading and fill that would be required for the sanitary sewer lines. It would take access from N Sycamore. Regarding solar easements, all of the townhouse units were oriented east/west and there was no potential for solar access. Lots one through nine were oriented north/south and the street would provide adequate protection of the solar access to those lots and there would be no reason for an easement. Regarding rear access onto an alleyway, the building length was 120 feet and firehoses required 150 feet. The Fire District did not require rear access and it would take away the privacy of the lots. Regarding the conditions of approval, he did not think a condition was needed for solar easements or future extension of streets for the cul-de-sac. There was a shadow plat from Redwood Landing Phase 2 that showed how Lot 100 could be developed. For Condition #18 regarding the temporary fire truck turnaround, this project would be developed after or at the same time as Redwood Landing Phase 2 and there would be a fire truck turnaround at the north end of Sycamore.

Questions: Commissioner Mills asked if they were going to provide a turnaround on the easternmost driveway for fire equipment. Mr. Givens said yes, however if the Fire District wanted something different, they would work with them in the final design.

Commissioner Mills thought solar easements were needed, but they were not possible for the R-2 development. Mr. Givens did not think they were needed for any of the site because all of the lots oriented for solar access had enough separation with the setbacks between the buildings and an easement was not necessary. It was not possible to make the R-2 solar access homes.

Mr. Forsell clarified he just learned today that the solar easement requirements had been removed from the design standards.

Proponents: None

Opponents: None

Neutral: None

Chair Savory closed the public hearing.

There was discussion regarding the conditions that should be removed.

Motion: A motion was made by Commissioner Boatright and seconded by Commissioner Trundy to approve SUB 20-04 Redwood Landing Phase III Subdivision with the conditions as written except for striking Condition 1 regarding solar easements and future extension. Motion approved 5/0.

FINAL DECISIONS

a. SUB 20-04 Redwood Landing III

Motion: A motion was made by Commissioner Mills and seconded by Commissioner Boatright to approve the Final Findings for SUB 20-04 Redwood Landing Phase III Subdivision with conditions except for striking Condition 1. Motion approved 5/0.

ITEMS OF INTEREST FROM STAFF

a. Laney Fouse Lawrence, Recording Secretary, wished Senior Planner Ryan Potter a happy birthday.
b. Next Planning Commission meeting scheduled for Monday, February 22, 2021

ITEMS OF INTEREST/GUIDANCE FROM PLANNING COMMISSION - None

ADJOURNMENT

Motion: A motion was made by Commissioner Trundy and seconded by Commissioner Boatright to adjourn the meeting. Motion approved 5/0.

Meeting was adjourned at 8:26 PM.

City of Canby

Staff Report
File #: DR 20-06 / CUP 20-04
Canby Fire Emergency Medical Station

HEARING DATE:	March 8, 2021
STAFF REPORT DATE:	February 26, 2021
TO:	Planning Commission
STAFF:	Ryan Potter, AICP, Senior Planner

Applicant Request

The applicant, Canby Fire, requests Planning Commission approval to construct an emergency fire and medical station at 1460 NE Territorial Road (subject property) on a 1-acre site (project site) adjacent to the City of Canby's Public Works shops complex. Canby Fire has signed a 50-year lease of the project site for operation of the proposed station, which would allow the agency to better serve the north side of Canby with emergency services. Approval of the proposed project includes applications for Site and Design Review (City File DR 20-06) and a Conditional Use Permit (City File CUP 20-04).

Staff Recommendation

Based on the applications submitted and the facts, findings, and conclusions of this report, staff recommends **Approval** of DR 20-06 and CUP 20-04 pursuant to the Conditions of Approval identified in Section V of this Staff Report.

Vicinity Map

Property/Owner Information

Location:	1460 NE Territorial Road
Tax Lots:	31E27 00600
Property Size:	25-acre subject property; 1-acre lease area
Comprehensive Plan:	Parks; P – Public
Current Zoning:	R-1 – Low Density Residential
Owner:	City of Canby
Applicant:	Canby Fire
Application Types:	Site and Design Review (DR), Conditional Use Permit (CUP)
City File Numbers:	DR 20-06; CUP 20-04

Attachments

A. Land Use Applications
B. Application Narrative and Criteria Responses
C. Site Plan Exhibits
D. Public and Agency Comments

Existing Conditions

The 25-acre subject property is a City-owned parcel that primarily consists of the heavily-forested Eco Park. The City of Canby Public Works shops complex and office is located at the rear of the property and is accessed by a long driveway that connects it to NE Territorial Road to the south. The shops complex includes four buildings, paved outdoor storage areas, and parking areas that are partially paved and partially gravel; this area is largely devoid of vegetation. The remainder of the subject property is heavily forested and, west of the Public Works access driveway, features recreational trails. The property is zoned R-1, Low Density Residential and in the City of Canby Comprehensive Plan is split between the plan's Parks and P – Public Uses designations.

The subject property surrounds a second parcel (Tax Lot 31E27 00602) that is also a heavily forested portion of Eco Park and is also zoned R-1, Low Density Residential. The subject property is surrounded by agricultural fields to the east (which are located in the unincorporated County), NE Territorial Road to the south, the Molalla Forest Road/logging road trail to the west, and the City of Canby Wastewater Treatment Plant to the north. Across NE Territorial Road from Eco Park is a mixture of residential uses.

The project site is a 1-acre portion of the larger subject property leased from the City by Canby Fire. It is located between the Public Works driveway to the west and the eastern property boundary, directly south of the Public Works shops complex. The site is undeveloped and contains 43 existing trees, a majority of which are Douglas firs.[1] An electrical junction box and bollard are located in the northwest corner of the site and an existing pedestrian trail traverses the site.

[1] The Existing Conditions and Demolition Plan submitted by the applicant identifies 45 trees but two of these are not technically in the leasing area.

Project Overview

The proposed project is an emergency fire and medical station designed to provide more convenient and timely emergency response to the north side of the community by Canby Fire. This is in part a response to the frequency of trains on the Union Pacific Railroad that bisects the City and at times limits movement of emergency response vehicles. The proposed station would be a 3,600-square-foot building that would house a medic and fire engine. As described in the applicant submittal, the station would be staffed 24 hours a day, 365 days a year with 2 firefighters and 3 intern student firefighters.

In addition to the building, the station would include a concrete driveway perpendicular to the Public Works driveway, four parking spaces in front of the station (including one ADA parking space), a concrete pad behind the building, a gravel driveway that crosses the project site diagonally to provide access to the rear concrete pad, and a new pedestrian path across the site. Primary access to the building would be from the existing Public Works driveway.

Analysis and Findings

I. Applicable Criteria

Applicable criteria used in evaluating this application are listed in the following sections of the City of Canby's Land Development and Planning Ordinance:

- 16.08 General Provisions
- 16.10 Off-street Parking and Loading
- 16.16 R-1 Low Density Residential Zone
- 16.42 Signs
- 16.43 Outdoor Lighting Standards
- 16.46 Access Limitations on Project Density
- 16.49 Site and Design Review
- 16.50 Conditional Uses
- 16.88 General Standards and Procedures
- 16.89 Application and Review Procedures
- 16.120 Parks, Open Space, and Recreation Land – General Provisions

II. Facts and Findings

The following analysis evaluates the proposed project's conformance with applicable approval criteria and other municipal code sections, as listed above in Section I. Sections of the Canby Municipal Code (CMC) are analyzed in the order that they appear in the code.

Section 16.08.070: *Illegally Created Lots*

As discussed in this section of the CMC, in no case shall a lot 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**.**

Finding 1: The application materials submitted for the proposed project do not include "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 lots of record are located" as identified on Page 2 of the Site and

Design Review application. Therefore, these materials must be submitted to the City in order for development on the subject property to occur.

Prior to site plan approval, the City will require documentation that verifies that the subject property is comprised of legally created lots eligible for development. A condition of approval memorializing this requirement is identified in Section V of this Staff Report.

For the above reason, Planning Staff finds this request, as conditioned, is consistent with applicable provisions of the CMC.

Section 16.08.150: *Traffic Impact Study*

This section of the CMC outlines requirements for studying the transportation impacts of a proposed project.

Finding 2: At the pre-application conference held for the proposed project on October 29, 2020, City staff determined that a Transportation Impact Analysis (TIA)[2] was not required. This decision was based on the information provided by the project applicant and the factors identified in Subsection 16.08.150 (C). Specifically, there would be: 1) no proposed changed in land use designation or zoning; 2) negligible overall generation of new vehicle trips; 3) an accordingly negligible impact to level of service (LOS) on surrounding streets; and 4) minimal potential impacts to residential areas or local streets as emergency response trips already occur in the area as necessary. Furthermore, the subject property and its private access drive already accommodate regular use by heavy vehicles, including trucks operated by Canby Public Works and Canby Utility. The vehicle trips generated by the proposed project are not anticipated to trigger unacceptable levels of service or volume/capacity ratios at nearby intersections.

For the above reasons, Planning Staff finds this request is consistent with applicable provisions of the CMC.

Section 16.08.160: *Safety and Functionality Standards*

The City will not issue any development permits unless the proposed development complies with the City's basic transportation safety and functionality standards, the purpose of which is to ensure that development does not occur in areas where the surrounding public facilities are inadequate. At the time of development permit application submittal, the applicant shall demonstrate that the property has or will have the following:

A. Adequate street drainage;

B. Provides safe access an clear vision at intersections;

C. Public utilities are available and adequate to serve the project;

D. Access onto a public street with the minimum paved widths as stated in Subsection E below.

E. Adequate frontage improvements as follows:

   a. For local streets and neighborhood connectors, a minimum paved width of 16 feet along the site's frontage.

[2] Alternatively called a Traffic Impact Study (TIS).

b. For collector and arterial streets, a minimum paved width of 20 feet along the site's frontage.

c. For all streets, a minimum horizontal right-of-way clearance of 20 feet along the site's frontage.

F. Compliance with mobility standards identified in the Transportation System Plan (TSP). If a mobility deficiency already exists, the development shall not create further deficiencies. (Ord 1340, 2011)

Finding 3: The adequacy of public utilities and public improvements to serve the proposed project was discussed at the pre-application conference held on October 29, 2020. Electrical, water, and sanitary sewer service currently serve the adjacent Public Works shops complex and can be extended to serve the project site. As noted in comments submitted by the City's Consulting Engineer, sanitary sewer service will need to connect to the existing lateral located north of the project site and water service would need to extend south of the building and constructed outside the paved parking surface. See Section V of this Staff Report for related conditions of approval.

Unlike most design review projects, the proposed project would be located a substantial distance from the nearest public right-of-way, in this case NE Territorial Road. Furthermore, the subject property is already served by a driveway with access to that street. Therefore, no frontage improvements are required and no improvements are needed to create consistency with the City's Transportation System Plan (TSP). As discussed above under the response to Subsection 16.08.150, traffic generated by the proposed project would be negligible and would not "create further deficiencies" where existing deficiencies exist.

For the above reasons, Planning Staff finds this request, as conditioned, is consistent with applicable provisions of the CMC.

Chapter 16.10: *Off-Street Parking and Loading*

This chapter of the CMC identifies requirements for vehicular parking, bicycle parking, and loading facilities when new development occurs.

Finding 4: Chapter 16.10 does not identify a parking standard for the exact type of land use proposed. The closest category is "government offices," for which there is requirement of 3.5 off-street parking spaces per 1,000 gross square feet of floor area. The four parking spaces proposed for the front of the proposed station would satisfy this requirement. Space for approximately four additional parking spaces would be located at the rear of the facility.

As with vehicular parking, there is no bicycle parking standard for the exact type of land use proposed. However, due to the limited number of staffing proposed for the station and its presumed general lack of visitors, Planning Staff conclude that the single bicycle rack accommodating two bicycles proposed for the project is sufficient to meet the need generated by the project.

For the above reasons, Planning Staff finds this request is consistent with applicable provisions of the CMC.

Chapter 16.16: *R-1 Low Density Residential Zone*

Lists of allowable uses and development standards for those uses are generally found in the respective chapters for each zone. The project site is zoned R-1, Low Density Residential.

Finding 5: Uses permitted outright in the R-1 zone are generally residential uses. "Minor Public Facilities" are allowed outright, but these are narrowly defined in Chapter 16.04, *Definitions*, to include improvements such as utility lines, storm drainage structures, sidewalks, or traffic control devices. Accordingly, Planning Staff considers the proposed fire and medical emergency station a "major" public facility, which is a conditional use in the R-1 Zone, per Subsection 16.16.020. The project applicant has included a Conditional Use Permit (CUP) application in their submittal.

Because the proposed project is nonresidential, many of the development standards in Chapter 16.16 do not apply. There are no proposed lots for homes, which would usually be analyzed for lot areas dimensions and street frontages. Setbacks still apply, but the proposed building has a "front" yard that is over the 20 feet minimum depth and the building is over 15 feet from the "rear" property line to the east. Consistent with Chapter 16.16, the proposed building height is well below 35 feet and the amount of impervious surface proposed for the project site/lease area is well below the maximum of 60 percent coverage.

For the above reasons, Planning Staff finds this request is consistent with applicable provisions of the CMC. For additional analysis of this "conditional" use, see analysis under Chapter 16.50, below.

Chapter 16.42: *Signs*

Finding 6: No signs are proposed at this time and approval of the proposed land use does not extend to future signage. Chapter 16.42, *Signage*, of the Municipal Code identifies requirements that will apply to signs proposed for the project at a future date.

For the above reasons, Planning Staff finds this request, as conditioned, is consistent with applicable provisions of the CMC.

Chapter 16.43: *Outdoor Lighting Standards*

The purpose of this chapter of the CMC is to provide regulations for outdoor lighting that will minimize glare and light trespass, among other goals. The code identifies requirements related to the placement, shielding, height, and intensity of light of outdoor light fixtures.

Finding 7: Because of the subject property's context, it is in Lighting Zone 1, as defined by Chapter 16.43. The setting is a relatively sensitive one due to the undeveloped nature of the surrounding properties, which include Eco Park and Willamette Wayside open space.

The application submittal does not identify the number, location, or design of proposed outdoor light fixtures. While the proposed facility is not expected to generate a substantial amount of light or glare, submission of a lighting plan consistent with Section 16.43.110 of the Municipal Code will be required prior to site plan approval. Section V of this Staff Report includes a condition of approval requiring that the lighting plan demonstrate how proposed light fixtures and luminaires meet the requirements (e.g., shielding) of this section.

For the above reasons, Planning Staff finds this request, as conditioned, is consistent with applicable provisions of the CMC.

Chapter 16.46: *Access Limitations on Project Density*

This chapter addresses the number of street access points required compared to the level of development proposed, along with minimum dimensions of private drives.

Finding 8: The proposed project would not require new streets or access points on existing streets or highways. Therefore, most of the provisions of this chapter do not apply. While the existing private driveway would be shared with Public Works, the leased project site is on the same parcel as the Public Works shops complex and no access or driveway easement is required. Subsection 16.46.040 of the Municipal Code addresses the spacing of accesses onto public streets. As no new streets or driveways onto public streets would be constructed, no spacing requirements apply.

For the above reasons, Planning Staff finds this request is consistent with applicable provisions of the CMC.

Chapter 16.49: *Site and Design Review Criteria*

Section 16.49 of the Zoning Code provides review criteria to be used in the design review process:

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 Low Impact Development (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 stormwater 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.

6. Street lights installation may be required on any public street or roadway as part of the Design Review Application.

Finding 9: Planning Staff finds that the proposed project, including its site plan, architecture, and landscaping, is generally compatible with the surrounding context of the project site, which is located next to other utilitarian public facilities (i.e., the Public Works yard and Wastewater Treatment Plan) and substantially distant from the public realm (i.e., NE Territorial Road and the Molalla Forest Road/logging road trail). Minor views of the facility would be visible from NE Territorial Road. However, as noted in the application submittal, the station is proposed to be painted in earth tone colors to complement nearby natural areas.

Specific subsections of Section 16.49 are analyzed below:

- **LID Best Management Practices.** To the extent feasible, the proposed project incorporates the LID best management practices listed above. These include retaining native vegetation (including approximately 26 existing trees), minimizing impervious surfaces (by placing the building at the edge of the project site), and including stormwater infiltration chambers.
- **Site Design Review Matrix.** The site and design review matrix provided in Subsection 16.49.040 applies to the proposed project. Planning Staff estimates that the project achieves 29 points out of 48 applicable points, which meets the minimum required score of 60 percent. Note that many of the criteria in this table do not apply to the project (e.g., no signs are planned at this time, below grade or structured parking is not possible, and no parking landscaping is required due to the lack of a "lot" with required separations between parking bays). Points for these criteria were discounted from the total number of applicable points.
- **Bicycle and Pedestrian Facilities.** The submitted materials generally demonstrate compliance with standards related to pedestrian facilities. Canby Fire intends to replace the natural trail that traverses the project site. As discussed above, the proposed project includes a bicycle rack as required.
- **Landscaping.** The Landscape Plan submitted by the project applicant[3] shows a landscape concept where most of the 1-acre project site would be left undeveloped and existing trees would be retained. The proposed station would be located at the northern end of the project site closest to the Public Works shops complex and landscaping around the building would consist of trees, shrubs, and ground-cover. The requirements for parking lot landscaping do not apply because the parking area is small (4 spaces) and does not require landscaped areas between bays of parking.

  The proposed project is consistent with the intent of Subsection 16.49.070 because it retains and protects existing trees. These trees would buffer the visual effect of the proposed building and would help it blend into its forested context. As the project site is zoned for residential uses, landscaping is required to be a minimum of 30 percent of the total land area to be developed, per Subsection 16.49.070. As shown on Page 4 of the submitted site and design review application, the percentage of the project site that would be landscaped or left

[3] This exhibit was submitted as a full-size, partially hand-drawn plan and is not available digitally.

close to its natural state is well over double this requirement. Although Canby Fire intends to clear much of the understory in the undeveloped area, this is for fire prevention purposes.

- **Revegetation in Unlandscaped Areas.** Subsection 16.49.130 aims to address erosion control issues when areas not planned for landscaping are intended to allow native plants to re-establish themselves. The southern two-thirds of the project site is not proposed for built elements or landscaping. As shown on the applicant's exhibits, this area is proposed to retain its existing trees and a perimeter sediment fence is proposed for the ground-disturbance phase of the project (see Erosion and Sediment Control Plan).

  The proposed project has been designed to limit removal of existing vegetation and therefore prevents the need to fully replant the southern two-thirds of the project site. Closer to the proposed station, ground cover plants are planned and these would reduce opportunities for erosion of disturbed soil. As outlined in Subsection 16.49.130, plant materials are required to be watered at intervals sufficient to assure survival and growth for a minimum of two growing seasons.

For the above reasons, Planning Staff finds this request, as conditioned, is consistent with applicable provisions of the CMC to the extent feasible.

Chapter 16.50: Conditional Uses

This chapter provides the following criteria for Planning Commission to consider when judging whether or not a CUP shall be approved:

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.

Finding 10: As discussed above under the response for Chapter 16.16, major public facilities, as defined by the CMC, are conditional uses in the R-1 zone. Therefore, Chapter 16.50 applies.

However, despite being proposed for a site zoned R-1, the larger subject property and the parcels to the north (Wastewater Treatment Plan) and west (Willamette Valley Country Club) are not developed with residential uses or expected to be converted to such in the mid-term future. The nearest residential uses are approximately 750 feet to the southwest (Manor on the Green, on the opposite side of Eco Park) and approximately 1,000 feet to the south (Redwood Terrace Apartments). Therefore, the proposed fire and medical station is not out of character with its immediate surroundings. Furthermore, in response to its natural context, Canby Fire has designed the proposed project to preserve many of the existing trees on the project site and to minimize built elements on the site.

The proposed project's consistency with the CMC is analyzed throughout this Staff Report. Staff considers the proposed project generally suitable for the subject property because it serves as an extension of the existing public uses on the property. For this reason, the characteristics of the site are suitable for the proposed use. Furthermore, all required public facilities and services exist to adequately meet the needs of the proposed project, as discussed by service providers in the pre-application conference held for the project. Lastly, the proposed use would not substantially limit or preclude the use of surrounding properties.

For the above reasons, Planning Staff finds this request is consistent with applicable provisions of the CMC to the extent feasible and no CUP-related conditions of approval are required.

Chapter 16.120: *Parks, Open Space, and Recreational Land*

Finding 11: This section of the CMC requires dedication of parkland or payment of system development charges (SDCs) to compensate for the increased demand for recreational amenities generated by new land uses. However, as described in the code, parkland dedication is only required for "new residential, commercial, and industrial" development. Therefore, no dedication of parkland or payment of Parks SDCs is required.

However, it should be noted that the project site is generally considered a peripheral component of an existing park (Eco Park) and development of the proposed project would result in a minor permanent reduction in the park's acreage available for recreational use.

For the above reasons, Planning Staff finds that this criterion is not applicable to the proposed project.

III. Public and Agency Comments

Notice of this application and the opportunity to provide comment was forwarded to property owners and residents within a 500-foot radius and to applicable public agencies. At the time of this writing, one public comment and one agency comment were received, as summarized below.

A. Public Comments

- **Gregory Straub.** The commenter requested clarification on the location of the proposed project.

B. Agency and Service Provider Comments

- **Hassan Ibrahim, PE, Curran-McLeod, Inc.** The City's Consulting Engineer provided comments regarding utility connections, drainage analysis, and the design of driving surfaces.

IV. Conclusion

Staff has reviewed the applicant's narrative and submitted application materials and finds that the applications listed above conform to the applicable review criteria and standards, subject to the conditions of approval noted in Section V of this Staff Report. Planning Staff recommends that the Planning Commission **Approve** design review application DR 20-06 and the related conditional use permit CUP 20-04 subject to the identified conditions of approval.

Note that Planning Commission's approval of the proposed project converts property designated by the adopted City of Canby Comprehensive Plan for "parks" into a non-park use.

V. Conditions of Approval

Public and Utility Improvements:

1. The concrete approach slab shall be two (2) inches above the existing asphalt in anticipation of the future overlay. In the meantime, the existing asphalt concrete shall be feathered in to meet the slab grades. (H. Ibrahim)

2. Sanitary sewer service shall connect to the existing lateral located north of the project site's property line/lease boundary. (H. Ibrahim)

3. Water service shall be extended south of the building to the satisfaction of the City Engineer and constructed outside the paved parking surface. Water services shall be constructed in conformance with Canby Utility requirements. (H. Ibrahim)

4. Public improvements shall comply with all applicable City of Canby Public Works Design Standards. (R. Potter)

5. All private storm drainage shall be disposed of onsite. A final drainage report shall be submitted with the final construction plans.

The applicant shall 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, they must meet the following criteria:

a. The UIC structures' location shall meet at least of the two conditions:

i. The vertical separation distance between the UIC and seasonal high groundwater is more than 2.5 feet, or

ii. The horizontal separation distance between the UIC and any water well is a minimum of 267 feet in accordance with the City of Canby Stormwater Master Plan, Appendix "C", *Groundwater Protectiveness Demonstration and Risk Prioritization for Underground Injection Control Devices*.

The storm water drainage report and design methodology shall be in conformance with the requirements as stated in Chapter 4 of the City of Canby Public Works Design Standards dated December 2019. (H. Ibrahim)

Project Design/Site Plan Approval:

6. The applicant shall work with Canby Utility and the Canby Public Works Department in order to provide the appropriate connections to all required utilities prior to site plan approval. (R. Potter)

7. Per Subsection 16.08.070 of the CMC, in no case shall a lot 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. The project applicant shall submit "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 lots of record are located" prior to the City's approval of the site plan. (R. Potter)

8. Prior to site plan approval, a lighting plan shall be submitted to the City consistent with Chapter 16.43, *Outdoor Lighting Standards*, of the Municipal Code. This shall include exhibits demonstrating that the proposed light fixtures would be shielded and that light generated would not exceed the maximum lumens identified in Table 16.43.070 of the Canby Municipal Code. (R. Potter)

9. The developer/builder of the proposed buildings shall consult with Canby Disposal regarding final architectural plans and design considerations for solid waste pickup. (Canby Disposal)

Building Permits:

10. An erosion control and a grading permit will be required from the City of Canby prior to any on-site disturbance. (R. Potter)

11. The project applicant shall apply for a City of Canby Site Plan Permit, Clackamas County Building permits, and a City of Canby Erosion Control Permit prior to project construction. (R. Potter)

12. Clackamas County Building Services will provide structural, electrical, plumbing, and mechanical plan review and inspection services. (R. Potter)

13. The applicant shall submit sign applications to the City for any future signs. Proposed signs shall conform to provisions of Chapter 16.42 of the CMC and shall secure a building permit from Clackamas County Building Services prior to their installation if applicable. (R. Potter)

Prior to Occupancy:

14. Prior to occupancy of the station, all landscaping plant material indicated on the submitted landscape plan shall either be installed and irrigated as proposed, or sufficient security (bonding, escrow, etc.) shall be provided pursuant to the provisions of CMC 16.49.100 (B). (R. Potter)

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

RECEIVED
By Canby Planning Brianna Addotta at 9:05 am, Nov 10, 2020

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

☐ Applicant Name: Canby fire District Phone: 5032668551
Address: 221 s Pine Email: tgary@canbyfire.org
City/State: Canby Or Zip: 97013

☐ Representative Name: Todd Gary Phone: 5039697459
Address: 221 S Pine Email: tgary@canbyfire.org
City/State: Canby Or Zip: 97013

☐ Property Owner Name: Jim Davis Phone: 5032665851
Signature:
Address: 221 S Pine Email: jdavis@canbyfire.org
City/State: Canby Or Zip: 97013

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

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

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

PROPERTY & PROJECT INFORMATION:

1460 NE territorial	1 acre	31E27 00600
Street Address or Location of Subject Property	Total Size of Property	Assessor Tax Lot Numbers
None	R-1	Public
Existing Use, Structures, Other Improvements on Site	Zoning	Comp Plan Designation

Northside Canby Fire Emergency Medical Station
Describe the Proposed Development or Use of Subject Property

STAFF USE ONLY				
DR 20-06/CUP 20-04	11-10-20	ba		
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 Check	City 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: _____ _____ _____ _____
☐	☐	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 Check	City 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	3600	***- Square footage of building footprints***
2. Parking/hardscape	3600	***- Square footage of all sidewalks, parking, & maneuvering areas***
3. Landscaped area	36360	***- Square footage of all landscaped areas***
4. Total developed area	7200	***- 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	43560	***- Total square footage of site***

Required Site Landscaping (Code 16.49.080)

7. Percent of landscaping required in Zoning District	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	2160	***- Multiply line 4 and line 7***
9. Proposed square footage of landscaping	36360	***- Fill in value from line 3***

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

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

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

Parking Lot Tree Calculation

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

SITE AND DESIGN REVIEW APPLICATION: DESIGN REVIEW MATRIX

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

Table 16.49.040 Site Design Review Menu

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

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

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

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

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

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

Narrative

Canby Fire Districts is proposing to build a Northside Fire/Emergency medical station to serve the north side of Canby if we are separated by a train. This proposed to be a 60'x60' 3600sqft building that would house a Medic and a Fire Engine. The station will be staffed 24hrs a day 365 days a year 2 firefighters and 3 intern students firefighters.

The station will be earth tone colors to complement the natural areas. We also want to keep the landscape natural like the adjacent eco parks. There is currently a walking path that crosses the property the community has used the this path to access the fields next to the city shops complex. We would like to continue that access by constructing a new path as part of the landscape.

The design criteria found in Chapter 16.49 Site and Design Review.

16.29.065 I don't think walkways will be required due to location of property but we will be providing a natural walking path across the property to the field.

Chapter 16.10 Parking applicable criteria.

16.49.150 All the parking areas are shown on plans. 4 spaces in the front and 4 spaces in rear

16.10.10 off street parking is provided the 4 front spots will be for the public the 4 rear spots will be for the employees. The property adjoining is the city shop complex they have a large parking area that can be used if more parking is ever needed.

16.10.100 Bicycle rack is shown on plans at the SW corner of the building

Chapter 16.50 Conditional Use Criteria.

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;

The comprehensive plan shows this property as public. The zoning is R-1 a minor public facility is allowed in a R-1 this project is considered a major so the conditional use requirement. The property is next to City Shop Complex and Wastewater Treatment Facility. The project will not take away from residential housing areas.

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 site is 1 Acre that is being leased from the City Of Canby it is long and narrow, relatively flat with several mature fir trees. The site was chosen do to it location it is close to densely populated areas of the northside and also on Territorial rd. that is a major east to west road. The station will be off the road and not immediately next to any residential areas that could generate noise issues

C. All required public facilities and services exist to adequately meet the needs of the proposed development;

All utilities are nearby and available. Most utilities we be coming from the city shop complex area we will not have to do any street cuts

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)

The location of the building will be closest to the City Shop complex. I understand there are future plans for a additional water treatment plant that will be located across the driveway for the Station site. Canby Fire will maintain the site to complement the echo park keeping natural futures as major part of the landscape

ZTec Engineers, Inc.

Civil ♦ Structural ♦ Surveying

John McL. Middleton, P.E. Chris C. Fischborn, P.L.S. Ronald b. Sellards, P.E.

3880 SE 8th Ave., Suite 280
Portland, OR 97202
503-235-8795
FAX: 503-233-7889
Email: chris@ztecengineers.com

CITY OF CANBY FIRE DEPT. LEASE PARCEL

A Parcel of land being a portion of that tract of land described in that deed recorded as Document No. 76-14257, Clackamas County Deed Records, located in the Northwest one-quarter of Section 27, Township 3 South, Range 1 East, of the Willamette Meridian, in the City of Canby, Clackamas County, Oregon. Said Parcel of land being more particularly described as follows:

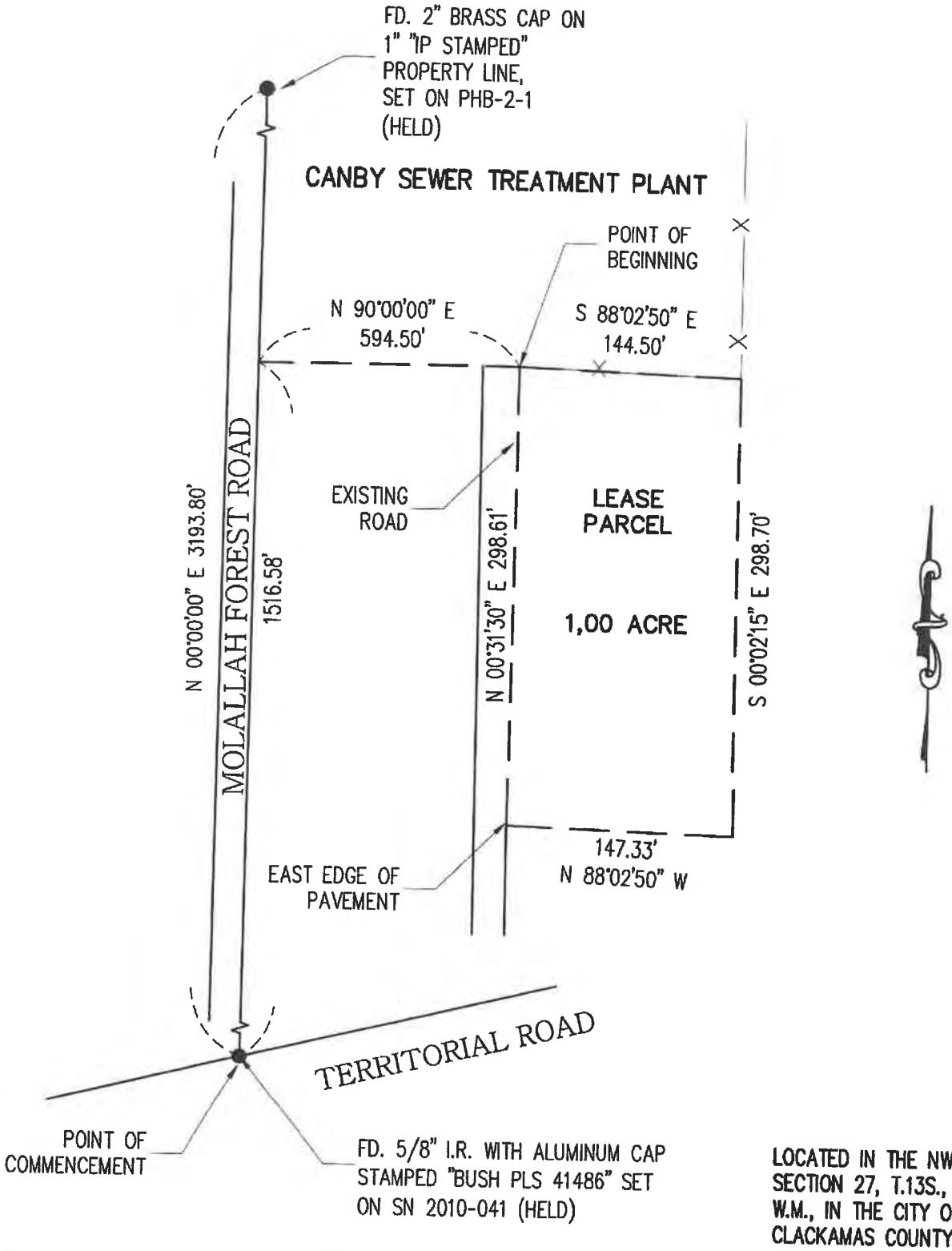
Commencing at a 5/8 inch iron rod with an aluminum cap stamped "BUSH PLS 41486" at the intersection of the Northerly right-of-way line of Territorial Rd. with the East right-of-way line of Mollala Forest Rd.; thence North 00°00'00" East, along said East right-of-way line, a distance of 1516.58 feet to a point; thence North 90°00'00" East a distance of 594.50 feet to a point on the East edge of the entrance road into the City of Canby sewer treatment plant, said point also being on the South fence line of said sewer treatment plant, said point also being the true point of beginning of the Lease Parcel herein described; thence South 88°02'50" East, along said South fence line, a distance of 144.50 feet to the Southeast corner of said fence line; thence South 00°02'15" East, on the Southerly extension of the East fence line of said sewer treatment plant, a distance of 298.70 feet to a point; thence North 88°02'50" West, parallel with said South fence line, a distance of 147.33 feet to said East edge of said sewer treatment plant entrance road; thence North 00°31'30' East, along said East edge of said road, a distance of 298.61 feet to the true point of beginning of the Lease Parcel herein described.

Said Lease Parcel of land covers an area of 1.00 acres, more or less.

REGISTERED PROFESSIONAL LAND SURVEYOR

OREGON
JULY 17, 1984
CHRIS FISCHBORN
1944

FIRE DEPARTMENT LEASE PARCEL



LOCATED IN THE NW 1/4
SECTION 27, T.13S., R.1E.,
W.M., IN THE CITY OF CANBY,
CLACKAMAS COUNTY, OREGON

TITLE: EXHIBIT DRAWNG	ZTec ENGINEERS, INC.
PLOT DATE: 8-7-19	3880 S.E. 8TH AVE., SUITE 280
FILE: 19-1202-14	PORTLAND, OREGON 97202
CLIENT: - SHEET: 1 OF 1	(503) 235-8795

Fire-Resistant Plants for Oregon Home Landscapes

Suggesting specific types of vegetation that may reduce your risk from wildfire.

Stephen Fitzgerald
Area Extension Forester and Associate Professor
Amy Jo Waldo
Area Extension Horticulture Agent and Assistant Professor

OSU Extension Service
1421 S. Hwy 97, Redmond, OR 97756

Introduction

Oregon has many wildfire prone areas.
In these places, fires are a natural part of the changing landscape. As homes are built in these areas, special precautions must be taken by the homeowner to protect their property. Installation of fire-resistive roofing is critical to preventing firebrands from igniting the home from a roof fire. Well maintained fire-resistant vegetation and irrigated landscape is also critical within close proximity of a home. These actions DO NOT insure that your home will survive a wildfire, but they provide for a good chance of structural survival. Implementation of FireFree *[www.firefree.org]* and FireWise *[www.firewise.org]* activities can also significantly improve chances of a home surviving a wildfire.

Fire-resistant vegetation.
When landscaping around a home, most homeowners are interested in creating a landscape that is aesthetically pleasing, compliments their home, and has variations in color, texture, flowers, and foliage. If your home is located in or adjacent to forests or rangeland, you should also consider the flammability of plants within your home landscape.

Flammable plant material in your landscape can increase the fire-risk around your home. The 1991 Oakland Hills Fire in California is a prime example of how flammable plant material (Eucalyptus trees) can act as fuel and contribute to the intensity of a wildfire. Over 3,000 homes were destroyed in that devastating wildfire.

Taking action.

Homeowners should take active steps to minimize or reduce the fuel and fire-hazard around their homes, *including* planting fire-resistant plants. Good placement and on-going maintenance of fire-resistant trees, for example, can, in fact, help protect your home by blocking intense heat. [See Figure 1, next page]

Making choices.

There is a wide array of trees and other plants to choose for your landscape that are both attractive and fire-resistant. This publication provides a diverse list of plant material divided into perennials, groundcovers, trees, and shrubs.

Annuals.

Annuals can be part of a fire-resistant landscape if well watered and well maintained. We have not listed each of these due to the large number of annuals available to the homeowner.

Turf.

A well maintained lawn can be included in a fire-resistant landscape and serves well as an effective fuel break (See photo). For more information on lawn care and maintenance, check out available publications from your local OSU Extension Service.

A Caution About Bark Mulch.

Bark mulch is often used in home landscapes. However, fire brands from a wildfire and cigarettes can ignite dry bark mulch, conveying the fire to your home. If you landscape with bark mulch up against your home, make sure it remains moist to prevent ignition.

What are fire-resistant plants?

Fire-resistant plants are plants that don't readily ignite from a flame or other ignition sources. Although fire-resistant plants can be damaged or even killed by fire, their foliage and stems don't contribute significantly to the fuel and, therefore, the fire's intensity.

Fire Resistant does not mean fire proof.
Plants that are fire-resistant have the following characteristics:

- **Leaves are moist and supple.**
- **Plants have little dead wood and tend not to accumulate dry, dead material within the plant.**
- **Sap is water-like and does not have a strong odor.**

Most deciduous trees and shrubs are fire-resistant. However, *it's important to remember that even fire-resistant plants can burn*, particularly if they are not maintained in a healthy condition.

Figure 1

In contrast, plants that are **highly flammable** have these general characteristics:

- Contain fine, dry or dead material within the plant such as twigs, needles, and leaves.
- Leaves, twigs, and stems contain volatile waxes, terpenes, or oils.
- Leaves are aromatic (strong smell when crushed)
- Sap is gummy, resinous and has a strong odor.
- May have loose or papery bark.

Both ornamental and native plants can be highly flammable. An example of a highly flammable ornamental shrub often planted in home landscapes is ornamental juniper. Examples of highly flammable native shrubs include bitterbrush, manzanita, sagebrush, and ceanothus. ***Avoid planting these plants around your home.***

-Adapted from University of California Cooperative Extension Hortscript, 1996, No. 18.

Illustration by Robin Lee Gyorgyfalvy

How this list was developed

This list was developed by evaluating fire-resistant plant lists developed for other regions and screening the scientific literature on plant flammability. Included in this list are plants adapted to grow *in* Oregon in either irrigated or non-irrigated landscapes. However, most of the plants on this list require some level of irrigation to survive during the dry summer months, particularly in central and eastern Oregon.

The plants in this publication are adaptable in **all regions** of Oregon **unless otherwise marked** with an identifying orange symbol. Plants marked with these symbols are suitable only for the regions specified.

KEY:

C = Central Oregon
E = Eastern Oregon
S = Southern Oregon
W = Western Oregon

* Before deciding on which plants to purchase for your yard, please check with your homeowners association landscape review committee.

Groundcovers

Ajuga reptans
Carpet Bugleweed

Delosperma cooperi
Purple/Pink Iceplant

Arctostaphylos uva-ursi
Kinnikinnick

Duchesnea indica
Mock Strawberry

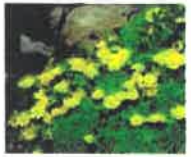
C
E
S

Ceanothus prostratus
Squaw Carpet

Echeveria species
Hens and Chicks

Cerastium tomentosum
Snow-in-Summer

Fragaria species
Wild Strawberry



Delosperma nubigenum
Yellow Iceplant

S
W

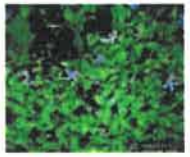
Pachysandra terminalis
Japanese Pachysandra

Groundcovers

Phlox subulata
Creeping Phlox

Thymus praecox
Creeping Thyme

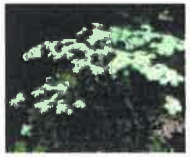
Sedum species
Sedum or Stonecrops



C
E

Vinca minor
Periwinkle

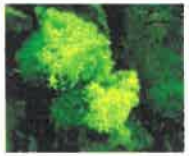
Perennials



Achillea species
Yarrow

Armeria maritima
Sea Thrift

Allium schoenoprasum
Chives



Aurinia saxatilis
Basket-of-Gold

C = Central Oregon E = Eastern Oregon

Perennials

Bergenia cordifolia
Heartleaf Bergenia

Helianthemum nummularium
Sun Rose

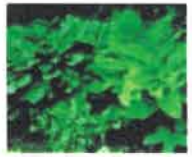
Carex species
Sedges

Hemorocallis hybrids
Daylilies

Coreopsis species
Coreopsis

Heuchera species
Coral Bells

Epilobium angustifolium
Fireweed



Hosta species
Hosta Lilies

Geranium species
Cranesbill

Iris species
Iris

S = Southern Oregon W = Western Oregon

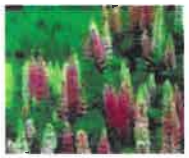
Perennials

Kniphofia uvuria
Red-hot Poker

Oenothera missouriensis
Evening Primrose
Ozark Sundrops

Linum perenne
Blue Flax

Penstemon species
Penstemon



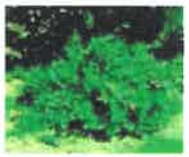
Lupinus species
Lupine

Stachys byzantina
Lamb's Ear

C = Central Oregon E = Eastern Oregon

Shrubs-broadleaf evergreen

Cotoneaster species
Cotoneaster



Mahonia repens
Creeping Holly

Daphne x burkwoodii var. 'Carol Mackie'
Carol Mackie Daphne

Pachystima myrsinites
Oregon Boxwood

S W

Gaultheria shallon
Salal

S W

Rhododendron macrophyllum
Pacific Rhododendron

Ligustrum species
Privet

S W

Rhododendron occidentale
Western Azalea

Mahonia aquifolium
Oregon Grapeholly

Yucca species
Yucca

S = Southern Oregon W = Western Oregon

Shrubs - deciduous

Acer circinatum
Vine Maple

Cornus stolonifera
Redosier Dogwood

Acer glabrum
Rocky Mountain Maple

Euonymus alatus
Burning Bush

Amelanchier alnifolia
Pacific Serviceberry

Holodiscus discolor
Oceanspray

C E

Buddleia davidii
Butterfly Bush

Philadelphus species
Mockorange

Caryopteris x clandonensis
Blue Mist Spirea

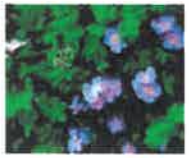
Rhus species
Sumac

C = Central Oregon E = Eastern Oregon

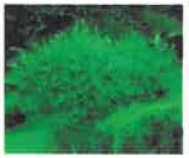
Shrubs - deciduous

Ribes species
Flowering Currant

Spiraea douglasii
Western Spirea



Rosa woodsii
Wood's Rose



Symphoricarpos albus
Snowberry

Spiraea x bumalda
'Goldflame'
Goldflame Spirea

Syringa species
Lilac

Trees - evergreen

C
E

Larix occidentalis
Western Larch

C
S

Pinus lambertiana
Sugar Pine [1]

S = Southern Oregon W = Western Oregon

Trees - evergreen

Pinus contorta
var. murrayana
Lodgepole Pine [1]

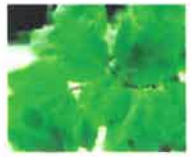
Pinus ponderosa
Ponderosa Pine

1. - Foliage is moderately resistant to fire.

Trees - deciduous

S
W

Acer macrophyllum
Bigleaf Maple



Acer rubrum
var. 'Sunset'
Sunset Maple

Acer platanoides
Norway Maple

Aesculus hippocastanum
Horsechestnut

S
W

Alnus rubra
Red Alder

Cercis canadensis
Eastern Redbud

C = Central Oregon E = Eastern Oregon

Trees - deciduous

C
E

Alnus tenuifolia
Mountain Alder

S
W

Cornus florida
Flowering Dogwood

Betula species
Birch

Fagus species
Beech

Catalpa speciosa
Western Catalpa

Fraxinus species
Ash

Celtis occidentalis
Common Hackberry

Gleditsia triacanthos
Honeylocust

Gymnocladus dioicus
Kentucky Coffee Tree

Prunus virginiana
Chokecherry

S = Southern Oregon W = Western Oregon

Trees - deciduous

Juglans species
Walnut

S
W

Quercus garryana
Oregon White Oak

S
W

Liquidambar styraciflua
American Sweetgum

Quercus palustris
Pin Oak

Malus species
Crabapple

Quercus rubra
Red Oak

Populus species
Aspen/Cottonwoods

Robinia pseudoacacia
Black Locust

Salix species
Willow

Sorbus aucuparia
European Mountain Ash

Notes

Plant descriptions and availability

For a detailed description of the plants on this list, consult local nurseries or refer to the Sunset Western Garden Book and the A-Z Encyclopedia of Garden Plants. These publications can be obtained at local bookstores or nurseries. If you are unable to find some of these plants locally, check out the Oregon Association of Nurserymen's website for plant availability at:

http://www.nurseryguide.com

Scroll down to "Search For..." and click on Plants by Name. Type in the name of the plant you're interested in and the search will give you a list of nurseries that carry the plant.

Help us identify other fire-resistant plants

If you know of other fire-resistant plants suitable for Oregon, let us know. We will research your plant and, if it fits the criteria, we will add it to the list.

Contact us at:
Stephen Fitzgerald
Phone:
(541) 548-6088, x16
Email:
Stephen.Fitzgerald@orst.edu

Amy Jo Waldo
Phone:
(541) 548-6088, x12
Email:
Amyjo.Waldo@orst.edu

Photo Acknowledgements

The photos in this publication have been gathered from a wide variety of sources. We would like to recognize the following groups and individuals for their helpful contributions.

ForestryImages.org

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California Academy of Sciences

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California Academy of Sciences

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California Academy of Sciences

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Paul Wray
Iowa State University

OREGON STATE UNIVERSITY
EXTENSION SERVICE

The Oregon State University Extension Service provides "research-based" information to Oregonians in the areas of Agriculture, Forestry, Family and Community Development, 4H and Youth Development, and Marine and Watershed Resources.

Additional Useful Websites:

www.firewise.org
www.firefree.org
www.odf.state.or.us
www.deschutesimpact.org

Emergency Medical Station 363

APPLICANT:

Canby Fire District

221 S PINE STREET
CANBY, OR 97013
(503) 266-5851
Todd Gary, Project Manager
Email: tgary@canbyfire.org

NOV., 2020

VICINITY MAP
N.T.S.

APPROVED FOR CONSTRUCTION BY:	*DATE:*	*WITH CHANGES NOTED:*
PUBLIC WORKS DEPT.		☐
CANBY EROSION CONTROL		☐
CANBY UTILITY-WATER		☐
CANBY UTILITY-ELECTRIC		☐
DIRECTLINK		☐
CANBY STORMWATER		☐
NW NATURAL GAS		☐
CANBY FIRE DIST.		☐
CITY ENGINEER		☐
PLANNING DEPT.		☐
WAVE BROADBAND		☐

INDEX

NOTICE TO EXCAVATORS:
ATTENTION: OREGON LAW REQUIRES YOU TO FOLLOW RULES ADOPTED BY THE OREGON UTILITY NOTIFICATION CENTER. THOSE RULES ARE SET FORTH IN OAR 952-001-0010 THROUGH OAR 952-001-0090. YOU MAY OBTAIN COPIES OF THE RULES BY CALLING THE CENTER. (NOTE: THE TELEPHONE NUMBER FOR THE OREGON UTILITY NOTIFICATION CENTER IS (503)-232-1987).

POTENTIAL UNDERGROUND FACILITY OWNERS

Dig Safely.

Call the Oregon One-Call Center
DIAL 811 or 1-800-332-2344

EMERGENCY TELEPHONE NUMBERS

NW NATURAL GAS	
M-F 7am-6pm	503-226-4211 Ext.4313
AFTER HOURS	503-226-4211
PGE	503-464-7777
QWEST	1-800-573-1311
CITY OF CANBY PUBLIC WORKS	503-266-0759
CANBY UTILITY WATER	971-563-6314
VERIZON	1-800-483-1000

MOST RECENT REVISION TO THIS SET OF PLANS:
11-2-2020

REGISTERED PROFESSIONAL ENGINEER #16,551 OREGON MAY 15, 1992 PATRICK A. SISUL

EXPIRES: 6/30/
DATED: _____

REVISIONS	BY

Emergency Medical Station 363
Canby Fire District

Cover

SISUL ENGINEERING
375 PORTLAND AVENUE
GLADSTONE, OREGON 97027
(503) 657-0188

DRAWING: Cover Sheet.dwg

DATE	NOV., 2020
SCALE	NA
DRAWN	PS
JOB	SGL19-049
SHEET	C0
OF	SHTS

CONDITIONS OF APPROVAL:

SPECIFICATIONS:

GENERAL:

1. Contractor shall obtain all required permits and licenses before starting construction.
2. It shall be the responsibility of the contractor to verify all utility locations prior to construction and arrange for the relocation of any in conflict with the proposed construction. existing utility locations shown are approximate only and additional utilities may exist.
3. Contractor shall remove and dispose of trees, stumps, brush, roots, topsoil, and other material onsite in the area of new construction.
4. Construction vehicles shall park on the construction site.
5. The contractor shall perform all work necessary to complete this project in accordance with the plans including such incidentals as may be necessary to meet applicable agency requirements and as necessary to provide a complete project.
6. The contractor shall keep an approved set of plans on the project site at all times.
7. Any alteration or variance from these plans, except minor field adjustments needed to meet existing field conditions, shall first be approved by the applicable agency representative.
8. Contractor shall provide the necessary erosion protection as required to meet the erosion control permit conditions.
9. Open trenches shall be limited to a maximum of 100 feet. no trenches will be allowed to remain open at night.
10. Contractor shall maintain access to City of Canby Shops Complex at all times.
11. Contractor shall demolish and dispose of or abandon all existing site features that are not to remain as part of this development.

Site Preparation Notes:

1. Site Preparation shall be completed in accordance with conclusions and recommendations contained in the May 8, 2020 Geotechnical Report prepared by Intertek PSI for Proposed Development of Redwood Site, 1460 Northeast Territorial Road, Canby, Oregon 97013. A summary of the requirements of the report are outlined below:
2. The ground surface within the area of proposed structures and driveways should be stripped to a depth of 4 to 8 inches to remove surface organics and the heavily rooted soil zone. Strippings will not be suitable for use as structural fill and should be disposed of offsite or in landscape areas. The final depth of soil removal will be determined on the basis of a site inspection after the stripping/excavation has been performed.
3. Construction during the wet season will require the use of working blankets or haul roads. Haul roads for trucks will require 24 inches of rock while haul roads for light construction activities will require 12 to 18 inches of rock. The top 4 inches of rock shall be ¾"-0 crushed aggregate, while the remainder shall be 4-inch-minus crushed rock. The aggregate shall be placed on a geotextile fabric as a separation layer to limit movement of fines into the crushed rock.
4. Due to inconsistent composition and high moisture content of the onsite soils, PSI recommends that native soils should not be used as structural fill underneath planned structures. However, the onsite soils may be used as general fill placement such as in landscaping areas that will not support structural additions or roadways.
5. PSI recommends that structural fill consist of imported structural fill, and should consist of pit-run or quarry-run rock, crushed rock, crushed gravel, or sand.
6. Conventional footings may be established on stiff native silt at a minimum depth of 2 ft. below the lowest adjacent finished grade. PSI recommends the use of a smooth-edged excavator to make the footing excavations.
7. PSI recommends the slab-on-grade be underlain by at least 8 inches of crushed rock, such as ¾"-0.
8. Prior to beginning site disturbing operations or grading, erosion and sediment controls shall be installed consistant with the approved erosion control plan. A Grading Permit is also required from Clackamas County Building Department.

Engineered Fill Notes:

1. All fill being placed for the proposed development should be performed as engineered fill in accordance with the applicable building code at time of construction and consistent with the recommendations of the project Geotechnical Engineer.
2. Proper test frequency and earthwork documentation typically requires daily observation and testing during stripping, rough grading, and placement of engineered fill.
3. Imported fill material must be approved by the Geotechnical Engineer prior to being imported to the site.
4. Engineered fill should be compacted in horizontal lifts not exceeding 8 inches using standard compacted equipment. Engineered fill shall be compacted to the density required by the Geotechnical Engineer.
5. All engineered fill should be observed and tested by the project Geotechnical Engineer or representative.
6. Site earthwork will be impacted by soil moisture and shallow groundwater conditions. Earthwork in wet weather would likely require special measures and considerable additional cost compared to earthwork performed under dry-weather conditions.

Private Paving, Curb & Sidewalk Notes:

1. All driveway, sidewalk, parking and access areas shall be prepared per the Site Preparation Notes.
2. All engineered fills shall be prepared in accordance with the Engineered Fill Notes.
3. Crushed base aggregate under pavement and sidewalks shall be imported free of organic matter, debris, or particles larger than 1½ inches, shall conform to ODOT base rock standards, and shall have less than 10% material (by weight) passing the U.S. Standard No. 200 Sieve. Aggregate base for paved areas should be compacted to a minimum of 95 percent of ASTM D-1557 (modified proctor). Crushed base aggregate thickness shall be per the typical roadway structural section.
4. Asphalt concrete pavement shall 1/2" Dense graded, Level 3 HMAC as per the ODOT Pavement Design Guide. The asphalt concrete pavement shall be thoroughly and uniformly compacted by rolling until it is compacted to at least 91% of the theoretical maximum density per ASTM D2041 (Rice Gravity), or to 98% of the maximum from an approved test strip. Asphalt pavement thickness shall be per the typical asphalt concrete paving section contained in this plan set. All final pavement grades shall be within +/- 0.1 inch of that specified.
5. Aggregate and asphalt pavement testing shall conform with the requirements of the Geotechnical Engineer.
6. Concrete curbs and sidewalks shall be constructed with concrete having a minimum compressive strength of 3,000 psi. Sidewalks in non-traffic areas shall be a minimum depth of 4" and placed on a minimum 4" crushed rock base. Crushed rock base for sidewalks shall be compacted to 95% maximum dry density or as approved by the Geotechnical Engineer. Sidewalks shall slope away from building and toward pavement at a maximum grade of 2% and a minimum grade of 1%.
7. Concrete curbs shall be Type 'C', having 6-inch exposure. Nominal maximum aggregate size shall be 1 1/2". Contraction joints shall be placed at 15 feet maximum on center. Concrete wheelstops shall conform with detail contained in this plan set. Curbs adjacent to sidewalks can be a monolithic pour.
8. Concrete driveway shall be constructed with concrete having a minimum thickness of 6 inches, a minimum compressive strength of 3,500 psi, and shall meet the requirements of Oregon Standard Specifications for Construction, Section 00440. Driveway shall have 6" x 6" x 10 gauge mesh embedded 1½" from the base of the of the concrete. Expansion joint material shall be pre-formed filler not less than ½" wide and meeting the requirements of Oregon Standard Specifications for Construction, Section 00759.
9. Accessible parking, loading, and access routs areas are to be constructed with cross slopes being less than 2% in any direction and shall be striped and signed in accordance with Oregon Transportation Commission Specifications.
10. Measurements shown for parking area are to the inside face of curb.

Trench Backfill Notes:

1. Trench bedding and pipe zone material shall consist of a clean crushed aggregate containing less than 5 percent fine materials passing the U.S. Standard No. 200 sieve. Bedding materials should be placed beneath pipes to ensure no point or concentrated loading occurs.
2. In structural areas, trench backfill above the pipe zone shall consist of a well graded, angular crushed aggregate containing less than 7 percent fine materials passing the No. 200 sieve. All granular trench backfill above the pipe zone and within structural areas shall be placed in lifts and compacted by mechanical means to a minimum 92 percent of the maximum dry density determined in accordance with ASTM D1557 (modified proctor). Trench backfill within structural areas will need to be tested by the Geotechnical Engineer.
3. Trench backfill above the pipe zone in non-structural areas can be native material compacted to 85% of the maximum dry density of the surrounding soil.
4. Construction of any hardscape, such as sidewalks or pavements, over a trenchline shall not occur until a minimum one week after backfilling.
5. Shoring of utility trenches will be required for depths greater than 4 feet or where groundwater seepage or sloughing occurs.

Private Storm Drain Notes:

1. Underground storm drain pipe located within 2 feet of the building shall be PVC DWV pipe or Schedule 40 ABS DWV pipe.
2. Building drain pipe located more than 2 feet from the building may be HDPE conforming to ASTM F2648, ribbed PVC pipe conforming to ASTM F794 or PVC pipe conforming to ASTM D-3034 SDR 35.
3. All pipe shall be bedded and backfilled in accordance with the Trench Backfill Notes, above.
4. Storm drain cleanout pipe, fittings and joints shall be the same specifications as for pipe. Cleanouts shall meet the requirements of Section 707 of the Oregon State Plumbing Specialty Code.
5. Perforated footing drain lines (if shown on the Architectural plans) shall be outfitted with an approved backwater valve.
6. Catch basins shall be prefabricated steel plate catch basins, not less than 10 gauge having welded seams with sleeves attached for connecting storm drain lines. Steel catch basins shall be asphalt coated inside & out and shall have a trap & siphon outlet.
7. Debris trap base, risers, and tops shall be precast concrete sections with a minimum compressive strength of 4000 psi.
8. Storm drain infiltration basins shall be constructed as indicated on these plans. Infiltration chambers for both infiltration beds shall be StormTech SC-740 chambers. For further technical information on StormTech chambers, refer to the manufacturer's specifications and details.
9. All materials, installation, tests and inspections to be made in strict accordance with the current Oregon Plumbing Specialty Code and the Clackamas County Building Department, Plumbing Division.

Private Gravity Sanitary Sewer Notes:

1. Private gravity sanitary sewer pipe shall be PVC pipe conforming to ASTM D-3034 SDR 35.
2. Sanitary sewer lateral shall be plugged with a rubber ring plug and marked with a 2"x4" stake at the point of terminus.
3. Cleanout pipe, fittings and joints shall be the same specifications as for the pipes. Cleanouts shall meet the requirements of Section 707.0 of the Oregon Plumbing Specialty Code.
4. All pipe shall be bedded and backfilled in accordance with the Trench Backfill Notes, above.
5. Testing on the sanitary sewer system may be required at the discretion of the Engineer, the Owner or the Building Department. Testing shall conform with Section 712.0 of the Oregon Plumbing Specialty Code.
6. All materials, installations, tests and inspections to be made in strict accordance with the current Oregon Plumbing Specialty Code and the Clackamas County Building Department, Plumbing Division.

Private Water Supply Notes:

1. Waterline facilities behind the water meter are private improvements. Facilities located in front of the water meter are public facilities.
2. One-inch water service piping shall be PEX piping conforming to ASTM F876. Minimum depth bury to top of pipe shall be 30 inches.
3. All pipe shall be bedded and backfilled in accordance with the Trench Backfill Notes, above.
4. Thrust blocks shall be installed at tees, bends, and other changes in direction. Ses Canby Utility Water Sytem Specifications Section 5 for thrust restraint.
5. Private waterline and appurtenances are to conform to materials, installation and testing requirements of the current Oregon Plumbing Specialty Code, the Clackamas County Building Department and the Oregon Health Division Administrative Rules, Chapter 333.

UTILITIES:
If not noted on the plans, utility information and crossing locations will have to be obtained from the utility companies. Utility contacts are as follows:

CANBY UTILITY WATER	DOUG ERKSON	503-263-4331	derkson@canbyutility.org
CANBY UTILITY ELECTRIC	GARY STOCKWELL	503-263-4307	gstockwell@canbyutility.org
CANBY PUBLIC WORKS	JERRY NELZEN	503-266-0759	nelzenj@ci.canby.or.us
CANBY EROSION CONTROL	SHANE HESTER	503-266-0698	hesters@canbyoregon.gov
DIRECT LINK(CANBY TELEPHONE)		503-266-8223	engineering@directlink.coop
NW NATURAL GAS	BOE TEASDALE	503-931-3858	
WAVE BROADBAND	DEREK ANDERSON	503-796-8651	danderson@wavebroadband.com

DATUM:
ELEVATIONS ARE BASED ON A BRASS MARKER LOCATED AT 302 NW 1ST AVENUE, CANBY. STATION LOCATED AT THE NORTHWESTERLY INTERSECTION OF N. GRANT STREET AND NW 1ST AVENUE AT THE WEST END OF THE TOP OF THE SECOND STEP TO THE SOUTHEAST BUILDING ENTRANCE. ELEVATION IS STAMPED AS 1920 ELEV 152.674.

REGISTERED PROFESSIONAL ENGINEER
OREGON
MAY 15, 1993
PATRICK A. SISUL

EXPIRES: 6/30/
DATED: _____

REVISIONS	BY

Emergency Medical Station 363
Canby Fire District

Specification and Conditions of Approval

SISUL ENGINEERING
375 PORTLAND AVENUE
GLADSTONE, OREGON 97027
(503) 657-0188

DRAWING Cover Specs.dwg

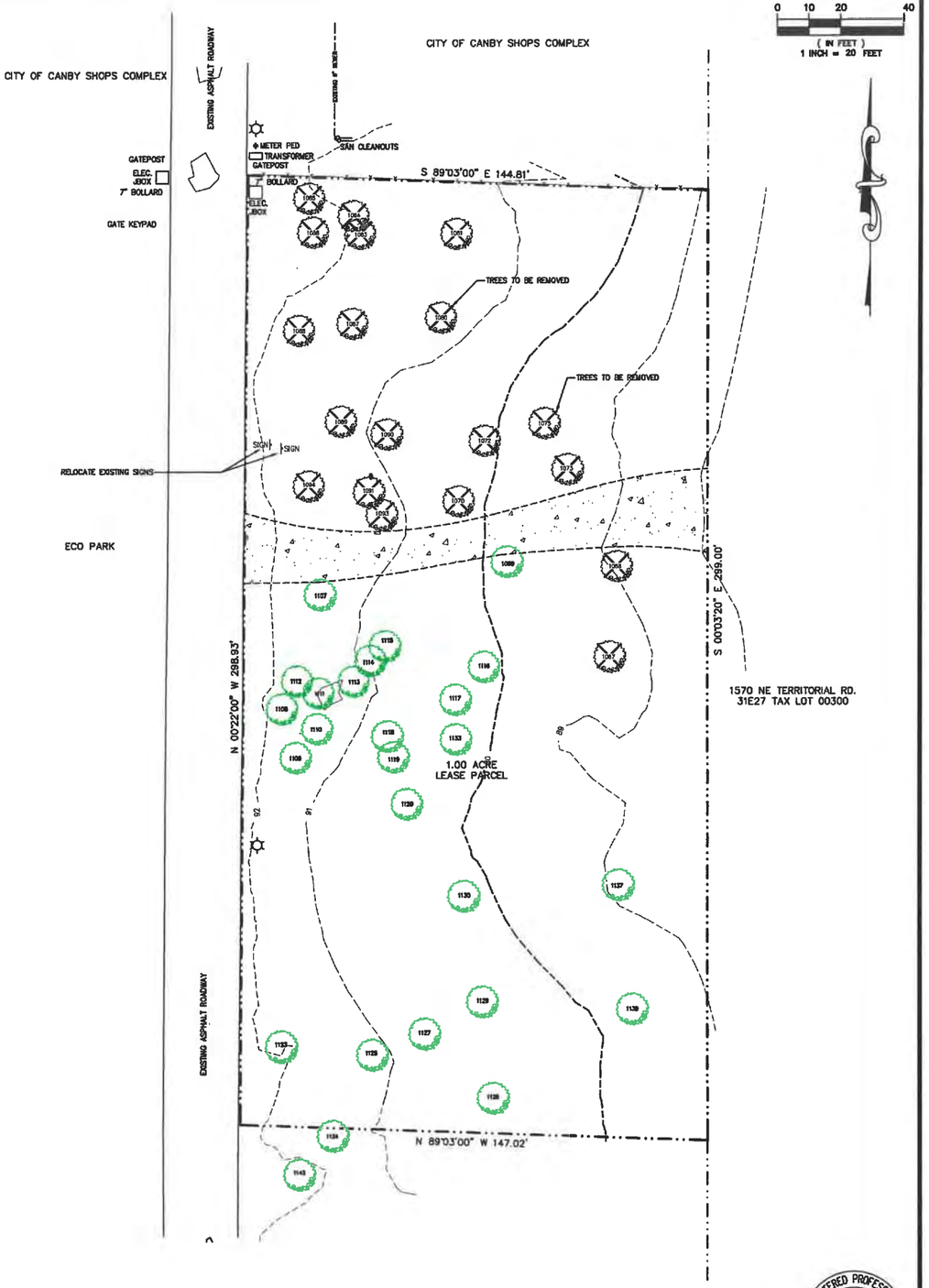
DATE	NOV., 2020
SCALE	NA
DRAWN	PS
JOB	SGL19-049
SHEET	
OF	SHEETS

LEGEND:

●	DENOTES MONUMENTS FOUND AS NOTED
○	DENOTES 5/8"X30" IRON ROD WITH A YELLOW PLASTIC CAP
	DENOTES 1.17" BRASS DISC STAMPED "ZTEC LS 1944"
I.R.	DENOTES IRON ROD
I.P.	DENOTES IRON PIPE
FD.	DENOTES FOUND
(M)	DENOTES MEASURED
YPC	DENOTES YELLOW PLASTIC CAP
RPC	DENOTES RED PLASTIC CAP
(P)	DENOTES PLAT OF "BERKELEY"
T.S.P.	DENOTES TIED STRAIGHT PORTION
O.U.	DENOTES ORIGIN UNKNOWN
SN.	DENOTES SURVEY NUMBER, MULTNOMAH COUNTY SURVEY RECORDS
☼	EXISTING LIGHT POLE
	EXISTING POWER POLE
	EXISTING STREET SIGN
	EXISTING TREE
⊗	TREE TO BE REMOVED

TREE LIST/REMOVAL:

~~1067 – 42" FIR~~ (REMOVE)
~~1068 – 28" FIR~~ (REMOVE)
1089 - 12" FIR
~~1070 – 24" FIR~~ (REMOVE)
~~1072 – 30" FIR~~ (REMOVE)
~~1073 – 36" FIR~~ (REMOVE)
~~1075 – 18" UNK~~ (REMOVE)
~~1080 – 28" FIR~~ (REMOVE)
~~1081 – 20" FIR~~ (REMOVE)
~~1083 – 12" FIR~~ (REMOVE)
~~1084 – 26" FIR~~ (REMOVE)
~~1085 – 15" FIR~~ (REMOVE)
~~1086 – 15" FIR~~ (REMOVE)
~~1087 – 18" FIR~~ (REMOVE)
~~1088 – 5"/12" CHERRY~~ (REMOVE)
~~1089 – 16" FIR~~ (REMOVE)
~~1090 – 18" FIR~~ (REMOVE)
~~1091 – 6" FIR~~ (REMOVE)
~~1093 – 24" FIR~~ (REMOVE)
~~1094 – 14" OAK~~ (REMOVE)
1107 - 14" MAPLE
1108 - 30" FIR
1109 - 12" MAPLE
1110 - 30" FIR
1111 - 7" MAPLE
1112 - 4"/7" MAPLE
1113 - 36" FIR
1114 - 6" HOLLY
1115 - 20" FIR
638 - 6" CHERRY
1116 - 32" FIR
1117 - 24" FIR
1118 - 8" MAPLE
1119 - 6" MAPLE
1120 - 12" MAPLE
1123 - 16" MAPLE
1125 - 38" FIR
1127 - 6" CHERRY
1128 - 32" FIR
1129 - 32" FIR
1130 - 42" FIR
1130 - 36" FIR
1137 - 28" OAK
1139 - 28" FIR
1143 - 12" FIR



REGISTERED PROFESSIONAL ENGINEER
OREGON
MAY 19, 1995
PATRICK A. SISUL

EXPIRES: 6/30/
DATED: _____

REVISIONS	BY

Emergency Medical Station 363
Canby Fire District

Existing Conditions and Demolition Plan

SISUL ENGINEERING
375 PORTLAND AVENUE
GLADSTONE, OREGON 97027
(503) 657-0188

DRAWING: TENTATIVE PLAN-current.dwg

DATE	NOV., 2020
SCALE	1" = 20'
DRAWN	PS
JOB	SGL19-049
SHEET	C2
OF	SHEETS

LEGEND:

●	DENOTES MONUMENTS FOUND AS NOTED
o	DENOTES 5/8"X30" IRON ROD WITH A YELLOW PLASTIC CAP
	DENOTES 1.17" BRASS DISC STAMPED "ZTEC LS 1944"
I.R.	DENOTES IRON ROD
I.P.	DENOTES IRON PIPE
FD.	DENOTES FOUND
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YPC	DENOTES YELLOW PLASTIC CAP
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(P)	DENOTES PLAT OF "BERKELEY"
T.S.P.	DENOTES TIED STRAIGHT PORTION
O.U.	DENOTES ORIGIN UNKNOWN
SN.	DENOTES SURVEY NUMBER, MULTNOMAH COUNTY SURVEY RECORDS
☼	EXISTING LIGHT POLE
	EXISTING POWER POLE
	EXISTING STREET SIGN
	EXISTING TREE

LIST OF TREES TO REMAIN:

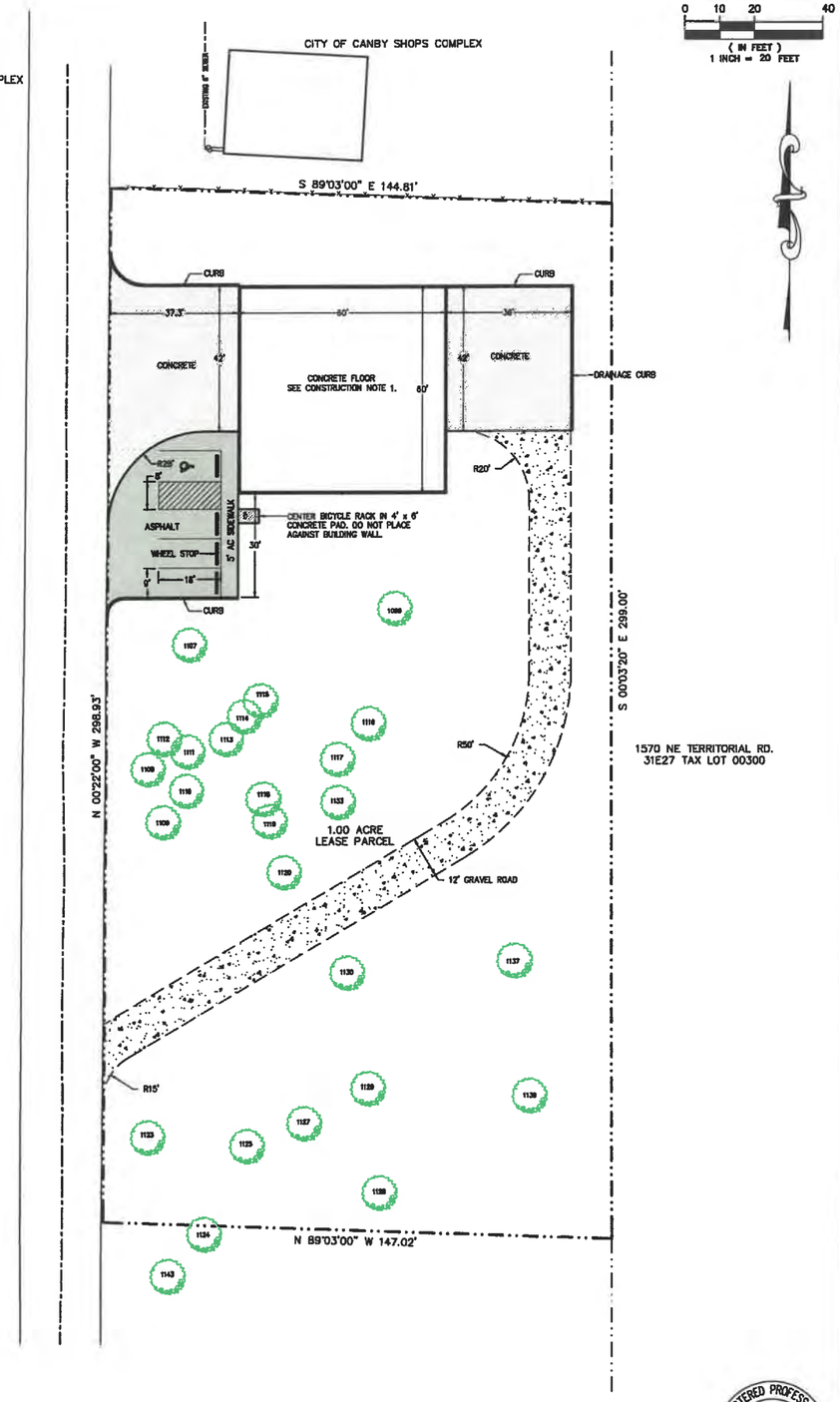
1069 - 12" FIR
1107 - 14" MAPLE
1108 - 30" FIR
1109 - 12" MAPLE
1110 - 30" FIR
1111 - 7" MAPLE
1112 - 4"/7" MAPLE
1113 - 36" FIR
1114 - 6" HOLLY
1115 - 20" FIR
638 - 6" CHERRY
1116 - 32" FIR
1117 - 24" FIR
1118 - 8" MAPLE
1119 - 6" MAPLE
1120 - 12" MAPLE
1123 - 16" MAPLE
1125 - 38" FIR
1127 - 6" CHERRY
1128 - 32" FIR
1129 - 32" FIR
1130 - 42" FIR
1130 - 36" FIR
1137 - 28" OAK
1139 - 28" FIR
1143 - 12" FIR

1. PER SECTION 3.7 OF THE GEOTECHNICAL REPORT, BUILDING SLAB ON GRADE TO BE UNDERLAIN BY MINIMUM 8" THICK SECTION OF CRUSHED ROCK, SUCH AS ¾"-0.
2. PER SECTION 3.8 OF THE GEOTECHNICAL REPORT, HEAVY TRUCK TRAFFIC AREAS SHALL HAVE A PAVEMENT SECTION CONSISTING OF 4" MIN A.C. OVER 12" CRUSHED ROAD BASE.

CITY OF CANBY SHOPS COMPLEX

ECO PARK

GRAPHIC SCALE
0 10 20 40
(IN FEET)
1 INCH = 20 FEET



REGISTERED PROFESSIONAL ENGINEER #16,551 OREGON MAY 15, 1992 PATRICK A. SISUL

EXPIRES: 6/30/

DATED: _____

REVISIONS	BY

Emergency Medical Station 363
Canby Fire District

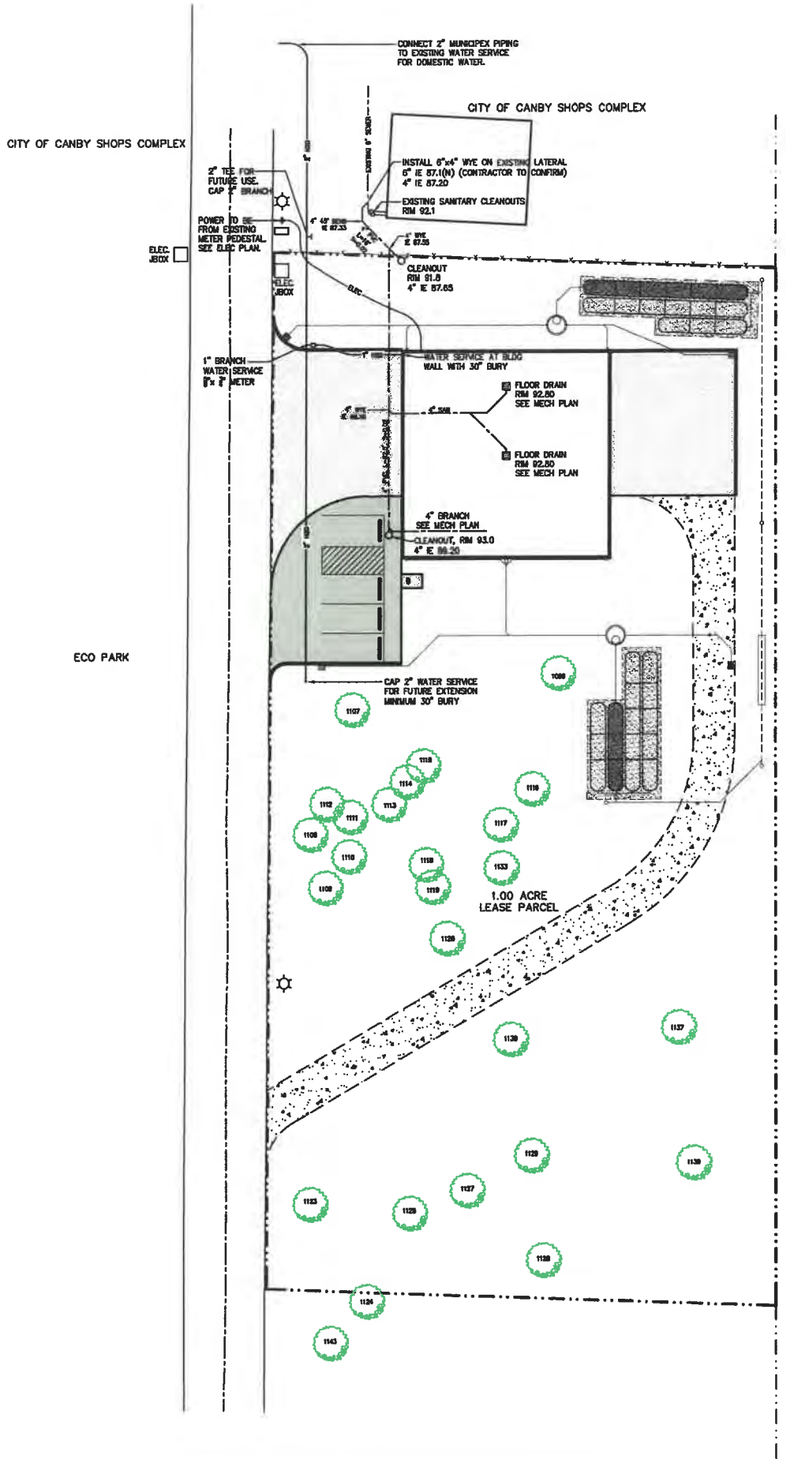
Site Plan

SISUL ENGINEERING
375 PORTLAND AVENUE
GLADSTONE, OREGON 97027
(503) 657-0188

DRAWING: TENTATIVE PLAN-current.dwg

DATE	NOV., 2020
SCALE	1" = 20'
DRAWN	PS
JOB	SCL19-049
SHEET	3
OF	9 SHEETS

GRAPHIC SCALE
0 10 20 40
(IN FEET)
1 INCH = 20 FEET



REGISTERED PROFESSIONAL ENGINEER #16,551 OREGON MAY 15, 1993 PATRICK A. SISUL

EXPIRES: 6/30/

DATED: _____

REVISIONS	BY

Emergency Medical Station 363
Canby Fire District

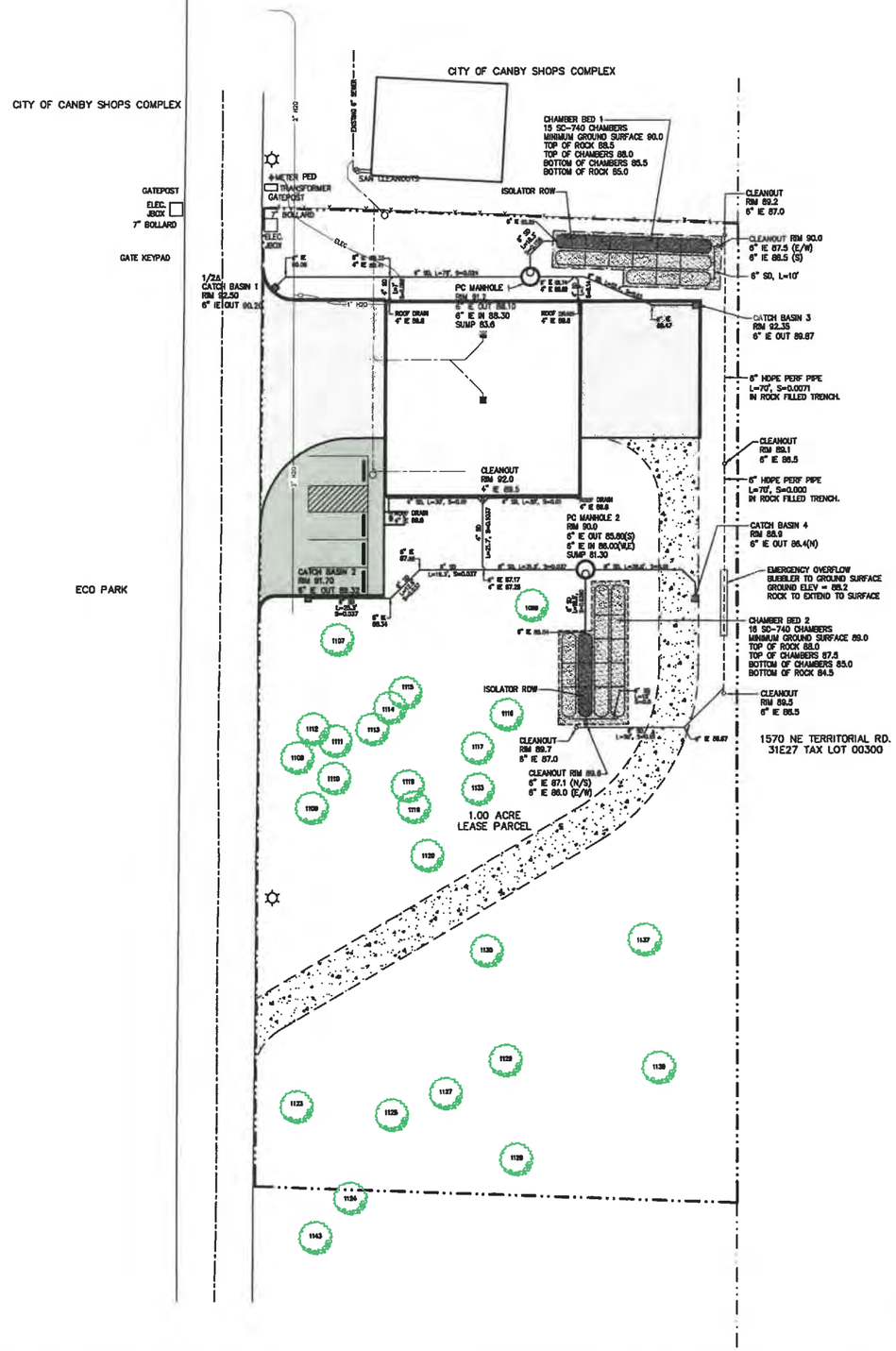
Utility Plan

SISUL ENGINEERING
375 PORTLAND AVENUE
GLADSTONE, OREGON 97027
(503) 657-0188

DRAWING: TENTATIVE PLAN-current.dwg

DATE	NOV., 2020
SCALE	1" = 20'
DRAWN	PS
JOB	SGL19-049
SHEET	C4
OF SHEETS	

GRAPHIC SCALE
0 10 20 40
(IN FEET)
1 INCH = 20 FEET



REGISTERED PROFESSIONAL ENGINEER
OREGON
MAY 19, 1995
PATRICK A. SISUL
EXPIRES: 6/30/
DATED: _____

REVISIONS	BY

Emergency Medical Station 363
Canby Fire District

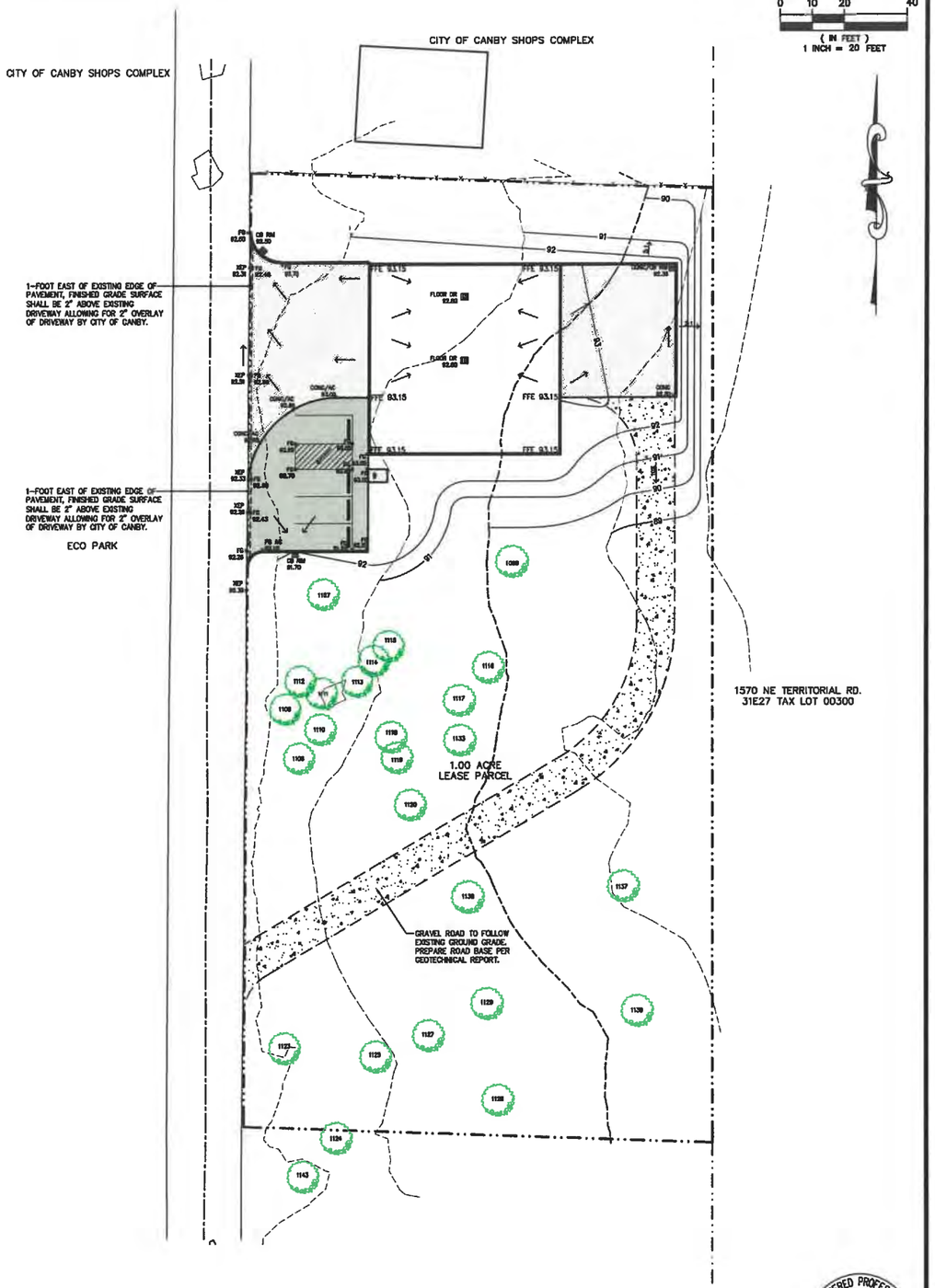
Storm Drain Plan

SISUL ENGINEERING
375 PORTLAND AVENUE
GLADSTONE, OREGON 97027
(503) 657-0188

DRAWING: TENTATIVE PLAN - current.dwg

DATE	NOV., 2020
SCALE	1" = 20'
DRAWN	PS
JOB	SGL19-049
SHEET	C5
OF	SHEETS

GRAPHIC SCALE
0 10 20 40
(IN FEET)
1 INCH = 20 FEET



REGISTERED PROFESSIONAL ENGINEER
OREGON
MAY 18, 1979
PATRICK A. SISUL
EXPIRES: 6/30/
DATED: _____

REVISIONS	BY

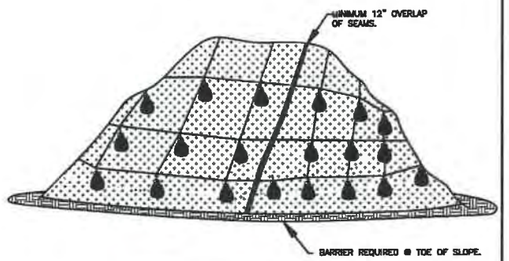
Emergency Medical Station 363
Canby Fire District

Grading Plan

SISUL ENGINEERING
375 PORTLAND AVENUE
GLADSTONE, OREGON 97027
(503) 657-0188

DRAWING: TENTATIVE PLAN-current.dwg

DATE	NOV., 2020
SCALE	1" = 20'
DRAWN	PS
JOB	SGL19-049
SHEET	C6
OF	45 SHEETS

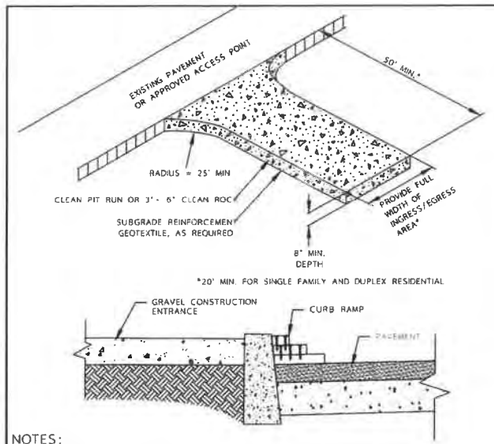


PLASTIC SHEETING

NOTES:
1. MINIMUM 12" OVERLAP OF ALL SEAMS REQUIRED.
2. BARRIER REQUIRED @ TOE OF STOCK PILE.
3. COVERING MAINTAINED TIGHTLY IN PLACE BY USING SANDBAGS OR TIRES ON ROPES WITH A MAXIMUM 10' GRID SPACING IN ALL DIRECTIONS.

PLASTIC SHEETING

DETAIL DRAWING 4-3 REVISED 01-09

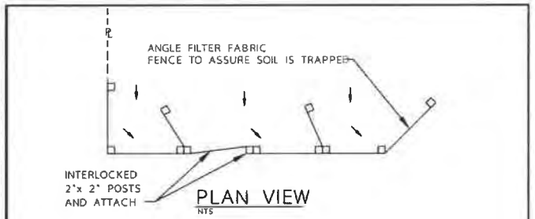


NOTES:
1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEAN OUT OF ANY MEASURES USED TO TRAP SEDIMENT.
2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBRIGHT-OF-WAY.
3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.
4. WHERE RUNOFF CONTAINING SEDIMENT LADEN WATER IS LEAVING THE SITE VIA THE CONSTRUCTION ENTRANCE, OTHER MEASURES SHALL BE IMPLEMENTED TO DIVERT RUNOFF THROUGH AN APPROVED FILTERING SYSTEM.

DIMENSIONS
SINGLE FAMILY
20' LONG BY 20' WIDE 8" DEEP OF ¾" MINUS CLEAN ROCK.
COMMERCIAL
50' LONG BY 20' WIDE 3-6" CLEAN ROCK.
GOVERNING AUTHORITY MAY REQUIRE GEOTEXTILE FABRIC TO PREVENT SUB-SOIL PUMPING.

CONSTRUCTION ENTRANCE

DETAIL DRAWING 4-13 REVISED 01-09



SEDIMENT FENCE

DETAIL DRAWING 4-23 REVISED 01-09

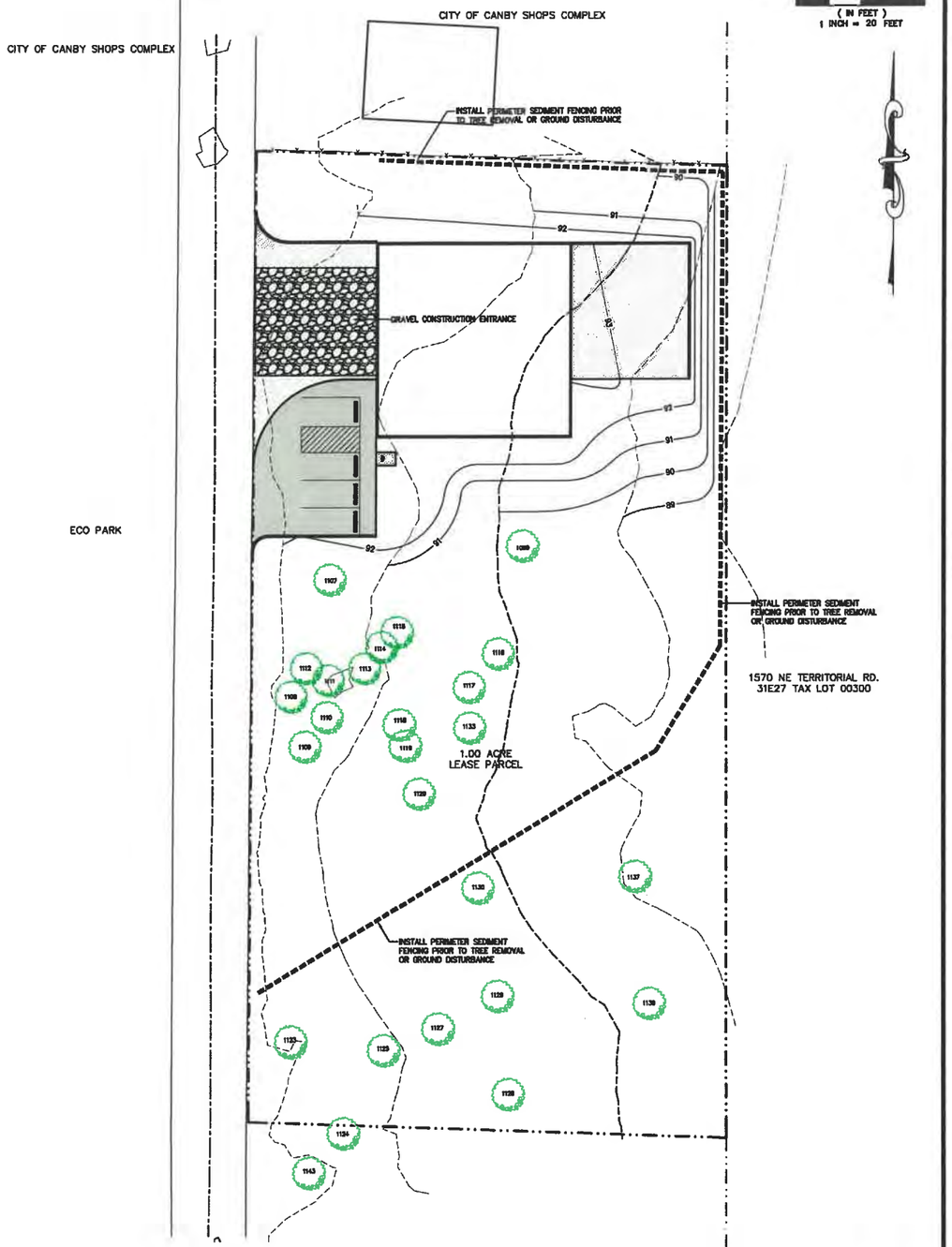
Erosion Control:
Summary:
1. The intent of the requirement is to prevent siltation from reaching storm drain systems and drainage ways.
2. The minimum measures need to be made on all projects.
   a) A gravel pad, at least 50 feet long, is required where vehicles will leave the construction site.
   b) A perimeter sediment barrier is to be constructed of sediment fence where noted on the plan where sediment would cross outside the work area.
   c) Where excavated material is placed on hard surfaces, material must be broomed or scraped clean as soon as possible.
   d) Reseed or cover disturbed areas as soon as is possible and practical but no later than the completion of construction on other phases of work. Erosion control measures such silt fences must remain in place until seeded areas show growth substantial enough to prevent erosion.

General:
1. Approval of this erosion control (ESC) plan does not constitute an approval of permanent road or drainage design.
2. The implementation of these ESC plans and the construction, maintenance, replacement, and upgrading of these ESC facilities is the responsibility of the applicant/contractor until all construction is completed and approved, and landscaping is established.
3. The ESC facilities on this plan must be constructed in conjunction with all clearing and grading activities, and in such a manner as to ensure that sediment laden water does not leave the site or violate applicable water standards.
4. The ESC facilities shown on this plan are the minimum requirements for anticipated site conditions. During the construction period, these ESC facilities shall be upgraded as needed for unexpected storm events and to ensure that sediment laden water does not leave the site.
5. The ESC facilities shall be inspected daily by the applicant/contractor and maintained as necessary to ensure their continued functioning.
6. The ESC facilities on inactive sites shall be inspected and maintained a minimum of once every two weeks, or within 24 hours following a storm event.
7. A stabilized construction entrance shall be installed at the beginning of construction and maintained for the duration of the project.

Seeding/Mulching:
1. All areas disturbed during construction shall be graded to drain and compacted to a minimum of 90% of AASHTO T-99 immediately after installation of utilities or grading.
2. Recommended Seed Mixture: 80% PR 8820 Dwarf Perennial Ryegrass and 20% Creeping Red Fescue, by weight. Application Rate shall be 100 pounds minimum per acre.
3. Fertilizer shall be 12-16-8 with 50% of the nitrogen derived from UREA FORMALDEHYDE, and applied at a rate of 400 pounds per acre.
4. Seed and mulch at a rate of 2000 lbs/Ac with heavy bonding agent or netting and anchors. Mulch shall be a wood cellulose fiber or other material suitable for hydromulching.
5. Temporary or Permanent Hydroseeding or acceptable seeding and mulching must be provided whenever perennial cover cannot be established on sites which will be exposed for 60 days or more.

Sediment Fence:
1. The filter fabric shall be purchased in a continuous roll cut to the length of the barrier to avoid use of joints. When joints are necessary, filter cloth shall be spliced together only at a support post, with a minimum 8 inch overlap, and both ends securely fastened to the post.
2. The filter fabric fence shall be installed to follow the contours, where feasible. Then fence posts shall be spaced a maximum of six feet apart and driven securely into the ground a minimum of 18 inches.
3. A trench shall be excavated, roughly 6 inches wide by 6 inches deep, upslope and adjacent to the wood post to allow the filter fabric to be buried. Bury the bottom of the fabric 6" vertically below finished grade. All areas of filter fabric trench shall be compacted.
4. The filter fabric shall be installed with stitched loops over fence posts. The fence post shall be constructed of 2" x 2" fir, pine, or steel. The fence post must be a minimum of 48" long. The filter fabric shall not be stapled or attached to existing trees.
5. Sediment fences shall be removed when they have served their useful purpose, but not before the upslope area has been permanently stabilized.
6. Sediment fences shall be inspected by applicant/contractor immediately after each rainfall, and at least daily during prolonged rainfall. Any required repairs shall be made immediately.

GRAPHIC SCALE
0 10 20 40
(IN FEET)
1 INCH = 20 FEET



REGISTERED PROFESSIONAL ENGINEER OREGON MAY 15, 1985 PATRICK A. SISUL

EXPIRES: 6/30/
DATED: _____

REVISIONS	BY

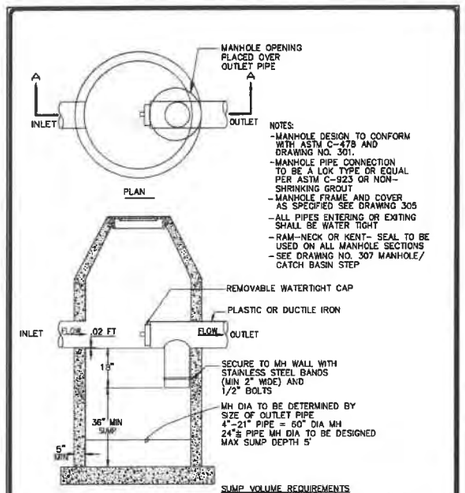
Emergency Medical Station 363
Canby Fire District

Erosion and Sediment Control Plan

SISUL ENGINEERING
375 PORTLAND AVENUE
GLADSTONE, OREGON 97027
(503) 657-0188

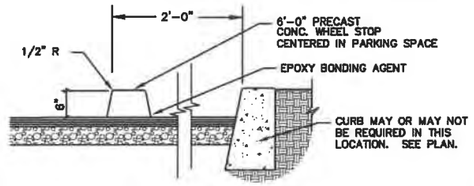
DRAWING: TENTATIVE PLAN-current.dwg

DATE	NOV., 2020
SCALE	1" = 20'
DRAWN	PS
JOB	SGL19-049
SHEET	C7
OF	SHEETS

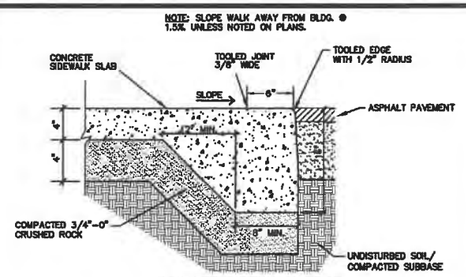


SECTION A-A

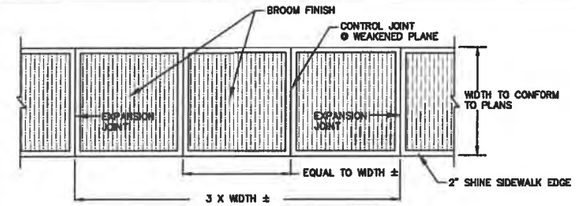
CITY OF CANBY	POLLUTION CONTROL MANHOLE		
	BY: JT	DATE: 12-06-19	DWG NO: 201



WHEEL STOP
N.T.S.

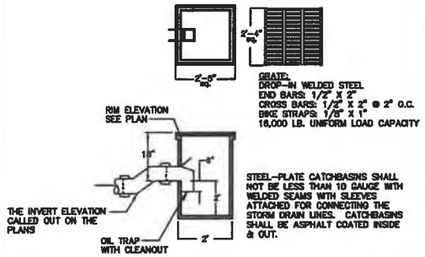


PRIVATE SIDEWALK EDGE
N.T.S.



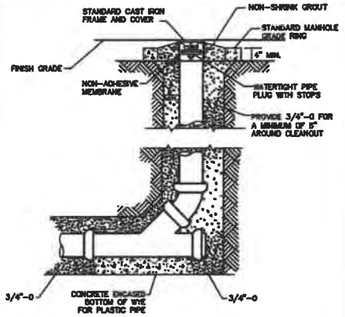
NOTES: 1. THESE DETAILS FOR BROOM FINISH CONCRETE. SPACE JOINTS EQUALLY. SEE SITE PLAN & CONCRETE JOINTS DETAIL.

TYPICAL PRIVATE SIDEWALK SCORING
N.T.S.



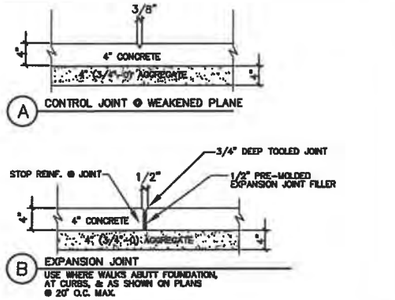
(SECTION 1108.0 OREGON PLUMBING SPECIALTY CODE)

PRIVATE CATCHBASIN DETAIL IN PAVED AREAS
N.T.S.



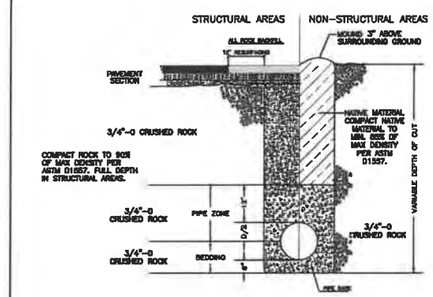
NOTE: CONCRETE ENCASE ENTIRE WYE SECTION AND 45 BEND IF CONCRETE PIPE

STANDARD CLEANOUT
N.T.S.

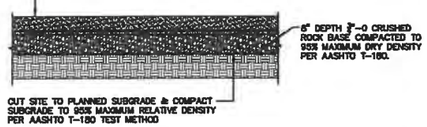


NOTE: PROVIDE EXPANSION JOINT FILLER AND 1-#4 x 2'-0" REBAR ACROSS JOINT WITH ½ OF THE LENGTH GREASED OR SLEEVED INTO ONE JT. SIDE. (JOINTS MAX. 20'-0" O.C.)

CONCRETE JOINTS FOR PRIVATE SIDEWALKS
N.T.S.

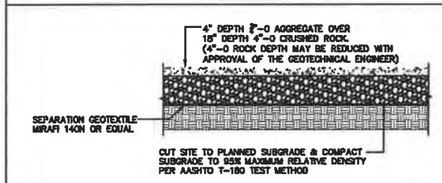


STANDARD BACKFILL DETAIL
N.T.S.

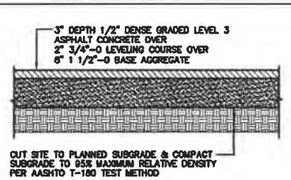


1. EXPANSION JOINT MATERIAL SHALL BE PREFORMED FILLER NOT LESS THAN ½" WIDE AND SHALL MEET ALL REQUIREMENTS OF ODOT STANDARD CONSTRUCTION SPECIFICATIONS SECTION 00758.
2. CONCRETE SHALL HAVE A BROOM FINISH AND EDGE ALL JOINTS.
3. SLOPE OF THE DRIVEWAY SHALL BE AWAY FROM THE BUILDING.
4. 1-FOOT EAST OF THE EXISTING DRIVEWAY EDGE OF PAVEMENT, CONCRETE DRIVEWAY SHALL BE 2" ABOVE EXISTING PAVEMENT ALLOWING FOR A FUTURE 2" OVERLAY OF THE EXISTING DRIVEWAY BY CITY OF CANBY.

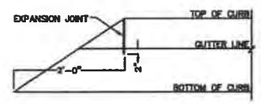
STRUCTURAL SECTION
CONCRETE DRIVEWAY
N.T.S.



STRUCTURAL SECTION
GRAVEL DRIVEWAY
N.T.S.

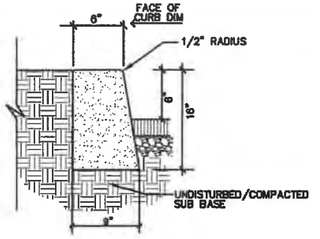


STRUCTURAL SECTION
PARKING AREA A.C. PAVEMENT
N.T.S.

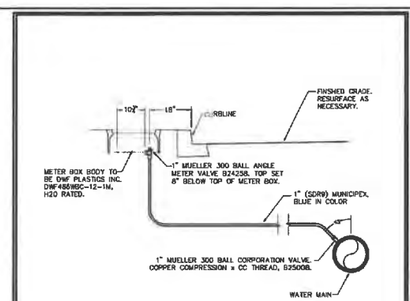


24" CURB ENDING
N.T.S.

USE WHERE CURBS TERMINATE



PRIVATE VERTICAL CURB
N.T.S.



NOTES:
1. INSTALL SERVICE BRANCHES AT RIGHT ANGLES TO THE MAIN, EXCEPT IN CUL-DE-SACS.
2. METER BOX LID TO BE DNF PLASTICS INC. C-4M GREY SOLID METER BOX COVER WITH MAGNET. 11" X 18" POLYMER, H20 RATED.
3. MACHINE DRILLED AND TAPPED ONLY. NO HAND DRILLING IS ALLOWED.
4. ALL PIPE AND STRUCTURE ZONE SHALL BE BACKFILLED USING ¾"-0 CRUSHED AGGREGATE AND COMPACTED TO 95% MAXIMUM DENSITY PER AASHTO T-180.
5. METER BOX SHALL BE CENTERED OVER THE COMPLETED METER ASSEMBLY.

1" SERVICE ASSEMBLY		
CANBY UTILITY	12/10/2018	003

REGISTERED PROFESSIONAL ENGINEER #16,551 OREGON MAY 19, 1995 PATRICK A. SISUL

EXPIRES: 6/30/

DATED: _____

REVISIONS	BY

Emergency Medical Station 363
Canby Fire District

Details

SISUL ENGINEERING
375 PORTLAND AVENUE
GLADSTONE, OREGON 97027
(503) 657-0188

DRAWING: Cover Specs.dwg

DATE	NOV., 2020
SCALE	NA
DRAWN	PS
JOB	SGL19-049
SHEET	C8

OF 47 SHEETS

OREGON TRANSPORTATION COMMISSION
Standards for Accessible Parking Places
August 2018

MINIMUM STANDARD SINGLE-ACCESSIBLE PARKING SPACE (VAN-ACCESSIBLE DESIGNATION REQUIRED)

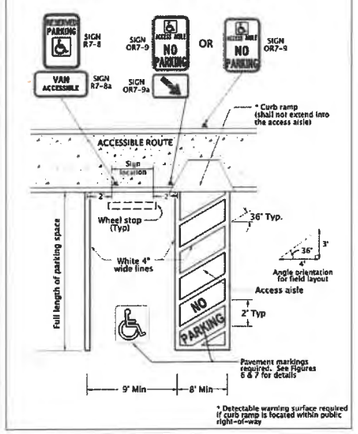
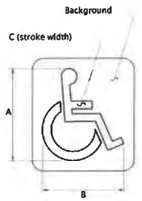


Figure 1

6

OREGON TRANSPORTATION COMMISSION
Standards for Accessible Parking Places
August 2018

PAVEMENT MARKING STENCIL



Pavement Marking Background: Optional: Blue, Retroreflective

Pavement Marking Stencil: White, Retroreflective

LEGEND	DIMENSIONS (INCHES)						
	A	B	C	D	E	F	G
MINIMUM	28	24	3				
STANDARD	41	36	4				

The pavement marking stencil shall be used to designate an accessible parking area reserved for vehicles with DMV permits.

Figure 6

11

OREGON TRANSPORTATION COMMISSION
Standards for Accessible Parking Places
August 2018

PAVEMENT MARKING LEGEND

Pavement Marking Legend: White or Yellow, Retroreflective

The "No Parking" pavement marking is used to designate an access aisle reserved for persons use parking with a DMV permit. This marking shall be required for all access aisles next to accessible parking spaces. Engineering judgement should be used for placement location to give best visual location to prevent illegal use of access aisle. Yellow may be used instead of white to increase contrast between access aisle white lines and the "No Parking" legend.

Figure 7

12

OREGON TRANSPORTATION COMMISSION
Standards for Accessible Parking Places
August 2018

SIGN DESIGN
SIGN NO. R7-8

Sign Background: White, Retroreflective sheeting

Sign Legend: Green, Retroreflective sheeting

Sign Symbol: White on Blue, Retroreflective sheeting

Refer to Standard Highway Signs book for details.

The Disabled Person parking sign is used to designate a parking area reserved for vehicles with DMV permit as stated.

Figure 8

13

OREGON TRANSPORTATION COMMISSION
Standards for Accessible Parking Places
August 2018

SIGN DESIGN
SIGN NO. R7-8a

Sign Background: White, Retroreflective sheeting

Sign Legend: Green, Retroreflective sheeting

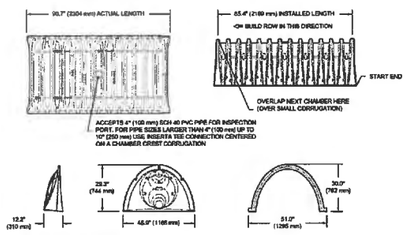
Refer to Standard Highway Signs book for details and dimensions.

The VAN-ACCESSIBLE sign shall only be used with sign R7-8 to designate the parking spaces that have an access aisle 8 ft or wider

Figure 9

14

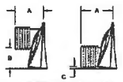
SC-740 TECHNICAL SPECIFICATION
NTS



NOMINAL CHAMBER SPECIFICATIONS

SIZE (W X H X INSTALLED LENGTH)	51.0" X 30.0" X 85.4"	(1295 mm X 762 mm X 2169 mm)
CHAMBER STORAGE	45.9 CUBIC FEET	(1.30 m³)
MINIMUM INSTALLED STORAGE*	74.9 CUBIC FEET	(2.12 m³)
WEIGHT	75.0 lbs.	(33.9 kg)

*ASSUMES 9" (152 mm) STONE ABOVE, BELOW, AND BETWEEN CHAMBERS



STUBS AT BOTTOM OF END CAP FOR PART NUMBERS ENDING WITH "B"
STUBS AT TOP OF END CAP FOR PART NUMBERS ENDING WITH "T"

PART #	STUB	A	B	C
SC740EPE06T / SC740EPE06TPC	6" (150 mm)	13.9" (277 mm)	18.5" (470 mm)	—
SC740EPE06B / SC740EPE06BPC			—	6.5" (165 mm)
SC740EPE08T / SC740EPE08TPC	8" (200 mm)	13.2" (318 mm)	16.5" (419 mm)	—
SC740EPE08B / SC740EPE08BPC			—	6.6" (16 mm)
SC740EPE10T / SC740EPE10TPC	10" (250 mm)	13.4" (340 mm)	14.9" (358 mm)	—
SC740EPE10B / SC740EPE10BPC			—	6.7" (170 mm)
SC740EPE12T / SC740EPE12TPC	12" (300 mm)	14.7" (373 mm)	12.3" (318 mm)	—
SC740EPE12B / SC740EPE12BPC			—	1.3" (30 mm)
SC740EPE15T / SC740EPE15TPC	15" (375 mm)	18.4" (467 mm)	9.0" (229 mm)	—
SC740EPE15B / SC740EPE15BPC			—	1.3" (33 mm)
SC740EPE18T / SC740EPE18TPC	18" (450 mm)	18.7" (550 mm)	5.0" (127 mm)	—
SC740EPE18B / SC740EPE18BPC			—	1.6" (41 mm)
SC740EPE24P	24" (600 mm)	19.9" (470 mm)	—	0.1" (3 mm)

ALL STUBS, EXCEPT FOR THE SC740EPE24B ARE PLACED AT BOTTOM OF END CAP SUCH THAT THE OUTSIDE DIAMETER OF THE STUB IS FLUSH WITH THE BOTTOM OF THE END CAP. FOR ADDITIONAL INFORMATION CONTACT STORMTECH AT 1-800-592-3284.

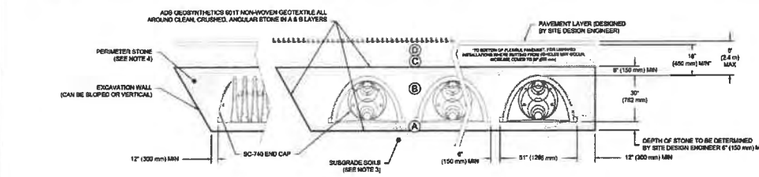
* FOR THE SC740EPE24B THE 24" (600 mm) STUB LIES BELOW THE BOTTOM OF THE END CAP APPROXIMATELY 1.75" (44 mm). BACKFILL MATERIAL SHOULD BE REMOVED FROM BELOW THE N-12 STUB SO THAT THE FITTING SITS LEVEL.

NOTE: ALL DIMENSIONS ARE NOMINAL

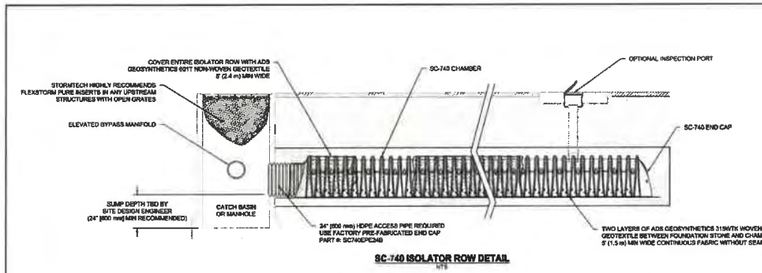
ACCEPTABLE FILL MATERIALS: STORMTECH SC-740 CHAMBER SYSTEMS

	MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	FINAL FILL: FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 7ND TO LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER.	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	INITIAL FILL: FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 18" (450 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER	AASHTO M145[1] A-1, A-2-4, A-3 OR AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 12" (300 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 6" (150 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS. ROLLER GROSS VEHICLE WEIGHT NOT TO EXCEED 12,000 lbs (53 kN). DYNAMIC FORCE NOT TO EXCEED 20,000 lbs (89 kN).
B	EMBEDMENT STONE: FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED.
A	FOUNDATION STONE: FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE.[2,3]

PLEASE NOTE:
1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
2. STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 9" (150 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
3. WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING ON DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.
4. ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.



NOTES:
1. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418-16a, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
2. SC-740 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
3. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
4. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
5. REQUIREMENTS FOR HANDLING AND INSTALLATION:
   - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
   - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 3".
   - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT AS DEFINED IN SECTION 6.2.3 OF ASTM F2418 SHALL BE GREATER THAN OR EQUAL TO 550 LBS/IN/IN, AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.



SC-740 ISOLATOR ROW DETAIL
NTS

INSPECTION & MAINTENANCE

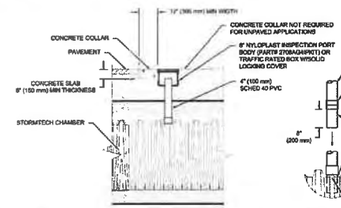
STEP 1) INSPECT ISOLATOR ROW FOR SEDIMENT
- A. INSPECTION PORTS (IF PRESENT)
  - A.1. REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN
  - A.2. REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED
  - A.3. USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
  - A.4. LOWER A CAMERA INTO ISOLATOR ROW FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
  - A.5. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- B. ALL ISOLATOR ROWS
  - B.1. REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW
  - B.2. USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW THROUGH OUTLET PIPE
    - i) MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY
    - ii) FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE
  - B.3. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.

STEP 2) CLEAN OUT ISOLATOR ROW USING THE JETVAC PROCESS
- A. A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45" (1.1 m) OR MORE IS PREFERRED
- B. APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN
- C. VACUUM STRUCTURE SUMP AS REQUIRED

STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS

STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

NOTES
1. INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.
2. CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.



CONNECTION DETAIL
NTS

NOTES:
1. INSPECTION PORTS MAY BE CONNECTED THROUGH ANY CHAMBER CORRUGATION VALLEY.
2. ALL SCHEDULE 40 FITTINGS TO BE SOLVENT CEMENTED (4" PVC NOT PROVIDED BY ADS).

4" PVC INSPECTION PORT DETAIL
NTS

REGISTERED PROFESSIONAL ENGINEER #16,551 OREGON MAY 18, 1995 PATRICK A. SISUL

EXPIRES: 6/30/

DATED: _____

REVISIONS	BY

Emergency Medical Station 363
Canby Fire District

Details

SC-740 STANDARD CROSS SECTION — DATE: 05-15-19 — DRAWN: KR — CHECKED: KR — PROJECT #: —

SC-740 ISOLATOR ROW DETAILS — DATE: 11/04/19 — DRAWN: RJJ — CHECKED: RJJ — PROJECT #: —

StormTech — 4640 TRUEMAN BLVD HILLIARD, OH 43026

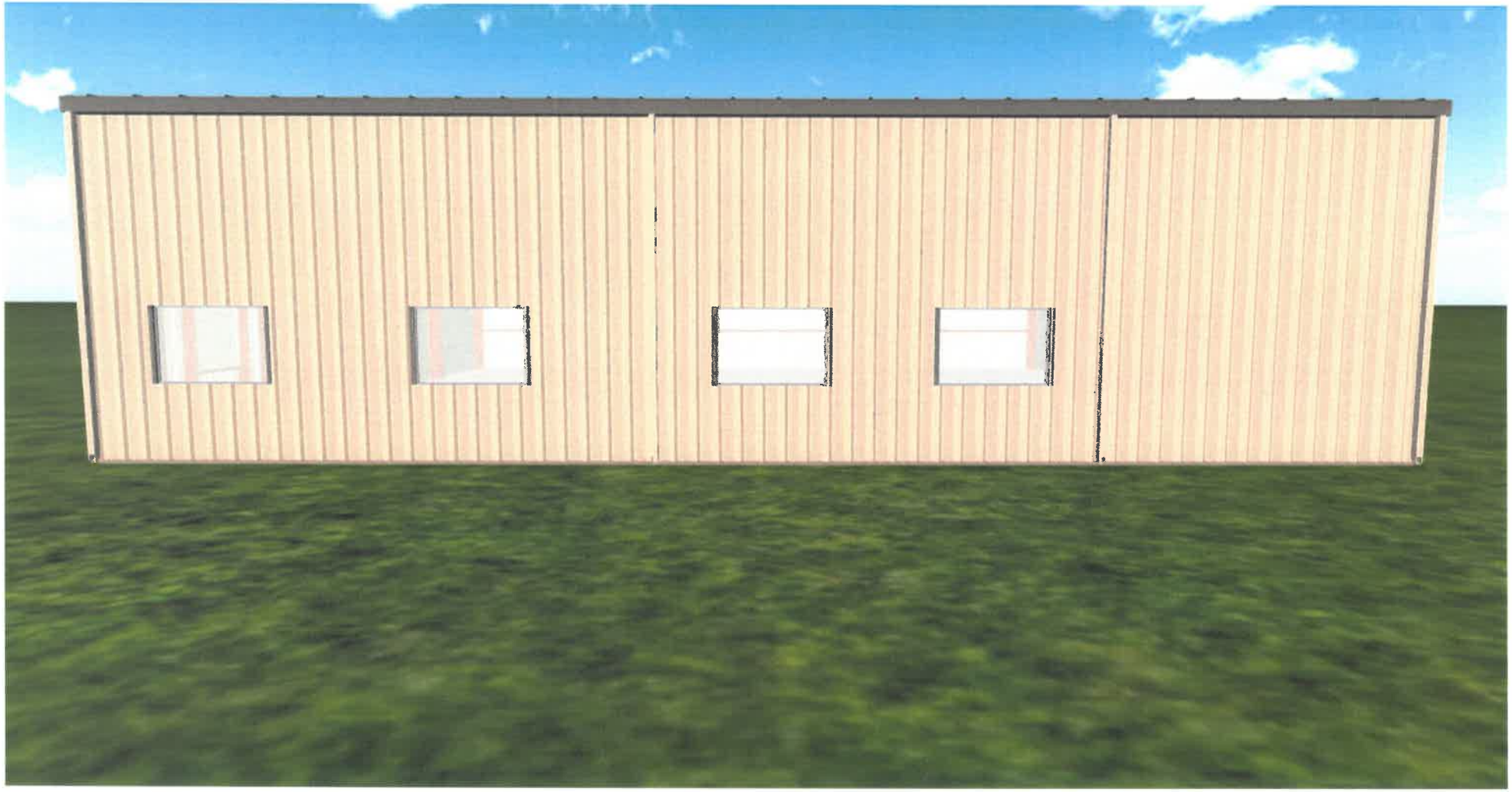
DS — 4640 TRUEMAN BLVD HILLIARD, OH 43026

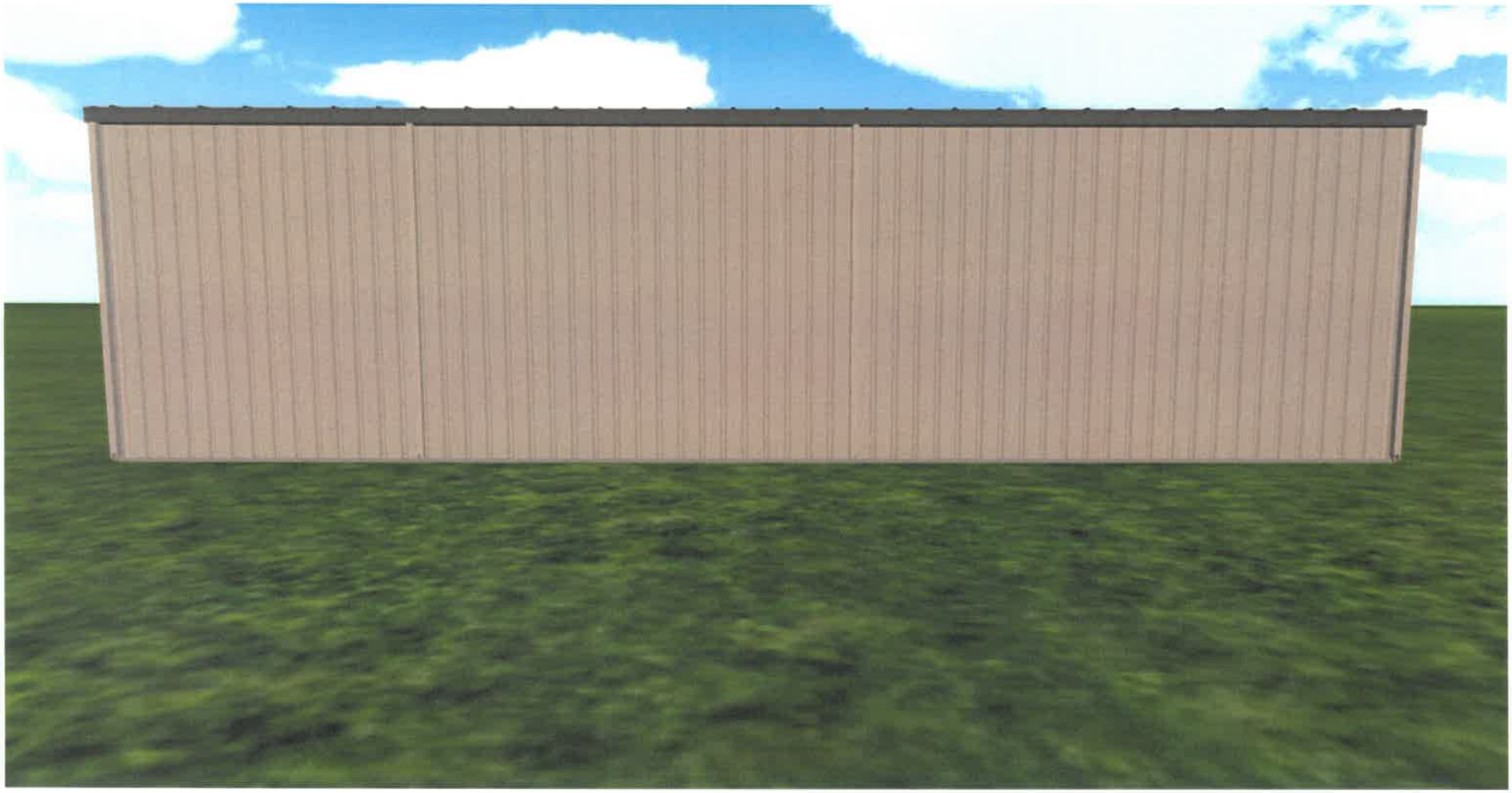
1 SHEET OF 1

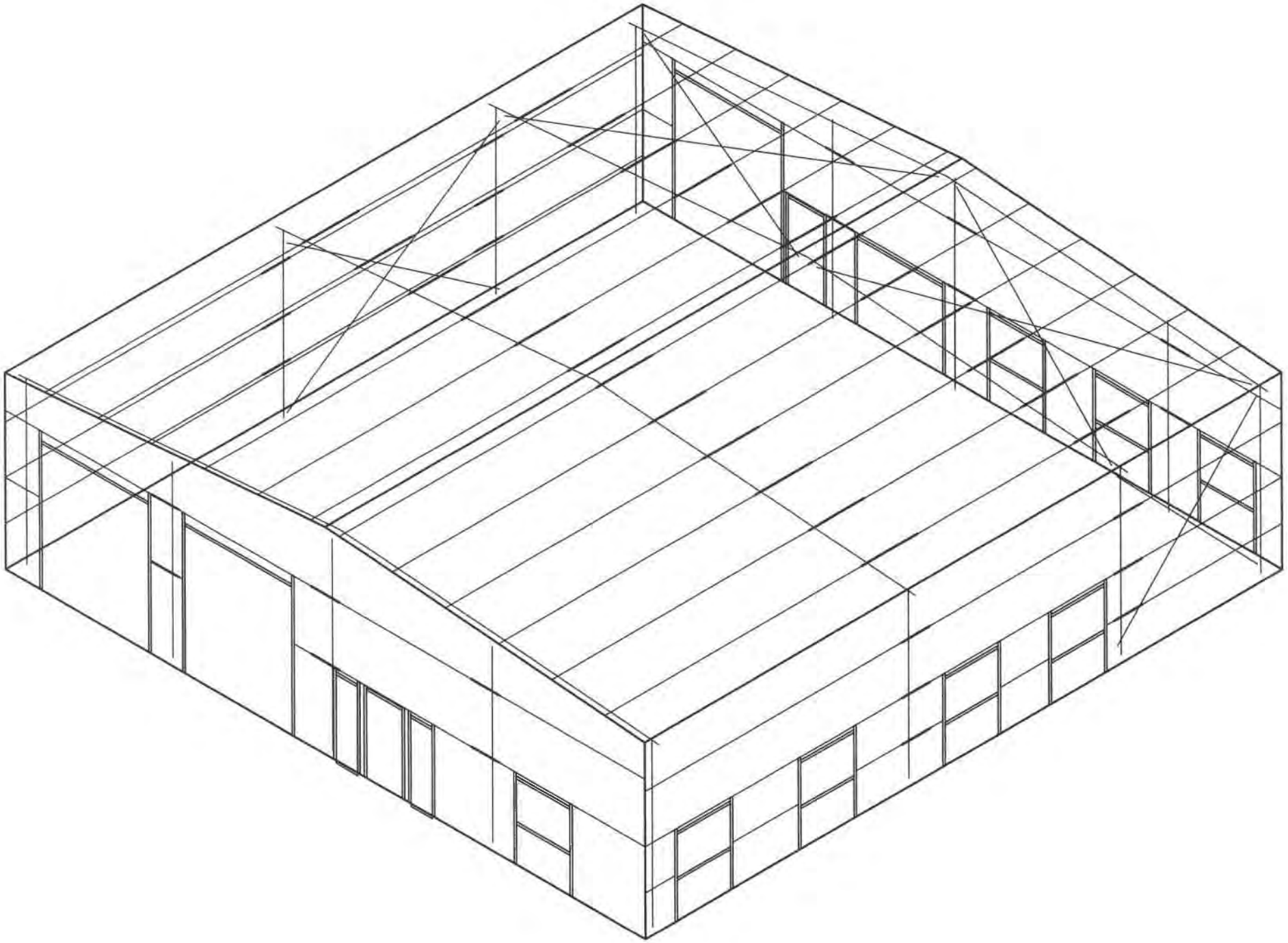
1 SHEET OF 1

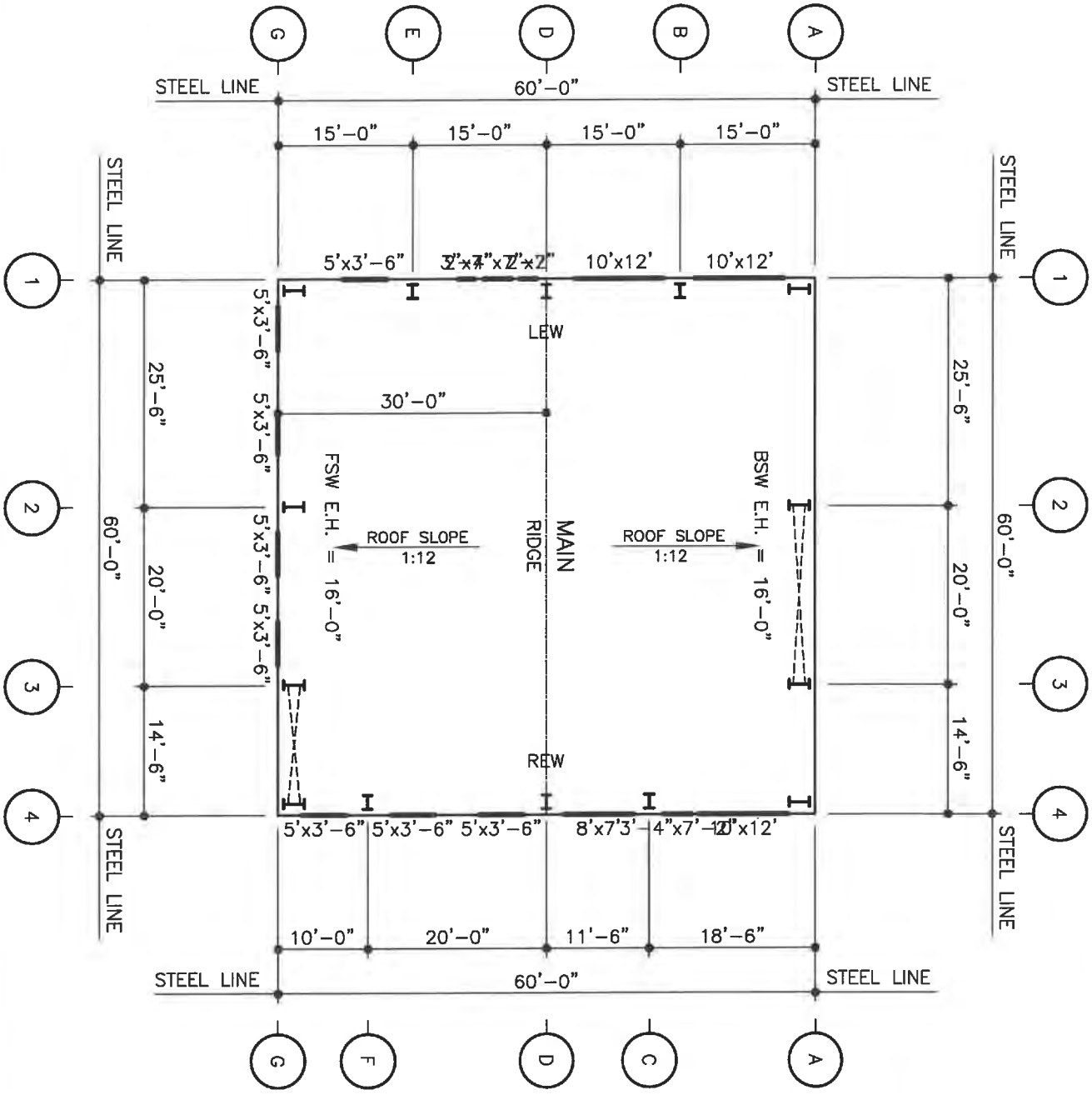
SISUL ENGINEERING
375 PORTLAND AVENUE
GLADSTONE, OREGON 97027
(503) 657-0188
DRAWING Cover Specs.dwg

DATE	NOV., 2020
SCALE	NA
DRAWN	PS
JOB	SQL19-049
SHEET	C9
OF	9 SHEETS



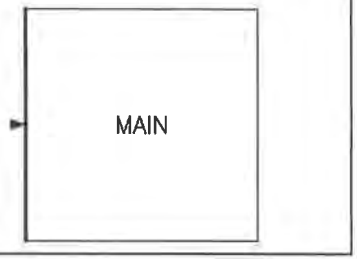






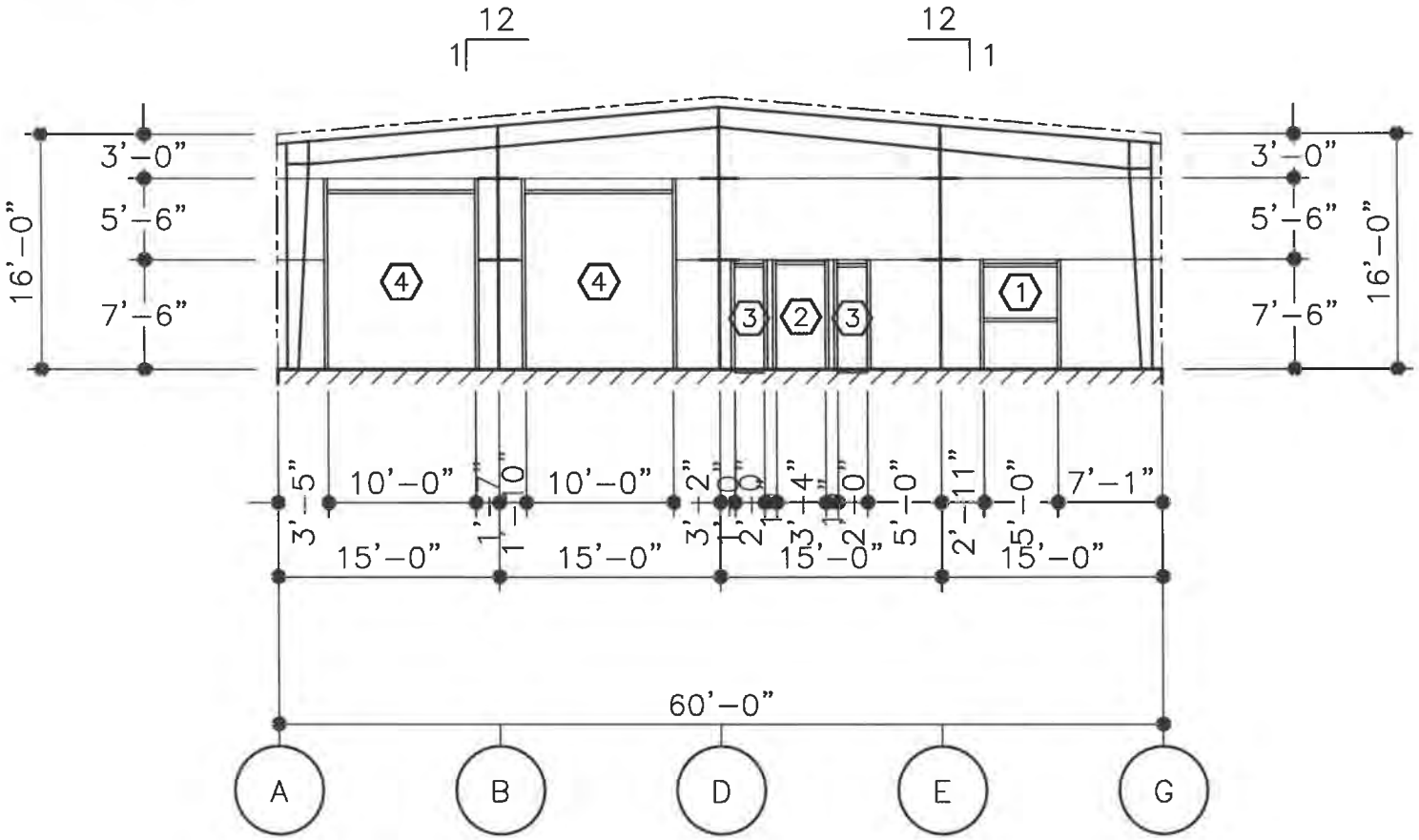
DO NOT USE FOR FINAL CONSTRUCTION	PROJECT NAME: CANBY FIRE CANBY, OR	
SHEET TITLE: PRELIMINARY FLOOR PLAN 11/23/2020 6:01 PM	CUSTOMER NAME: CANBY FIRE	
SHEET NUMBER: QUOTE NUMBER:		

KEY PLAN



FRAMED OPENING SCHEDULE

D	QTY	WIDTH	HEIGHT	SILL HEIGHT	LOCATED
1	1	5'-0"	3'-6"	3'-6"	FACTORY
2	1	3'-4"	7'-2"	0'-0"	FACTORY
3	2	2'-0"	7'-0"	0'-0"	FACTORY
4	2	10'-0"	12'-0"	0'-0"	FACTORY

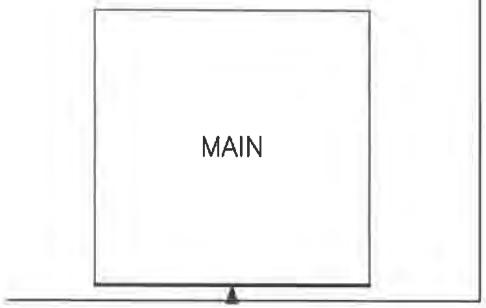


ELEVATION AT LINE 1

PROJECT NAME: CANBY FIRE
CANBY, OR
CUSTOMER NAME: CANBY FIRE

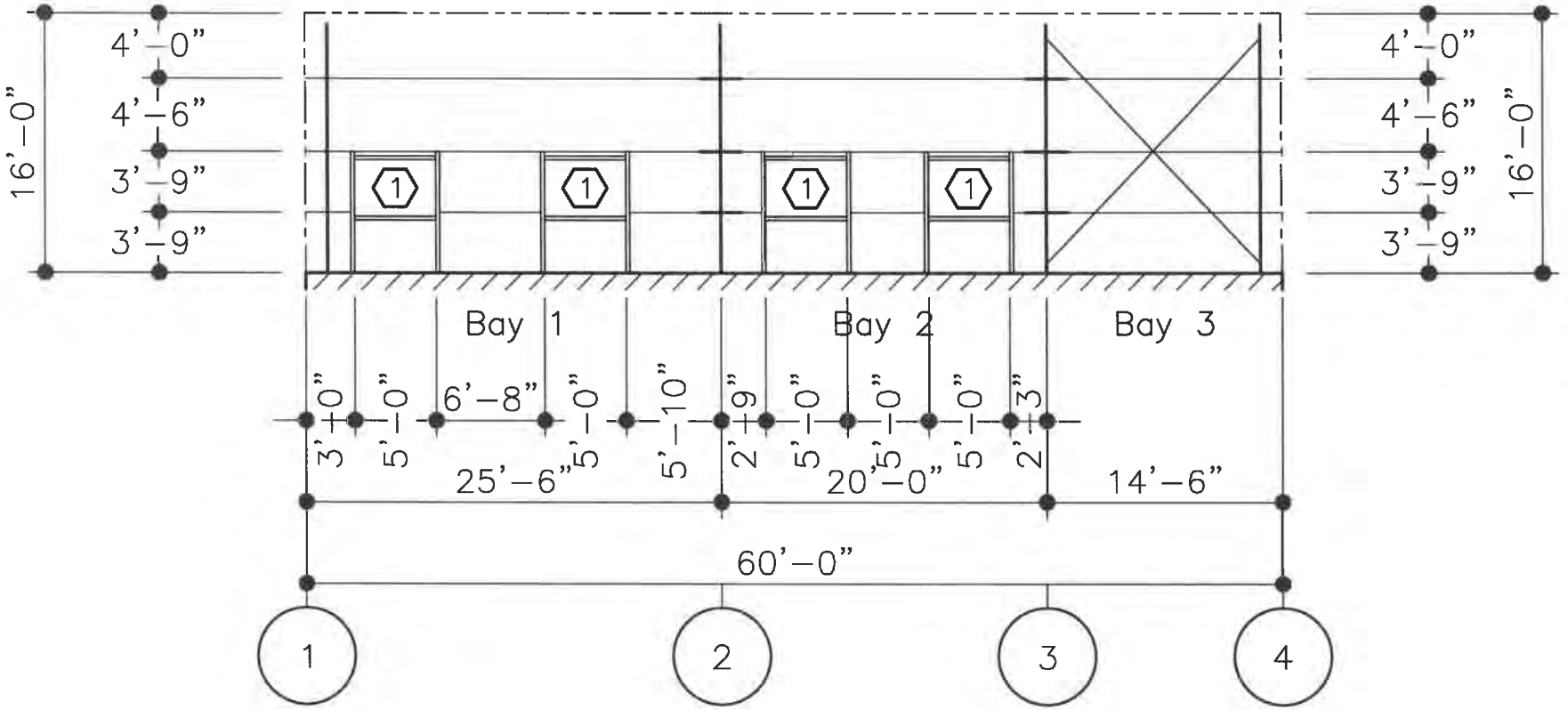
DO NOT USE FOR FINAL CONSTRUCTION
11/23/2020 6:01 PM
SHEET TITLE: PRELIMINARY STRUCTURAL ELEVATIONS
QUOTE NUMBER:
SHEET NUMBER:

KEY PLAN



FRAMED OPENING SCHEDULE

D	QTY	WIDTH	HEIGHT	SILL HEIGHT	LOCATED
1	4	5'-0"	3'-6"	3'-6"	FACTORY



ELEVATION AT LINE G

DO NOT USE FOR FINAL CONSTRUCTION

SHEET TITLE: PRELIMINARY STRUCTURAL ELEVATIONS

11/23/2020 6:01 PM

PROJECT NAME: CANBY FIRE

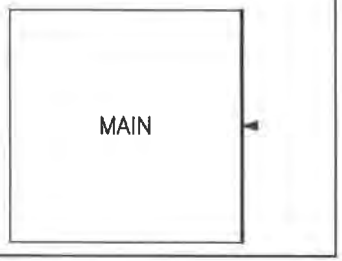
CANBY, OR

CUSTOMER NAME: CANBY FIRE

SHEET NUMBER:

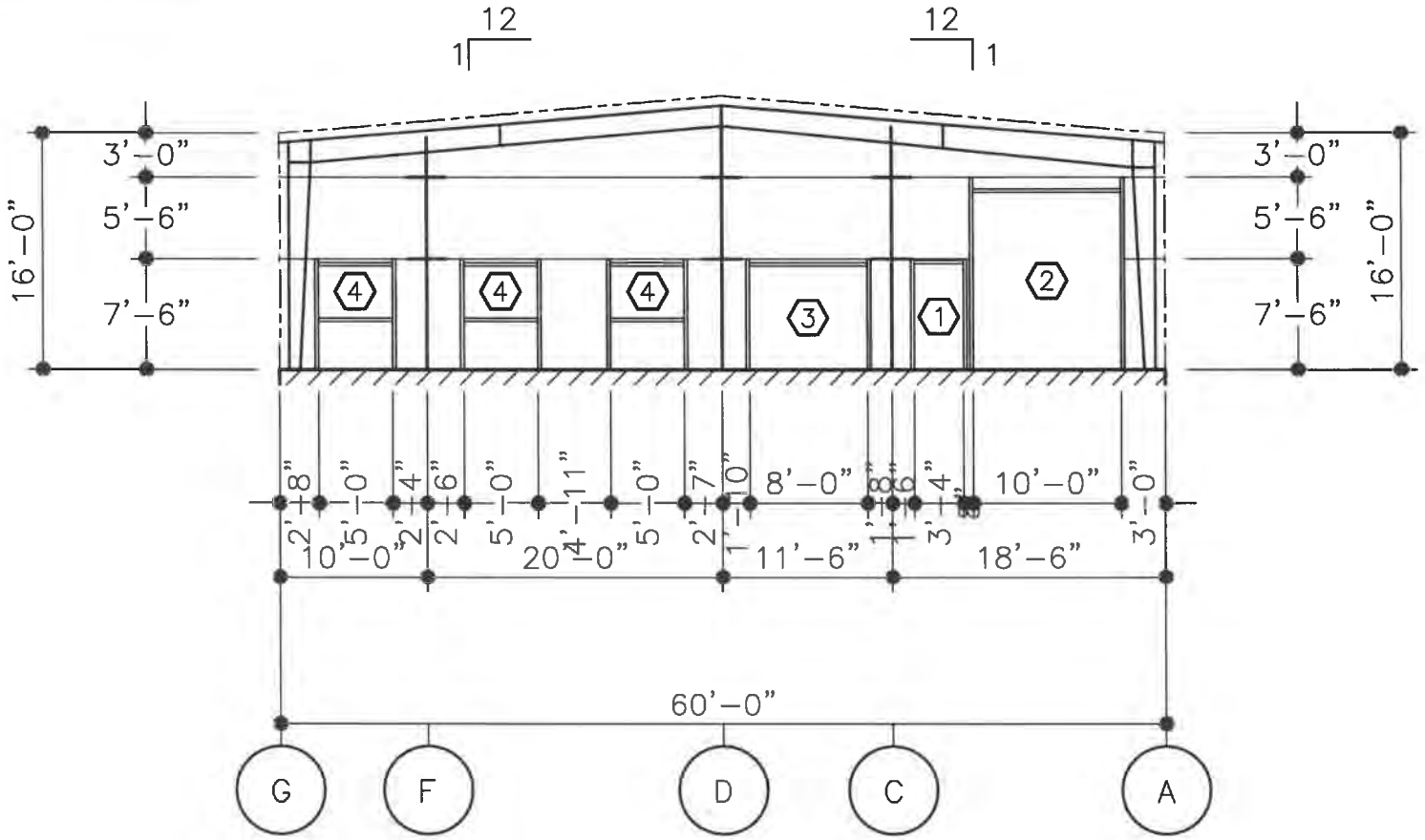
QUOTE NUMBER:

KEY PLAN



FRAMED OPENING SCHEDULE

Ⓓ	QTY	WIDTH	HEIGHT	SILL HEIGHT	LOCATED
1	1	3'–4"	7'–2"	0'–0"	FACTORY
2	1	10'–0"	12'–0"	0'–0"	FACTORY
3	1	8'–0"	7'–0"	0'–0"	FACTORY
4	3	5'–0"	3'–6"	3'–6"	FACTORY



ELEVATION AT LINE 4

PROJECT NAME: CANBY FIRE
CANBY, OR
CUSTOMER NAME: CANBY FIRE

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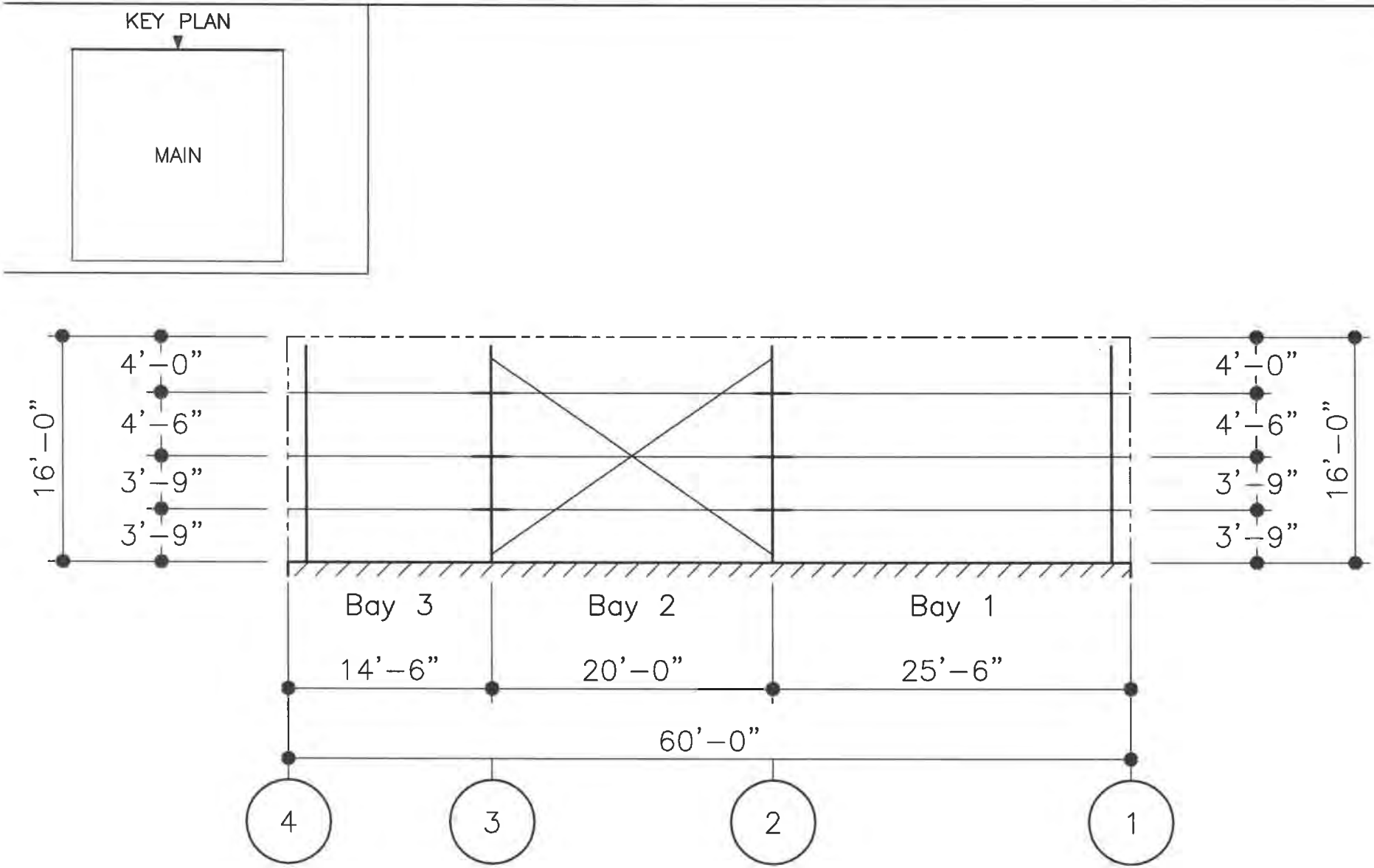
11/23/2020 6:01 PM
SHEET TITLE: PRELIMINARY STRUCTURAL ELEVATIONS
QUOTE NUMBER:
SHEET NUMBER:



ELEVATION AT LINE A

DO NOT USE FOR FINAL CONSTRUCTION

11/23/2020 6:01 PM

PROJECT NAME: CANBY FIRE

CANBY, OR

CUSTOMER NAME: CANBY FIRE

SHEET TITLE: PRELIMINARY STRUCTURAL ELEVATIONS

QUOTE NUMBER:

SHEET NUMBER:

Ryan Potter

From: GREGORY STRAUB [redacted]
Sent: Saturday, February 20, 2021 10:27 PM
To: Ryan Potter
Subject: Re: Questions about location ofproposed emergency medical station

Thank you very much for your quick and reassuring response. I've forwarded your reply to our neighborhood HOA here at the Manor on the Greens, virtually adjacent to Eco Park. Some have already responded that they had similar questions and felt much better after reading your clarifying note.

Thank you,
Greg Straub

----- Original Message -----
From: Ryan Potter
To: GREGORY STRAUB
Sent: Friday, February 19, 2021 4:31 PM
Subject: RE: Questions about location ofproposed emergency medical station

Mr. Straub,

Thank you for your email. I agree that it is hard to tell the exact location from the notice. The staff report for Planning Commission will be uploaded to the City website on February 26th and those materials will have a better map. On that date, the PC packet can be found here: https://www.canbyoregon.gov/CityGovernment/planning_commission/planningcommission.htm (in the table at the bottom of the web page).

The proposed facility would be east of the access road to Public Works (just before the Public Works space), so it would be between the access road and the open space/fields to the east. That strip of property does have trees which would have to be removed, but the project would not affect Eco Park or any of the densely forested area west of the access road.

I appreciate your comments and questions. Thanks,

Ryan

Ryan Potter, AICP | Senior Planner
City of Canby | Development Services
222 NE 2nd Ave. | PO Box 930
Canby, OR 97013
ph: (503) 266-0712
email: potterr@canbyoregon.gov; website: www.canbyoregon.gov
Send applications to: PlanningApps@canbyoregon.gov

From: GREGORY STRAUB [redacted]
Sent: Friday, February 19, 2021 4:02 PM
To: Ryan Potter <PotterR@canbyoregon.gov>
Subject: Questions about location ofproposed emergency medical station

Mr. Potter,

I received notice today about the proposed location of the Canby Fire Emergency Medical Station and before considering objections I'm hoping you can clarify a couple things.

I found the inset, Figure 1-Zoning Map and accompanying description lacking in sufficiently describing the location of the project. Since neither an accurate illustration of the existing Eco Park parking lot nor the location of the Public Works property and access road to it is shown, I'm left to make certain assumptions based on the outlined location of the proposed site. Please correct me if I'm incorrect in my assumptions.

It appears that the proposed site is adjacent to and on the west side of the access road to the Public Works space. It appears that the site is to the south of the Public Works space. If those two assumptions are correct, siting the project there would necessitate clearing and deforesting a significant chunk of Eco Park as well as eliminating an undetermined amount of established walking path there within.

If the above assumptions are correct, in my view, it begs the question: why establish the location within a well established forested park requiring clearing when directly across the access road to the east lies a vast area already cleared.

Thank you in advance for your reply.

Gregory Straub
[redacted]

Ryan Potter

From: Hassan Ibrahim <hai@curran-mcleod.com>
Sent: Wednesday, February 24, 2021 10:10 AM
To: Ryan Potter
Cc: Jerry Nelzen
Subject: RE: Northside Emergency Station

Hi Ryan,

Here are my comments:

1. The concrete approach slab shall be 2" above the existing asphalt in anticipation of the a future overlay. In the meantime, the existing AC will be feathered in to meet the slab grades.
2. Sewer service will connect to the existing lateral located north of the site north property line.
3. The water service needs to extend south of the building and constructed outside the paved parking surface.
4. Drainage analysis shall be submitted at the final design stage.

Thanks,

****

Hassan A. Ibrahim, P.E.
CURRAN-McLEOD, INC.
6655 SW Hampton St., Suite 210
Portland, OR 97223
Tel: (503) 684-3478
Fax: (503) 624-8247
Cell: (503) 807-2737
email: hai@curran-mcleod.com

From: Ryan Potter <PotterR@canbyoregon.gov>
Sent: Wednesday, February 24, 2021 9:41 AM
To: Hassan Ibrahim <hai@curran-mcleod.com>
Cc: Jerry Nelzen <nelzenj@canbyoregon.gov>
Subject: Northside Emergency Station

Hassan,

Do you have any conditions or comments for the satellite fire facility out at Public Works, before it goes to the PC hearing? Thanks,

Ryan

Ryan Potter, AICP | Senior Planner
City of Canby | Development Services
222 NE 2nd Ave. | PO Box 930
Canby, OR 97013
ph: (503) 266-0712
email: potterr@canbyoregon.gov; website: www.canbyoregon.gov
Send applications to: PlanningApps@canbyoregon.gov

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City of Canby

File #: SUB 20-03/VAR 20-01 – Beckwood Place Subdivision

HEARING DATE:	March 8, 2021
STAFF REPORT DATE:	February 26, 2021
TO:	Planning Commission
STAFF:	Ryan Potter, AICP, Senior Planner

Applicant Request

The applicant is seeking approval to subdivide a 6.68-acre parcel into 42 lots for single-family homes.

Vicinity Map

Property/Owner Information

Location:	Between NE 16th and NE 18th Avenues, east of N Maple Street and west of N Pine Street
Tax Lot:	31E28DD 02100
Property Size:	6.68 acres
Comprehensive Plan:	MDR – Medium Density Residential
Current Zoning:	R-1.5 – Medium Density Residential
Owner:	Tom Holmes
Applicant:	ICON Construction and Development
Applicant Representative:	Rick Givens
Application Type:	Subdivision (Type III); Major Variance (Type III)
City File Number:	SUB 20-03; VAR 20-01

Staff Recommendation

Based on the application submitted and the facts, findings, and conclusions of this Staff Report, Planning Staff recommends that Planning Commission **Approve** SUB 20-05 and VAR 20-01 pursuant to the Conditions of Approval presented in Section V at the end of this report.

Attachments

A. Land Use Applications – Subdivision Type III and Major Variance Type III
B. Application Narrative
C. Proposed Subdivision Plat
D. Site Plan Exhibits
E. Traffic Impact Analysis
F. Neighborhood Meeting Minutes
G. Public Comments

Existing Conditions

The subject property is a vacant, undeveloped rectangular site surrounded by existing neighborhoods, including the Hamilton Acres subdivision under construction to the immediate south and the recently constructed Tanoak subdivision to the immediate north. The property fronts onto N Pine Street but is also located adjacent to dead-end street stubs of N Oak Street (to the north and south), N Persimmon Street (to the south), and NE 17th Street (to the west). These streets were laid out in a manner that anticipated the future development of the subject property. Historically, the property has featured dense tree cover, including both deciduous and evergreen trees.

Surrounding residential uses include a mix of single-family homes, townhomes, and apartments, which reflects the various zoning designations of their underlying parcels (R-1, R-1.5, and R-2). Note that three parcels adjacent to the subject property's northeast corner adjacent to N Pine Street have not been annexed into the City and are therefore in the unincorporated County.

Under existing conditions, the subject property is served by the following utility providers:

- Water and electric service – Canby Utility
- Wastewater and streets – City of Canby Public Works
- Solid waste disposal services – Canby Disposal
- Fire services – Canby Fire District
- Police services – City of Canby Police Department

Project Overview

The property owner requests to subdivide the 6.68-acre subject property into a 42-lot single-family residential subdivision, with lots ranging between 5,000 and 5,347 square feet. As shown on the proposed subdivision plat and other exhibits in the application submittal, a majority of these lots would directly face public streets, while nine would be flag lots accessed from shared driveways (Lots 18-20, 24-25, and 37-40). The subdivision would be accessed from five access points, including four existing street stubs that would be extended into the subject property, and one new street connection at N Pine Street.

Analysis and Findings

I. Applicable Criteria

Applicable criteria used in evaluating this application are listed in the following sections of the Canby Municipal Code (CMC):

- 16.08 General Provisions
- 16.10 Off-street Parking and Loading

- 16.18 R-1.5 Medium Density Residential Zone
- 16.21 Residential Design Standards
- 16.46 Access Limitations on Project Density
- 16.53 Variances
- 16.62 Subdivisions – Applications
- 16.64 Subdivisions – Design Standards
- 16.68 Subdivisions – Final Procedures and Recordation
- 16.88 General Standards and Procedures
- 16.89 Application and Review Procedures
- 16.120 Parks, Open Space, and Recreation Land – General Provisions

II. Facts and Findings

The following analysis evaluates the proposed subdivision's conformance with applicable approval criteria and other Canby Municipal Code (CMC) sections, as listed above in Section I.

Section 16.08.070: *Illegally Created Lots*

In no case shall a lot 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**.** Subdivision applications are required to include "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 lots of record are located."

Finding 1: The subject property is shown on Tax Map 31E28DD as found in the Clackamas County Online Parcel Information Application (C-Map). While the application materials submitted for the proposed project include deed documents, they do not clearly demonstrate "how and when legal property lines were established and where the boundaries of the legal lots of record are located" as identified on Page 2 of the Site and Design Review application. Therefore, additional materials must be submitted to the City in order for development on the subject property to occur.

Prior to site plan approval, the City will require documentation that verifies that the subject property is comprised of legally created lots eligible for development. A condition of approval memorializing this requirement is identified in Section V of this Staff Report.

For the above reason, Planning Staff finds this request, as conditioned, is consistent with applicable provisions of the CMC.

Section 16.08.150, *Traffic Impact Study*

This section of the CMC outlines requirements for studying the transportation impacts of a proposed project.

Finding 2: A Transportation Impact Analysis (TIA)[1] was prepared for the proposed subdivision by DKS Associates, the City's traffic consultant, and completed in January 2021. Using existing traffic data and projections for the generation of new vehicle trips by the proposed project, the TIA analyzes impacts of the proposed subdivision on the area's circulation network, including roadways and intersections. The report's methodology and assumptions are identified in the TIA, which is included in this Staff

[1] Alternatively called a Traffic Impact Study (TIS).

Report as an attachment. Safety and capacity analysis was performed for the following two intersections: Highway 99E/NE 4th Avenue and NE Territorial Road/N Pine Street. In addition to vehicle trips generated by the proposed subdivision, the analysis considers cumulative impacts generated by the project in combination with surrounding land uses, including development projects approved but not yet built out.

The TIA projects that the proposed subdivision would generate 31 AM peak hour trips, 42 PM peak hour trips, and 396 overall daily vehicle trips on weekdays. These estimates are based on trip generation rates for "Single-Family Detached" uses per the Institute of Transportation Engineers (ITE).

As discussed in the TIA, the Highway 99E/NE 4th Avenue intersection is expected to operate with a volume to capacity (v/c) ratio above the City's adopted target by 2022 with and without the proposed subdivision. The project would add 21 total PM peak hour trips to this intersection. However this a minor share of the intersection's overall trips and it is known by the City as a location that requires improvement. The intersection currently features a through-local street (NE 4th Avenue) that intersects a state highway facility (Highway 99E) approximately 20 feet from a heavily-trafficked at-grade rail corridor (Union Pacific Railroad) and directly north of that, another intersection (N Pine Street) less than 50 feet away from the railway. The Canby Transportation System Plan (TSP) includes a financially constrained improvement project for this intersection that would mitigate the substandard condition. Furthermore, that improvement project is on the City's Transportation System Development Charge (SDC) list. Therefore, the project applicant for Beckwood Place and those of other nearby subdivisions and developments, contribute toward the needed improvement as SDCs are paid. Although there is no imminent plan to improve the Highway 99E/NE 4th Avenue intersection, the project is on the City's list of future projects, as discussed above.

As the proposed project would not result in any additional significant intersection or roadway traffic impacts, and is not anticipated to result in safety issues (as analyzed in the TIA), no transportation-related conditions of approval are required.

For the above reasons, Planning Staff finds this request is consistent with applicable provisions of the CMC.

Chapter 16.10: *Off-Street Parking and Loading*

Section 16.10.050 of the Municipal Code requires that each single-family dwelling provide two off-street parking spaces.

Finding 3: The proposed subdivision's 42 proposed dwelling units would each have a two-car garage and a driveway accommodating two cars. Therefore, the proposed individual lots would each comply with the code related to off-street parking. For the above reason, Planning Staff finds this request is consistent with applicable provisions of the CMC.

Chapter 16.18: *R-1.5 Medium Density Residential Zone*

Lists of allowable uses and development standards for those uses are generally found in the respective CMC chapters for each zone. The subject property is zoned R-1.5, Medium Density Residential.

Finding 4: Single-family residential uses are permitted outright in the R-1.5 Zone. As identified in Chapter 16.18 of the CMC, this zone requires that single-family residential lots be between 5,000 and 6,500 square feet in area. The 42 proposed lots are between 5,000 and 5,347 square feet, with an average of approximately 5,101 square feet.

Overall, the proposed subdivision has a density of 2.52 units per acre. The subdivision's lots all comply with the aforementioned lot size requirements and no exception is needed or requested.

The R-1.5 Zone also requires lots to have a minimum width and street frontage of 40 feet. With the exception of the nine proposed "flag" lots, this requirement would be met by the proposed subdivision. Flag lots are discouraged but not prohibited by the CMC.

Site plan approval of individual homes in the proposed subdivision will require the homebuilders to demonstrate that the homes fully comply with a maximum building height of 35 feet and other applicable development standards found in Chapter 16.18.

For the above reasons, Planning Staff finds this request is consistent with applicable provisions of the CMC.

Chapter 16.21: *Residential Design Standards*

This chapter of the CMC identifies design standards designed to create an attractive, safe, and context-sensitive built environment, with a special focus on the visual environment along public rights-of-way. Provisions in this chapter aim to ensure that there are clear visual connections between homes and the street, and prevent homes from having street-facing facades that are dominated by garages.

Finding 5: While the design standards for single-family homes found in Chapter 16.21 would apply to homes constructed in the proposed subdivision, no specific home designs are proposed at this time. Upon approval of the subdivision, consistency with applicable design standards will be evaluated at the time of site plan approval for each individual lot.

Planning Staff consider the proposed layout of the subdivision, which is dominated by standard single-family residential lots that are generally rectangular and front directly onto public streets in an orthogonal fashion, to be conducive to the construction of homes that are consistent with Chapter 16.21.

For the above reasons, Planning Staff finds this request is consistent with applicable provisions of the CMC.

Chapter 16.46: *Access Limitations on Project Density*

This chapter addresses the appropriate number of project access points relative to the size and scale of a proposed development. It also addresses access onto state highways.

Finding 6: Per Chapter 16.46, single-family residential subdivisions with 30 to 132 dwelling units must have at least two access points. Because the proposed subdivision would tie into adjacent neighborhoods with four extensions of existing local streets and an additional connection onto N Pine Street, this criterion is met. As required, the proposed streets would meet the minimum of 34 feet in width with no parking restrictions. The minimum spacing between local roadways (150 feet from centerline to centerline) cannot be met along NE 17th Avenue, but this is addressed below under Chapter 16.53, Variances.

For the above reasons, Planning Staff finds this request, as conditioned, is consistent with applicable provisions of the CMC.

Chapter 16.53: *Variances*

This chapter of the CMC defines "minor" and "major" variances. As minor variances are

limited to ten percent reductions in setbacks, other variances from approval criteria are considered major variances. The Planning Commission is authorized to approve variances owing to "special and unique circumstances" related to a specific piece of property. In granting a variance, the commission may attach conditions which it finds necessary to protect the best interests of the surrounding neighborhood.

A variance may be granted only upon determination that all of the following conditions are present:

1. Exceptional or extraordinary circumstances apply to the property which do not apply generally to other properties in the city and within the same zone. These exceptional or extraordinary circumstances result from tract size or shape, topography or other circumstances over which the owners of the property have no control. Actions of previous owners do not constitute other exceptional or extraordinary circumstances.
2. The variance is necessary to assure that the applicant maintains substantially the same property rights as are possessed by the owners of other property in the city and within the same zone.
3. Granting of this variance will not be materially detrimental to the intent or purposes of the city's Comprehensive Plan or the Land Development and Planning Ordinance.
4. Granting of this variance will not be materially detrimental to other property within the same vicinity.
5. The variance requested is the minimum variance which will alleviate the hardship.
6. The exceptional or unique conditions of the property which necessitate the issuance of a variance were not caused by the applicant, or the applicant's employees or relatives.

Finding 7: The proposed subdivision is surrounded by existing residential development that has incrementally constructed a street network of local residential streets. In anticipation of future development on the subject property, this circulation system has resulted in a number of street stubs that end at the boundaries of the subject property, including N Oak Street (from the north and south), N Persimmon Street (from the south), and NE 17th Street (from the west). Consistent with the CMC, the project applicant team has designed a subdivision that extends these streets to create connectivity in the neighborhood. However, the existing north-south oriented streets don't perfectly align and, once extended into the subject property, create two intersection offsets inconsistent with the City's street spacing standards.

In the pre-application conference conducted for the proposed subdivision, Planning Staff and Public Works Staff voiced their agreement that the proposed street layout was a logical one based on the number and location of fixed street connection points surrounding the property. Planning Staff concurs with the project applicant's findings supporting their request for a major variance, including the following.

- The exceptional circumstances which relate to this property are the unusual number of street stubs which abut the site and the placement of those street stubs which makes it impractical to connect them without violating the 150-foot intersection spacing standard.
- The property is zoned for medium density residential uses and an alternate street layout would result in a number of irregularly-shaped lots that violate the lot size requirements in the R-1.5 zone and would likely not allow the property to be

developed in the range of allowable residential densities.

- The variance would not violate the intent of the City's Comprehensive Plan or Planning Ordinance. Because the proposed streets would be designed as low-speed facilities, no substantial safety issues are anticipated by vehicles navigating the closely-spaced intersections with substandard offsets.
- The proposed street spacing would not be materially detrimental to other properties in the vicinity, several whom would benefit from the visual continuity and improved access generated by streets that connect adjacent subdivisions.
- The variance request is the minimum variance which will alleviate the hardship, since the variance only applies to streets that would be connected to the existing closely-spaced street stubs.
- The hardship was not caused or created by the project applicant as the surrounding street network is existing.

For the above reasons, Planning Staff recommend that the Planning Commission approve the requested variance.

Chapter 16.62: *Subdivisions – Applications*

This chapter requires that subdivision applications demonstrate that all required public facilities and services are available, or will become available through the development, to adequately meet the needs of the proposed land division.

Finding 8: As discussed in the pre-application conference for this project, the subject property and its surrounding vicinity are already served by water, sewer, and electric service. Although extensions of existing public streets would be required to serve the interior of the subject property, these existing public streets already abut—and provide access to—the perimeter of the property.

For the above reasons, Planning Staff finds this request is consistent with applicable provisions of the CMC.

Section 16.64.010: *Subdivision Design Standards – Streets*

This section of the CMC provides design standards for streets, including their layout and design.

Finding 9: The streets proposed for the proposed subdivision are shown in the application submittal. Overall, the proposed local streets are designed to the City's required street section and reflect the surrounding circulation pattern and street hierarchy. As required by this section of the CMC, development of the subject property provides for the extension of streets previously terminating at "dead end" stubs intended for later extension. The proposed intersections generally intersect at close to right angles and half-street improvements would only occur on the existing N Pine Street and not on new street alignments where the other half of the street would be missing.

The conditions of approval identified by the Consulting City Engineer and included in Section V of this Staff Report address compliance with minor street design issues that need addressed prior to preparation of the final subdivision plat. These include the curvature of NE 17th Avenue where it meets N Pine Street and centerline radii of all proposed streets.

As discussed in the applicant submittal and above under the response to Chapter 16.53, the alignments of N Oak Street (segments from the north and south) and N Persimmon

Street (from the south) where they intersection with NE 17th Avenue violate the City's street spacing requirements found in the CMC and Public Works Design Standards. However, Planning Staff concur with the project applicant's assertion that this was unavoidable due to existing street connection points that are fixed and have dictated the subdivision layout. A variance application for this code inconsistency has been submitted and its approval by Planning Commission is supported by Planning Staff.

For the above reasons, Planning Staff finds this request, as conditioned, is consistent with applicable provisions of the CMC.

Section 16.64.015: *Subdivision Design Standards – Access*

Finding 10: Access to the proposed subdivision would be provided by the five aforementioned street connections, which will all feature sidewalks on both sides of the street. While the subdivision includes nine flag lots, the remaining 33 lots are traditionally-oriented with direct frontage onto local streets.

The proposed subdivision is generally consistent with the access management standards adopted in the City's TSP and Public Works Design Standards. However, the TSP discourages direct access by residential driveways onto facilities designated as "Collector" streets. Lot 14 (and potentially also Lot 15) is currently proposed to be directly accessed from N Pine Street, which is a Collector street, and because this is a Clackamas County facility, the County's approval is required for these driveway access points. Section V of this Staff Report includes a condition of approval identifying this required coordination.

For the above reasons, Planning Staff finds this request, as conditioned, is consistent with applicable provisions of the CMC.

Section 16.64.020: *Subdivision Design Standards – Blocks*

This section requires that the lengths, widths, and shapes of blocks be designed "with due regard to providing adequate building sites suitable to the special needs of the type of use contemplated, needs for access, circulation, control and safety of street traffic and limitations and opportunities of topography."

Finding 11: The proposed subdivision has been deliberately designed to reflect the orientation and layout of blocks in the surrounding neighborhoods. This is reflected in the proposed extension of NE 17th Street, N Oak Street (both north and south), and N Persimmon Street, which complete unfinished blocks partially developed by adjacent subdivisions. The proposed blocks are typical of single-family residential developments and allow adequate vehicular and pedestrian circulation throughout the area. Although the north side of NE 17th Avenue would create a block depth greater than that "sufficient to provide two lot depths," this is due to the existing land use pattern and fixed street alignments surrounding the subject property.

For the above reasons, Planning Staff finds this request is consistent with applicable provisions of the CMC.

Section 16.64.030: *Subdivision Design Standards – Easements*

Easements are generally provided for utilities, public sidewalks, pedestrian connections, or shared driveways.

Finding 12: The proposed subdivision can be adequately served by water, sanitary sewer, and electric service. Extension of utility lines was discussed at the pre-application conference held for the proposed subdivision. The application submittal includes a

preliminary utility plan which proposes utility layouts for water, sanitary sewer, and electric service.

The recorded plat for this subdivision will need to identify 12-foot utility and sidewalk easements along all streets to provide future access to underground utilities. This requirement is identified in Section V of this staff report.

For the above reasons, Planning Staff finds this request, as conditioned, is consistent with applicable provisions of the CMC.

Section 16.64.040: *Subdivision Design Standards – Lots*

This subsection of the CMC requires that the "lot size, width, shape, and orientation" of subdivision lots be appropriate for the subdivision's location and land use.

Finding 13: As discussed above in analysis of project consistency with Chapter 16.18, the proposed lots comply with R-1.5 zoning standards, including having widths and street frontages that are greater than the minimum standard of 40 feet (with the exception of the aforementioned flag lots, Lots 18-20, 24-25, and 37-40). As required by Section 16.64,040, the proposed lot lines run at right angles to the street. In general, the dimensions and layout of the proposed lots are typical for traditional single-family development; no "alternative lot layout" is requested or required.

This section states that flag lots may be allowed with findings that access and building areas are adequate. Planning Staff find that the overall dimension of the subject property and the existing alignment of numerous adjacent streets necessitate that the proposed subdivision be designed as proposed, with a limited number of flag lots that all have access to public streets via shared driveways.

Canby Fire has requested that flag lots have 26-foot-wide shared driveways. Section V of this Staff Report includes a condition of approval requiring the project applicant to coordinate with Canby Fire on this issue prior to submittal of the final subdivision plat.

Planning Staff note that the proposed subdivision layout includes corner lots that are relatively narrow when side-yard setbacks are considered. This dimension of corner lot is allowed but precludes the development of some home designs and does not accommodate room for full-height fences to "box in" in the rear yard unless this fence is outside the 15-foot street side yard setback (see Subsection 16.08.110, Fences, of the CMC for City fence regulations).

For the above reasons, Planning Staff finds this request, as conditioned, is consistent with applicable provisions of the CMC.

Section 16.64.070: *Subdivision Design Standards – Improvements*

As discussed in this section, public improvement work related to the proposed subdivision shall not commence prior to construction drawings being checked for adequacy and approved by the City Engineer, Public Works Staff, and Planning Staff. This section of the CMC summarizes the developer's obligations for public improvements, which must be installed at the developer's own expense.

Finding 14: The proposed subdivision requires extension of several existing local streets as discussed above, construction of half-street improvements on N Pine Street, and extensions of existing utility systems (including water distribution, sanitary sewer lines, electric and gas lines). Furthermore, as with all development in Canby, onsite stormwater is required to be treated onsite.

The comment letter submitted by the City's Consulting Engineer, dated February 4, 2021, which is included as an attachment to this Staff Report, identifies conditions of approval for the public improvements required of the project applicant and developer. These include conditions related to the following items:

- Half-street improvements on N Pine Street, which is a County road but must be improved to City standards
- Full-street improvements on streets within the development
- Design of shared driveways
- Alignment of streets and intersections
- Compliance with Americans with Disabilities Act (ADA) requirements
- Street signage
- Street trees
- Erosion control and demolition of existing structures (if applicable)
- Stormwater drainage facilities and requirements

These conditions of approval reiterate that public improvements must be consistent with City of Canby Public Works Standards.

For the above reasons, Planning Staff finds this request, as conditioned, is consistent with applicable provisions of the CMC.

Chapter 16.120: *Parks, Open Space, and Recreational Land*

This section of the CMC requires dedication of parkland or payment of system development charges (SDCs) to compensate for the increased demand for recreational amenities generated by new land uses.

Finding 15: The proposed subdivision does not dedicate park or open space. If approved, the City will provide the applicant with an itemized inventory of applicable SDCs. For the above reason, Planning Staff finds this request is consistent with applicable provisions of the CMC.

Additional Analysis:

- **Comprehensive Plan.** The adopted City of Canby Comprehensive Plan envisioned the ultimate urbanization of this property and the intended land use of this property (MDR – Medium Density Residential) is consistent with the proposed subdivision.
- **Neighborhood Meeting.** The applicant held a public meeting via Zoom on October 19, 2020. The applicant presented the proposed subdivision and gathered public input from the attendees. As shown in the meeting notes, the applicant responded to neighbor concerns regarding street connections and their impact on neighborhood circulation. Neighbors also had comments about general neighborhood safety, construction impacts, and groundwater recharge.

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 V of the Staff Report.

III. Public and Agency Comments

Notice of this application and opportunity to provide comment was mailed to owners and residents of lots within 500 feet of the subject property and to applicable public agencies. All citizen and agency comments/written testimony that was received to date are

attached to this Staff Report and will be presented to the Planning Commission. At the time of this writing, one public comment and three agency comments were received, as summarized below.

A. Public Comments

- **Doug Onion,** dated February 22, 2021. The commenter noted that N Pine Street is in need of improvements and voices concerns about overall traffic levels on that roadway and its intersections with NE Territorial and NE 4th Avenue.

B. Agency and Service Provider Comments

- **Hassan Ibrahim, PE, Curran-McLeod, Inc.,** dated February 4, 2021. The City's Consulting Engineer provided comments regarding utility connections, public improvements, drainage analysis, and other requirements.
- **Matt English, Canby Fire,** dated February 24, 2021. The Division Chief for Canby Fire requested that the project reflect the adopted Oregon Fire Code, provide 26-foot-wide access drives for flag lots, provide hydrants at 300-foot intervals or less, and include coordination with Canby Fire on hydrant locations.
- **Matt Downs, DirectLink**, dated February 9, 2021. DirectLink identified their requirements for serving the proposed subdivision.

No items of major controversy were identified at the neighborhood meeting held September 2, 2020.

IV. Conclusion

Based on the application submitted and the facts, findings, and conclusions of this report, staff recommends that the Planning Commission **Approve** Subdivision SUB 20-05, Beckwood Place, and the related Variance VAC 20-01 subject to the conditions of approval identified in Section V of this Staff Report.

V. Conditions of Approval

Public Improvements:

1. N Pine Street is a County road and classified in the Canby Transportation System Plan (TSP) as a collector road; the total existing right-of-way (ROW) width is 40 feet and the required ROW as per the City TSP ranges between 50 and 60 feet. An additional 10-foot of ROW shall be dedicated on the development side of the roadway meeting the ROW width of 30 feet for the half street. The half street improvements shall be built to City standards with a 20-foot paved street width measured from the centerline ROW and matching the existing street width to the south side (adjacent to the Hamilton Acres subdivision). Asphalt tapers at the rate of 10:1 shall be constructed to match the existing asphalt surface at the north end of the street. Improvements to N Pine Street shall also include curb and gutter, a 5-foot planter strip with street trees, and 6-foot concrete sidewalks; streetlights with design shall be provided by the developer and utilities shall be in conformance with Section 2.207 of the City of Canby Public Works Design Standards, revised December 2019. Clackamas County approval will be needed for those improvements. A 12-foot wide public utility easement abutting the ROW is also required. (H. Ibrahim)

2. All interior streets within the subdivision, including NE 17th Avenue, N Oak Street, and N Persimmon Street shall be designed to City local street standards with 34-foot paved width, curb and gutter, 5-foot-wide planter with street trees, 6-foot-wide concrete sidewalks; streetlights with design shall be provided by the developer and utilities shall be in conformance with Chapter 2 of the City of Canby Public Works Design Standards, revised December 2019. A 12-foot-wide public utility easement abutting the ROW is also required. (H. Ibrahim)

3. Commercial driveway approaches in conformance with City detail drawing No. 104 shall be constructed at the common entrance to Lots 18 through 20, Lots 24 through 25, and Lots 37 through 40. (H. Ibrahim)

4. The intersection of N Pine Street and NE 17th Avenue requires a 50-foot straight tangent alignment perpendicular to the intersection as per Section 2.203.c of the City of Canby Public Works Design Standards, revised December 2019. This requirement doesn't appear to be met as shown on the preliminary plans and the subdivision plat shall be revised accordingly. (H. Ibrahim)

5. The project applicant or developer shall provide the City, to the satisfaction of the City Engineer, with exhibits demonstrating that the centerline radii meet or exceed the minimum radius of 165 feet as per Chapter 2.203.d of the City of Canby Public Works Design Standards, revised December 2019. (H. Ibrahim)

6. All ADA ramps shall be designed and inspected to meet the current Public Right of Way Accessibility Guidelines (PROWAG). (H. Ibrahim)

7. All interior street names and traffic signs shall be installed by the developer as part of the development. The developer's design engineer shall submit at part of the construction plans a signing and striping plan. The City may supply the required traffic and street name signs based on a mutually agreed cost. (H. Ibrahim)

8. Street trees shall be selected form the City-approved tree list. The street tree ordinance requires the developer to pay the City $250 per tree for installation and a two-year period of maintenance. The property owners will take over all of the responsibilities for street trees after that date. (H. Ibrahim)

9. An erosion control permit will be required form the City of Canby prior to any onsite ground disturbance. (H. Ibrahim)

10. If any of the existing structures onsite are to be demolished, a demolition permit will be required from Clackamas County prior to demolition. Additionally, a grading permit is required from Clackamas County prior to any onsite disturbance. (H. Ibrahim).

11. All private storm drainage runoff generated from the lots and private driveways shall be discharged onsite as per Chapter 4 of the City of Canby Public Works Design Standards, revised December 2019. (H. Ibrahim)

12. The proposed drywells (UIC) must meet the following criteria:

    a. The UIC structures' location shall meet at least one of the two conditions:

        i. The vertical separation distance between the UIC and seasonal high groundwater is more than 2.5 feet or;

        ii. The horizontal separation distance between the UIC and any water well is a minimum of 267 feet in accordance with the City of Canby Stormwater

master Plan, Appendix "C", Groundwater Protectiveness Demonstration and Risk Prioritization of Underground Injection Control (UIC) Devices.

13. A stormwater drainage report shall be prepared in conformance with the requirements as stated in Chapter 4 of the City of Canby Public Works Design Standards, revised December 2019. Additionally, the drywells may be required to connect with a conveyance system as required by the City Public Works Department during the design review phase. The drywells need to be located a minimum of 267 feet from any irrigation or drinking wells. (H. Ibrahim)

14. A storm drainage analysis shall be submitted to the City for review and approval during the final design phase. The analysis shall meet Chapter 4 of the City of Canby Public Works Design Standards, revised December 2019. (H. Ibrahim)

15. Existing domestic or irrigation wells (if any) 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. (H. Ibrahim)

16. Existing onsite sewage disposal systems (if any) 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 Engineer. (H. Ibrahim)

17. Water services and fire protection infrastructure shall be constructed in conformance with Canby Utility and Canby Fire requirements (H. Ibrahim)

18. Prior to the start of any public improvement work, the applicant shall schedule a pre-construction conference with the City and obtain construction plan sign-off from applicable agencies. (R. Potter)

19. Civil engineering drawings for public improvements shall use the North American Vertical Datum of 1988 (NAVD 88) when establishing depths and heights. (R. Potter)

20. The development shall provide fire hydrants at 300-foot intervals on center or less. The project applicant shall coordinate with Canby Fire regarding placement of hydrants. (M. English)

Fees/Assurances:

21. Per Subsection 16.08.070 of the CMC, in no case shall a lot 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. The project applicant shall submit "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 lots of record are located" prior to the City's approval of the site plan. (R. Potter)

22. All public improvements, with the exception of sidewalks, 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. (R. Potter)

23. 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 that:

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. (R. Potter)

24. The applicant must guarantee or warranty all public improvement work with a one-year subdivision maintenance bond in accordance with CMC Subsection 16.64.070(P), except for sidewalks. (R. Potter)

25. The applicant must pay the appropriate City fees authorized public improvement and a Site Plan Development Engineering Plan Review fee as applicable prior to the construction of public or private improvements. (R. Potter)

Grading/Erosion Control:

26. The applicant shall submit a grading and erosion control plan for approval by Canby Public Works in conjunction with construction plan approval prior to the installation of public improvements and start of grading for this subdivision. (R. Potter)

Final Plat Conditions:

27. The applicant is responsible for providing all required information to verify conditions of approval. The applicant shall supply a narrative along with accompanying documentation addressing each numbered condition of approval as stated. This will largely take place during the Final Plat process. The narrative shall indicate if the condition is satisfied or not, and when and how the condition will be addressed. Failure to provide a sufficient narrative and accompanying documentation will delay the final plat approval process. (R. Potter)

28. The applicant shall apply for final plat approval at the City and pay any applicable City fees to gain approval of the final 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. (R. Potter)

29. Prior to submission of the final plat, the project applicant shall coordinate with Canby Fire regarding emergency access to flag lots and associated shared driveway facilities. (M. English)

30. 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. (R. Potter)

31. 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. (R. Potter)

32. All “as-builts” of City public improvements installed shall be filed with Canby Public Works within sixty days of the completion of improvements. (R. Potter)

33. Clackamas County Surveying reviews pending subdivision plat documents for Oregon Statutes and County requirements. A final subdivision 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. (R. Potter)

34. The applicant shall record the final plat at Clackamas County within 6 months of the date of the signature of the Planning Director. (R. Potter)

35. 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. (R. Potter)

36. The City shall assign addresses for each newly created subdivision lot and distribute that to the developer, and other agencies that have an interest. (R. Potter)

37. A 12-foot utility and sidewalk easement along the subdivision’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. (R. Potter)

38. Public utility easements traversing the subject property related to water, sewer, and electric service shall be noted on the final plat. (R. Potter)

39. A reciprocal maintenance and access agreement shall be recorded for all flag lots with shared driveways. A copy of the recorded access easements shall be included with the final plat. (R. Potter)

40. Prior to preparation of the final plat, the applicant shall coordinate with Clackamas County regarding the proposed driveway onto N Pine Street for Lot 14. (R. Potter)

41. Canby Fire District shall determine compliance with all fire regulations. (M. English)

Monumentation/Survey Accuracy Conditions:

42. The County Surveyor shall verify that the survey accuracy and monumentation requirements set forth in Oregon Revised Statutes and CMC 16.64.070(M) are met prior to the recordation of the final plat. Installation of the front lot monumentation (along and within street rights-of-way) and the replacement of any existing monuments destroyed during improvement installation shall be confirmed by the City Engineer or County Surveyor prior to the recordation of the final partition plat. (R. Potter)

43. Monuments shall be reestablished and protected in monument boxes at every street intersection and all points of curvature and points of tangency of street centerlines as required by Oregon Revised Statutes Chapter 92. The City Engineer or County Surveyor shall verify compliance with this condition prior to the recordation of the final plat. (R. Potter)

Street Trees:

44. 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 shall be prepared and implemented consistent with Tree Regulation standards in Chapter 12.32 of the Canby Municipal Code. (R. Potter)

Residential Building Permit Conditions:

45. Construction of all required public improvements and recordation of the final subdivision plat must be completed prior to the construction of any homes. (R. Potter)

46. Each homebuilder shall apply for a City of Canby Site Plan Permit, City of Canby Erosion Control Permit, and Clackamas County Building Permits for each proposed home. (R. Potter)

47. Onsite storm water management on individual lots shall be designed in compliance with Canby Public Works Design Standards. (R. Potter)

48. 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. (R. Potter)

49. Minimum residential driveway widths at the inside edge of the sidewalk shall be 12 feet and the maximum residential driveway. Driveways shall be ADA-compliant. (R. Potter)

50. Prior to occupancy of the proposed homes, a code-compliant privacy fence shall be constructed on the property lines facing adjacent residential uses. All fences shall comply with the CMC Subsection 16.08.110, which does not allow full-height (6-foot) fences within the street setbacks of residential lots. (R. Potter)

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

LAND USE APPLICATION

SUBDIVISION
Process Type III

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

☐ Applicant Name: Mark Handris, Icon Construction & Dev. Phone: (503) 657-0406
Address: 1969 Willamette Falls Dr., Suite 260 Email: mark@iconconstruction.net
City/State: West Linn, OR Zip: 97068 darren@iconconstruction.net

☐ Representative Name: Rick Givens, Planning Consultant Phone: 503-479-0097
Address: 18680 Sunblaze Dr. Email: rickgivens@gmail.com
City/State: Oregon City, OR Zip: 97045

☐ Property Owner Name: Tom Holmes Phone: 503-307-4063
Signature:
Address: PO Box 111 Email: holmorehouse@msn.com
City/State: Canby, OR Zip: 97013

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

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

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

PROPERTY & PROJECT INFORMATION:

N. Pine Street @ NE 17th Ave.	6.65 Acres	31E28DD TL 2100
Street Address or Location of Subject Property	Total Size of Property	Assessor Tax Lot Numbers
Vacant	R-1.5	Medium Density Res.
Existing Use, Structures, Other Improvements on Site	Zoning	Comp Plan Designation

42-lot subdivision for single-family detached homes.
Describe the Proposed Development or Use of Subject Property

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

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 APPLIACTION

MAJOR VARIANCE
Process Type III

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

☐ Applicant Name: Mark Handris, Icon Construction & Dev. Phone: (503) 657-0406
Address: 1969 Willamette Falls Dr., Suite 260 Email: mark@iconconstruction.net
City/State: West Linn, OR Zip: 97068 darren@iconconstruction.net

☐ Representative Name: Rick Givens, Planning Consultant Phone: 503-479-0097
Address: 18680 Sunblaze Dr. Email: rickgivens@gmail.com
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Street Address or Location of Subject Property	Total Size of Property	Assessor Tax Lot Numbers
Vacant	R-1.5	Medium Density Res.
Existing Use, Structures, Other Improvements on Site	Zoning	Comp Plan Designation

Intersection spacing variance for proposed 42 lot subdivision.
Describe the Proposed Development or Use of Subject Property

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

Beckwood Place Subdivision Application

N. Pine Street, Canby, OR

Icon Construction & Development, LLC.

Rick Givens, Planning Consultant
November 2020

Introduction:

Icon Construction & Development, LLC is proposing to develop a 42-lot subdivision on property located on the west side of N. Pine Street at its intersection with NE 17th Avenue. The project site contains a total of 6.65 acres The property included in this application is described as Tax Lot 2100 of Clackamas County Assessor's Map 31E28DD. The subject property is zoned R-1.5 Medium Density Residential. A Preliminary subdivision plat and a variance to the minimum intersection spacing standard are requested to be approved in this application.

Figure 1: Vicinity Map

Existing Conditions:

As shown on the aerial photograph (Figure 2) on the following page, the subject property is rectangular in configuration. Tax Lot 2100 is vacant and is wooded with primarily coniferous trees. The site is level, with a very slight slope from east to west. There are no streams, wetlands or other significant natural features on the property. The site is surrounded by residential development. N. Oak Street is stubbed to the north and south property lines and NE 17th Avenue is stubbed to the west property line. N. Persimmon Street in the new Hamilton Acres subdivision to the south of the subject site is also stubbed to the south boundary line of this property. All utilities required for site development are available in the adjoining streets.

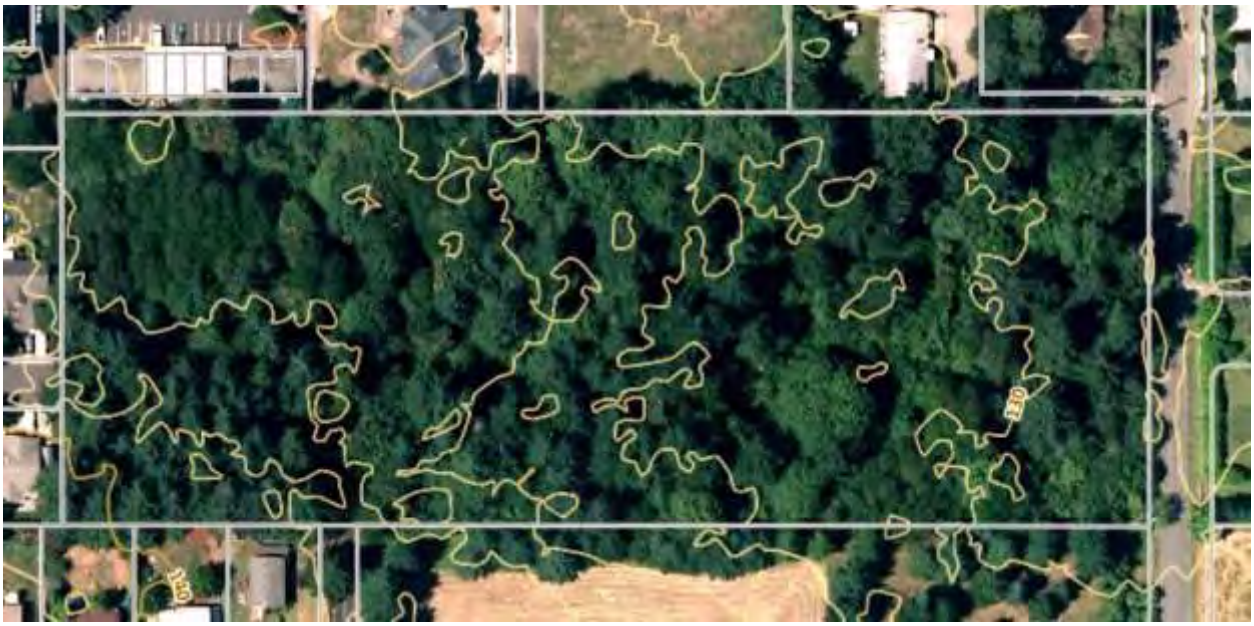


Figure 2: Aerial Photograph

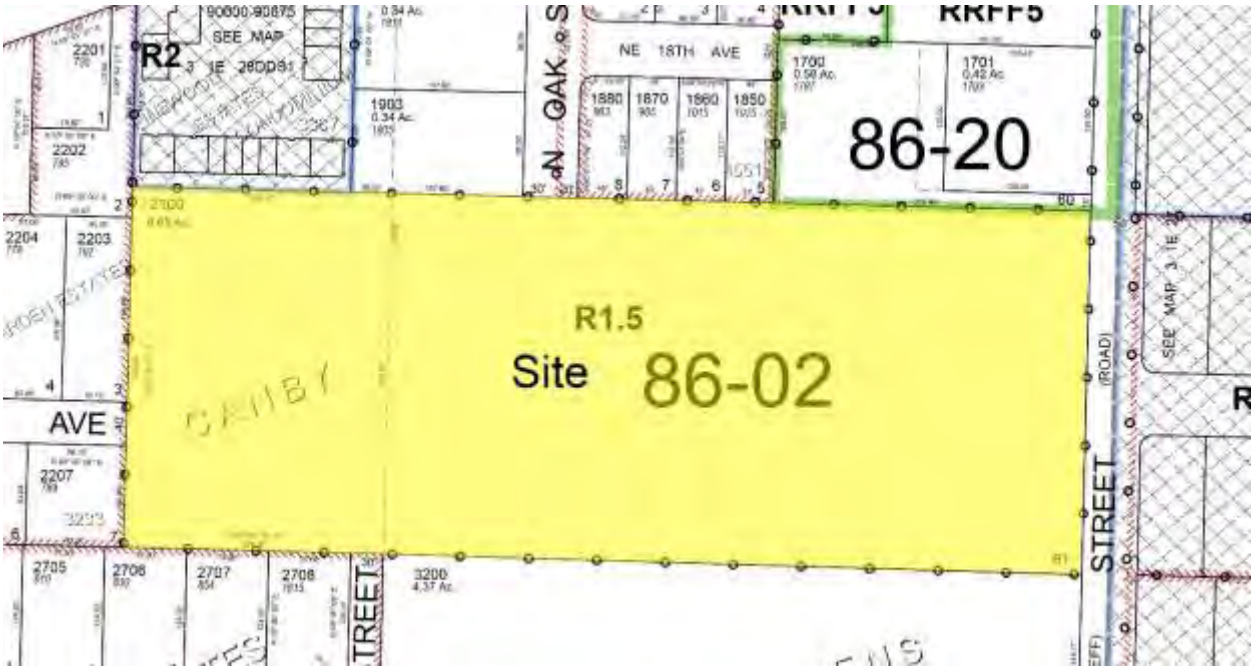


Figure 3: Assessor's Map

Project Description:

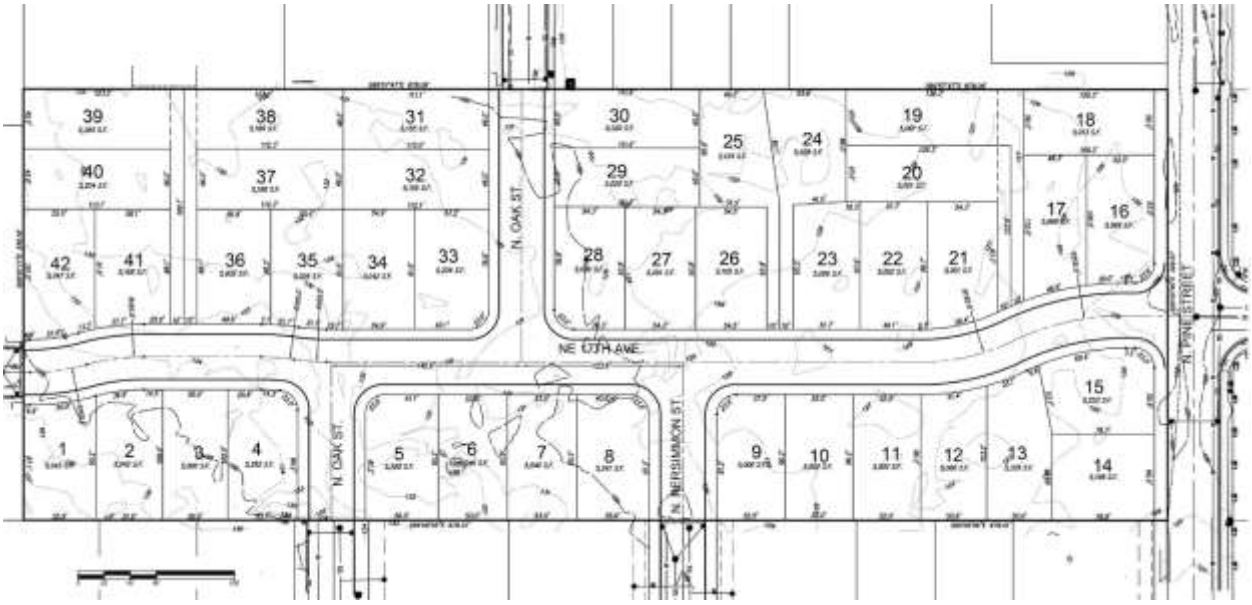


Figure 4: Preliminary Site Plan

Beckwood Place proposes 42 lots for single-family residential homes. The access to the site is via the connection of NE 17th Street from the existing street stub on the west side of the site through the site on an east-west axis to N Pine Street at its intersection with NE 17th Street on the east side of Pine. All lots within the development will be developed with single-family detached homes and all lots meet the minimum 5,000 sq. ft. minimum lot size standard for this use set forth in the R-1.5 zoning district. It is anticipated that development of the site would begin late this summer, with home construction beginning next spring.

COMPLIANCE WITH APPROVAL CRITERIA:

Chapter 16.18 – R-1.5 Low Density Residential Zone

16.18.010 Uses permitted outright. Uses permitted outright in the R-1.5 zone shall be as follows:

A. Uses permitted outright in the R-1 zone;

B. Two-family or three-family dwellings. One duplex or triplex on each lot. (Ord. 740 sect. 10.3.20 (A), 1984)

C. Single-family townhouse dwellings having common wall construction. The townhouse construction is limited to a maximum grouping of three dwelling units. If more than one group of dwellings is developed then a ten foot distance shall be maintained between an adjacent group of dwelling units. (Ord. 740 sect. 10.3.20(B), 1984; Ord. 1080, 2001; Ord. 1514, 2019)

Applicant Response: All lots are proposed to be used for single-family dwellings, which is a use permitted outright.

16.18.030 Development standards.

The following subsections indicate the required development standards of the R-1.5 zone:

A. Minimum and maximum lot area:

1. For single family dwellings: five thousand (5,000) square feet minimum and six thousand five hundred (6,500) square feet maximum.

Applicant Response: All lots are proposed to be used for single-family homes and all lots satisfy the minimum lot area of 5,000 sq. ft. No lots are proposed that exceed 6,500 sq. ft.

B. Lot area exceptions:

Applicant Response: Not applicable. No lot area exceptions are requested.

C. Minimum width and frontage: forty feet, except that the Planning Commission may approve lots having less frontage subject to special conditions to assure adequate access. Twenty feet is permitted for single family attached (common wall) housing on interior lots.

Applicant Response: All lots have widths exceeding 40 feet. All lots have frontages exceeding 40 feet.

D. Minimum yard requirements:

1. Street yard: twenty feet on side with driveway; fifteen feet for all other street sides; except that street yards may be reduced to ten feet for covered porches only.

2. Rear yard: all corner lots, ten feet single story or fifteen feet two-story; all other lots: fifteen feet single story or twenty feet two-story. One story building components must meet the single story

setback requirements; two story building components must meet the two-story setback requirements;

3. *Interior yard: seven feet, except as otherwise provided for zero-lot line housing.*

4. *Interior and rear yards may be reduced to three feet, or the width of any existing utility easement, whichever is greater, for detached accessory structures, except accessory dwellings, erected sixty feet or more from any street other than an alley. The height limitations noted in subsection E.2 below apply. Utility easements may only be reduced with the approval of all utility providers.*

5. *Infill standards may also apply. See CMC 16.21.050.*

Applicant Response: All lots are configured so that building envelopes will allow homes to be built within this project to meet the setback standards of this subsection. This will be reviewed at the time of building permit submittal.

E. Maximum building height:

Applicant Response: Homes to be built on the lots within this project will comply with maximum building height standards. This will be reviewed at the time of building permit submittal.

F. The maximum amount of impervious surface allowed the R-1.5 zone shall be 70 percent of the lot area.

Applicant Response: Homes to be built on the lots within this project will comply with maximum impervious surface standards. This will be reviewed at the time of building permit submittal.

G. Other regulations:

1. *Vision clearance distance shall be ten feet from a street to an alley or a street to a driveway, and thirty feet from a street to any other street.*

Applicant Response: Vision clearance standards will be met in the placement of future driveways. This will be demonstrated at the time of building permit application.

Division IV: Land Division Regulation

Chapter 16.56: General Provisions:

16.56.030 Conformance.

A. Comprehensive Plan. A subdivision or partition shall conform to the Comprehensive Plan. A determination of such conformity shall be based upon consideration of all applicable portions of the Comprehensive Plan and shall not be based solely upon a review of the land use map.

Applicant Response: Please refer to the "Compliance With Comprehensive Plan" section of this narrative, below.

B. Land Development and Planning Ordinance. A land division shall be subject to all applicable requirements of other sections of this title. Where an applicant seeks the approval of any division which requires a change in zoning, the applicant may be required to complete the rezoning process prior to submittal of an application for property division.

Applicant Response: The compliance of this application with relevant portions of the City's development regulations is discussed in this narrative. No zone change is required for proposed subdivision. The project site is zoned R-1.5 and the lots in the proposed subdivision are designed to comply with applicable standards.

C. Health, Safety, and Sanitation. A subdivision or partition shall conform to all applicable state, county and city regulations regarding health, safety and sanitation. The county will not issue any permits for on-site sewage disposal systems for any lot or parcel created in violation of these regulations, nor for the remainder of the parent parcel from which lots or parcels have been illegally created, unless and until such violation has been rectified and all legal requirements met.

Applicant Response: All lots will be connected to City of Canby sanitary sewer service. No on-site sewage disposal is proposed. The development will conform to all applicable state, county and city regulations regarding health, safety and sanitation.

D. Building. Structures and buildings in any property division shall conform with applicable codes and regulations regarding building. The City Building Official shall not allow the issuance of a building permit on any lot or parcel created, subdivided or partitioned in violation of these requirements. No building permit shall be issued for the remainder of the parent parcel, from which any lots or parcels have been created in violation of this title, unless and until such violation has been rectified and all legal requirements met.

Applicant Response: All homes to be built will conform to city and state building codes. Plans will be reviewed by the City at the time of building permit application for compliance with these regulations.

E. Streets and Roads. A property division shall conform to all applicable city ordinances or policies pertaining to streets, roads, or access. (Ord. 740 section 10.4.10(C), 1984)

Applicant Response: All roads will be designed to conform to city standards. Construction plans will be reviewed by the City prior to plat approval and will need to demonstrate such conformance before construction permits are issued.

Chapter 16.62: Subdivisions - Applications

16.62.010 Filing procedures.

A. Application procedures shall be as described in Chapter 16.89. (Ord. 899 section 3, 1993; Ord. 740 section 10.4.40(A), 1984; Ord. 981 section 10, 1997; Ord. 1019 section 16, 1999; Ord. 1080, 2001; Ord. 1237, 2007)

Applicant Response: As required by Chapter 16.89, this subdivision application will be heard by the Canby Planning Commission through a Type III process. A pre-application conference and a neighborhood meeting were held prior to submittal of the application. Notice will be provided to owners of all properties within 500 feet of the site.

16.62.020 Standards and criteria.

Applications for a subdivision shall be evaluated based upon the following standards and criteria:

A. Conformance with other applicable requirements of the Land Development and Planning Ordinance;

Applicant Response: Conformance with all relevant provisions of the City's land development ordinances is demonstrated in this narrative.

B. The overall design and arrangement of lots shall be functional and shall adequately provide building sites, utility easements, and access facilities deemed necessary for the development of the subject property without unduly hindering the use or development of adjacent properties;

Applicant Response: The proposed site plan provides for a reasonable arrangement of streets and lots. The street system extends NE 17th Avenue through the site and connects streets that are presently stubbed to the property lines (N. Oak Street and N Persimmon Street) through to NE 17th. The street system allows for access to all lots in a convenient manner.

C. Subdivision design and layout shall incorporate Low Impact Development techniques where possible to achieve the following:

1. Manage stormwater through a land development strategy that emphasizes conservation and use of onsite natural features integrated with engineered stormwater controls to more closely mimic predevelopment hydrologic conditions.

2. *Encourage creative and coordinated site planning, the conservation of natural conditions and features, the use of appropriate new technologies and techniques, and the efficient layout of open space, streets, utility networks and other public improvements.*

3. *Minimize impervious surfaces.*

4. *Encourage the creation or preservation of native vegetation and permanent open space.*

5. *Clustering of residential dwellings where appropriate to achieve (1-4) above. The arrangement of clustered dwellings shall be designed to avoid linear development patterns.*

Applicant Response: The proposed storm drainage system provides for the collection of runoff from street areas. The use of drywells will provide for the infiltration of stormwater runoff into the ground.

D. It must be demonstrated that all required public facilities and services are available, or will become available through the development, to adequately meet the needs of the proposed land division.

Applicant Response: The preliminary utility plan submitted with this application demonstrates that sanitary sewer, storm drainage, and public water can be effectively provided to all lots within the subdivision. Sewer will come from the existing line in N. Pine Street. Storm drainage will make use of drywells to infiltrate street runoff. Individual lots will have future raingardens to infiltrate water from roofs and foundations. Water service is available from the existing main in N. Pine Street, as well as from lines in the streets stubbed to the property. Police protection is available from the City of Canby. Fire protection is provided by Canby Fire District 62.

E. The layout of subdivision streets, sidewalks, and pedestrian ways supports the objectives of the Safe Routes to Schools Program by providing safe and efficient walking and bicycling routes within the subdivision and between the subdivision and all schools within a one-mile radius. During review of a subdivision application, city staff will coordinate with the appropriate school district representative to ensure safe routes to schools are incorporated into the subdivision design to the greatest extent possible. (Ord. 890 section 53, 1993; Ord. 740 section 10.4.40(B), 1984; Ord. 1338, 2010)

Applicant Response: The proposed street system ties all of the local streets that are presently stubbed to the property line together. Sidewalks will be built with the homes so that children will be able to walk through the neighborhood and bicycles will be able to utilize the local street system in an interconnected fashion.

F. A Traffic Impact Study (TIS) may be required in accordance with Section 16.08.150. (Ord. 1340, 2011)

Applicant Response: Consistent with the provisions of this subsection, a Traffic Impact Study is being prepared to meet the scoping provided by DKS, the City's traffic consultant. Please refer to that study for further information.

Chapter 16.64: Subdivisions – Design Standards

16.64.010 Streets.

A. Generally. The location, width and grade of streets shall be considered in relation to existing and planned streets, to topographical conditions, to public convenience and safety, and to the proposed use of land to be served by the streets. The street system shall assure an adequate traffic circulation pattern with intersection angles, grades, tangents, and curves appropriate for the traffic to be carried. Where location is not shown in a development plan, the arrangement of streets shall either:

1. *Provide for the continuation or appropriate projection of existing principal streets in surrounding areas; or*

2. *Conform to a plan for the neighborhood approved or adopted by the commission to meet a particular situation where topographical or other conditions make continuance of conformance to existing street patterns impractical;*

3. *Minimum right-of-way and roadway width shall follow the requirements of the Canby Public Works Design Standards;*

4. *Consider opportunities to incrementally extend and connect local streets to provide for safe and convenient bike and pedestrian circulation.*

Applicant Response: The proposed street system ties all of the local streets that are presently stubbed to the property line together to provide for connectivity throughout the neighborhood. The grades and design specifications are consistent with City standards, with the exception of the intersection spacing standard for which a variance is requested. Please see discussion of the variance below in this narrative.

B. Permeable Surfaces. Permeable surfacing alternatives and on-site stormwater management facilities, are encouraged for street improvements. Permeable surfacing and LID stormwater management facilities shall be constructed in accordance with the Canby Public Works Design Standards and the manufacturer's recommendations. Permeable surfacing includes, but is no limited to: paving blocks, turf block, pervious concrete, porous asphalt, and other similar approved materials. Alternative surfacing methods may be approved for public and private roads, road shoulders, pedestrian ways, driveways, and easement service roads unless site constraints make use of such materials detrimental to water quality. Use of permeable surfacing methods shall meet the imposed load requirements for fire apparatus, and shall be subject to review and approval by the Canby Public Works Department.

Applicant Response: The applicant's engineer will rely upon adopted City standards in preparing the construction plans for this subdivision.

C. Reserve Strips. Reserve strips or street plugs controlling the access to streets will not be approved unless such strips are necessary for the protection of the public welfare or of

substantial property rights, or both, and in no case unless the control and disposal of the land composing such strips is placed within the jurisdiction of the city, under conditions approved by the commission.

Applicant Response: The site plan connects all streets stubbed to the site and no new street stubs will be required.

D. Alignment. All streets other than minor streets or cul-de-sacs, shall, as far as possible, be in alignment with the existing streets by continuations of the center lines thereof. Jogs creating "T" intersections shall have centerline offsets of not less than one hundred fifty feet, unless it is found that community benefits of such an alignment outweigh its disadvantages.

Applicant Response: The proposed layout results in the creation of three "T" intersections on NE 17th Avenue at N. Oak Street from the north and south, and N. Persimmon Street from the south. The spacing of these intersections does not conform to the minimum centerline offset standard of 150 feet. A major variance for this standard is being requested in conjunction with this subdivision application. Please see discussion of Chapter 16.53.20 below in this narrative.

E. Future Extension of Streets. Where a subdivision adjoins unplatted acreage, streets which in the opinion of the commission should be continued in the event of the subdivision of the acreage, will be required to be provided through to the boundary lines of the tract. Reserve strips, street plugs and temporary turnaround areas may be required to preserve the objectives of street extensions. Reserve strips and street plugs shall be deeded to the city prior to final plat approval. The Planning Commission may require that the costs of title insurance and recordation fees, if any, for such areas be borne by the subdivider. If, in the opinion of the city engineer, a traffic pedestrian, or safety hazard temporarily exists by the construction of a dead-end street, he may direct that a barricade of adequate design be installed at the developer's expense as one of the required improvement items for the subdivision.

Applicant Response: All adjacent properties are developed and there is no need for street stubs.

F. Intersection Angles. Streets shall intersect one another at an angle as near to a right angle as possible, and no intersections of streets at angles of less than thirty degrees will be approved unless necessitated by topographic conditions. When intersections of other than ninety degrees are unavoidable, the right-of-way lines along the acute angle shall have a minimum corner radius of twelve feet. All right-of-way lines at intersections with arterial streets shall have a corner radius of not less than twelve feet.

Applicant Response: Intersection angles are at right angles as required.

G. Existing Streets. Whenever existing streets, adjacent to or within a tract, are of inadequate width, dedication of additional right-of-way shall be provided at the time of subdivision.

Applicant Response: Additional right-of-way is proposed to be dedicated to N. Pine Street along the property's frontage on that street.

H. Half Streets. Half streets, while generally not acceptable, may be approved where essential to the reasonable development of the subdivision, when in conformity with the other requirements of these regulations, and when the commission finds it will be practical to require the dedication of the other half when the adjoining property is subdivided. Whenever a half street is adjacent to a tract to be subdivided, the other half of the street shall be platted within such tract. Reserve strips, street plugs, special signs and barricades may be required to preserve the objectives of half streets.

Applicant Response: No half streets are proposed.

I. Cul-de-sacs. A cul-de-sac shall only be allowed when environmental or topographical constraints, existing development patterns, or compliance with other standards in this code preclude street extension and through circulation. When cul-de-sacs are provided, all of the following shall be met:

Applicant Response: No cul-de-sac streets are proposed

J. Marginal Access Streets. Where a subdivision abuts or contains an existing or proposed arterial street, the commission may require marginal access streets, through lots with suitable depth, screen planting contained in a nonaccess reservation along the rear property line, or such other treatment as may be necessary for adequate protection of residential properties and to afford separation of through and local traffic.

Applicant Response: Not applicable. The subdivision does not abut or contain an existing or proposed arterial street.

K. Alleys.

1. Alleys shall be provided to commercial and industrial districts, unless other permanent provisions for access to off-street parking and loading facilities are made as approved by the commission.

2. Alleys shall be provided within residential subdivisions when streets are designed to meet the narrow "green" street standards in the Canby Public Works Design Standards. Visitor parking areas may be required by the city to mitigate the lack of on-street parking.

3. When alleys are provided as part of a new residential subdivision, streets shall be designed in accordance with the narrow "green" street standards in the Canby Public Works Design Standards. Visitor parking areas may be required by the city to mitigate the lack of on-street parking.

4. Alley intersection corners shall have a minimum radius of ten feet.

Applicant Response: No alleys are proposed.

L. Street Names. No street name shall be used which will duplicate or be confused with the name of existing streets except for extensions of existing streets. Street names and numbers

shall conform to the established pattern in the city and the surrounding area and shall be subject to the approval of the commission.

Applicant Response: There will be no new street names. Existing streets will be extended.

M. Planting Easements. The Planning Commission may require additional easements for planting street trees or shrubs.

Applicant Response: The applicant will accept reasonable conditions to this effect if requested by the City.

N. Grades and Curbs. Grades shall not exceed seven percent on arterials, ten percent on collector streets, or fifteen percent on any other street. In flat areas allowance shall be made for finished street grades having a minimum slope of .5 percent. Centerline radii of curves shall not be less than three hundred feet on major arterials, two hundred feet on secondary arterials, or one hundred feet on other streets, unless specifically approved by the City, and shall be to an even ten feet.

Applicant Response: As shown on preliminary street profiles submitted with this application, all streets comply with these requirements.

O. Streets Adjacent to Highway 99-E or Railroad Right-of-Way. Wherever the proposed subdivision contains or is adjacent to a railroad right-of-way or Highway 99-E, provisions may be required for a street approximately parallel to and on each side of such right-of-way at a distance suitable for the appropriate use of the land between the streets and the railroad or Highway 99-E. The distances shall be determined with due consideration of cross streets at a minimum distance required for approach grades to a future grade separation and to provide sufficient depth to allow screen planting along the railroad right-of-way. (Ord. 740 section 10.4.40(C)(1), 1984; Ord. 1043 section 3, 2000; Ord 1237, 2007; Ord. 1338, 2010)

Applicant Response: Not applicable. The site is not adjacent to 99E or the railroad right-of-way.

16.64.015 Access

A. Any application that involves access to the State Highway System shall be reviewed by the Oregon Department of Transportation for conformance with state access management standards (See appendix G of the Transportation System Plan).

Applicant Response: Not applicable. No access to a State Highway is proposed.

B. All proposed roads shall follow the natural topography and preserve natural features of the site as much as possible. Alignments shall be planned to minimize grading.

Applicant Response: The proposed street system is located on land that is generally flat.

C. Access shall be properly placed in relation to sight distance, driveway spacing, and other related considerations, including opportunities for joint and cross access.

Applicant Response: There is adequate sight distance at all proposed intersections. Driveway locations will be reviewed at the time of building permit application.

D. The road system shall provide adequate access to buildings for residents, visitors, deliveries, emergency vehicles, and garbage collection.

Applicant Response: The proposed road system meets City standards and will adequately provide for these uses.

E. Streets shall have sidewalks on both sides. Pedestrian linkages should also be provided to the peripheral street system.

Applicant Response: As shown on the preliminary utility plan, sidewalks are proposed on both sides of all streets in the subdivision.

F. Access shall be consistent with the access management standards adopted in the Transportation System Plan. (Ord. 1043 section 3, 2000)

Applicant Response: Proposed accesses will comply with these standards.

16.64.020 Blocks.

A. Generally. The lengths, widths and shapes of blocks shall be designed with due regard to providing adequate building sites suitable to the special needs of the type of use contemplated, needs for access, circulation, control and safety of street traffic and limitations and opportunities of topography.

Applicant Response: The proposed block lengths have been determined by spacing of existing street stubs. The plan provides for reasonable building sites that are generally rectangular. There is insufficient depth to the property to provide a second east-west street so it is necessary to make use of flag lots on the north side of NE 17th Avenue.

B. Sizes. Block length shall be limited to 300 feet in the C-1 zone, 400 feet in residential zones, 600 feet in all other zones, except for 1,000 feet on arterials. Exceptions to this prescribed block standard shall be permitted where topography, barriers such as railroads or arterial roads, or environmental constraints prevent street extension. The block depth shall be sufficient to provide two lot depths appropriate to the sizes required by Division III. (Ord. 740 section 10.4.40(C)(2), 1984; Ord. 1043 section 3, 2000; Ord. 1076, 2001; Ord. 1338, 2010)

Applicant Response: Blocks are less than 600 feet in length.

16.64.030 Easements.

A. Utility Lines. Easements for electric lines or other public utilities are required, subject to the recommendations of the utility providing agency. Utility easements twelve feet in width shall be required along all street lot lines unless specifically waived. The commission may also require utility easements along side or rear lot lines when required for utility provision. The

construction of buildings or other improvements on such easements shall not be permitted unless specifically allowed by the affected utility providing agency.

Applicant Response: Easements will be provided along all streets and where needed for sidewalks and utility lines, as shown on the preliminary plan.

B. *Watercourses. Where a subdivision is traversed by a watercourse, drainage way, channel or stream, there shall be provided a storm water easement or drainage rightof-way conforming substantially with the lines of such watercourse, and such further width as will be adequate for the purpose of assuring adequate flood control. Streets parallel to watercourses may be required.*

Applicant Response: There are no watercourses on the subject property.

C. *Pedestrian Ways. In any block over six hundred feet in length, a pedestrian way or combination pedestrian way and utility easement shall be provided through the middle of the block. If unusual conditions require blocks longer than one thousand two hundred feet, two pedestrian ways may be required. When essential for public convenience, such ways may be required to connect to cul-de-sacs, or between streets and other public or semipublic lands or through green way systems. Sidewalks to city standards may be required in easements where insufficient right-of-way exists for the full street surface and the sidewalk. All pedestrian ways shall address the following standards to provide for the safety of users:*

1. *Length should be kept to a minimum and normally not in excess of two hundred feet;*

2. *Width should be maximized and shall not be below ten feet. For pathways over one hundred feet long, pathway width shall increase above the minimum by one foot for every twenty feet of length;*

3. *A minimum of three foot-candles illumination shall be provided. Lighting shall minimize glare on adjacent uses consistent with the outdoor lighting provisions in section 16.43 of this code;*

4. *Landscaping, grade differences, and other obstructions should not hinder visibility into the pedestrian way from adjacent streets and properties. Fencing along public pedestrian ways shall conform with the standards in Section 16.08.110;*

5. *Surrounding land uses should be designed to provide surveillance opportunities from those uses into the pedestrian way, such as with the placement of windows;*

6. *Exits shall be designed to maximize safety of users and traffic on adjacent streets; and*

7. *Use of permeable surfacing materials for pedestrian ways and sidewalks is encouraged whenever site and soil conditions make permeable surfacing feasible. Permeable surfacing includes, but is not limited to: paving blocks, turf block, pervious concrete, and porous asphalt All permeable surfacing shall be designed, constructed, and maintained in accordance with the Canby Public Works Design Standards and the manufacturer's*

recommendations. Maintenance of permeable surfacing materials located on private property are the responsibility of the property owner.

Applicant Response: No pedestrian ways are proposed.

D. Developments that abut the Molalla Forest Road multi-use path shall provide a pedestrian/bicycle access to the path. The city may determine the development to be exempt from this standard if there is an existing or planned access to the path within 300 feet of the development.

Applicant Response: Not applicable. The site is not adjacent to the Molalla Forest Road.

E. Solar Easements. Subdividers shall be encouraged to establish solar easements and utilize appropriate solar design in their development proposals. Solar easements shall be shown on the final plat and in the deed restrictions of the subdivision. The Planning Commission may require the recordation of special easements or other documents intended to protect solar access. (Ord. 740 section 10.4.40(C)(3), 1984; Ord. 1043 section 3, 2000; Ord 1237, 2007; Ord. 1338, 2010; Ord. 1340, 2011)

Applicant Response: The applicant does not envision including solar easements.

16.64.040 Lots.

A. Size and Shape. The lot size, width, shape and orientation shall be appropriate for the location of the subdivision and for the type of development and use contemplated. To provide for proper site design and prevent the creation of irregularly shaped parcels, the depth of any lot or parcel shall not exceed three times its width (or four times its width in rural areas) unless there is a topographical or environmental constraint or an existing man-made feature such as a railroad line.

Applicant Response: The proposed lots are regularly configured to provide for reasonable building envelopes for single-family homes. All lots conform to the minimum width and depth standards of the R-1.5 zone.

B. Minimum Lot Sizes:

1. Lot sizes shall conform with requirements of Division III unless the applicant chooses to use an alternative lot layout per subsection (3) below to accommodate interconnected and continuous open space and or other natural resources. In this case, the average minimum lot size may be reduced by 5,000 square feet after subtracting access tracts. Overall development densities shall comply with the underlying maximum density allowed by the zone.

Applicant Response: The proposed lots all conform to lot size standards of the R-1.5 district, as discussed above in this narrative.

2. In areas that cannot be connected to sewer trunk lines, minimum lot sizes shall be greater than the minimum herein specified if necessary because of adverse soil structure for

sewage disposal by septic systems. Such lot sizes shall conform to the requirements of Clackamas County for sewage disposal unless provisions are made for sanitary sewers.

Applicant Response: Not applicable. The lots will be connected to City sewer.

3. *Alternative lot layout. Applicants may deviate from standard lot setbacks and dimensions to accommodate dedicated interconnected open space or other natural areas. Clustered housing, lot-size averaging, and a mixture of approaches where building lots can be grouped into a smaller portion of the total development, reserving the remainder for open space or other natural areas. Alternative development layouts shall not exceed the underlying maximum density allowed by the zone.*

Applicant Response: The applicant proposes to meet standard setback and lot dimension requirements.

4. *When using the alternative lot layout option, the following must be met:*

    a. *The arrangement of the alternative lot layout shall be designed to avoid development forms commonly known as linear, straight-line or highway strip patterns.*

    b. *To the maximum extent possible, open space and natural areas, where used, shall be continuous, interconnected, and concentrated in large usable areas.*

    c. *Where possible, open space shall be connected to adjacent off-site open space areas.*

    d. *Open space and natural areas shall be maintained permanently by the property owner or the property owner's association.*

Applicant Response: Not applicable. The project does not make use of the alternative lot layout option.

C. *Lot Frontage. All lots shall meet the requirements specified in Division III for frontage on a public street, except that the Planning Commission may allow the creation of flag lots, cul-de-sac lots and other such unique designs upon findings that access and building areas are adequate. Lots that front on more than one major street shall be required to locate motor vehicle accesses on the street with the lower functional classification.*

Applicant Response: A total of eight flag lots are proposed: Lots 19 &20, 24 & 25, and 37-40. Lot 18 will make use of the flag strip serving Lots 19 and 20, but has frontage on N. Pine Street. These lots meet the flag lot standards, as discussed below. All of these lots will take their access from NE 17th Avenue, a local street within the subdivision.

D. *Double Frontage. Double frontage or through lots should be avoided except where essential to provide separation of residential development from traffic arteries or to overcome specific disadvantages of topography and orientation.*

Applicant Response: No double frontage lots are proposed.

E. Lot Side Lines. The side lines of lots shall run at right angles to the street upon which the lots face, or on curved streets they shall be radial to the curve, unless there is some recognizable advantage to a different design.

Applicant Response: To the maximum extent practicable, the lots in this subdivision are designed with side lines at right angles to the streets onto which they front.

F. Resubdivision. In subdividing tracts into large lots which at some future time are likely to be resubdivided, the location of lot lines and other details of the layout shall be such that resubdivision may readily take place without violating the requirements of these regulations and without interfering with the orderly development of streets. Restriction of building locations in relationship to future street rights-of-way shall be made a matter of record if the commission considers it necessary.

Applicant Response: No lots are proposed that are capable of being re-subdivided.

G. Building Lines. If special building setback lines are to be established in the subdivision plat, they shall be shown on the subdivision plat or included in the deed restrictions. This includes lots where common wall construction is to be permitted between two single-family dwellings.

Applicant Response: No special building setback lines are proposed.

H. Potentially Hazardous Lots or Parcels. The commission shall utilize its prerogative to modify or deny a tentative plat or partition map where it is found that a proposed lot or parcel is potentially hazardous due to flooding or soil instability.

Applicant Response: No potentially hazardous lots are proposed. The site is not located in a flood plain or an area of steep or unstable soils.

I. Flag Lots or Panhandle-shaped Lots. The commission may allow the creation of flag lots provided that the following standards are met:

1. Not more than one flag lot shall be created to the rear of any conventional lot and having frontage on the same street unless it is found that access will be adequate and that multiple flag lots are the only reasonable method to allow for development of the site. Every flag lot shall have access to a public street.

Applicant Response: A total of eight flag lots are proposed: Lots 19 &20, 24 & 25, and 37-40. Lot 18 will make use of the flag strip serving Lots 19 and 20, but has frontage on N. Pine Street. Lots 19&20 and 24&25 comply with the provision of not having more than one flag lot to the rear of a conventional lot. Lots 37 to 40 create a set of four lots to the rear of the conventional lots fronting onto NE 17th Avenue. They are located in the northwest corner of the property in an area where there is no other access available from adjacent development. The location of NE 17th Avenue is fixed by the alignment of the street stub from existing development to the west. It is not practicable to extend a cul-de-sac to the north to serve this area as there is insufficient room to create the turn-around. Because of the location of the existing street stub from the north, is not practicable to shift N. Oak Street farther to the east to create more room in the northwest corner so that a cul-de-sac design would work. For

these reasons, the proposed flag lot configuration is the only reasonable method allowing for the development of this area of the site. The proposed flag access will be paved to a width of 20 feet, which will provide for adequate access to serve the four proposed flag lots.

2. *The access strip is to be a minimum of twenty feet in width and shall be paved for its full width from its connection with the public street to the main body of the lot. Except, however, that the width requirement may be reduced to twelve feet, for accessing a single flag lot, where the total length of the access strip does not exceed one hundred feet. Access strips not less than ten feet in width may be permitted where two such drives abut and are provided with reciprocal easements for use. For drives accessing more than two flag lots, the access strip shall be a minimum of twenty feet with reciprocal access and maintenance agreements for all lots.*

Applicant Response: The three access strips proposed to serve flag lots in this development are all 20 feet in width. This standard is met.

3. *For residential flag lots, a minimum building setback of five feet from the access strip shall be maintained where such buildings exist prior to the creation of the flag lot.*

Applicant Response: There are no existing buildings abutting the proposed flag lots.

4. *Design and locations of buildings on flag lots shall be such that normal traffic will have sufficient area to turn around, rather than necessitating backing motions down the access strip. The commission may establish special setback requirements at the time of approving the creation of flag lots.*

Applicant Response: The driveway design for the flag lots will provide sufficient room for a turn-around area. This will be demonstrated at the time of building permit.

5. *Flag lots shall not be permitted when the result would be to increase the number of properties requiring direct and individual access connections to the State Highway System or other arterials.*

Applicant Response: The subject property does not abut a State Highway or other arterial.

6. *The area of a panhandle shaped or flag lot shall be considered to be the rear or buildable portion of the lot and shall not include the driveway or access strip.*

Applicant Response: As shown on the site plan, the area of the proposed flag lots, exclusive of the access strip, exceeds the minimum lot area standard.

7. *For the purposes of defining setbacks, flag lots shall have three side yards and one rear yard. The rear yard may be placed on any side of the main dwelling.*

Applicant Response: Proposed homes on the flag lots will comply with the modified setbacks of this subsection. This will be demonstrated at the time of building permit application.

J. Designation of Lots as 'Infill Home' Sites. The Planning Commission may require that homes built on one or more lots adjacent to existing development be subject to any or all of the requirements of 16.21.050 - Infill Homes. Furthermore, for subdivisions where the parent parcel(s) is less than two acres in size, the Planning Commission may require that all homes built on lots in the subdivision be subject to any or all of the requirements of 16.21.050. These requirements are to be shown on the subdivision plat or included in the deed restrictions. (Ord. 740 section 10.3.05(F) and 10.4.40(C)(4), 1984; Ord. 890 section 54, 1993; Ord. 1043 section 3, 2000; Ord. 1107, 2002; Ord. 1111 section 6, 2003; Ord. 1338, 2010)

Applicant Response: Not applicable. The lots are not infill home sites.

16.64.050 Parks and recreation.

Subdivisions shall meet the requirements for park, open space and recreation as specified in Division VI.

Applicant Response: The proposed development does not include park or open space. All homes will contribute to park needs through payment of the park SDCs at the time of building permit application.

COMPLIANCE WITH COMPREHENSIVE PLAN

The City of Canby Comprehensive Plan Map designates the subject property MDR-Medium Density Residential. This plan designation is implemented by the R-1.5 zoning district that is applied to the property. The proposed site plan has been designed at a density consistent with this designation and the proposed land use, single-family residential, is a use permitted in this zoning district.

CITIZEN INVOLVEMENT ELEMENT

Applicant Response: The proposed project will be reviewed in a manner that is consistent with the Citizen Involvement Element of the Comprehensive Plan. A neighborhood meeting was held in accordance with City standards prior to the submittal of the subdivision application. This meeting allowed the applicant to present the proposed development and to answer questions and take citizen comments that were used in formulating the final application. The City of Canby will provide public notice prior to the public hearing before the Planning Commission. Citizens will be allowed to present testimony regarding the proposal prior to the Planning Commission making a decision on the application.

URBAN GROWTH ELEMENT

Applicant Response: The subject property is within the Urban Growth Boundary and has been annexed to the City of Canby. Development of the property, therefore, is consistent with the Urban Growth Element.

LAND USE ELEMENT

POLICY NO. 1: CANBY SHALL GUIDE THE COURSE OF GROWTH AND DEVELOPMENT SO AS TO SEPARATE CONFLICTING OR INCOMPATIBLE USES WHILE GROUPING COMPATIBLE USES.

Applicant Response: The City has designated the subject property for Medium Density Residential Development. The proposed development is consistent with the land use designation and with the policies that the City has adopted to guide development in this area of the city.

POLICY NO. 2: CANBY SHALL ENCOURAGE A GENERAL INCREASE IN THE INTENSITY AND DENSITY OF PERMITTED DEVELOPMENT AS A MEANS OF MINIMIZING URBAN SPRAWL.

Applicant Response: The proposed density of development is consistent with the Medium Density Residential/R-1.5 standards. Developing the site at a density consistent with the Comprehensive Plan reduces the need to expand the Urban Growth Boundary to accommodate population growth.

POLICY NO. 3: CANBY SHALL DISCOURAGE ANY DEVELOPMENT WHICH WILL RESULT IN OVERBURDENING ANY OF THE COMMUNITY'S PUBLIC FACILITIES OR SERVICES.

Applicant Response: The subject property is served with all required public facilities and services need for the proposed development. Sanitary sewer is available in N. Pine Street, as is public water service. Storm water will be routed to drywells in order to infiltrate it into the gound in accordance with City standards. Police and fire protection are provided by the City of Canby.

POLICY NO. 4: CANBY SHALL LIMIT DEVELOPMENT IN AREAS IDENTIFIED AS HAVING AN UNACCEPTABLE LEVEL OF RISK BECAUSE OF NATURAL HAZARDS.

Applicant Response: No wetlands or other natural hazard areas are present on the subject property.

POLICY NO. 5: CANBY SHALL UTILIZE THE LAND USE MAP AS THE BASIS OF ZONING AND OTHER PLANNING OR PUBLIC FACILITY DECISIONS.

Applicant Response: The City has implemented the Medium Density Residential designation of the subject property on the Comprehensive Plan Map through the adoption of R1.5 zoning.

POLICY NO. 6: CANBY SHALL RECOGNIZE THE UNIQUE CHARACTER OF CERTAIN AREAS AND WILL UTILIZE THE FOLLOWING SPECIAL REQUIREMENTS, IN CONJUNCTION WITH THE REQUIREMENTS OF THE LAND DEVELOPMENT AND PLANNING ORDINANCE, IN GUIDING THE USE AND DEVELOPMENT OF THESE UNIQUE AREAS.

Applicant Response: The subject property is not identified on the Areas of Special Concern Map in this section of the Comprehensive Plan.

ENVIRONMENTAL CONCERNS ELEMENT

POLICY NO. 1-R-A: CANBY SHALL DIRECT URBAN GROWTH SUCH THAT VIABLE AGRICULTURAL USES WITHIN THE URBAN GROWTH BOUNDARY CAN CONTINUE AS LONG AS IT IS ECONOMICALLY FEASIBLE FOR THEM TO DO SO.

Applicant Response: The subject property is not in farm use. The site is wooded.

POLICY NO. 1-R-B: CANBY SHALL ENCOURAGE THE URBANIZATION OF THE LEAST PRODUCTIVE AGRICLUTURAL AREA WITHIN THE URBAN GROWTH BOUNDARY AS A FIRST PRIORITY.

Applicant Response: As noted above, the subject property is not productive farm land. Urbanization does not conflict with this policy.

POLICY NO. 2-R: CANBY SHALL MAINTAIN AND PROTECT SURFACE WATER AND GROUNDWATER RESOURCES.

Applicant Response: There are no wetlands or streams on the subject property. The use of infiltration systems for roof drains will aid in maintaining groundwater resources in this area.

POLICY NO. 3-R: CANBY SHALL REQUIRE THAT ALL EXISTING AND FUTURE DEVELOPMENT ACTIVITIES MEET THE PRESCRIBED STANDARDS FOR AIR, WATER, AND LAND POLLUTION.

Applicant Response: The proposed development will comply with all applicable standards relating to air, water and land pollution.

POLICY NO. 4-R: CANBY SHALL SEEK TO MITIGATE, WHEREVER POSSIBLE, NOISE POLLUTION GENERATED FROM NEW PROPOSALS OR EXISTING ACTIVITIES.

Applicant Response: Not applicable. There are no significant noise pollution impacts associated with residential development.

POLICY NO. 5-R: CANBY SHALL SUPPORT LOCAL SAND AND GRAVEL OPERATIONS AND WILL COOPERATE WITH COUNTY AND STATE AGENCIES IN THE REVIEW OF AGGREGATE REMOVAL APPLICATIONS.

Applicant Response: Not applicable. The site plan does not include proposals for sand or gravel operations.

POLICY NO. 6-R: CANBY SHALL PRESERVE AND, WHERE POSSIBLE, ENCOURAGE RESTORATION OF HISTORIC SITES AND BUILDINGS.

Applicant Response: Not applicable. No identified historic resources are present on this site.

POLICY NO. 8-R: CANBY SHALL SEEK TO PRESERVE AND MAINTAIN OPEN SPACE WHERE APPROPRIATE AND WHERE COMPATIBLE WITH OTHER LAND USES.

Applicant Response: There are no open space areas designated for this site.

POLICY NO. 9-R: CANBY SHALL ATTEMPT TO MINIMIZE THE ADVERSE IMPACTS OF NEW DEVELOPMENTS ON FISH AND WILDLIFE HABITATS.

Applicant Response: The proposed storm sewer system will infiltrate runoff into the ground via drywells. This will avoid impacts to water resource areas.

POLICY NO. 10-R: CANBY SHALL ATTEMPT TO MINIMIZE THE ADVERSE IMPACTS OF NEW DEVELOPMENTS ON WETLANDS.

Applicant Response: There are no wetland areas on the subject site.

POLICY NO. 1-H: CANBY SHALL RESTRICT URBANIZATION IN AREAS OF IDENTIFIED STEEP SLOPES.

Applicant Response: There are no areas of steep slope on the subject property.

POLICY NO. 2-H: CANBY SHALL CONTINUE TO PARTICIPATE IN AND SHALL ACTIVELY SUPPORT THE FEDERAL FLOOD INSURANCE PROGRAM.

Applicant Response: No wetlands are identified on the subject property.

TRANSPORTATION ELEMENT

POLICY NO. 1: CANBY SHALL PROVIDE THE NECESSARY IMPROVEMENT TO CITY STREETS, AND WILL ENCOURAGE THE COUNTY TO MAKE THE SAME COMMITMENT TO LOCAL COUNTY ROADS, IN AN EFFORT TO KEEP PACE WITH GROWTH.

Applicant Response: The development of this property will provide for street frontage improvements along N. Pine Street by the project developer. The project will also contribute funds to the City's transportation improvement projects through SDCs paid with each building permit.

POLICY NO. 2: CANBY SHALL WORK COOPERATIVELY WITH DEVELOPERS TO ASSURE THAT NEW STREETS ARE CONSTRUCTED IN A TIMELY FASHION TO MEET THE CITY'S GROWTH NEEDS.

Applicant Response: All streets proposed in this subdivision will be improved or bonded prior to recording of the final plat for the subdivision.

POLICY NO. 3: CANBY SHALL ATTEMPT TO IMPROVE ITS PROBLEM INTERSECTIONS, IN KEEPING WITH ITS POLICIES FOR UPGRADING OR NEW CONSTRUCTION OF ROADS.

Applicant Response: A traffic study for the proposed development is included with this application. Please refer to the study for a discussion of intersection capacity.

POLICY NO. 4: CANBY SHALL WORK TO PROVIDE AN ADEQUITE SIDEWALK AND PEDESTRIAN PATHWAY SYSTEM TO SERVE ALL RESIDENTS.

Applicant Response: Sidewalks will be provided along all streets within the proposed development.

POLICY NO. 6: CANBY SHALL CONTINUE IN ITS EFFORTS TO ASSURE THAT ALL NEW DEVELOPMENTS PROVIDE ADEQUATE ACCESS FOR EMERGENCY RESPONSE VEHICLES AND FOR THE SAFETY AND CONVENIENCE OF THE GENERAL PUBLIC.

Applicant Response: The proposed street system will be developed to City standards. It provides for improved connectivity in this area of the city by extending NE 17th Avenue through to N. Pine Street and tying existing street stubs for N. Oak Street and N. Persimmon Street into NE 17th Avenue. This gridded street system will improve access for emergency response vehicles by allowing multiple ways to move through the neighborhood.

POLICY NO. 7: CANBY SHALL PROVIDE APPROPRIATE FACILITIES FOR BICYLCES AND, IF FOUND TO BE NEEDED, FOR OTHER SLOW MOVING ENERGY EFFICIENT VEHICLES.

Applicant Response: The local street system will provide for bicycle traffic.

PUBLIC FACILITIES AND SERVICES ELEMENT

GOAL 1: TO ASSURE THE ADEQUATE PROVISION OF WATER SERVICES TO MEET THE NEEDS OF THE RESIDENTS AND PROPERTY OWNERS OF CANBY.

Applicant Response: Adequate public water service is available in N. Pine Street and in other streets stubbed to the property lines, to service the proposed development. Please refer to the preliminary utility plan.

GOAL 2: TO ASSURE THE ADEQUATE PROVISION OF WASTE WATER SERVICES TO MEET THE NEEDS OF THE RESIDENTS AND PROPERTY OWNERS OF CANBY.

Applicant Response: Sanitary sewer service is available in N. Pine Street. Sewer lines will be extended into the proposed subdivision to provide sewer service to all lots. Please refer to the preliminary utility plan.

GOAL 3: TO ASSURE THE ADEQUATE PROVISION OF STORM DRAINAGE SERVICES TO MEET THE NEEDS OF THE RESIDENTS AND PROPERTY OWNERS OF CANBY.

Applicant Response: Storm water will be accommodated by collecting drainage from street areas and piped to drywells to infiltrate water into the ground. Storm water from roofs will be handled with individual raingardens to provide on-site infiltration.

GOAL 4: TO ASSURE THE ADEQUATE PROVISION OF TRANSPORTATION SERVICES TO MEET THE NEEDS OF RESIDENTS AND PROPERTY OWNERS OF CANBY.

Applicant Response: As discussed above, the traffic study completed for this project demonstrates that the existing transportation system is adequate to handle traffic generated by the proposed subdivision.

GOAL 5: TO ASSURE THE ADEQUATE PROVISION OF PARKS AND RECREATION SERVICES TO MEET THE NEEDS OF THE RESIDENTS AND PROPERTY OWNERS OF CANBY.

Applicant Response: The homes in this project will provide funds for park projects through SDCs payable with each building permit.

GOAL 6: TO ASSURE THE PROVISION OF A FULL RANGE PUBLIC FACILITIES AND SERVICES TO MEET THE NEEDS OF THE RESIDENTS AND PROPERTY OWNERS OF CANBY.

Applicant Response: All necessary public facilities and services will be provided to the proposed subdivision.

ECONOMIC ELEMENT

Applicant Response: The proposed residential development will provide short term jobs during development of the site and construction of homes. As a residential project, however, it is not directly relevant to the City's economic goals.

HOUSING ELEMENT

POLICY NO. 1: CANBY SHALL ADOPT AND IMPLEMENT AN URBAN GROWTH BOUNDARY WHICH WILL ADEQUATELY PROVIDE SPACE FOR NEW HOUSING STARTS TO SUPPORT AN INCREASE IN POPULATION TO A TOTAL OF 20,000 PERSONS.

Applicant Response: The subject property is within the UGB and the city limits. Development for residential purposes is consistent with helping to meet the housing need for projected population growth.

POLICY NO. 2: CANBY SHALL ENCOURAGE A GRADUAL INCREASE IN HOUSING DENSITY AS A RESPONSE TO THE INCREASE IN HOUSING COSTS AND THE NEED FOR MORE RENTAL HOUSING.

Applicant Response: The proposed density of development is consistent with the Medium Density Residential/R-1.5 designation of the property, as discussed above in this narrative.

ENERGY CONSERVATION ELEMENT

POLICY NO. 1: CANBY SHALL ENCOURAGE ENERGY CONSERVATION AND EFFICIENCY MEASURES IN CONSTRUCTION PRACTICES.

Applicant Response: The homes to be built on this site will comply with adopted building code energy conservation measures.

POLICY NO. 4: CANBY SHALL ATTEMPT TO REDUCE WASTEFUL PATTERNS OF ENERGY CONSUMPTION IN TRANSPORTATION SYSTEMS.

Applicant Response: This is achieved in residential development primarily by providing for connectivity so that there are few out-of-direction trips needed. The Beckwood Place project is designed with this in mind. Streets, as shown on the Preliminary Plan, will be interconnected and there are no cul-de-sacs.

16.53.020 Major Variances.

As discussed above, the proposed subdivision layout results in the creation of three "T" intersections on NE 17th Avenue at N. Oak Street from the north and south, and N. Persimmon Street from the south. The spacing of these intersections does not conform to the minimum

centerline offset standard of 150 feet set forth in Chapter 16.64.020.D. A major variance to this standard is being requested and meets the relevant approval criteria of Chapter 16.53.020 as discussed below.

These provisions are intended to prescribe procedures which allow variations from the strict application of the regulations of this title, by reason of exceptional circumstances and other specified conditions:

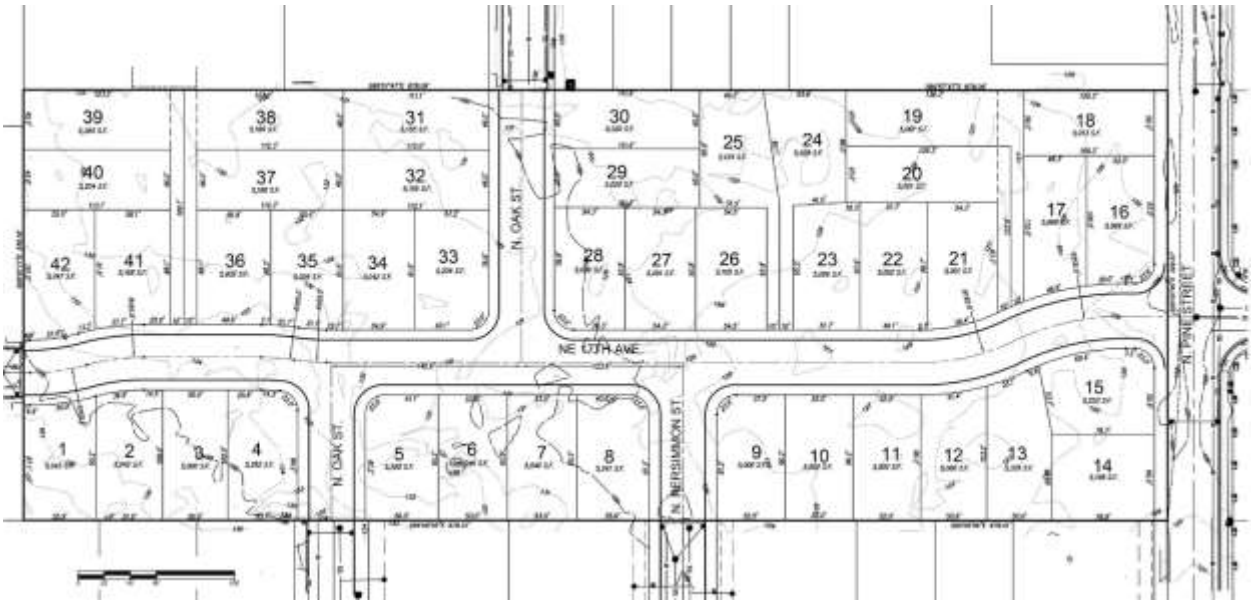
A. *Authorization. The commission may authorize variances from the requirements of this title, other than Division VII, where it can be shown that, owing to special and unusual circumstances related to a specific piece of property, the literal interpretation of the regulations would cause an undue or unnecessary hardship, except that no variance shall be granted to allow the use of property for purposes not authorized within the district in which the proposed use would be located. In granting a variance, the commission may attach conditions which it finds necessary to protect the best interests of the surrounding property or neighborhood and to otherwise achieve the purpose of this title.*

Applicant Response: N/A. Not an approval criterion.

B. *Standards and Criteria. A variance may be granted only upon determination that all of the following conditions are present:*

1. *Exceptional or extraordinary circumstances apply to the property which do not apply generally to other properties in the city and within the same zone. These exceptional or extraordinary circumstances result from tract size or shape, topography or other circumstances over which the owners of the property have no control. Actions of previous owners do not constitute other exceptional or extraordinary circumstances; and*

Applicant Response: The exceptional circumstances which relate to this property is the unusual number of street stubs which abut the site and the placement of those street stubs which makes it impracticable to connect them without violating the 150-foot intersection spacing standard. Please refer to the site plan below:



NE 17th Avenue is stubbed to the site's western border and needs to be extended through to N. Pine Street on the eastern border in alignment with the location of NE 17th Avenue on the east side of N. Pine Street. The proposed site plan does this. The problem lies in the fact that the stubs of N. Oak Street on the south border and north border are offset from each other by approximately 145 feet. This results in N. Oak Street intersecting NE 17th Avenue at about the mid-block location between N. Oak Street and N. Persimmon Street on the south side of NE Pine Street. The resulting intersection spacing is approximately 146 feet between N. Oak Street's two intersections with NE 17th Avenue, and about 124 feet between N. Oak Street and N Persimmon Street.

2. *The variance is necessary to assure that the applicant maintains substantially the same property rights as are possessed by the owners of other property in the city and within the same zone; and*

Applicant Response: The subject property is zoned R-1.5, which allows single-family lots with a minimum lot size of 5,000 sq. ft. In order to develop the site in a manner that achieves this density, it is necessary to maintain a reasonably rectangular lot configuration. While it is barely possible to connect N. Oak Street through the site with reverse curves that meet the minimum centerline radius standard, doing so would result in irregularly-shaped lots which, in order to provide reasonable building envelopes and meet minimum setback standards, would need to be larger than otherwise permitted in the R-1.5 zone. In order to achieve a density consistent with that afforded owners of other R-1.5 zoned properties, N. Oak Street cannot be continuous and the variance to the minimum intersection spacing standard is needed.

3. *Granting of this variance will not be materially detrimental to the intent or purposes of the city's Comprehensive Plan or the Land Development and Planning Ordinance; and*

Applicant Response: The Comprehensive Plan and the Land Development ordinance are silent on the purpose of intersection spacing. However, logic would say that the purpose of the intersection spacing standards is to ensure safety for traffic flow in residential neighborhoods. In this instance, the volume of traffic will be low, as discussed in the traffic study prepared for this application. All affected streets are local residential streets which will have a speed limit of 25 MPH. Intersection sight distance will be maintained per City standards. Given these conditions, allowing the requested reduction to intersection spacing will not result in an unsafe condition. On the contrary, the offset alignment of N. Oak Street will serve to reduce traffic speeds as cars must deal with the intersections and turning movements. This will also make N. Oak Street less attractive to through traffic. The single biggest concern expressed at the neighborhood meeting was regarding increased traffic on N. Oak Street between its current dead-end and Territorial. The proposed design will help to ensure that volumes and speeds remain low.

4. *Granting of this variance will not be materially detrimental to other property within the same vicinity; and*

Applicant Response: Granting the variance will only affect the intersections within the proposed subdivision. It will have no impact upon other properties in the surrounding area.

5. *The variance requested is the minimum variance which will alleviate the hardship; and*

Applicant Response: The proposed spacing of 146 feet and 124 feet is close to the minimum standard of 150 feet. The total distance between N. Persimmon Street and N. Oak Street is approximately 270 feet. It is not possible to create three intersections within that space and maintain the 150 feet offset distance required by the standard. While it may be possible to design a configuration that would split the distance evenly at 135 feet, it is clear from the site plan that it cannot be done without reducing density. Further, there is not a practical difference in the relative safety that would result.

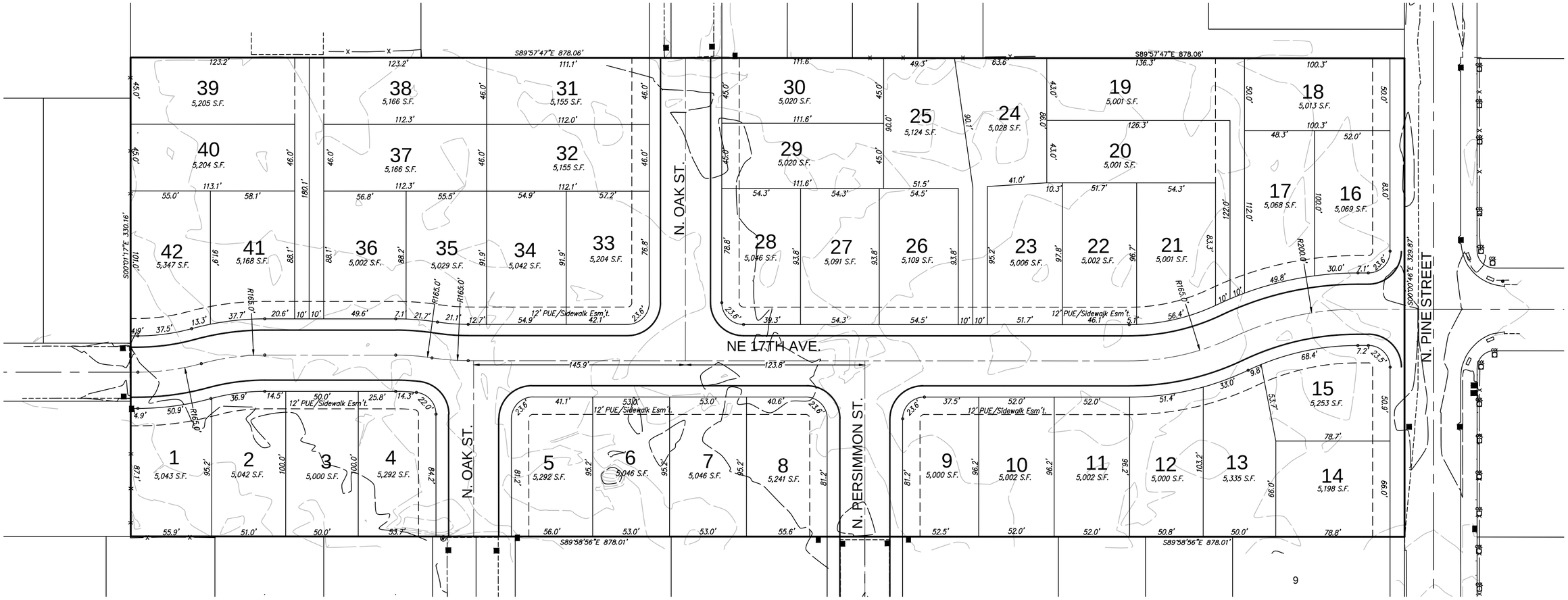
6. *The exceptional or unique conditions of the property which necessitate the issuance of a variance were not caused by the applicant, or the applicant's employees or relatives.*

Applicant Response: The unique conditions of the property relate to the location of the street stubs of N. Oak Street to the north and south of the subject property. These conditions were the result of subdivisions platted in the past and which the applicant had no involvement in.

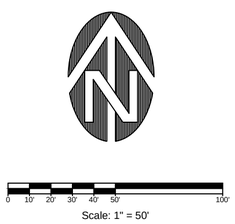
C. *Variance to Requirements of Hazard Overlay (H) Zone. Variances may be issued for non-residential buildings in very limited circumstances to allow a lesser degree of flood proofing than water-tight or dry-flood proofing, where it can be determined that such action will have a low damage potential, complies with all other variance criteria, and otherwise meets the requirements of the Hazard Overlay Zone. (Ord.805 section 4, 1987; Ord. 804 section 4(A), 1987; Ord. 740 section 10.8.50, 1984; Ord. 981 section 14, 1997; Renum. and mod. by Ord. 1080, 2001)*

Applicant Response: Not applicable. The proposed variance does not involve the Hazard Overlay Zone or non-residential buildings.

Conclusion: The proposed application for the Beckwood Place subdivision meets the requirements of applicable development code and comprehensive plan policies, with the exception of the intersection spacing standard for which a variance has been requested. The proposed findings under Chapter 16.53.20 demonstrate that the variance is consistent with approval criteria. Accordingly, the applicant requests approval of this application.



Vicinity Map



Owner:
Tom Holmes
PO Box 111
Canby, OR 97013
PH: (503) 307-4063

Legal: 3-1E-28DD Tax Lot 2100

Water: Canby Utility Board

Sewer: City of City Canby

Contours: Field Survey by Centerline Concepts, Inc.

Site Area: 6.65 Acres

Engineer:
Theta Engineering, Inc.
4260 Country Woods Ct.
Lake Oswego, OR 97035
PH: (503) 481-8822

Zoning: R-1.5

DESIGNED:	REG			
DRAWN:	REG			
SCALE:	1" = 50'			
DATE:	November 2020			
FILE:	20-ICN-102	DATE	NO.	REVISION

Richard E. Givens, Planning Consultant
18680 Sunblaze Dr.
Oregon City, OR 97045
PH: (503) 479-0097

APPLICANT: Icon Construction & Development, LLC
1980 Willamette Falls Drive, Suite 200
West Linn, OR 97068
PH: (503) 657-0406

Beckwood Place
Preliminary Plan

SHEET: 1/1

47. Onsite storm water management on individual lots shall be designed in compliance with Canby Public Works Design Standards. (R. Potter)

48. 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. (R. Potter)

49. Minimum residential driveway widths at the inside edge of the sidewalk shall be 12 feet and the maximum residential driveway. Driveways shall be ADA-compliant. (R. Potter)

50. Prior to occupancy of the proposed homes, a code-compliant privacy fence shall be constructed on the property lines facing adjacent residential uses. All fences shall comply with the CMC Subsection 16.08.110, which does not allow full-height (6-foot) fences within the street setbacks of residential lots. (R. Potter)

CANBY BECKWOOD PLACE SUBDIVISION

TRANSPORTATION IMPACT ANALYSIS

JANUARY 2021

PREPARED FOR:

CITY OF CANBY

PREPARED BY DKS ASSOCIATES

720 SW WASHINGTON STREET, SUITE 500, PORTLAND, OR 97205 • 503.243.3500 • DKSASSOCIATES.COM

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TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

EXECUTIVE SUMMARY

A summary of key findings from the Canby Beckwood Place Subdivision Transportation Impact Analysis is provided below:

- Two Intersections Analyzed:
  - OR 99E/ NE 4th Avenue and NE Territorial Road/ N Pine Street
- Trips generated from the proposed site:
  - Approximately 31 a.m. peak hour trips, 42 p.m. peak hour trips, and 396 daily trips.
- Trips from approved but not fully occupied developments were added to area roadways
  - Trips from approved but not fully occupied developments in Canby were added to study intersections to account for trips that were not counted in the original traffic count data but will be added to area roadways as the individual developments build out.
- A growth rate was applied to account for other background regional trip growth not related to citywide development
  - A 1 percent compound annual growth rate was applied to all movements at study intersections to capture other background regional trip growth not related to citywide development.
- No safety issues were identified.
  - Crash rates at study intersections indicate the frequency of collisions is typical for the volume of traffic served.
- The OR 99E/ NE 4th Avenue intersection is expected to operate with a v/c ratio above the adopted target by 2022 without and with the proposed project.
  - Without the proposed project, this intersection is expected to operate with a v/c ratio above the adopted target during the p.m. peak by 2022.
  - The proposed project adds 21 total p.m. peak hour trips to the intersection (about 0.5 percent of the total trips at the intersection) and is expected to make the v/c ratio slightly worse. Since the project adds less 400 daily trips to the intersection, it is considered a small increase in traffic and does not further degrade it beyond the 2022 Background Conditions Scenario (Oregon Highway Plan Action 1F.5).
  - The Canby TSP includes a financially constrained improvement project for this intersection that would mitigate the substandard condition.
  - This project is already included on the City's Transportation System Development Charge list, and the applicant will be contributing towards this improvement when the development fees are paid. The City should continue to work with ODOT to further evaluate and advance planned improvements at this intersection from the TSP.

SECTION 1. INTRODUCTION

The purpose of this transportation impact analysis is to identify potential transportation system needs triggered by the proposed Canby Beckwood Place Subdivision located on N Pine Street near NE 17th Avenue in Canby, Oregon. The proposed site will consist of 42 single-family housing units[1]. Access to the site is proposed via an extension of NE 17th Avenue between N Pine Street and N Maple Street.

Included in the following sections is a documentation of existing transportation conditions, a summary of the assumptions and methodologies used to analyze future transportation conditions, a detail of traffic operating conditions and a summary of recommendations related to the proposed project.

PROJECT AREA

The project site is generally bounded by NE Territorial Road to the north, NE 14th Avenue to the south, N Pine Street to the east, and N Maple Street to the west. The following intersections were evaluated as study intersections (see Figure 1), with their intersection control listed:

- OR 99E/ NE 4th Avenue (signalized intersection)
- NE Territorial Road/ N Pine Street (stop-control on the side street)

FIGURE 1: STUDY AREA

[1] Canby Beckwood Place site plan, September 2019.

SECTION 2. EXISTING CONDITIONS

This section provides documentation of existing transportation conditions in the project area, including an inventory of the existing transportation network, and an operational analysis and safety evaluation of the study intersections. Supporting details are provided in the appendix.

PEDESTRIAN AND BICYCLE FACILITIES

An inventory of the existing pedestrian and bicycle facilities was conducted to determine the current location of sidewalks and bicycle lanes within the project area. A sidewalk is available on the east side of N Pine Street between Territorial Road and NE 14th Avenue, and along the west side of N. Oak Street. Intermittent sidewalks are available along portions of Territorial Road.

There is currently a striped bike lane on the east side of N Pine Street near NE 16th Avenue adjacent to new development. Bike lanes are also provided along Territorial Road. There are no other bike facilities within the study area.

The Logging Road Trail is located just east of the proposed site. Trail users can access it by crossing N. Pine Street and using NE 17th Avenue to connect to the trail.

Pedestrian and bicycle count data during the morning and evening peak periods was also collected at the study intersections. The count data shows that most of the pedestrian activity observed occurred at the NE Territorial Road / N Pine Street intersection (2 crossings during the a.m. and p.m. peak periods). Bicycle activity within the study area is minimal. The bicycle count data indicates that one movement occurred at the NE Territorial Road / N Pine Street intersection during both the a.m. and p.m. peak periods.

TRANSIT

Transit service is provided in the vicinity of the project area by Canby Area Transit (CAT) via Route 99X to Oregon City and Woodburn. This route connects Canby to the Oregon City Transit Center where riders can transfer to several additional TriMet bus lines. The nearest bus stop to the project site is located approximately 0.75 miles to the southwest, near the OR 99E / NE 4th Avenue intersection.

CAT also provides general public Dial-A-Ride service for anyone traveling to or from destinations within the Canby Urban Growth Boundary (UGB). Service is provided between 8 a.m. and 6 p.m., Monday through Friday.

MOTOR VEHICLE FACILITIES

Characteristics of the key roadways in the study area are summarized in Table 1. Territorial Road provides for higher capacity east-to-west motor vehicle movement through the study area. It maintains a continuous two-lane cross-section (i.e., one through lane in each direction) and connects OR 99E with areas to the west of the study area. Drivers can access Territorial Road via N

Pine Street. It is classified as a collector and run north-to-south between Territorial Road and NE 4th Avenue (just north of OR 99E).

TABLE 1: PROJECT AREA ROADWAY CHARACTERISTICS

ROADWAY	JURISDICTION	CLASSIFICATION*	NO. OF LANES	POSTED SPEED	SIDEWALKS	BIKE LANES
NE TERRITORIAL ROAD	Canby	Collector	2	30 mph	Intermittent	Yes
N PINE STREET	Clackamas County	Collector	2	25 mph	One side	No
N OAK STREET	Canby	Local	2	25 mph	One side	No

* Source: Canby Transportation System Plan. Adopted December 2010.

EXISTING TRAVEL CONDITIONS

To determine intersection operations, historical turn movement counts were obtained for the study intersections during the weekday morning peak period (7 to 9 a.m.) and evening peak period (4 to 6 p.m.) and adjusted to current conditions. The existing peak period traffic volumes developed for the study intersections are displayed in Figure 4 later in this document.

The methodology from the ODOT Analysis Procedures Manual was applied to determine the 30th highest annual hour volume (30 HV) for the OR 99E study intersection. The 30 HV is commonly used for design purposes and represents the level of congestion that is typically encountered during the peak travel month.

To determine when the 30th highest annual hour volume occurs, data is examined from Automatic Traffic Recorder (ATR) stations that record highway traffic volumes year-round. If no on-site ATR is present, one with similar characteristics can be identified using ODOT's ATR Characteristics Table. If these do not produce a similar ATR with average annual daily traffic volumes (AADT) within 10% of study area volumes, the seasonal trend method should be used. The seasonal trend method averages seasonal trend groupings from the ATR Characteristics Table. For the study area, no ATR's are located on-site, and the ATR Characteristics Table did not produce matches within 10% of the study area AADT volumes. Therefore, the seasonal trend method was utilized to develop a calculated seasonal factor of 1.01. This factor was applied to the existing count data.

DAILY MOTOR VEHICLE VOLUMES

Motor vehicle count data was collected along N Pine Street near the proposed site[2]. The count data indicates that approximately 1,327 vehicles pass the proposed site along N Pine Street during an average weekday. These vehicles are distributed evenly northbound and southbound. The highest

[2] Count data collected in November 2018 on N Pine Street near the proposed site.

number of trips along N. Pine Street occurs during the p.m. peak hour, with 144 vehicles passing the proposed site (66 northbound and 78 southbound).

INTERSECTION OPERATIONS

This section discusses the existing conditions for motor vehicles at the study intersections, including an analysis of traffic operations.

Intersection Performance Measures

Level of service (LOS) ratings and volume-to-capacity (v/c) ratios are two commonly used performance measures that provide a good picture of intersection operations. Agencies often incorporate these performance measures into their mobility standards. Descriptions are given below:

- Level of service (LOS): A "report card" rating (A through F) based on the average delay experienced by vehicles at the intersection. LOS A, B, and C indicate conditions where traffic moves without significant delays over periods of peak hours travel demand. LOS D and E are progressively worse operation conditions. LOS F represents conditions where average vehicle delay has become excessive and demand has exceeded capacity.
- Volume-to-capacity (v/c) ratio: A decimal representation (typically between 0.00 and 1.00) of the proportion of capacity that is being used at a turn movement, approach leg, or intersection. It is determined by dividing the peak hour traffic volume by the hourly capacity of a given intersection or movement. A lower ratio indicates smooth operations and minimal delays. As the ratio approaches 1.00, congestion increases, and performance is reduced. If the ratio is greater than 1.00, the turn movement, approach leg, or intersection is oversaturated and usually results in excessive queues and long delays.

Jurisdictional Mobility Standards

The mobility standards for the study intersections vary according to the agency of jurisdiction for each roadway. One of the study intersections are under City jurisdiction (NE Territorial Road / N Pine Street), and the other is under ODOT jurisdiction (OR 99E / NE 4th Avenue.)

ODOT requires a volume to capacity ratio of 0.90 or less[3] and the City of Canby operating standards require a level of service "E" or better and a volume to capacity ratio of 0.90 or less be maintained for intersections with stop control on the minor approach[4].

[3] Oregon Highway Plan, Policy 1F, Table 6. Retrieved December 2020.

[4] Canby Transportation System Plan, Goal 7, Policy d, December 2010. Retrieved December 2020.

Existing Operating Conditions

Motor vehicle conditions were evaluated during the peak hours at the study intersections (see Table 2) using the *Highway Capacity Manual, 6th Edition* (HCM)[5] methodologies. As can be seen in the table below, both study intersections meet the mobility standards. Although the intersection currently meets its mobility target, queues over 500 feet were observed extending from the side street approaches at the OR 99E / NE 4th Avenue intersection during the p.m. peak.

TABLE 2: EXISTING 2020 STUDY INTERSECTION OPERATIONS

INTERSECTION	TRAFFIC CONTROL	JURISDICTION	MOBILITY STANDARD	AM PEAK			PM PEAK		
				DELAY	LOS	V/C	DELAY	LOS	V/C
NE TERRITORIAL ROAD / N PINE STREET	TWSC	City	LOS E, 0.90 V/C	11.0	A/B	0.11	12.5	A/B	0.21
OR 99E / NE 4TH AVENUE	Signal	ODOT	0.90 V/C	19.5	B	0.66	20.7	C	0.88

SAFETY ANALYSIS

The most recent five years of available collision data (2014 – 2018) for the study area was obtained from Oregon Department of Transportation (ODOT) and used to evaluate the collision history[6]. There were 20 crashes recorded at the study intersections over the five-year period, with the most crashes occurring at the OR 99E / NE 4th Avenue intersection.

Crash rates at study intersections were calculated to identify problem areas in need of mitigation. The total number of crashes experienced at an intersection is typically proportional to the number of vehicles entering it, therefore, a crash rate describing the frequency of crashes per million entering vehicles (MEV) is used to determine if the number of crashes should be considered high. Using this technique, a collision rate of 1.0 MEV or greater is commonly used to identify when collision occurrences are higher than average and should be further evaluated. As shown in Table 3, crash rates calculated at all study intersections are well below this threshold, indicating the frequency of collisions is typical for the volume of traffic served.

[5] *2016 Highway Capacity Manual*, Transportation Research Board, Washington, D.C., 2016.

[6] ODOT reported collisions for January 1, 2014 through December 31, 2018.

TABLE 3: CRASH DATA SUMMARY (2014 - 2018)

INTERSECTION	TOTAL CRASHES	CRASH TYPE			CRASH SEVERITY			COLLISION RATE
		ANGLE OR TURN	REAR END	FIXED OBJECT	PDO*	MINOR INJURY	MAJOR INJURY	
NE TERRITORIAL ROAD / N PINE STREET	1	0	0	1	0	1	0	0.29
OR 99E / NE 4TH AVENUE	19	12	7	0	6	13	0	0.37

*PDO = Property Damage Only

SECTION 3. ASSUMPTIONS AND METHODOLOGIES

This section outlines key assumptions and methodologies that were used to analyze future conditions and identify any potential impacts at study intersections. Areas of interest covered in this section are trip generation, trip distribution and background traffic growth.

PROJECT DESCRIPTION

The proposed project will consist of 42 single-family housing units. The proposed site is located on N Pine Street near NE 17th Avenue. The site plan can be seen in Figure 2.

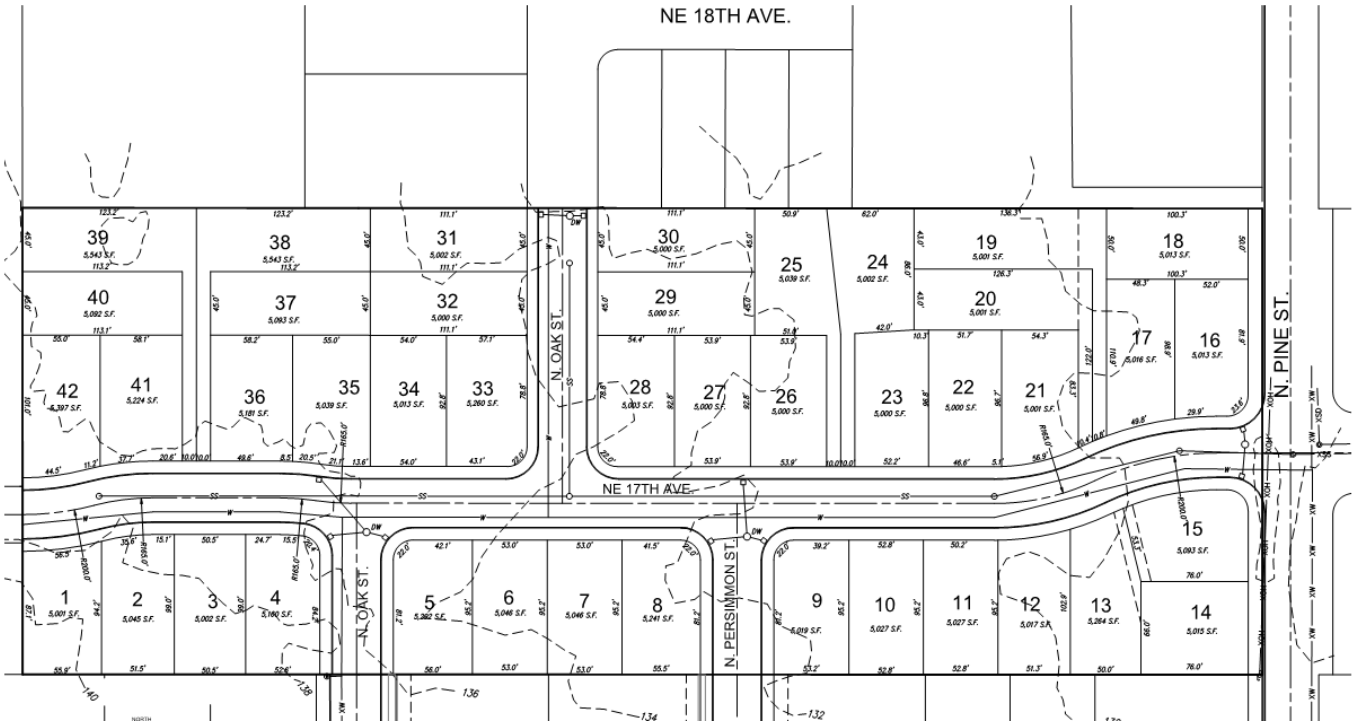


FIGURE 2: SITE PLAN

SITE ACCESS

Access to the site is proposed via an extension of NE 17th Avenue from N Pine Street to the existing stub east of N Maple Street. N Pine Street is classified as a collector and is under Clackamas County jurisdiction. According to the Clackamas County roadway standards, the minimum spacing between accesses on a collector is 150 feet[7]. The proposed connection to N Pine Street would be

[7] Clackamas County Roadway Standards 220.5. Retrieved December 2020.

approximately 380 feet north and 200 feet south of the nearest access, complying with the County spacing standard for a collector roadway.

SIGHT DISTANCE REVIEW

The sight triangle at intersections should be clear of objects (large signs, landscaping, parked cars, etc.) that could potentially limit vehicle sight distance. In addition, all proposed accesses should meet AASHTO sight distance requirements as measured from 15 feet back from the edge of pavement[8].

The proposed access to N Pine Street would require a minimum of 280 feet of sight distance based on a 25-mph posted speed. Preliminary sight distance evaluation from the access indicated that the proposed connections would be expected to provide adequate sight distance looking to the north and south (i.e., over 350 feet). Prior to occupancy, sight distance at all access points will need to be verified, documented, and stamped by a registered professional Civil or Traffic Engineer licensed in the State of Oregon.

INTERNAL SIGHT CIRCULATION

Access to the site is proposed via an extension of NE 17th Avenue from N Pine Street to the existing stub east of N Maple Street. This access road is proposed to run east-to-west and connect to three north-south oriented local streets (i.e., N Oak Street and N Persimmon Street). This roadway will provide motor vehicle access to individual lots. The proposed roadway will provide adequate circulation to the surrounding existing roadway network, and internally within the site.

The proposed site will also provide frontage improvements along N Pine Street. This will include a sidewalk and a bike lane on N Pine Street. Internal streets will include sidewalks on both sides and will provide a sidewalk connection to N Pine Street. Bicyclists will share the roadways with motor vehicles along the internal local streets. The proposed internal pedestrian and bicycle facilities are consistent with the City of Canby local street standards and are adequate for the site.

TRIP GENERATION

Trip generation is the method used to estimate the number of vehicles that are added to the surrounding roadway network as a result of proposed project. The trip generation was estimated using similar land uses as reported by the Institute of Transportation Engineers (ITE)[9]. The trip generation was conducted for the a.m. and p.m. peak hours using the Single-Family Detached Housing (ITE Code 210) land use.

[8] *AASHTO – Geometric Design of Highways and Streets, 6th edition, 2011.*

[9] *Trip Generation Manual,* Institute of Transportation Engineers, 10th Edition.

Table 4 summarizes the expected trip generation for the proposed project. As shown, the proposed site is expected to generate approximately 31 (8 in, 23 out) a.m. peak hour trips, 42 (26 in, 16 out) p.m. peak hour trips, and 396 daily trips.

TABLE 4: TRIP GENERATION FOR THE PROPOSED PROJECT

LAND USE (SIZE)	AM PEAK			PM PEAK			DAILY TRIPS
	IN	OUT	TOTAL	IN	OUT	TOTAL	
SINGLE-FAMILY DETACHED HOUSING - ITE CODE 210	8	23	31	26	16	42	396

TRIP DISTRIBUTION

Trip distribution involves estimating how project generated traffic will leave and arrive at the proposed site. The trip distribution for the proposed project was estimated based on the City of Canby travel demand model[10]. It is estimated that 50 percent of the trips will originate or end from the south on N Pine Street, 15 percent from the west on NE 17th Avenue and N Maple Street, and 35 percent from the north on N Pine Street and NE Territorial Road. The assumed trip distribution for the proposed project can be seen in Figure 3.

[10] *City of Canby Travel Forecast Tool,* select zone model run for Traffic Analysis Zone 113.

FIGURE 3: DISTRIBUTION OF SITE GENERATED TRIPS

IN-PROCESS DEVELOPMENTS

In addition to the trips generated from the proposed project, trips from approved but not fully occupied developments in Canby were added to study intersections (see Table 5). These represent trips that were not counted in the original traffic count data but will be added to area roadways as the individual developments build out. These trips were distributed throughout the city based on each traffic study and added to the applicable study intersections.

TABLE 5: IN-PROCESS DEVELOPMENT TRIPS

DEVELOPMENT NAME	% OCCUPIED *	APPROVED TRIPS REMAINING						
		AM PEAK			PM PEAK			DAILY TRIPS
		IN	OUT	TOTAL	IN	OUT	TOTAL	
ALPHA SCENTS	0%	20	6	26	8	21	29	57
ACTIVE WATER SPORTS	0%	10	2	12	6	13	19	125
BBC STEEL	0%	15	4	19	5	16	21	122
REIMERS INDUSTRIAL	80%	8	2	10	2	5	7	46
N PINE STREET SUBDIVISION	0%	8	25	33	26	16	42	75
TOFTE FARMS PHASE 6	0%	3	9	12	10	6	16	151
COLUMBIA DISTRIBUTING	0%	45	36	81	31	58	89	1569
STANTON FURNITURE	0%	49	15	64	20	49	69	460
S HOPE VILLAGE EXPANSION	0%	12	21	33	24	19	43	606
CARUSO PRODUCE DISTRIBUTION FACILITY	0%	15	4	19	5	15	20	185
WEST LIGHT INDUSTRIAL	0%	101	31	132	44	100	144	949
REDWOOD LANDING 2	0%	5	16	21	18	11	29	274
	Total	291	171	462	199	329	528	4619

Notes: * As of November 2018, when the count data was collected

BACKGROUND TRAFFIC

In addition to the trips from approved citywide developments, a 1 percent compound annual growth rate was applied to all movements at study intersections to capture other background regional trip growth not related to citywide development. This growth rate will be applied between 2020 and 2022 to represent regional background traffic growth for the horizon years at study intersections.

PLANNING HORIZONS

The planning horizon year selected for analysis is 2022, which represents the expected year of build-out and occupancy for the proposed project. Two scenarios were evaluated to allow for the identification of capacity constraints associated with proposed project, including:

- 2022 Background Conditions – Existing traffic volumes plus background traffic growth.
- 2022 Project Conditions – Existing traffic volumes plus background traffic growth, with the added traffic associated with the proposed Canby Beckwood Place Subdivision.

An additional sensitivity option was tested for the 2022 Project Conditions Scenario that assumed the proposed but not yet approved Redwood Landing 3 Subdivision would be completed and occupied by 2022.

Figure 4 summarizes the traffic volumes for the a.m. and p.m. peak hours at study intersections.

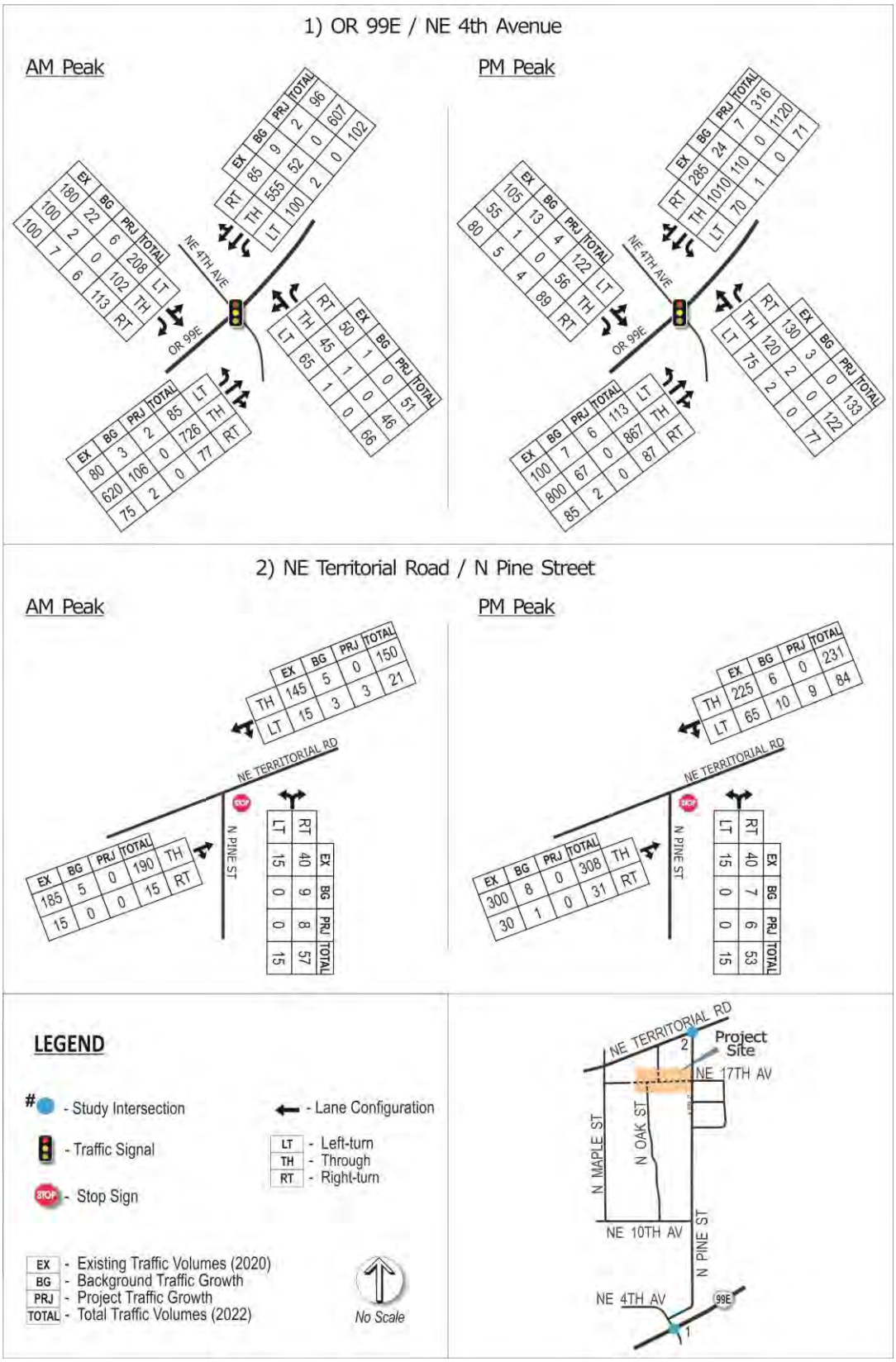


FIGURE 4: PEAK HOUR TRAFFIC VOLUMES

SECTION 4. FUTURE CONDITIONS

The following section summarizes the peak hour transportation operating conditions for the planning horizon year of 2022. Future traffic operating conditions were analyzed at the study intersections to determine if the transportation network can support traffic generated by the proposed project. If intersection mobility standards are not met, then mitigations may be necessary to improve network performance.

2022 INTERSECTION OPERATIONS

Table 6 shows the future 2022 intersection operations at study intersections, without and with the proposed project. As shown, the NE Territorial Road / N Pine Street intersection is expected to continue to meet the mobility standard in all scenarios, while the OR 99E / NE 4th Avenue intersection is expected to operate with a v/c ratio above the adopted target under all scenarios during the p.m. peak.

During the p.m. peak the v/c ratio at the OR 99E / NE 4th Avenue intersection is expected to change by 0.01 with the proposed project, which adds 21 total p.m. peak hour trips to the intersection. There is a heavy southbound left turn movement during the p.m. peak that experiences high levels of delay due to the conflicting traffic flows on the northbound and southbound approaches. Since the project adds less 400 daily trips to the intersection, it is considered a small increase in traffic and does not further degrade it beyond the 2022 Background Conditions Scenario (Oregon Highway Plan Action 1F.5).

2022 SENSITIVITY SCENARIO

A sensitivity scenario was tested that assumed the traffic generated from the proposed but not yet approved Redwood Landing 3 Subdivision (10 duplex units and 32 single-family housing units). This project is located along N Redwood Street between OR 99E and NE Territorial Road and is expected to generate 31 a.m. peak hour trips, 42 p.m. peak hour trips, and 396 daily trips.

As shown in Table 6, the additional trips associated with the proposed but not yet approved Redwood Landing 3 Subdivision is expected to have little impact on intersection operations when compared to the scenario without the project. The v/c ratio is expected to change by 0.01 or less at the study intersections during the a.m. and p.m. peak. The NE Territorial Road / N Pine Street intersection is expected to continue to meet the mobility standard, while the OR 99E / NE 4th Avenue intersection is expected to continue to operate with a v/c ratio above the adopted target.

TABLE 6: 2022 INTERSECTION OPERATIONS

INTERSECTION	MOBILITY STANDARD	2022 BACKGROUND CONDITIONS			2022 PROJECT CONDITIONS			2022 SENSITIVITY SCENARIO		
		DELAY	LOS	V/C	DELAY	LOS	V/C	DELAY	LOS	V/C
AM PEAK										
NE TERRITORIAL ROAD / N PINE STREET *	LOS E, 0.90 V/C	10.5	A/B	0.12	10.5	A/B	0.12	10.5	A/B	0.12
OR 99E / NE 4TH AVENUE **	0.90 V/C	21.0	C	0.73	21.4	C	0.74	21.5	C	0.74
PM PEAK										
NE TERRITORIAL ROAD / N PINE STREET *	LOS E, 0.90 V/C	12.7	A/B	0.22	12.8	A/B	0.23	12.8	A/B	0.23
OR 99E / NE 4TH AVENUE **	0.90 V/C	25.3	C	0.97	26.4	C	0.98	27.5	C	0.99

Notes: * Stop-controlled intersection; ** Signal controlled intersection

TRANSPORTATION SYSTEM CONTEXT

The traffic volumes resulting from the proposed project were compared to existing traffic volumes, as well as the projected volumes from the City's TSP to provide an evaluation of growth on the roadway compared to planned conditions. A 24-hour weekday traffic volume was collected on N Pine Street near the proposed site[11]. A comparison of the traffic volumes along this segment can be seen in Table 7. As shown, the volume of traffic has been steady on N Pine Street between 2009 and 2020, which slightly higher than the annual growth that was projected in the City's TSP through 2030.

N Pine Street does not currently meet the cross-section requirements for standard collector streets, but once improved it should safely accommodate additional vehicle traffic consistent with the TSP forecast. Planned projects along key corridors in the area will also hep serve growth. These projects include:

- Realigning the NE 4th Avenue / N Pine Street intersection
- Improvements at the OR 99E / NE 4th Avenue intersection and adjacent railroad crossing

[11] Count data collected on November 2018 along N Pine Street near the proposed site.

TABLE 7: VOLUME GROWTH COMPARISON ALONG N PINE STREET

PERIOD	ESTIMATED SITE TRIPS	CURRENT VOLUME (2020)	TOTAL 2020 VOLUME (SITE TRIPS + CURRENT VOLUME)	TSP VOLUME (2009) *	TSP ESTIMATED FUTURE VOLUME (2030) *	TSP FORECASTED ANNUAL GROWTH RATE (2030-2009)	REALIZED ANNUAL GROWTH RATE (TOTAL 2020-2009)
DAILY	396	1,327	1,723	--	--	--	--
AM PEAK HOUR	31	101	132	--	--	--	--
PM PEAK HOUR	42	144	186	100	170	3%	8%

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

SECTION 5. RECOMMENDATIONS

The following section summarizes the key findings and recommendations related to the proposed project.

MOTOR VEHICLE IMPROVEMENTS

None of the study intersections were identified as having an impact based on projected growth from the proposed project. However, the OR 99E/ NE 4th Avenue intersection is expected to operate with a v/c ratio above the adopted target by 2022 under background conditions and will continue to get worse with growth from the proposed project. During the p.m. peak the v/c ratio at the OR 99E / NE 4th Avenue intersection is expected to change by 0.01 with the proposed project, which adds 21 total p.m. peak hour trips to the intersection (about 0.5 percent of the total trips at the intersection). Since the project adds less 400 daily trips to the intersection, it is considered a small increase in traffic and does not further degrade it beyond the 2022 Background Conditions Scenario (Oregon Highway Plan Action 1F.5).

The Canby TSP includes a financially constrained improvement project for this intersection that would add a westbound right-turn lane on OR 99E, a southbound left-turn lane on the NE 4th Avenue approach to OR 99E that would convert the approach to two left turn lanes and a shared through-right lane, and signal timing adjustments.

Table 8 shows that this planned improvement mitigates the substandard condition, and the OR 99E/ NE 4th Avenue intersection will no longer be expected to exceed the adopted v/c ratio target during the p.m. peak. This project is already included on the City's Transportation System Development Charge list, and the applicant will be contributing towards this improvement when the development fees are paid. The City should continue to work with ODOT to further evaluate and advance planned improvements at this intersection from the TSP.

TABLE 8: 2022 INTERSECTION OPERATIONS WITH PLANNED IMPROVEMENTS

INTERSECTION	MOBILITY STANDARD	2022 BACKGROUND CONDITIONS			2022 PROJECT CONDITIONS		
		DELAY	LOS	V/C	DELAY	LOS	V/C
OR 99E / NE 4TH AVENUE *	0.90 V/C	25.1	C	0.75	25.4	C	0.76

Notes: * Signal controlled intersection

SITE FRONTAGE RECOMMENDATIONS

The project site frontage along N Pine Street is under County jurisdiction and designated as a Collector roadway in the TSP. Although it is under County jurisdiction, it should be constructed to the City collector standard. It does not currently meet the City's cross-section requirements for standard collector streets (34-50 feet paved with 50-80 feet of ROW). It is assumed that the City and the developer will work together determine required frontage improvements and right-of-way dedications.

SITE ACCESS RECOMMENDATIONS

Access to the site is proposed via an extension of NE 17th Avenue from N Pine Street to the existing stub east of N Maple Street. This access road is proposed to run east-to-west and connect to three north-south oriented local streets (i.e., N Oak Street and N Persimmon Street). These streets should be constructed according to the City of Canby local street standard (34 feet paved with 50-62 feet of ROW).

SIGHT DISTANCE RECOMMENDATIONS

Preliminary sight distance evaluation from the proposed access indicates that it would be expected to provide adequate sight distance. Prior to occupancy, sight distance at all access points will need to be verified, documented, and stamped by a registered professional Civil or Traffic Engineer licensed in the State of Oregon.

PEDESTRIAN/BICYCLE IMPROVEMENTS

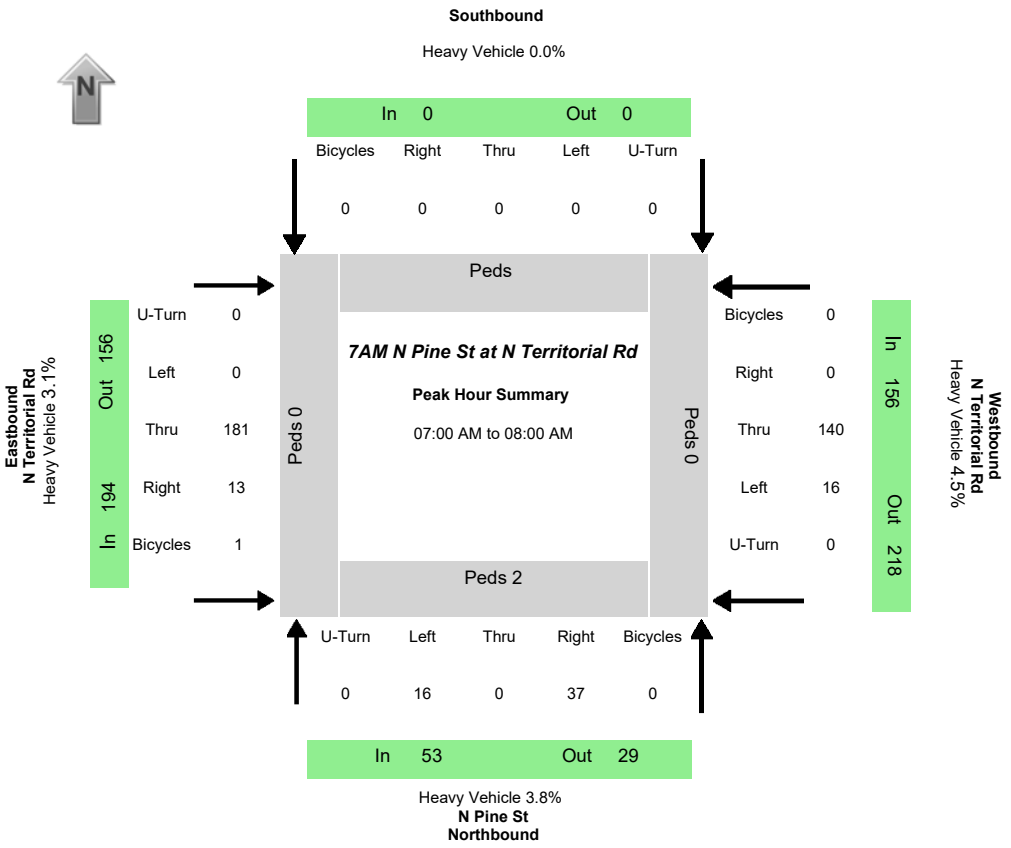
Sidewalks and bike lanes are recommended to be included along the site frontage of N Pine Street. The proposed internal streets will include sidewalks on both sides and bicyclists will share the roadways with motor vehicles.

APPENDIX

PEAK HOUR TRAFFIC COUNT DATA

K-D-N
KEY DATA NETWORK

Data Provided by K-D-N.com 503-594-4224	
N/S street	*N Pine St*
E/W street	*N Territorial Rd*
City, State	Canby OR
Site Notes	
Location	45.278187 - -122.681693
Start Date	Thursday, November 08, 2018
Start Time	07:00:00 AM
Weather	
Study ID #	
Peak Hour Start	07:00:00 AM
Peak 15 Min Start	07:25:00 AM
PHF (15-Min Int)	0.85



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
16	0	37	0	0	0	0	0	0	181	13	0	16	140	0	0	53	0	194	156	29	0	156	218

Percent Heavy Vehicles

12.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	3.3%	0.0%	0.0%	6.3%	4.3%	0.0%	0.0%	3.8%	0.0%	3.1%	4.5%	3.4%	0.0%	5.1%	2.8%

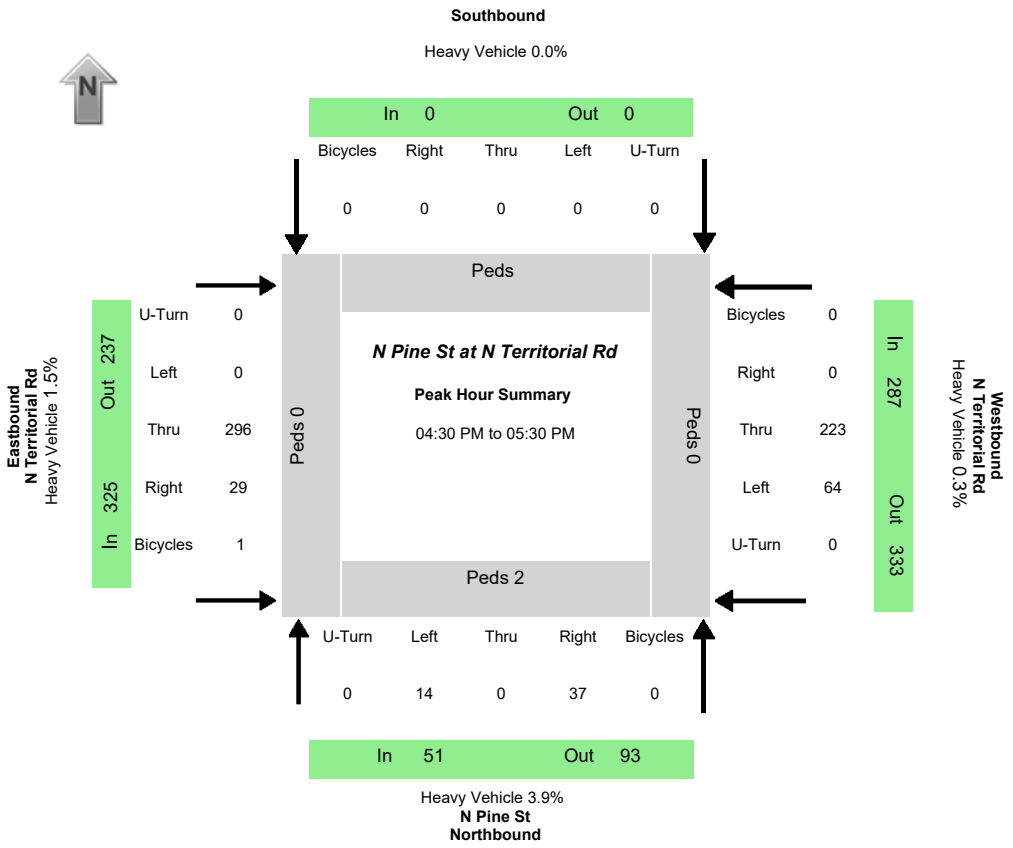
PHV- Bicycles																PHV - Pedestrians				
Northbound				Southbound				Eastbound				Westbound					in Crosswalk			
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	NB	SB	EB	WB	Sum
0		0	0						1	0	0	0	0		0	1	2		0	0	2

All Vehicle Volumes

	Northbound N Pine St				Southbound				Eastbound N Territorial Rd				Westbound N Territorial Rd				15 Min	1 HR
Time	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	Sum
07:00:00 AM	3		7	0						22	0	0	1	8		0		
07:05:00 AM	0		3	0						7	1	0	3	11		0		
07:10:00 AM	2		1	0						15	1	0	2	15		0	102	
07:15:00 AM	0		5	0						18	2	0	0	9		0	95	
07:20:00 AM	1		4	0						13	1	0	0	15		0	104	
07:25:00 AM	2		5	0						13	3	0	0	10		0	101	
07:30:00 AM	0		4	0						23	2	0	2	13		0	111	
07:35:00 AM	2		1	0						17	1	0	1	20		0	119	
07:40:00 AM	3		1	0						17	1	0	0	7		0	115	
07:45:00 AM	2		2	0						15	0	0	2	14		0	106	
07:50:00 AM	1		3	0						11	1	0	3	7		0	90	
07:55:00 AM	0		1	0						10	0	0	2	11		0	85	403
08:00:00 AM	3		3	0						11	2	0	1	8		0	78	390
08:05:00 AM	0		3	0						12	1	0	0	11		0	79	392
08:10:00 AM	2		3	0						8	0	0	2	8		0	78	379
08:15:00 AM	2		0	0						12	0	0	0	6		0	70	365
08:20:00 AM	1		3	0						6	1	0	0	11		0	65	353
08:25:00 AM	0		1	0						11	2	0	3	9		0	68	346
08:30:00 AM	0		1	0						9	1	0	1	17		0	77	331
08:35:00 AM	3		3	0						17	1	0	1	8		0	88	322
08:40:00 AM	2		3	0						6	1	0	1	24		0	99	330
08:45:00 AM	4		0	0						17	0	0	3	13		0	107	332
08:50:00 AM	3		0	0						14	3	0	0	16		0	110	342
08:55:00 AM	0		2	0						6	1	0	1	13		0	96	341

K-D-N
KEY DATA NETWORK

Data Provided by K-D-N.com 503-594-4224	
N/S street	*N Pine St*
E/W street	*N Territorial Rd*
City, State	Canby OR
Site Notes	
Location	45.278187 - -122.681693
Start Date	Wednesday, November 07, 2018
Start Time	04:00:00 PM
Weather	
Study ID #	
Peak Hour Start	04:30:00 PM
Peak 15 Min Start	04:40:00 PM
PHF (15-Min Int)	0.89



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
14	0	37	0	0	0	0	0	0	296	29	0	64	223	0	0	51	0	325	287	93	0	237	333

Percent Heavy Vehicles

0.0%	0.0%	5.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.7%	0.0%	0.0%	0.0%	0.4%	0.0%	0.0%	3.9%	0.0%	1.5%	0.3%	0.0%	0.0%	0.4%	2.1%

PHV- Bicycles

Northbound				Southbound				Eastbound				Westbound				
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	**Sum**
0		0	0						1	0	0	0	0		0	1

PHV - Pedestrians

in Crosswalk				
NB	SB	EB	WB	**Sum**
2		0	0	2

All Vehicle Volumes

	Northbound N Pine St				Southbound				Eastbound N Territorial Rd				Westbound N Territorial Rd				15 Min	1 HR
Time	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	Sum
04:00:00 PM	0		6	0						19	2	0	1	15		0		
04:05:00 PM	1		4	0						22	2	0	2	24		0		
04:10:00 PM	3		3	0						22	0	0	2	16		0	144	
04:15:00 PM	1		0	0						19	5	0	3	15		0	144	
04:20:00 PM	1		3	0						30	0	0	5	24		0	152	
04:25:00 PM	1		3	0						25	0	0	2	17		0	154	
04:30:00 PM	2		3	0						31	3	0	7	16		0	173	
04:35:00 PM	2		3	0						20	2	0	4	14		0	155	
04:40:00 PM	2		3	0						27	5	0	6	21		0	171	
04:45:00 PM	2		1	0						23	1	0	8	22		0	166	
04:50:00 PM	2		5	0						26	4	0	8	21		0	187	
04:55:00 PM	0		5	0						25	4	0	6	16		0	179	648
05:00:00 PM	1		7	0						20	2	0	4	14		0	170	653
05:05:00 PM	1		3	0						23	3	0	3	16		0	153	647
05:10:00 PM	0		2	0						32	2	0	2	19		0	154	658
05:15:00 PM	1		1	0						16	1	0	3	24		0	152	661
05:20:00 PM	0		4	0						31	0	0	6	18		0	162	657
05:25:00 PM	1		0	0						22	2	0	7	22		0	159	663
05:30:00 PM	0		3	0						23	1	0	3	19		0	162	650
05:35:00 PM	1		1	0						21	1	0	5	21		0	153	655
05:40:00 PM	1		2	0						13	3	0	3	22		0	143	635
05:45:00 PM	0		1	0						25	1	0	4	23		0	148	632
05:50:00 PM	1		2	0						15	1	0	1	8		0	126	594
05:55:00 PM	0		1	0						19	4	0	4	20		0	130	586

TUBE COUNT DATA

Key Data Network
K-D-N.com

N Pine St North of NE 15th Ave
Latitude: 0' 0.0000 Undefined
Longitude: 0' 0.0000 Undefined

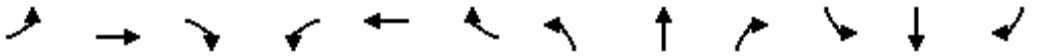
Start Time	13-Nov-18 Tue	SB	NB							Total
12:00 AM		0	1							1
12:15		1	1							2
12:30		0	0							0
12:45		1	0							1
01:00		0	0							0
01:15		0	0							0
01:30		0	1							1
01:45		0	0							0
02:00		0	0							0
02:15		0	0							0
02:30		0	0							0
02:45		0	0							0
03:00		0	1							1
03:15		1	1							2
03:30		0	1							1
03:45		0	1							1
04:00		0	1							1
04:15		1	3							4
04:30		0	1							1
04:45		4	0							4
05:00		4	1							5
05:15		4	6							10
05:30		2	4							6
05:45		6	1							7
06:00		1	8							9
06:15		7	8							15
06:30		6	5							11
06:45		7	**10**							17
07:00		**12**	**14**							**26**
07:15		**15**	**15**							**30**
07:30		**13**	**8**							**21**
07:45		**14**	7							**21**
08:00		7	4							11
08:15		8	6							14
08:30		13	16							29
08:45		15	7							22
09:00		3	17							20
09:15		2	7							9
09:30		5	6							11
09:45		15	2							17
10:00		8	6							14
10:15		4	8							12
10:30		6	10							16
10:45		8	6							14
11:00		10	8							18
11:15		14	9							23
11:30		11	10							21
11:45		14	17							31
Total		242	238							480
Percent		50.4%	49.6%							
Peak	-	07:00	06:45	-	-	-	-	-	-	07:00
Vol.	-	54	47	-	-	-	-	-	-	98
P.H.F.		0.900	0.783							0.817

Key Data Network
K-D-N.com

N Pine St North of NE 15th Ave
Latitude: 0' 0.0000 Undefined
Longitude: 0' 0.0000 Undefined

Start Time	13-Nov-18 Tue	SB	NB							Total
12:00 PM		12	13							25
12:15		8	10							18
12:30		12	8							20
12:45		15	8							23
01:00		9	11							20
01:15		8	5							13
01:30		7	6							13
01:45		9	7							16
02:00		9	13							22
02:15		14	8							22
02:30		10	12							22
02:45		7	16							23
03:00		16	14							30
03:15		20	20							40
03:30		8	12							20
03:45		16	13							29
04:00		16	17							33
04:15		**19**	**12**							**31**
04:30		**15**	**12**							**27**
04:45		**27**	**16**							**43**
05:00		**17**	**26**							**43**
05:15		8	8							16
05:30		9	10							19
05:45		16	14							30
06:00		10	15							25
06:15		11	18							29
06:30		5	5							10
06:45		9	9							18
07:00		13	9							22
07:15		6	9							15
07:30		8	8							16
07:45		4	8							12
08:00		9	3							12
08:15		7	10							17
08:30		1	4							5
08:45		6	2							8
09:00		5	8							13
09:15		0	15							15
09:30		4	8							12
09:45		0	2							2
10:00		1	1							2
10:15		1	1							2
10:30		2	4							6
10:45		2	0							2
11:00		2	1							3
11:15		2	0							2
11:30		1	0							1
11:45		0	0							0
Total		416	431							847
Percent		49.1%	50.9%							
Peak	-	16:15	16:15	-	-	-	-	-	-	16:15
Vol.	-	78	66	-	-	-	-	-	-	144
P.H.F.		0.722	0.635							0.837
Grand Total		658	669							1327
Percent		49.6%	50.4%							
ADT		ADT 1,327		AADT 1,327						

HCM ANALYSIS REPORTS



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	80	620	75	100	555	85	65	45	50	180	100	100
Future Volume (veh/h)	80	620	75	100	555	85	65	45	50	180	100	100
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	89	689	83	111	617	94	72	50	0	200	111	111
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	436	1645	198	418	1616	246	134	79		323	145	491
Arrive On Green	0.04	0.52	0.50	0.05	0.52	0.51	0.31	0.31	0.00	0.31	0.31	0.31
Sat Flow, veh/h	1781	3194	384	1781	3092	470	239	254	1585	843	468	1585
Grp Volume(v), veh/h	89	383	389	111	354	357	122	0	0	311	0	111
Grp Sat Flow(s),veh/h/ln	1781	1777	1801	1781	1777	1786	493	0	1585	1311	0	1585
Q Serve(g_s), s	2.3	12.7	12.7	2.8	11.3	11.4	6.3	0.0	0.0	0.0	0.0	4.9
Cycle Q Clear(g_c), s	2.3	12.7	12.7	2.8	11.3	11.4	27.1	0.0	0.0	20.7	0.0	4.9
Prop In Lane	1.00		0.21	1.00		0.26	0.59		1.00	0.64		1.00
Lane Grp Cap(c), veh/h	436	915	928	418	929	933	213	0		468	0	491
V/C Ratio(X)	0.20	0.42	0.42	0.27	0.38	0.38	0.57	0.00		0.66	0.00	0.23
Avail Cap(c_a), veh/h	569	915	928	519	929	933	265	0		525	0	551
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	11.2	14.2	14.3	11.3	13.5	13.7	36.9	0.0	0.0	29.8	0.0	24.3
Incr Delay (d2), s/veh	0.1	1.4	1.4	0.2	1.2	1.2	5.1	0.0	0.0	4.2	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	4.9	5.0	1.0	4.3	4.4	3.1	0.0	0.0	6.8	0.0	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.3	15.6	15.7	11.5	14.7	14.8	42.0	0.0	0.0	34.0	0.0	24.8
LnGrp LOS	B	B	B	B	B	B	D	A		C	A	C
Approach Vol, veh/h		861			822			122	A		422	
Approach Delay, s/veh		15.2			14.3			42.0			31.6	
Approach LOS		B			B			D			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.9	53.7		33.4	8.6	52.9		33.4				
Change Period (Y+Rc), s	4.0	* 5.4		4.0	4.0	* 5.4		4.0				
Max Green Setting (Gmax), s	11.0	* 38		33.0	10.0	* 39		33.0				
Max Q Clear Time (g_c+I1), s	4.3	13.4		22.7	4.8	14.7		29.1				
Green Ext Time (p_c), s	0.1	8.2		2.9	0.1	8.9		0.3				

Intersection Summary			
HCM 6th Ctrl Delay		19.5	
HCM 6th LOS		B	

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

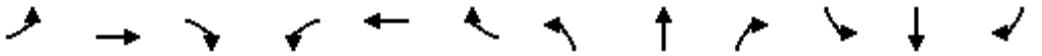
Intersection	
Int Delay, s/veh	1.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	185	15	15	145	15	40
Future Vol, veh/h	185	15	15	145	15	40
Conflicting Peds, #/hr	0	2	2	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	3	0	6	4	12	0
Mvmt Flow	218	18	18	171	18	47

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	238	0	436	229
Stage 1	-	-	-	-	229	-
Stage 2	-	-	-	-	207	-
Critical Hdwy	-	-	4.16	-	6.52	6.2
Critical Hdwy Stg 1	-	-	-	-	5.52	-
Critical Hdwy Stg 2	-	-	-	-	5.52	-
Follow-up Hdwy	-	-	2.254	-	3.608	3.3
Pot Cap-1 Maneuver	-	-	1306	-	559	815
Stage 1	-	-	-	-	786	-
Stage 2	-	-	-	-	804	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1304	-	549	813
Mov Cap-2 Maneuver	-	-	-	-	549	-
Stage 1	-	-	-	-	784	-
Stage 2	-	-	-	-	792	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.7	10.5
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	719	-	-	1304	-
HCM Lane V/C Ratio	0.09	-	-	0.014	-
HCM Control Delay (s)	10.5	-	-	7.8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.3	-	-	0	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	100	800	85	70	1010	285	75	120	130	105	55	80
Future Volume (veh/h)	100	800	85	70	1010	285	75	120	130	105	55	80
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	110	879	93	77	1110	313	82	132	0	115	60	88
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	243	1819	192	362	1512	422	128	185		239	112	437
Arrive On Green	0.05	0.56	0.55	0.04	0.55	0.54	0.28	0.28	0.00	0.28	0.28	0.28
Sat Flow, veh/h	1781	3242	343	1781	2744	766	273	669	1585	637	407	1585
Grp Volume(v), veh/h	110	482	490	77	715	708	214	0	0	175	0	88
Grp Sat Flow(s),veh/h/ln	1781	1777	1809	1781	1777	1733	942	0	1585	1045	0	1585
Q Serve(g_s), s	2.6	15.5	15.6	1.8	28.7	29.7	8.7	0.0	0.0	0.0	0.0	4.0
Cycle Q Clear(g_c), s	2.6	15.5	15.6	1.8	28.7	29.7	23.0	0.0	0.0	14.3	0.0	4.0
Prop In Lane	1.00		0.19	1.00		0.44	0.38		1.00	0.66		1.00
Lane Grp Cap(c), veh/h	243	997	1015	362	979	955	312	0		351	0	437
V/C Ratio(X)	0.45	0.48	0.48	0.21	0.73	0.74	0.69	0.00		0.50	0.00	0.20
Avail Cap(c_a), veh/h	367	997	1015	484	979	955	424	0		452	0	551
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	15.3	12.6	12.6	10.4	16.0	16.5	35.1	0.0	0.0	29.7	0.0	26.4
Incr Delay (d2), s/veh	0.8	1.7	1.6	0.2	4.8	5.2	5.6	0.0	0.0	2.3	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	5.7	5.9	0.6	11.2	11.5	5.3	0.0	0.0	3.6	0.0	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.1	14.2	14.3	10.5	20.8	21.6	40.7	0.0	0.0	32.0	0.0	26.8
LnGrp LOS	B	B	B	B	C	C	D	A		C	A	C
Approach Vol, veh/h		1082			1500			214	A		263	
Approach Delay, s/veh		14.5			20.7			40.7			30.3	
Approach LOS		B			C			D			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.4	56.4		30.2	7.5	57.3		30.2				
Change Period (Y+Rc), s	4.0	* 5.4		4.0	4.0	* 5.4		4.0				
Max Green Setting (Gmax), s	11.0	* 38		33.0	10.0	* 39		33.0				
Max Q Clear Time (g_c+I1), s	4.6	31.7		16.3	3.8	17.6		25.0				
Green Ext Time (p_c), s	0.1	5.2		2.2	0.0	10.8		1.2				

Intersection Summary		
HCM 6th Ctrl Delay		20.7
HCM 6th LOS		C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

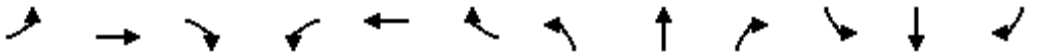
Intersection	
Int Delay, s/veh	1.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	300	30	65	225	15	40
Future Vol, veh/h	300	30	65	225	15	40
Conflicting Peds, #/hr	0	2	2	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	2	0	0	1	0	5
Mvmt Flow	337	34	73	253	17	45

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	373	0	755	356
Stage 1	-	-	-	-	356	-
Stage 2	-	-	-	-	399	-
Critical Hdwy	-	-	4.1	-	6.4	6.25
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.345
Pot Cap-1 Maneuver	-	-	1197	-	379	681
Stage 1	-	-	-	-	713	-
Stage 2	-	-	-	-	682	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1195	-	351	680
Mov Cap-2 Maneuver	-	-	-	-	351	-
Stage 1	-	-	-	-	712	-
Stage 2	-	-	-	-	634	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.8	12.5
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	542	-	-	1195	-
HCM Lane V/C Ratio	0.114	-	-	0.061	-
HCM Control Delay (s)	12.5	-	-	8.2	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.4	-	-	0.2	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	83	726	77	102	607	94	66	46	51	202	102	107
Future Volume (veh/h)	83	726	77	102	607	94	66	46	51	202	102	107
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	92	807	86	113	674	104	73	51	0	224	113	119
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	392	1593	170	358	1541	237	134	79		347	143	525
Arrive On Green	0.04	0.49	0.48	0.05	0.50	0.48	0.33	0.33	0.00	0.33	0.33	0.33
Sat Flow, veh/h	1781	3240	345	1781	3086	476	222	238	1585	859	433	1585
Grp Volume(v), veh/h	92	443	450	113	388	390	124	0	0	337	0	119
Grp Sat Flow(s),veh/h/ln	1781	1777	1808	1781	1777	1785	460	0	1585	1293	0	1585
Q Serve(g_s), s	2.5	16.0	16.1	3.0	13.3	13.4	6.5	0.0	0.0	0.0	0.0	5.2
Cycle Q Clear(g_c), s	2.5	16.0	16.1	3.0	13.3	13.4	29.3	0.0	0.0	22.8	0.0	5.2
Prop In Lane	1.00		0.19	1.00		0.27	0.59		1.00	0.66		1.00
Lane Grp Cap(c), veh/h	392	874	889	358	887	891	212	0		491	0	525
V/C Ratio(X)	0.23	0.51	0.51	0.32	0.44	0.44	0.58	0.00		0.69	0.00	0.23
Avail Cap(c_a), veh/h	520	874	889	455	887	891	235	0		515	0	551
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	12.5	16.3	16.4	13.0	15.2	15.4	36.6	0.0	0.0	28.9	0.0	23.0
Incr Delay (d2), s/veh	0.2	2.1	2.1	0.3	1.6	1.6	5.7	0.0	0.0	4.9	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	6.3	6.4	1.1	5.2	5.3	3.2	0.0	0.0	7.4	0.0	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	12.7	18.4	18.5	13.3	16.8	16.9	42.3	0.0	0.0	33.8	0.0	23.5
LnGrp LOS	B	B	B	B	B	B	D	A		C	A	C
Approach Vol, veh/h		985			891			124	A		456	
Approach Delay, s/veh		17.9			16.4			42.3			31.1	
Approach LOS		B			B			D			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.1	51.4		35.4	8.8	50.7		35.4				
Change Period (Y+Rc), s	4.0	* 5.4		4.0	4.0	* 5.4		4.0				
Max Green Setting (Gmax), s	11.0	* 38		33.0	10.0	* 39		33.0				
Max Q Clear Time (g_c+I1), s	4.5	15.4		24.8	5.0	18.1		31.3				
Green Ext Time (p_c), s	0.1	8.7		2.7	0.1	9.7		0.2				

Intersection Summary		
HCM 6th Ctrl Delay		21.0
HCM 6th LOS		C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

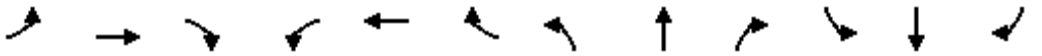
Intersection	
Int Delay, s/veh	1.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	190	15	18	150	15	49
Future Vol, veh/h	190	15	18	150	15	49
Conflicting Peds, #/hr	0	2	2	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	3	0	6	4	12	0
Mvmt Flow	216	17	20	170	17	56

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	235	0	437	227
Stage 1	-	-	-	-	227	-
Stage 2	-	-	-	-	210	-
Critical Hdwy	-	-	4.16	-	6.52	6.2
Critical Hdwy Stg 1	-	-	-	-	5.52	-
Critical Hdwy Stg 2	-	-	-	-	5.52	-
Follow-up Hdwy	-	-	2.254	-	3.608	3.3
Pot Cap-1 Maneuver	-	-	1309	-	558	817
Stage 1	-	-	-	-	788	-
Stage 2	-	-	-	-	802	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1307	-	547	815
Mov Cap-2 Maneuver	-	-	-	-	547	-
Stage 1	-	-	-	-	786	-
Stage 2	-	-	-	-	788	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.8	10.5
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	731	-	-	1307	-
HCM Lane V/C Ratio	0.099	-	-	0.016	-
HCM Control Delay (s)	10.5	-	-	7.8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.3	-	-	0	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	107	867	87	71	1120	309	77	122	133	118	56	85
Future Volume (veh/h)	107	867	87	71	1120	309	77	122	133	118	56	85
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	118	953	96	78	1231	340	85	134	0	130	62	93
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	204	1760	177	321	1453	394	130	184		255	110	471
Arrive On Green	0.05	0.54	0.53	0.04	0.53	0.51	0.30	0.30	0.00	0.30	0.30	0.30
Sat Flow, veh/h	1781	3260	328	1781	2763	750	260	618	1585	644	370	1585
Grp Volume(v), veh/h	118	519	530	78	784	787	219	0	0	192	0	93
Grp Sat Flow(s),veh/h/ln	1781	1777	1811	1781	1777	1735	878	0	1585	1015	0	1585
Q Serve(g_s), s	3.0	18.1	18.1	2.0	35.5	37.5	9.2	0.0	0.0	0.0	0.0	4.2
Cycle Q Clear(g_c), s	3.0	18.1	18.1	2.0	35.5	37.5	25.3	0.0	0.0	16.1	0.0	4.2
Prop In Lane	1.00		0.18	1.00		0.43	0.39		1.00	0.68		1.00
Lane Grp Cap(c), veh/h	204	959	978	321	935	913	313	0		365	0	471
V/C Ratio(X)	0.58	0.54	0.54	0.24	0.84	0.86	0.70	0.00		0.53	0.00	0.20
Avail Cap(c_a), veh/h	320	959	978	443	935	913	392	0		436	0	551
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.4	14.2	14.3	11.9	19.1	19.8	34.7	0.0	0.0	28.8	0.0	24.9
Incr Delay (d2), s/veh	1.6	2.2	2.2	0.2	8.9	10.5	6.7	0.0	0.0	2.5	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	6.9	7.1	0.7	14.9	15.8	5.5	0.0	0.0	4.0	0.0	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.0	16.4	16.5	12.1	28.0	30.4	41.4	0.0	0.0	31.3	0.0	25.4
LnGrp LOS	C	B	B	B	C	C	D	A		C	A	C
Approach Vol, veh/h		1167			1649			219	A		285	
Approach Delay, s/veh		17.0			28.4			41.4			29.3	
Approach LOS		B			C			D			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.8	54.0		32.2	7.5	55.3		32.2				
Change Period (Y+Rc), s	4.0	* 5.4		4.0	4.0	* 5.4		4.0				
Max Green Setting (Gmax), s	11.0	* 38		33.0	10.0	* 39		33.0				
Max Q Clear Time (g_c+I1), s	5.0	39.5		18.1	4.0	20.1		27.3				
Green Ext Time (p_c), s	0.1	0.0		2.4	0.0	10.7		1.0				

Intersection Summary	
HCM 6th Ctrl Delay	25.3
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

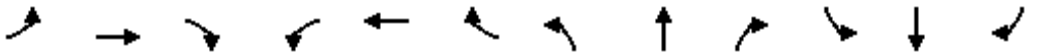
Intersection	
Int Delay, s/veh	2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	308	31	75	231	15	47
Future Vol, veh/h	308	31	75	231	15	47
Conflicting Peds, #/hr	0	2	2	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	2	0	0	1	0	5
Mvmt Flow	346	35	84	260	17	53

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	383	0	794	366
Stage 1	-	-	-	-	366	-
Stage 2	-	-	-	-	428	-
Critical Hdwy	-	-	4.1	-	6.4	6.25
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.345
Pot Cap-1 Maneuver	-	-	1187	-	360	673
Stage 1	-	-	-	-	706	-
Stage 2	-	-	-	-	662	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1185	-	329	672
Mov Cap-2 Maneuver	-	-	-	-	329	-
Stage 1	-	-	-	-	705	-
Stage 2	-	-	-	-	607	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2	12.7
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	537	-	-	1185	-
HCM Lane V/C Ratio	0.13	-	-	0.071	-
HCM Control Delay (s)	12.7	-	-	8.3	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.4	-	-	0.2	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	85	730	77	102	619	96	66	46	51	208	102	113
Future Volume (veh/h)	85	730	77	102	619	96	66	46	51	208	102	113
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	94	811	86	113	688	107	73	51	0	231	113	126
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	381	1574	167	353	1518	236	133	78		354	142	534
Arrive On Green	0.04	0.49	0.47	0.05	0.49	0.48	0.34	0.34	0.00	0.34	0.34	0.34
Sat Flow, veh/h	1781	3242	344	1781	3082	479	217	233	1585	865	423	1585
Grp Volume(v), veh/h	94	444	453	113	396	399	124	0	0	344	0	126
Grp Sat Flow(s),veh/h/ln	1781	1777	1808	1781	1777	1784	450	0	1585	1288	0	1585
Q Serve(g_s), s	2.6	16.3	16.4	3.1	13.8	13.9	6.6	0.0	0.0	0.0	0.0	5.4
Cycle Q Clear(g_c), s	2.6	16.3	16.4	3.1	13.8	13.9	29.9	0.0	0.0	23.3	0.0	5.4
Prop In Lane	1.00		0.19	1.00		0.27	0.59		1.00	0.67		1.00
Lane Grp Cap(c), veh/h	381	863	878	353	875	879	212	0		497	0	534
V/C Ratio(X)	0.25	0.52	0.52	0.32	0.45	0.45	0.59	0.00		0.69	0.00	0.24
Avail Cap(c_a), veh/h	508	863	878	449	875	879	226	0		513	0	551
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	12.8	16.8	16.9	13.3	15.8	15.9	36.5	0.0	0.0	28.6	0.0	22.7
Incr Delay (d2), s/veh	0.2	2.2	2.2	0.4	1.7	1.7	6.0	0.0	0.0	5.1	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	6.5	6.6	1.1	5.4	5.5	3.2	0.0	0.0	7.7	0.0	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.1	18.9	19.0	13.7	17.4	17.6	42.5	0.0	0.0	33.7	0.0	23.2
LnGrp LOS	B	B	B	B	B	B	D	A		C	A	C
Approach Vol, veh/h		991			908			124	A		470	
Approach Delay, s/veh		18.4			17.0			42.5			30.9	
Approach LOS		B			B			D			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.2	50.8		36.0	8.9	50.1		36.0				
Change Period (Y+Rc), s	4.0	* 5.4		4.0	4.0	* 5.4		4.0				
Max Green Setting (Gmax), s	11.0	* 38		33.0	10.0	* 39		33.0				
Max Q Clear Time (g_c+I1), s	4.6	15.9		25.3	5.1	18.4		31.9				
Green Ext Time (p_c), s	0.1	8.8		2.7	0.1	9.7		0.1				

Intersection Summary	
HCM 6th Ctrl Delay	21.5
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

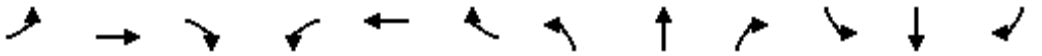
Intersection	
Int Delay, s/veh	1.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	190	15	18	150	15	49
Future Vol, veh/h	190	15	18	150	15	49
Conflicting Peds, #/hr	0	2	2	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	3	0	6	4	12	0
Mvmt Flow	216	17	20	170	17	56

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	235	0	437	227
Stage 1	-	-	-	-	227	-
Stage 2	-	-	-	-	210	-
Critical Hdwy	-	-	4.16	-	6.52	6.2
Critical Hdwy Stg 1	-	-	-	-	5.52	-
Critical Hdwy Stg 2	-	-	-	-	5.52	-
Follow-up Hdwy	-	-	2.254	-	3.608	3.3
Pot Cap-1 Maneuver	-	-	1309	-	558	817
Stage 1	-	-	-	-	788	-
Stage 2	-	-	-	-	802	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1307	-	547	815
Mov Cap-2 Maneuver	-	-	-	-	547	-
Stage 1	-	-	-	-	786	-
Stage 2	-	-	-	-	788	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.8	10.5
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	731	-	-	1307	-
HCM Lane V/C Ratio	0.099	-	-	0.016	-
HCM Control Delay (s)	10.5	-	-	7.8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.3	-	-	0	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	113	880	87	71	1128	316	77	122	133	122	56	89
Future Volume (veh/h)	113	880	87	71	1128	316	77	122	133	122	56	89
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	124	967	96	78	1240	347	85	134	0	134	62	98
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	198	1712	170	306	1415	389	129	182		258	108	478
Arrive On Green	0.05	0.52	0.51	0.04	0.51	0.50	0.30	0.30	0.00	0.30	0.30	0.30
Sat Flow, veh/h	1781	3265	324	1781	2755	756	253	605	1585	645	359	1585
Grp Volume(v), veh/h	124	526	537	78	791	796	219	0	0	196	0	98
Grp Sat Flow(s),veh/h/ln	1781	1777	1812	1781	1777	1734	858	0	1585	1004	0	1585
Q Serve(g_s), s	3.2	19.0	19.1	2.0	37.1	39.3	9.2	0.0	0.0	0.0	0.0	4.4
Cycle Q Clear(g_c), s	3.2	19.0	19.1	2.0	37.1	39.3	25.8	0.0	0.0	16.6	0.0	4.4
Prop In Lane	1.00		0.18	1.00		0.44	0.39		1.00	0.68		1.00
Lane Grp Cap(c), veh/h	198	932	950	306	913	891	311	0		366	0	478
V/C Ratio(X)	0.62	0.56	0.56	0.25	0.87	0.89	0.70	0.00		0.54	0.00	0.21
Avail Cap(c_a), veh/h	310	932	950	418	913	891	374	0		423	0	542
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.2	15.3	15.4	12.7	20.3	21.1	34.7	0.0	0.0	28.6	0.0	24.7
Incr Delay (d2), s/veh	2.4	2.5	2.4	0.3	10.9	13.2	7.2	0.0	0.0	2.6	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	7.3	7.5	0.7	16.0	17.1	5.5	0.0	0.0	4.1	0.0	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.5	17.7	17.8	13.0	31.2	34.3	41.9	0.0	0.0	31.2	0.0	25.2
LnGrp LOS	C	B	B	B	C	C	D	A		C	A	C
Approach Vol, veh/h		1187			1665			219	A		294	
Approach Delay, s/veh		18.4			31.8			41.9			29.2	
Approach LOS		B			C			D			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.1	52.8		33.1	8.0	53.8		33.1				
Change Period (Y+Rc), s	4.0	* 5.4		4.5	4.5	* 5.4		4.5				
Max Green Setting (Gmax), s	11.0	* 38		32.5	9.5	* 39		32.5				
Max Q Clear Time (g_c+I1), s	5.2	41.3		18.6	4.0	21.1		27.8				
Green Ext Time (p_c), s	0.1	0.0		2.3	0.0	10.5		0.8				

Intersection Summary		
HCM 6th Ctrl Delay		27.5
HCM 6th LOS		C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

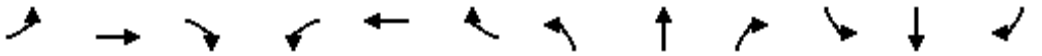
Intersection	
Int Delay, s/veh	2.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	308	31	84	231	15	53
Future Vol, veh/h	308	31	84	231	15	53
Conflicting Peds, #/hr	0	2	2	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	2	0	0	1	0	5
Mvmt Flow	346	35	94	260	17	60

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	383	0	814	366
Stage 1	-	-	-	-	366	-
Stage 2	-	-	-	-	448	-
Critical Hdwy	-	-	4.1	-	6.4	6.25
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.345
Pot Cap-1 Maneuver	-	-	1187	-	350	673
Stage 1	-	-	-	-	706	-
Stage 2	-	-	-	-	648	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1185	-	317	672
Mov Cap-2 Maneuver	-	-	-	-	317	-
Stage 1	-	-	-	-	705	-
Stage 2	-	-	-	-	588	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.2	12.8
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	539	-	-	1185	-
HCM Lane V/C Ratio	0.142	-	-	0.08	-
HCM Control Delay (s)	12.8	-	-	8.3	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.5	-	-	0.3	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	85	726	77	102	607	96	66	46	51	208	102	113
Future Volume (veh/h)	85	726	77	102	607	96	66	46	51	208	102	113
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	94	807	86	113	674	107	73	51	0	231	113	126
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	386	1574	168	354	1513	240	133	78		354	142	534
Arrive On Green	0.04	0.49	0.47	0.05	0.49	0.48	0.34	0.34	0.00	0.34	0.34	0.34
Sat Flow, veh/h	1781	3240	345	1781	3072	487	217	233	1585	865	423	1585
Grp Volume(v), veh/h	94	443	450	113	390	391	124	0	0	344	0	126
Grp Sat Flow(s),veh/h/ln	1781	1777	1808	1781	1777	1783	450	0	1585	1288	0	1585
Q Serve(g_s), s	2.6	16.2	16.3	3.1	13.5	13.6	6.6	0.0	0.0	0.0	0.0	5.4
Cycle Q Clear(g_c), s	2.6	16.2	16.3	3.1	13.5	13.6	29.9	0.0	0.0	23.3	0.0	5.4
Prop In Lane	1.00		0.19	1.00		0.27	0.59		1.00	0.67		1.00
Lane Grp Cap(c), veh/h	386	863	878	354	875	878	212	0		497	0	534
V/C Ratio(X)	0.24	0.51	0.51	0.32	0.45	0.45	0.59	0.00		0.69	0.00	0.24
Avail Cap(c_a), veh/h	513	863	878	450	875	878	226	0		513	0	551
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	12.8	16.7	16.8	13.3	15.7	15.8	36.5	0.0	0.0	28.6	0.0	22.7
Incr Delay (d2), s/veh	0.2	2.2	2.1	0.3	1.6	1.6	6.0	0.0	0.0	5.1	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	6.4	6.6	1.1	5.3	5.4	3.2	0.0	0.0	7.7	0.0	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.0	18.9	19.0	13.6	17.3	17.5	42.5	0.0	0.0	33.7	0.0	23.2
LnGrp LOS	B	B	B	B	B	B	D	A		C	A	C
Approach Vol, veh/h		987			894			124	A		470	
Approach Delay, s/veh		18.4			16.9			42.5			30.9	
Approach LOS		B			B			D			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.2	50.8		36.0	8.9	50.1		36.0				
Change Period (Y+Rc), s	4.0	* 5.4		4.0	4.0	* 5.4		4.0				
Max Green Setting (Gmax), s	11.0	* 38		33.0	10.0	* 39		33.0				
Max Q Clear Time (g_c+I1), s	4.6	15.6		25.3	5.1	18.3		31.9				
Green Ext Time (p_c), s	0.1	8.7		2.7	0.1	9.7		0.1				

Intersection Summary	
HCM 6th Ctrl Delay	21.4
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

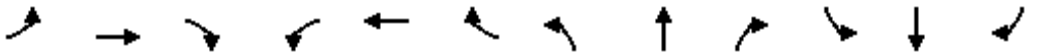
Intersection	
Int Delay, s/veh	2.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	190	15	21	150	15	57
Future Vol, veh/h	190	15	21	150	15	57
Conflicting Peds, #/hr	0	2	2	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	3	0	6	4	12	0
Mvmt Flow	216	17	24	170	17	65

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	235	0	445	227
Stage 1	-	-	-	-	227	-
Stage 2	-	-	-	-	218	-
Critical Hdwy	-	-	4.16	-	6.52	6.2
Critical Hdwy Stg 1	-	-	-	-	5.52	-
Critical Hdwy Stg 2	-	-	-	-	5.52	-
Follow-up Hdwy	-	-	2.254	-	3.608	3.3
Pot Cap-1 Maneuver	-	-	1309	-	552	817
Stage 1	-	-	-	-	788	-
Stage 2	-	-	-	-	795	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1307	-	540	815
Mov Cap-2 Maneuver	-	-	-	-	540	-
Stage 1	-	-	-	-	786	-
Stage 2	-	-	-	-	779	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1	10.5
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	737	-	-	1307	-
HCM Lane V/C Ratio	0.111	-	-	0.018	-
HCM Control Delay (s)	10.5	-	-	7.8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.4	-	-	0.1	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	113	867	87	71	1120	316	77	122	133	122	56	89
Future Volume (veh/h)	113	867	87	71	1120	316	77	122	133	122	56	89
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	124	953	96	78	1231	347	85	134	0	134	62	98
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	203	1743	176	318	1426	395	129	183		259	108	479
Arrive On Green	0.05	0.53	0.52	0.04	0.52	0.50	0.30	0.30	0.00	0.30	0.30	0.30
Sat Flow, veh/h	1781	3260	328	1781	2749	761	254	606	1585	646	359	1585
Grp Volume(v), veh/h	124	519	530	78	787	791	219	0	0	196	0	98
Grp Sat Flow(s),veh/h/ln	1781	1777	1811	1781	1777	1733	860	0	1585	1005	0	1585
Q Serve(g_s), s	3.1	18.3	18.3	2.0	36.4	38.5	9.2	0.0	0.0	0.0	0.0	4.4
Cycle Q Clear(g_c), s	3.1	18.3	18.3	2.0	36.4	38.5	25.8	0.0	0.0	16.6	0.0	4.4
Prop In Lane	1.00		0.18	1.00		0.44	0.39		1.00	0.68		1.00
Lane Grp Cap(c), veh/h	203	950	968	318	922	899	312	0		367	0	479
V/C Ratio(X)	0.61	0.55	0.55	0.25	0.85	0.88	0.70	0.00		0.53	0.00	0.20
Avail Cap(c_a), veh/h	314	950	968	439	922	899	383	0		431	0	551
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.9	14.5	14.6	12.2	19.8	20.5	34.6	0.0	0.0	28.6	0.0	24.7
Incr Delay (d2), s/veh	2.2	2.3	2.2	0.2	10.0	12.0	6.9	0.0	0.0	2.6	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	7.0	7.2	0.7	15.5	16.5	5.5	0.0	0.0	4.1	0.0	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.1	16.8	16.9	12.4	29.7	32.5	41.6	0.0	0.0	31.1	0.0	25.1
LnGrp LOS	C	B	B	B	C	C	D	A		C	A	C
Approach Vol, veh/h		1173			1656			219	A		294	
Approach Delay, s/veh		17.5			30.2			41.6			29.1	
Approach LOS		B			C			D			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.0	53.3		32.7	7.5	54.8		32.7				
Change Period (Y+Rc), s	4.0	* 5.4		4.0	4.0	* 5.4		4.0				
Max Green Setting (Gmax), s	11.0	* 38		33.0	10.0	* 39		33.0				
Max Q Clear Time (g_c+I1), s	5.1	40.5		18.6	4.0	20.3		27.8				
Green Ext Time (p_c), s	0.1	0.0		2.4	0.0	10.7		0.9				

Intersection Summary		
HCM 6th Ctrl Delay	26.4	
HCM 6th LOS	C	

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Int Delay, s/veh	2.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	308	31	84	231	15	53
Future Vol, veh/h	308	31	84	231	15	53
Conflicting Peds, #/hr	0	2	2	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	2	0	0	1	0	5
Mvmt Flow	346	35	94	260	17	60

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	383	0	814	366
Stage 1	-	-	-	-	366	-
Stage 2	-	-	-	-	448	-
Critical Hdwy	-	-	4.1	-	6.4	6.25
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.345
Pot Cap-1 Maneuver	-	-	1187	-	350	673
Stage 1	-	-	-	-	706	-
Stage 2	-	-	-	-	648	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1185	-	317	672
Mov Cap-2 Maneuver	-	-	-	-	317	-
Stage 1	-	-	-	-	705	-
Stage 2	-	-	-	-	588	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.2	12.8
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	539	-	-	1185	-
HCM Lane V/C Ratio	0.142	-	-	0.08	-
HCM Control Delay (s)	12.8	-	-	8.3	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.5	-	-	0.3	-

CRASH DATA (2014-2018)

001 Crash ID	003 Crash Year	005 Crash Hour	009 Jurisdiction	014 Street Name	015 Intersecting Street Name	021 Collision Type	022 Crash Cause	024 Crash Severity Detail	026 Lighting	030 Traffic Control	035 Bike or Ped Flag	038 Road Dept Flag	039 Intersection Flag	002 Crash Date	010 Urban Area	020 Crash Type	027 Road Surface	028 Weather
1610050	2015	9P	Canby	PACIFIC HY 99E	PINE ST	TURN	NO-YIELD	Minor Injury	DLIT	TRF SIGNAL	Bicycle	No	Yes	5/27/2015	CANBY UA	BIKE	DRY	CLR
1742048	2017	11A	Canby	PACIFIC HY 99E	PINE ST	REAR	F AVOID	Possible Injury	DAY	TRF SIGNAL	Neither	No	Yes	8/15/2017	CANBY UA	S-1STOP	DRY	CLR
1574225	2014	1P	Canby	PACIFIC HY 99E	PINE ST	REAR	F AVOID	Possible Injury	DAY	TRF SIGNAL	Neither	No	Yes	7/6/2014	CANBY UA	S-1STOP	DRY	CLR
1736740	2017	11A	Canby	PACIFIC HY 99E	PINE ST	ANGL	OTHER	Possible Injury	DAY	TRF SIGNAL	Neither	No	Yes	6/10/2017	CANBY UA	ANGL-OTH	WET	RAIN
1762071	2017	9A	Canby	PACIFIC HY 99E	PINE ST	TURN	NO-YIELD	PDO	DAY	TRF SIGNAL	Neither	No	Yes	9/23/2017	CANBY UA	ANGL-OTH	DRY	CLR
1597902	2014	5P	Canby	PACIFIC HY 99E	PINE ST	TURN	DIS SIG	PDO	DLIT	TRF SIGNAL	Neither	No	Yes	12/20/2014	CANBY UA	O-1 L-TURN	WET	RAIN
1615933	2015	4P	Canby	PACIFIC HY 99E	PINE ST	REAR	F AVOID	Possible Injury	DAY	TRF SIGNAL	Neither	No	Yes	7/28/2015	CANBY UA	S-1STOP	DRY	CLR
1603031	2015	9A	Canby	NE PINE ST	NE TERRITORIAL RD	FIX	FATIGUE	Possible Injury	DAY	UNKNOWN	Neither	Yes	Yes	2/13/2015	CANBY UA	FIX OBJ	WET	FOG
1786222	2018	2P	Canby	PACIFIC HY 99E	PINE ST	TURN	NO-YIELD	Minor Injury	DAY	TRF SIGNAL	Neither	No	Yes	7/1/2018	CANBY UA	O-1 L-TURN	DRY	CLR
1569157	2014	6P	Canby	PACIFIC HY 99E	PINE ST	ANGL	DIS SIG	Possible Injury	DAY	TRF SIGNAL	Neither	No	Yes	6/6/2014	CANBY UA	ANGL-OTH	DRY	CLR
1685186	2016	8P	Canby	PACIFIC HY 99E	PINE ST	TURN	NO-YIELD	Possible Injury	DLIT	TRF SIGNAL	Neither	No	Yes	11/11/2016	CANBY UA	O-1 L-TURN	DRY	CLR
1585244	2014	4P	Canby	PACIFIC HY 99E	PINE ST	REAR	F AVOID	PDO	DAY	TRF SIGNAL	Neither	No	Yes	9/26/2014	CANBY UA	S-1STOP	DRY	CLR
1624651	2015	4P	Canby	PACIFIC HY 99E	PINE ST	TURN	INATTENT	Possible Injury	DAY	TRF SIGNAL	Neither	No	Yes	10/23/2015	CANBY UA	ANGL-STP	DRY	CLR
1627380	2015	12P	Canby	PACIFIC HY 99E	PINE ST	REAR	F AVOID	Possible Injury	DAY	TRF SIGNAL	Neither	No	Yes	11/25/2015	CANBY UA	S-1STOP	DRY	CLR
1606693	2015	12P	Canby	PACIFIC HY 99E	PINE ST	ANGL	DIS SIG	Possible Injury	DAY	TRF SIGNAL	Neither	No	Yes	4/23/2015	CANBY UA	ANGL-OTH	DRY	CLR
1741156	2017	2P	Canby	PACIFIC HY 99E	PINE ST	REAR	F AVOID	Possible Injury	DAY	TRF SIGNAL	Neither	No	Yes	8/3/2017	CANBY UA	S-1STOP	DRY	ASH
1689998	2016	7A	Canby	PACIFIC HY 99E	PINE ST	TURN	IMP-TURN	PDO	DLIT	TRF SIGNAL	Neither	No	Yes	2/2/2016	CANBY UA	O-1 L-TURN	DRY	CLR
1693841	2016	12P	Canby	PACIFIC HY 99E	PINE ST	TURN	NO-YIELD	PDO	DAY	TRF SIGNAL	Neither	No	Yes	3/20/2016	CANBY UA	O-1 L-TURN	WET	RAIN
1814228	2018	4P	Canby	PACIFIC HY 99E	PINE ST	REAR	DIS SIG	PDO	DAY	TRF SIGNAL	Neither	No	Yes	10/29/2018	CANBY UA	S-1STOP	WET	CLD
1785470	2018	3P	Canby	PACIFIC HY 99E	PINE ST	TURN	NO-YIELD	Minor Injury	DAY	TRF SIGNAL	Neither	No	Yes	6/26/2018	CANBY UA	O-1 L-TURN	DRY	CLR

Beckwood Place

Neighborhood Meeting Notes

The neighborhood meeting for the proposed Beckwood Place subdivision was held via Zoom meeting on October 19, 2020. A mailed notice of the meeting was sent out more than two weeks in advance to neighbors within 500 feet of the property boundary. The notice asked those who wished to attend the meeting via Zoom to contact the project planner, Rick Givens, via email so that they could be sent an email invitation with the Zoom link. The notice also offered to answer questions via telephone or email for those who were unable to, or did not wish to, attend the Zoom meeting.

Celia Whittaker contacted Mr. Givens prior to the meeting to ask questions as she was unable to do the Zoom meeting. She lives on Oak Street to the north of the Beckwood Place property and is primarily concerned about the connection of Oak Street through to NE 17th Ave. Her concerns are increased traffic and the potential impact on safety for her children. Mr. Givens explained that City standards require street connections and only allow cul-de-sacs when it isn't physically feasible to make a through connection. Ms. Whittaker also expressed concerns about the loss of habitat area on the forested Beckwood site, stating that there are many uncommon birds found in the area. She indicated that she would prefer to see the site designated as park property and have a trail system. Mr. Givens explained that the site is zoned R-1.5, which is a residential zone, and that the property is not designated as a park site by the City.

The following people sent emails requesting Zoom invitations:

Elaine McClanahan, Daniel & Trinka Morford, Donna Traen, Danielle Wezowicz, Susan Schiefelbein, Felipe Astorga, Daniel Madrid, Verlene Van Der Sluis, and Michael Herring.

With the exception of Michael Herring, all of those who requested invitations attended the Zoom meeting.

Mr. Givens gave an overview of the project, explaining that the proposed subdivision would create 42 lots for single-family homes and that all lots would meet the 5,000 sq. ft. minimum lot size standard of the R-1.5 zone. He noted that the zoning does permit single-family attached homes on smaller lots, but none are being proposed. He explained that the neighborhood meeting is intended to provide information to interested parties and to receive their comments. He also explained that the land use process would include a public hearing before the Planning Commission and that everyone within 500 feet of the property would be notified of the hearing date and would be afforded the opportunity to offer testimony for the Planning Commission's consideration. He explained that the decision would ultimately be based upon whether the proposal satisfies the applicable criteria of the Canby development standards. Finally, he noted that because Oak Street does not align in a way that the north and south street stubs can be connected in a reasonable way, an offset intersection would result in the streets not meeting intersection spacing standards. A variance to this standard is being requested. He noted that the offset intersection serves a useful function of slowing down traffic and discouraging the use of Oak Street by through traffic.

Comments and questions received included:

Celia Whittaker: Lives on N. Oak Street north of site. It's a safe place for children to play. Doesn't want N. Oak Street connected through subdivision. Likes the wooded site. Would prefer it was left as is, but with walking paths. Many birds, including ones seldom seen elsewhere.

Elaine McClanahan: Concerned about logging traffic when trees are cut.

Trinka Morford: Concerned about ground water. Has a well and doesn't want ground water level to drop. Was pleased to learn that drywells would be used to infiltrate water.

Donna Traen: Concerned about traffic. Doesn't want NE 17th extended through to N. Pine. Wooded site provides habitat for birds and wildlife.

Daniel Madrid: Lives at N. Oak and NE 18th Ave. Concerned about traffic impact on dogs and kids safety.

Danielle Wezowicz. Concerned about shortcut traffic using N. Oak St. if connected through site.

Susan Schiefelbein: Likes forest. Concerned about children's safety with connected streets.

Susan348@comcast.net: Concerned about traffic safety. Distracted drivers due to cell phone use.

Felipe Astorga: Wanted to know if N. Oak Street would get torn up for utility installation. Mr. Givens explained utilities would be provided from N. Pine Street.

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:

E-mail: PublicComments@canbyoregon.gov
By mail: Planning Department, PO Box 930, Canby, OR 97013

Written comments to be included in Planning Commission packet are due by Wednesday, February 24, 2021
Written comments can be submitted up to the time of the Public Hearing and oral comments may also be delivered via Zoom during the Public Hearing. If you would like to testify during the meeting, please contact the Recording Secretary no later than 3 pm, Monday, March 8, 2021 by emailing fousel@canbyoregon.gov calling 503-266-0685 to request information on how to participate.

Application: SUB 20-05/VAR 20-01 BECKWOOD PLACE SUBDIVISION

COMMENTS:

The condition of North Pine Street is horrible. Especially from the railroad tracks up through 14th Ave. North Pine Street cannot handle any more traffic until it has been completely re-built. Please hold a morotorium on new development until the road is upgraded. It's also very difficult to turn onto NE 4th or NE Territorial from N. Pine St. Too much traffic !!!

CITIZEN NAME: Doug Onion Canby Electric

EMAIL: [redacted]

ADDRESS [redacted]

PHONE # (optional):

DATE: 2/22/21

PLEASE EMAIL COMMENTS TO
PublicComments@canbyoregon.gov

Thank you!

CURRAN-McLEOD, INC.
CONSULTING ENGINEERS
6655 S.W. HAMPTON STREET, SUITE 210
PORTLAND, OREGON 97223

February 4, 2021

MEMORANDUM

TO: Public Comments
City of Canby

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

RE: **CITY OF CANBY**
BECKWOOD PLACE SUBDIVISION

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

1. N Pine Street is a County road and classified in the Canby Transportation System Plan (TSP) as a collector road, the total existing right-of-way (ROW) width is 40 feet, the required ROW as per the City TSP ranges between 50 feet and 60 feet. An additional 10-foot of ROW dedication will be required on the development side of the roadway meeting the ROW width of 30 feet for the half street. The half street improvements shall be built to City Standards with a 20–foot paved street width measured from the centerline ROW and matching the existing street width to the south side (Hamilton Acres Development). An asphalt tapers at the rate of 10:1 shall be constructed to match existing asphalt surface at the north end of the street. The improvements shall also curb and gutter, 5-foot planter strip with street trees, 6-foot concrete sidewalks, streetlights with design shall be provided by the developer and utilities in conformance with section 2.207 of the City of Canby Public Works Design Standards, revised December 2019. Clackamas County approval will be needed for those improvements. A 12 feet wide public utility easement abutting the right-of-way will also be required.

2. All interior streets within the subdivision NE 17th Avenue, N Oak Street, N Persimmon Street shall be designed to City local street standards with 34-foot paved width, curb and gutter, 5-foot wide planter with street trees, 6-foot wide concrete sidewalks, streetlights with design shall be provided by the developer and utilities in conformance with Chapter 2 of the City of Canby Public Works Design Standards, revised December 2019. A 12 feet wide public utility easement abutting the right-of-way will also be required.

PHONE: (503) 684-3478 E-MAIL: cmi@curran-mcleod.com FAX: (503) 624-8247

3. The Canby Transportation System Plan (TSP), Table 3-2 requires the minimum access spacing between local streets to be 150 feet. N Oak Street north leg, N Oak Street south leg and N Persimmon Street This requirement doesn't appear to be met. A variance will be required for not meeting this requirement. However, the existing stubbed streets from the north and the south to this development doesn't give the flexibility to this development to meet this requirement and we will support the variance.

4. Commercial driveway approaches in conformance with City detail drawing no. 104 will be required at the common entrance to lots 18 through 20, lots 24 through 25 and lots 37 through 40.

5. The intersection of N Pine Street and NE 17th Avenue requires a 50 feet straight tangent alignment perpendicular to the intersection as per section 2.203.c of the City of Canby Public Works Design Standards, revised December 2019. This requirement doesn't appear to be met as shown on the preliminary plans.

6. The preliminary plans do not clearly show if the centerline radii meet or exceed the minimum radius of 165 feet as per Chapter 2.203.d of the City of Canby Public Works Design Standards, revised December 2019.

7. All the ADA ramps shall be designed and inspected to meet the current Public Right of Way Accessibility Guidelines (PROWAG).

8. All interior street names and traffic signs shall be installed by the developer as part of this development. The developer's design engineer will be required to submit as part of the construction plans a signing and striping plan. The City may supply the required traffic and street name signs based on a mutually agreed cost.

9. Street trees shall be selected from the City approved tree list. The street tree ordinance requires the developer to pay the City $250 per tree for installation and two (2) year period maintenance, the property owners will take over all of the responsibilities after that date.

10. An erosion control permit will be required from the City of Canby prior to any on-site disturbance.

11. If any of the existing structures on-site are to be demoed. A demolition permit will be required from Clackamas County prior to any demoing. Additionally, a grading permit will also be required from Clackamas County prior to any on-site disturbance.

12. All private storm drainage runoff generated from the lots and private driveways shall be discharged on-site as per Chapter 4-4.113 of the City of Canby Public Works Design Standards revised December 2019.

13. No storm drainage analysis is submitted with this development. The developer's engineer is proposing to install drywells as a means of discharging the storm runoff from the public streets. The proposed drywells (UIC) 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 revised December 2019. Additionally, the drywells may be required to connect via a conveyance system as required by the City Public Works Department during the design review phase. The drywells need to be located a minimum of 267 feet from any irrigation or drinking wells.

14. A storm drainage analysis shall be submitted to the City for review and approval during the final design phase. The analysis shall meet Chapter 4 of the City of Canby Public Works Design Standards revised December 2019.

15. The plans don't show any existing domestic or irrigation wells on-site, 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.

16. The plans don't show any existing on-site sewage disposal system on-site, 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.

17. We don't have any concerns with the sanitary sewer plan serving this development.

18. Water Services/ Fire Protection shall also be constructed in conformance with Canby Utility and Canby Fire Department requirements.

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

Ryan Potter

From: Matt English <menglish@canbyfire.org>
Sent: Wednesday, February 24, 2021 9:03 PM
To: Ryan Potter
Subject: Re: [External] Request for Comment/Conditions of Approval - Beckwood Place Subdivision

Hello Ryan,

Due to our busy schedule with the fire district I don't believe I have not been able to comment on this.

Our standard Oregon fire code 2019 language.
26 foot wide access for flag lots.
Hydrant at 300 foot on center or less.

The fire district would like to plot the hydrants for fire operations.

Please let me know what I can do on this

Thank you
Matt English
Division Chief / Paramedic
Canby Fire District
503.878.0187

www.canbyfire.org

> On Jan 29, 2021, at 4:34 PM, Ryan Potter <PotterR@canbyoregon.gov> wrote:
>
> Good Afternoon,
>
> Attached is a request for comments and conditions for the proposed 42-lot Beckwood Place subdivision. This project will be going before the Planning Commission on February 22, 2021. In order to include your comments and/or conditions of approval specific to the project, I will need them back by February 10, 2021. Please see the attached letter for instructions. This is a short window of time, so if you are only able to provide comments verbally, please feel free to call; however, written comments are strongly preferred.
>
> Thank you in advance for your consideration of this request. If you have any questions regarding this project, please let me know. Thanks,
>
> Ryan
>
> Ryan Potter, AICP | Senior Planner
> City of Canby | Development Services
> 222 NE 2nd Ave. | PO Box 930
> Canby, OR 97013
> ph: (503) 266-0712

> email: potterr@canbyoregon.gov<mailto:potterr@canbyoregon.gov>; website: www.canbyoregon.gov<http://www.canbyoregon.gov/>
> Send applications to: PlanningApps@canbyoregon.gov<mailto:PlanningApps@canbyoregon.gov>
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> This email is a public record of the City of Canby, Oregon, and is subject to public disclosure unless exempt from disclosure under Oregon Public Records Law. This email is subject to the State Retention Schedule.
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2-9-2021

Comments from DirectLink for Beckwood Place Subdivision:

- DirectLink services will be available through the development. We do not charge a development fee.

- The Developer/Owner is responsible for providing DirectLink a copy of the power design with adequate time for DirectLink to put together a design. DirectLink will follow the power design as much as possible to minimize trenching; however, additional trenches may be required for communication facilities. We will notify you if any extra trenches are needed after we review a copy of the power trenches.

- The Developer/Owner is required to provide 4" Schedule 40 PVC sleeves for all road crossing. DirectLink requires (2) 4" Schedule 40 PVC sleeves per road crossing. Developer is responsible for placement and material for the 4" Schedule 40 PVC sleeves.

- The Developer/Owner is required to provide open trenches for all underground communication facilities from an existing connection point and throughout the development. DirectLink will place and provide all materials for the open trenches.

- Please call 503-266-8242 as soon as you have the utility trenching schedule to be open. DirectLink requires at least a week prior notice before placing material into an open trench.

- If temporary service is required for the construction site, please contact our Customer Care Center to place an order. All temporary service work is billed on a time and material bases.

Contact Information:

Engineering Manager	Eric Kehler	503-266-8223
Construction Inspector	Matt Downs	503-266-8252
DirectLink Engineering	engineering@directlink.coop	
Customer care center		503-266-8111
Open trench hotline		**503-266-8242**

BEFORE THE PLANNING COMMISSION
OF THE CITY OF CANBY

A REQUEST FOR DESIGN REVIEW AND CONDITIONAL USE PERMIT TO CONSTRUCT A PUBLIC FACILITY AT 1460 NE TERRITORIAL ROAD	))))	**FINDINGS, CONCLUSION & FINAL ORDER DR 20-06 / CUP 20-04 CANBY FIRE EMERGENCY FIRE AND MEDICAL STATION**

NATURE OF THE APPLICATION

The applicant, Canby Fire, requests Planning Commission approval to construct an emergency fire and medical station at 1460 NE Territorial Road (subject property) on a 1-acre site (project site) adjacent to the City of Canby's Public Works shops complex. Canby Fire has signed a 50-year lease of the project site for operation of the proposed station, which would allow the agency to better serve the north side of Canby with emergency services.

The 25-acre subject property is a City-owned parcel that primarily consists of the heavily-forested Eco Park. The City of Canby Public Works shops complex and office is located at the rear of the property and is accessed by a long driveway that connects it to NE Territorial Road to the south. The remainder of the subject property is heavily forested and, west of the Public Works access driveway, features recreational trails. The property is zoned R-1, Low Density Residential and in the City of Canby Comprehensive Plan is split between the plan's Parks and P – Public Uses designations.

HEARINGS

The Planning Commission considered applications **DR 20-06/CUP 20-04** after the duly noticed hearing on March 8, 2021 during which the Planning Commission approved **Canby Fire Emergency Fire and Medical Station (City Files DR 20-06/CUP 20-04)** by a vote of __/__. These Findings are entered to document the approval.

CRITERIA AND STANDARDS

In judging whether or not the aforementioned application shall be approved, the Planning Commission determines whether criteria from the City of Canby Land Development and Planning Ordinance are met, or can be met by observance of conditions. Applicable code criteria and standards were reviewed in the Staff Report dated January 26, 2021 and presented at the March 8, 2020 meeting of the Canby Planning Commission.

FINDINGS AND REASONS

The Staff Report was presented, and written and oral testimony was received at the public hearing. Staff recommended approval of the Design Review and Conditional Use Permit applications and applied Conditions of Approval in order to ensure that the proposed project will

meet all required City of Canby Land Development and Planning Ordinance approval criteria.

CONCLUSION

In summary, the Planning Commission adopted the findings contained in the Staff Report, concluding at the public hearing and noted herein, that the application met all applicable approval criteria, and recommending that **Canby Fire Emergency Fire and Medical Station (City Files DR 20-06/CUP 20-04)** be approved with the Conditions of Approval reflected in the written Order below.

ORDER

The Planning Commission concludes that, with the following conditions, the application meets the requirements for Site and Design Review approval. Therefore, IT IS ORDERED BY THE PLANNING COMMISSION of the City of Canby that **Canby Fire Emergency Fire and Medical Station (City Files DR 20-06/CUP 20-04)** is approved, subject to the following conditions:

CONDITIONS OF APPROVAL

Public and Utility Improvements:

1. The concrete approach slab shall be two (2) inches above the existing asphalt in anticipation of the future overlay. In the meantime, the existing asphalt concrete shall be feathered in to meet the slab grades. (H. Ibrahim)
2. Sanitary sewer service shall connect to the existing lateral located north of the project site's property line/lease boundary. (H. Ibrahim)
3. Water service shall be extended south of the building to the satisfaction of the City Engineer and constructed outside the paved parking surface. Water services shall be constructed in conformance with Canby Utility requirements. (H. Ibrahim)
4. Public improvements shall comply with all applicable City of Canby Public Works Design Standards. (R. Potter)
5. All private storm drainage shall be disposed of onsite. A final drainage report shall be submitted with the final construction plans.

   The applicant shall 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, they must meet the following criteria:

   a. The UIC structures' location shall meet at least of the two conditions:

      i. The vertical separation distance between the UIC and seasonal high groundwater is more than 2.5 feet, or

      ii. The horizontal separation distance between the UIC and any water well is a minimum of 267 feet in accordance with the City of Canby Stormwater Master Plan, Appendix "C", *Groundwater Protectiveness Demonstration and Risk Prioritization for Underground Injection Control Devices*.

   The storm water drainage report and design methodology shall be in conformance with the requirements as stated in Chapter 4 of the City of Canby Public Works Design Standards dated December 2019. (H. Ibrahim)

Project Design/Site Plan Approval:

6. The applicant shall work with Canby Utility and the Canby Public Works Department in order to provide the appropriate connections to all required utilities prior to site plan approval. (R. Potter)
7. Per Subsection 16.08.070 of the CMC, in no case shall a lot 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. The project applicant shall submit "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 lots of record are located" prior to the City's approval of the site plan. (R. Potter)
8. Prior to site plan approval, a lighting plan shall be submitted to the City consistent with Chapter 16.43, *Outdoor Lighting Standards*, of the Municipal Code. This shall include exhibits demonstrating that the proposed light fixtures would be shielded and that light generated would not exceed the maximum lumens identified in Table 16.43.070 of the Canby Municipal Code. (R. Potter)
9. The developer/builder of the proposed buildings shall consult with Canby Disposal regarding final architectural plans and design considerations for solid waste pickup. (Canby Disposal)

Building Permits:

10. An erosion control and a grading permit will be required from the City of Canby prior to any on-site disturbance. (R. Potter)
11. The project applicant shall apply for a City of Canby Site Plan Permit, Clackamas County Building permits, and a City of Canby Erosion Control Permit prior to project construction. (R. Potter)
12. Clackamas County Building Services will provide structural, electrical, plumbing, and mechanical plan review and inspection services. (R. Potter)
13. The applicant shall submit sign applications to the City for any future signs. Proposed signs shall conform to provisions of Chapter 16.42 of the CMC and shall secure a building permit from Clackamas County Building Services prior to their installation if applicable. (R. Potter)

Prior to Occupancy:

14. Prior to occupancy of the station, all landscaping plant material indicated on the submitted landscape plan shall either be installed and irrigated as proposed, or sufficient security (bonding, escrow, etc.) shall be provided pursuant to the provisions of CMC 16.49.100 (B). (R. Potter)

**** END OF CONDITIONS ****

BEFORE THE PLANNING COMMISSION
OF THE CITY OF CANBY

A REQUEST FOR SUBDIVISION AND MAJOR VARIANCE	)	**FINDINGS, CONCLUSION & FINAL ORDER**
	)	**SUB 20-05 / VAR 20-01**
	)	**BECKWOOD PLACE SUBDIVISION**
	)	

NATURE OF THE APPLICATION

The property owner requests to subdivide the 6.68-acre subject property into a 42-lot single-family residential subdivision, with lots ranging between 5,000 and 5,347 square feet. As shown on the proposed subdivision plat and other exhibits in the application submittal, a majority of these lots would directly face public streets, while nine would be flag lots accessed from shared driveways (Lots 18-20, 24-25, and 37-40). The subdivision would be accessed from five access points, including four existing street stubs that would be extended into the subject property, and one new street connection at N Pine Street.

The subject property is a vacant, undeveloped rectangular site surrounded by existing neighborhoods, including the Hamilton Acres subdivision under construction to the immediate south and the recently constructed Tanoak subdivision to the immediate north. The property fronts onto N Pine Street but is also located adjacent to dead-end street stubs of N Oak Street (to the north and south), N Persimmon Street (to the south), and NE 17th Street (to the west). These streets were laid out in a manner that anticipated the future development of the subject property. Historically, the property has featured dense tree cover, including both deciduous and evergreen trees.

HEARINGS

The Planning Commission considered applications **SUB 20-05/VAR 20-01** after the duly noticed hearing on March 8, 2021 during which the Planning Commission approved **Beckwood Place Subdivision (City Files SUB 20-05/VAR 20-01)** by a vote of __/__. These Findings are entered to document the approval.

CRITERIA AND STANDARDS

In judging whether or not the aforementioned application shall be approved, the Planning Commission determines whether criteria from the City of Canby Land Development and Planning Ordinance are met, or can be met by observance of conditions. Applicable code criteria and standards were reviewed in the Staff Report dated January 26, 2021 and presented at the March 8, 2020 meeting of the Canby Planning Commission.

FINDINGS AND REASONS

The Staff Report was presented, and written and oral testimony was received at the public hearing. Staff recommended approval of the Subdivision and Major Variance applications and applied Conditions of Approval in order to ensure that the proposed project will meet all required City of Canby Land Development and Planning Ordinance approval criteria.

CONCLUSION

In summary, the Planning Commission adopted the findings contained in the Staff Report, concluding at the public hearing and noted herein, that the application met all applicable approval criteria, and recommending that the **Beckwood Place Subdivision (City Files SUB 20-05/VAR 20-01)** be approved with the Conditions of Approval reflected in the written Order below.

ORDER

The Planning Commission concludes that, with the following conditions, the applications meet the requirements for Subdivision and Major Variance approval. Therefore, IT IS ORDERED BY THE PLANNING COMMISSION of the City of Canby that **Beckwood Place Subdivision (City Files SUB 20-05/VAR 20-01)** is approved, subject to the following conditions:

Public Improvements:

1. N Pine Street is a County road and classified in the Canby Transportation System Plan (TSP) as a collector road; the total existing right-of-way (ROW) width is 40 feet and the required ROW as per the City TSP ranges between 50 and 60 feet. An additional 10-foot of ROW shall be dedicated on the development side of the roadway meeting the ROW width of 30 feet for the half street. The half street improvements shall be built to City standards with a 20-foot paved street width measured from the centerline ROW and matching the existing street width to the south side (adjacent to the Hamilton Acres subdivision). Asphalt tapers at the rate of 10:1 shall be constructed to match the existing asphalt surface at the north end of the street. Improvements to N Pine Street shall also include curb and gutter, a 5-foot planter strip with street trees, and 6-foot concrete sidewalks; streetlights with design shall be provided by the developer and utilities shall be in conformance with Section 2.207 of the City of Canby Public Works Design Standards, revised December 2019. Clackamas County approval will be needed for those improvements. A 12-foot wide public utility easement abutting the ROW is also required. (H. Ibrahim)
2. All interior streets within the subdivision, including NE 17th Avenue, N Oak Street, and N Persimmon Street shall be designed to City local street standards with 34-foot paved width, curb and gutter, 5-foot-wide planter with street trees, 6-foot-wide concrete sidewalks; streetlights with design shall be provided by the developer and utilities shall be in conformance with Chapter 2 of the City of Canby Public Works Design Standards, revised December 2019. A 12-foot-wide public utility easement abutting the ROW is also required. (H. Ibrahim)
3. Commercial driveway approaches in conformance with City detail drawing No. 104 shall be constructed at the common entrance to Lots 18 through 20, Lots 24 through 25, and Lots 37 through 40. (H. Ibrahim)

4. The intersection of N Pine Street and NE 17th Avenue requires a 50-foot straight tangent alignment perpendicular to the intersection as per Section 2.203.c of the City of Canby Public Works Design Standards, revised December 2019. This requirement doesn't appear to be met as shown on the preliminary plans and the subdivision plat shall be revised accordingly. (H. Ibrahim)

5. The project applicant or developer shall provide the City, to the satisfaction of the City Engineer, with exhibits demonstrating that the centerline radii meet or exceed the minimum radius of 165 feet as per Chapter 2.203.d of the City of Canby Public Works Design Standards, revised December 2019. (H. Ibrahim)

6. All ADA ramps shall be designed and inspected to meet the current Public Right of Way Accessibility Guidelines (PROWAG). (H. Ibrahim)

7. All interior street names and traffic signs shall be installed by the developer as part of the development. The developer's design engineer shall submit at part of the construction plans a signing and striping plan. The City may supply the required traffic and street name signs based on a mutually agreed cost. (H. Ibrahim)

8. Street trees shall be selected form the City-approved tree list. The street tree ordinance requires the developer to pay the City $250 per tree for installation and a two-year period of maintenance. The property owners will take over all of the responsibilities for street trees after that date. (H. Ibrahim)

9. An erosion control permit will be required form the City of Canby prior to any onsite ground disturbance. (H. Ibrahim)

10. If any of the existing structures onsite are to be demolished, a demolition permit will be required from Clackamas County prior to demolition. Additionally, a grading permit is required from Clackamas County prior to any onsite disturbance. (H. Ibrahim).

11. All private storm drainage runoff generated from the lots and private driveways shall be discharged onsite as per Chapter 4 of the City of Canby Public Works Design Standards, revised December 2019. (H. Ibrahim)

12. The proposed drywells (UIC) must meet the following criteria:

    a. The UIC structures' location shall meet at least one of the two conditions:

        i. The vertical separation distance between the UIC and seasonal high groundwater is more than 2.5 feet or;

        ii. The horizontal separation distance between the UIC and any water well is a minimum of 267 feet in accordance with the City of Canby Stormwater master Plan, Appendix "C", Groundwater Protectiveness Demonstration and Risk Prioritization of Underground Injection Control (UIC) Devices.

13. A stormwater drainage report shall be prepared in conformance with the requirements as stated in Chapter 4 of the City of Canby Public Works Design Standards, revised December 2019. Additionally, the drywells may be required to connect with a conveyance system as required by the City Public Works Department during the design review phase. The drywells need to be located a minimum of 267 feet from any irrigation or drinking wells. (H. Ibrahim)

14. A storm drainage analysis shall be submitted to the City for review and approval during the final design phase. The analysis shall meet Chapter 4 of the City of Canby Public Works Design Standards, revised December 2019. (H. Ibrahim)

15. Existing domestic or irrigation wells (if any) 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. (H. Ibrahim)

16. Existing onsite sewage disposal systems (if any) 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 Engineer. (H. Ibrahim)

17. Water services and fire protection infrastructure shall be constructed in conformance with Canby Utility and Canby Fire requirements (H. Ibrahim)

18. Prior to the start of any public improvement work, the applicant shall schedule a pre-construction conference with the City and obtain construction plan sign-off from applicable agencies. (R. Potter)

19. Civil engineering drawings for public improvements shall use the North American Vertical Datum of 1988 (NAVD 88) when establishing depths and heights. (R. Potter)

20. The development shall provide fire hydrants at 300-foot intervals on center or less. The project applicant shall coordinate with Canby Fire regarding placement of hydrants. (M. English)

Fees/Assurances:

21. Per Subsection 16.08.070 of the CMC, in no case shall a lot 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. The project applicant shall submit "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 lots of record are located" prior to the City's approval of the site plan. (R. Potter)

22. All public improvements, with the exception of sidewalks, 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. (R. Potter)

23. 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 that:

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. (R. Potter)

24. The applicant must guarantee or warranty all public improvement work with a one-year subdivision maintenance bond in accordance with CMC Subsection 16.64.070(P), except for sidewalks. (R. Potter)

25. The applicant must pay the appropriate City fees authorized public improvement and a Site Plan Development Engineering Plan Review fee as applicable prior to the

construction of public or private improvements. (R. Potter)

Grading/Erosion Control:

26. The applicant shall submit a grading and erosion control plan for approval by Canby Public Works in conjunction with construction plan approval prior to the installation of public improvements and start of grading for this subdivision. (R. Potter)

Final Plat Conditions:

27. The applicant is responsible for providing all required information to verify conditions of approval. The applicant shall supply a narrative along with accompanying documentation addressing each numbered condition of approval as stated. This will largely take place during the Final Plat process. The narrative shall indicate if the condition is satisfied or not, and when and how the condition will be addressed. Failure to provide a sufficient narrative and accompanying documentation will delay the final plat approval process. (R. Potter)

28. The applicant shall apply for final plat approval at the City and pay any applicable City fees to gain approval of the final 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. (R. Potter)

29. Prior to submission of the final plat, the project applicant shall coordinate with Canby Fire regarding emergency access to flag lots and associated shared driveway facilities. (M. English)

30. 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. (R. Potter)

31. 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. (R. Potter)

32. All “as-builts” of City public improvements installed shall be filed with Canby Public Works within sixty days of the completion of improvements. (R. Potter)

33. Clackamas County Surveying reviews pending subdivision plat documents for Oregon Statutes and County requirements. A final subdivision 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. (R. Potter)

34. The applicant shall record the final plat at Clackamas County within 6 months of the date of the signature of the Planning Director. (R. Potter)

35. 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. (R. Potter)

36. The City shall assign addresses for each newly created subdivision lot and distribute that to the developer, and other agencies that have an interest. (R. Potter)

37. A 12-foot utility and sidewalk easement along the subdivision’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. (R. Potter)

38. Public utility easements traversing the subject property related to water, sewer, and electric service shall be noted on the final plat. (R. Potter)

39. A reciprocal maintenance and access agreement shall be recorded for all flag lots with shared driveways. A copy of the recorded access easements shall be included with the final plat. (R. Potter)

40. Prior to preparation of the final plat, the applicant shall coordinate with Clackamas County regarding the proposed driveway onto N Pine Street for Lot 14. (R. Potter)

41. Canby Fire District shall determine compliance with all fire regulations. (M. English)

Monumentation/Survey Accuracy Conditions:

42. The County Surveyor shall verify that the survey accuracy and monumentation requirements set forth in Oregon Revised Statutes and CMC 16.64.070(M) are met prior to the recordation of the final plat. Installation of the front lot monumentation (along and within street rights-of-way) and the replacement of any existing monuments destroyed during improvement installation shall be confirmed by the City Engineer or County Surveyor prior to the recordation of the final partition plat. (R. Potter)

43. Monuments shall be reestablished and protected in monument boxes at every street intersection and all points of curvature and points of tangency of street centerlines as required by Oregon Revised Statutes Chapter 92. The City Engineer or County Surveyor shall verify compliance with this condition prior to the recordation of the final plat. (R. Potter)

Street Trees:

44. 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 shall be prepared and implemented consistent with Tree Regulation standards in Chapter 12.32 of the Canby Municipal Code. (R. Potter)

Residential Building Permit Conditions:

45. Construction of all required public improvements and recordation of the final subdivision plat must be completed prior to the construction of any homes. (R. Potter)

46. Each homebuilder shall apply for a City of Canby Site Plan Permit, City of Canby Erosion Control Permit, and Clackamas County Building Permits for each proposed home. (R. Potter)

47. Onsite storm water management on individual lots shall be designed in compliance with Canby Public Works Design Standards. (R. Potter)

48. 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. (R. Potter)

49. Minimum residential driveway widths at the inside edge of the sidewalk shall be 12 feet and the maximum residential driveway. Driveways shall be ADA-compliant. (R. Potter)

50. Prior to occupancy of the proposed homes, a code-compliant privacy fence shall be

constructed on the property lines facing adjacent residential uses. All fences shall comply with the CMC Subsection 16.08.110, which does not allow full-height (6-foot) fences within the street setbacks of residential lots. (R. Potter)

**** END OF CONDITIONS ****